Initial Study

Amargosa Road and Palmetto Way Industrial Warehouse Building

Hesperia, California

Lead Agency:

City of Hesperia
9700 Seventh Avenue
Hesperia, CA 92345

Prepared By:

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September 2025

TABLE OF CONTENTS

CHAPTER ONE – INTRODUCTION 6
1.1 Purpose and Authority 6
1.2 Documents Incorporated by Reference 6
1.3 Documents Prepared for the Project 7
CHAPTER TWO – PROJECT DESCRIPTION 8
2.1 Project Location and Existing Project Site 8
2.2 Project Characteristics 8
1. Project Trip Generation Comparison 8
2. On-Site and Off-Site Improvements 10
3. Site Access, Circulation, and Parking 10
4. Utility Improvements 10
5. Operations 10
6. Specific Plan Amendment and Zone Change 10
2.3 Project Approvals 11
CHAPTER THREE – ENVIRONMENTAL CHECKLIST 12
3.1 Project Summary 12
1. Project Title 12
2. Lead Agency Name and Address 12
3. Contact Person and Phone Number 12
4. Project Location 12
5. Project Applicant's Name and Address 12
6. General Plan Designation 12
7. Zoning 13
8. Project Description 13
9. Surrounding Land Uses and Setting 13
10. Other Public Agencies Whose Approval is Required 14
11. California Native American Tribes 14
3.2 Environmental Factors Potentially Affected 20
3.3 Determination 20
3.4 Evaluation of Environmental Impacts 21
CHAPTER FOUR – INITIAL STUDY CHECKLIST AND SUBSTANTIATION 23
I. Transportation/Traffic 23

II. Aesthetics 27
III. Agriculture and Forestry Resources 30
IV. Air Quality 33
V. Biological Resources: 40
VI. Cultural Resources 47
VII. Energy – Would the project: 50
VIII. Geology and Soils 53
IX. Greenhouse Gas Emissions 59
X. Hazards and Hazardous Materials 62
XI. Hydrology and Water Quality 66
XII. Land Use and Planning 70
XIII. Mineral Resources 72
XIV. Noise 73
XV. Population and Housing 79
XVI. Public Services 81
XVII. Recreation 84
XVIII. Tribal Cultural Resources 85
XIX. Utilities and Service Systems 88
XX. Wildfire 92
XXI. Mandatory Findings of Significance 94
CHAPTER FIVE – MITIGATION, MONITORING, AND REPORTING PROGRAM (MMRP) 96
Transportation/Traffic 96
Biological Resources 96
Cultural Resources 102
Geology and Soils 104
Tribal Cultural Resources 106
CHAPTER SIX– REFERENCES AND PREPARERS 108
6.1 References Cited 108
6.2 List of Preparers 110

FIGURES

Figure 1: Regional Vicinity 15
Figure 2: Aerial Imagery Map 16
Figure 3: Existing and Proposed Land Use Designation 17
Figure 4: Existing and Proposed Zoning 18
Figure 5: Site Plan (July 2022) 19

TABLES

Table 4-1. Attainment Status of Criteria Pollutants in the MDAB 34
Table 4-2. Maximum Daily Regional Emissions Thresholds 36
Table 4-3. Emissions Summary of Construction - Without Mitigation....36
Table 4-4. Summary of Peak Operational Emissions 37
Table 4-5. Summary of Construction and Operational Cancer and Non-Cancer Risks 38
Table 9-1. Project Net Greenhouse Gas Emissions 60
Table 14-1. Construction Reference Noise Levels 74
Table 14-2. Construction Level Compliance....75
Table 14-3. Nighttime Concrete Pour Noise Level Compliance 75
Table 14-4. Operational Reference Noise Level Measurements 76
Table 14-5. Operational Noise Level Compliance 76
Table 14-6. Daytime Project Operational Noise Level Increases....77
Table 14-7. Nighttime Project Operational Noise Level Increases....77
Table 19-1. Five Consecutive Dry Years Water Supply and Demand through 2045....89
Table 19-2. Estimated Solid Waste Generation....91

APPENDICIES

Appendix A - Amargosa and Palmetto High-Cube Warehouse Air Quality Impact Analysis City of Hesperia. Urban Crossroads, Inc. February 1, 2023.

Appendix B - Amargosa and Palmetto High-Cube Warehouse Mobile Source Health Risk Assessment City of Hesperia. Urban Crossroads, Inc. February 1, 2023.

Appendix C - Amargosa Road & Palmetto Way Spec. Industrial Project Biological Resources Assessment Report. Casc Engineering and Consulting, Inc. October 2022.

Appendix D - Cultural and Paleontological Resources Assessment for Palmetto Way Industrial Building Project, City of Hesperia, San Bernardino County, California. Duke Cultural Resources Management, LLC. September 23, 2022.

Appendix E - Amargosa and Palmetto High-Cube Warehouse Energy Analysis City of Hesperia. Urban Crossroads, Inc. February 1, 2023.

Appendix F - Geotechnical Investigation Proposed Warehouse NWC Palmetto Way and Amargosa Road Hesperia, California. Southern California Geotechnical, Inc. July 18, 2022.

Appendix G - Amargosa and Palmetto High-Cube Warehouse Greenhouse Gas Analysis City of Hesperia. Urban Crossroads, Inc. February 1, 2023.

Appendix H - Hesperia Spec. Industrial, Industrial Buildings City of Hesperia, CA Preliminary Hydrology Report. WestLAND Group, Inc. July 2022.

Appendix I - Conceptual Water Quality Management Plan for Hesperia Spec Industrial. WestLAND Group, Inc. July 13, 2022.

Appendix J - Amargosa and Palmetto High-Cube Warehouse Noise Impact and Vibration Analysis City of Hesperia. Urban Crossroads, Inc. January 27, 2023.

Appendix K - Amargosa and Palmetto High-Cube Warehouse Revised Traffic Impact Analysis City of Hesperia. Ganddini Group, Inc. August 21, 2025.

Appendix L - Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis. Ganddini Group, Inc. September 6, 2023.

Appendix M - Amargosa and Palmetto High-Cube Warehouse Project Vehicle Miles Traveled Analysis, Ganddini Group, Inc. July 8, 2025.

CHAPTER ONE – INTRODUCTION

1.1 Purpose and Authority

Pursuant to Section 15367 of the State CEQA Guidelines, the City of Hesperia ("City") is the lead agency for the Project. The lead agency is the public agency that has the principal responsibility for carrying out or approving a project.

As set forth in the State CEQA Guidelines Section 15070, an IS/MND can be prepared when the Initial Study has identified potentially significant environmental impacts, but revisions have been made to a project, prior to public review of the Initial Study, that would avoid or mitigate the impacts to a level considered less than significant; and there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment.

The environmental documentation, which is ultimately selected by the City in accordance with CEQA, is intended as an informational document undertaken to provide an environmental basis for subsequent discretionary actions upon the project. The resulting documentation is not, however, a policy document and its approval and/or certification neither presupposes nor mandates any actions on the part of those agencies from whom permits and/or other discretionary approvals would be required.

The environmental documentation is subject to a public review period of 30 days. During this review, public agency comments related to environmental issues should be addressed to the City. The City will consider the comments received as a part of the Project's environmental review and will include them as part of the Initial Study/Mitigated Negative Declaration documentation for adoption.

1.2 Documents Incorporated by Reference

As permitted by Section 15150 of the CEQA Guidelines, this IS/MND references several technical studies and analyses. Information from the documents incorporated by reference is briefly summarized in the appropriate section(s). The relationship between the incorporated part of the referenced document and the IS/MND has also been described. The documents and other sources used in the preparation of this IS/MND include, but are not limited to:

- City of Hesperia General Plan 2010
- City of Hesperia General Plan Update Final Environmental Impact Report (December 16, 2010)
- City of Hesperia Municipal Code (Codified through Ordinance No. 2022-13, passed September 6, 2022)
- City of Hesperia Main Street and Freeway Corridor Specific Plan (October 16, 2008; amended July 15, 2021)
- City of Hesperia Climate Action Plan (July 20, 2010)
- General Plan Land Use/Zoning Map (February 7, 2020)
- San Bernardino County Countywide Plan 2020

1.3 Documents Prepared for the Project

The stand-alone technical studies prepared for the Project are appended to the IS/MND as follows:

- Air Quality Impact Analysis
- Mobile Source Health Risk Assessment
- Biological Resources Assessment Report
- Cultural and Paleontological Resources Assessment
- Energy Analysis
- Geotechnical Investigation
- Greenhouse Gas Analysis
- Preliminary Hydrology Report
- Conceptual Water Quality Management Plan
- Noise Impact and Vibration Analysis
- Traffic Impact Analysis
- Trip Generation Comparison Analysis
- Vehicle Miles Travelled Analysis

CHAPTER TWO – PROJECT DESCRIPTION

2.1 Project Location and Existing Project Site

The City of Hesperia ("City") is located within the southwestern portion of San Bernardino County, refer to *Figure 1, Regional Vicinity Map*. On a regional basis, the City is accessible via Interstate 15 (I-15), U.S. Federal Highway 395 (US-395), and State Route 18 (SR-18). Jurisdictions surrounding the City of Hesperia include the City of Adelanto to the northwest, Town of Apple Valley to the northeast, City of Victorville to the north, and unincorporated San Bernardino County to the south, east and west.

The Project site is comprised of three (3) parcels (APNs: 0405-072-52, 53, and 55) that total approximately 30.52 acres. The site consists of vacant land that is characterized by level terrain and a mixture of ruderal/disturbed vegetation and Joshua tree woodland. The site is bounded by Avenal Street to the north, Palmetto Way to the south, and Amargosa Road to the east, refer to *Figure 2, Aerial Imagery Map*. Specifically, the Project site is in Section 14, Township 4 North, Range 5 West, as depicted on the U.S. Geological Survey Baldy Mesa, California 7.5-minute topographic quadrangle map.

2.2 Project Characteristics

Rachamin 5, LLC., ("Applicant") proposes to construct up to a 499,714 square-foot industrial building and associated improvements, including loading docks, tractor-trailer stalls, passenger vehicle parking spaces, stormwater facilities, sidewalks, and landscape area. The Project includes approximately 10,000 square feet of office space, 489,714 square feet of industrial/warehouse space, and 255,000 square feet of landscape improvements.

1. Project Trip Generation Comparison

The Project site has a General Plan land use designation of Main Street and Freeway Corridor Specific Plan – Regional Commercial (RC). Project implementation requires a Specific Plan Amendment to modify the Project site's Main Street and Freeway Corridor Specific Plan land use designation from Regional Commercial (RC) to Commercial/Industrial Business Park (CIBP). Ganddini Group, Inc. prepared a Trip Generation Comparison Analysis for the proposed Amargosa Road and Palmetto Way Industrial Warehouse Building Project, dated September 6, 2023 (Appendix L). The purpose of the Trip Generation Comparison Analysis is to evaluate the difference in trips generated by the proposed Project under the Commercial/Industrial Business Park (CIBP) land use designation in comparison to an alternative use that is permitted under the existing Regional Commercial (RC) land use designation.

The Trip Generation Comparison Analysis forecasts the proposed Project trip generation based upon rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021). ITE land use code 155 (High-Cube Fulfillment Center Non-Sort) has been used to estimate the site-specific trip generation estimates for up to 499,700 square feet of high-cube fulfillment center (non-sort) use. Comparatively, the Trip Generation Comparison Analysis forecasts an alternative commercial retail land use trip generation based on regression equations from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021). ITE land use code 820 (Shopping Center

(>150k)) has been used to estimate the site-specific trip generation estimates for up to 499,850 square feet of commercial retail use. Which resulted in more trips than the warehousing alternative.

The proposed Project vehicle trips are converted to Passenger Car Equivalent (PCE) trips based on truck rates (as a percentage of a total vehicle trips) from the ITE Trip Generation Manual and truck axle mix data recommended by the South Coast Air Quality Management District (SCAQMD). For the alternative commercial retail land use, it should be noted that commercial retail land uses will often locate next to busy roadways to attract motorists already on the street. Therefore, Ganddini reduced the initial trip generation forecast by the applicable pass-by trip rate when calculating the net new trips that will be added to the surrounding street system. However, pass-by trip adjustments were not applied to the alternative commercial retail land use trip generation in accordance with pass-by rates noted in the ITE Trip Generation Manual (11th Edition, 2021) since Amargosa Road adjacent to the Project site is a low volume roadway and pass-by trips would be minimal.

The proposed Project is forecast to generate approximately 1,083 daily Passenger Car Equivalent (PCE) trips, including 90 PCE trips during the AM peak hour and 81 PCE trips during the PM peak hour. Truck trips would amount to 293 total daily trips, 26 am trips and 6 pm trips. The alternative commercial retail land use is forecast to generate a total of approximately 27,280 daily trips, including 1,007 PCE trips during the AM peak hour and 2,149 PCE trips during the PM peak hour without a pass-by trips reduction. Therefore, the proposed Project is forecast to generate approximately 25,505 fewer daily trips compared to a commercial retail land use of equivalent size, including 870 fewer trips during the AM peak hour and 2,035 fewer trips during the PM peak hour.

Based on the Trip Generation Comparison Analysis, the proposed Project consisting of a 499,850 square foot high-cube fulfillment center warehouse building is forecast to generate substantially fewer trips (up to 659% fewer daily trips) compared to an alternative land use composed of 499,850 square feet of commercial retail.

In addition to trip generation forecasts, Ganddini calculated directional distribution patterns for the Project generated trips and the alternative commercial retail land use generated trips. One hundred percent (100%) of the Project inbound, and outbound truck traffic will be distributed from and towards Main Street. Additionally, seventy-five percent (75%) of the Project inbound, and outbound car traffic will be distributed from and towards Main Street and only twenty-five percent (25%) of the Project inbound and outbound car traffic will be distributed from and towards Bear Valley Road. Comparatively, sixty percent (60%) of the alternative commercial retail land use traffic will be distributed towards Main Street and forty percent (40%) of the alternative commercial retail land use traffic will be distributed towards Bear Valley Road.

The Trip Generation Comparison Analysis also includes comparison of the intersection turning movement volumes for the proposed Project and the alternative commercial land use. The alternative commercial retail land use is expected to generate significantly more AM and PM peak hour intersection turning movement volumes compared to the proposed Project for all turning movements at each study area intersection where peak hour trips are expected to be added.

2. On-Site and Off-Site Improvements

The Project includes improvements along Palmetto Way and Avenal Street, including frontage landscaping and pedestrian improvements. Project landscape conforms to City requirements for industrial uses (Main Street and Freeway Corridor Specific Plan Chapter 11: *Industrial Design Standards and Guidelines*, Section D). Frontage landscaping includes a variety of trees, shrubs, plants, and land covers within the Project frontage's landscape setback area, as well as within the landscape areas found around the proposed industrial/warehouse building to comprise 19.1% (255,000 SF) of the Project site.

3. Site Access, Circulation, and Parking

Regional access to the Project site is provided via I-15 and Amargosa Road. The proposed Project includes three (3) driveways off Palmetto Way. Direct access to the paved tractor-trailer parking area is provided by a 45-foot truck only driveway at the southwest corner of the site and a 50-foot driveway on the south side of the site for both autos and trucks. Direct access to the paved passenger vehicle parking area is provided by a 50-foot driveway at the southeast corner of the site for both autos and trucks. In total, the proposed Project includes 72 loading dock positions, 256 tractor-trailer stalls, and 251 passenger vehicle parking spaces.

4. Utility Improvements

The proposed Project includes a combination of an at grade detention basin and underground infiltration basin to treat stormwater runoff for water quality purposes. Additionally, due to the vacant, undeveloped nature of the Project site, both dry and wet utilities, including domestic water, sanitary sewer, and electricity, need to be extended onto the Project site.

5. Operations

A tenant for the Project has not been identified at this time; however, the facility is designed to accommodate approximately 500 to 600 employees. Hours of operation are anticipated to be 24 hours a day, 7 days a week.

6. Specific Plan Amendment and Zone Change and Development Code Amendment

The General Plan land use designation of the Project site is Main Street and Freeway Corridor Specific Plan – Regional Commercial (RC) and the zoning designation is Regional Commercial (RC). Implementation of the Project requires a Specific Plan Amendment to modify the Project site's Main Street and Freeway Corridor Specific Plan land use designation from Regional Commercial (RC) to Commercial/Industrial Business Park (CIBP), refer to *Figure 3, Existing and Proposed Land Use Designation*. Additionally, the Project involves a Zone Change to modify the Project site's zoning from Regional Commercial (RC) to Commercial/Industrial Business Park (CIBP), refer to *Figure 4, Existing and Proposed Zoning*.

Additionally, the Project is required to submit a Development Code Amendment application to amend the approved truck route to designate Amargosa Road as a new truck route from Avenal Street to Main Street, in compliance with AB 98. This amendment ensures consistency with City truck route requirements and state regulations for industrial, and warehouse uses.

2.3 Project Approvals

As part of the Project, the Project Applicant is requesting approval of the following entitlements:

- **Specific Plan Amendment** to modify the Project site's Main Street and Freeway Corridor Specific Plan land use designation from Regional Commercial (RC) to Commercial/Industrial Business Park (CIBP).
- **Conditional Use Permit** to permit the construction and operation of a warehousing and distribution center of a size greater than 200,000 square feet in the Commercial/Industrial Business Park zone.
- **Development Code Amendment** to designate Amargosa Road as a new truck route from Avenal Street to Main Street in compliance with AB 98.

Subsequent non-discretionary approvals (which would require separate processing through the City) would include, but may not be limited to, a grading permit, building permits, and occupancy permits.

CHAPTER THREE – ENVIRONMENTAL CHECKLIST

3.1 Project Summary

1. Project Title:
Amargosa Road and Palmetto Way Industrial Warehouse Building

2. Lead Agency Name and Address:
City of Hesperia,
9700 Seventh Avenue
Hesperia, CA 92345

3. Contact Person and Phone Number:
Edgar Gonzalez, Senior Planner
Planning Division
P: (760) 947-1330
E: egonzalez@hesperiaca.gov

4. Project Location:
The City of Hesperia ("City") is located within the southwestern portion of San Bernardino County, refer to *Figure 1, Regional Vicinity Map*. On a regional basis, the City is accessible via Interstate 15 (I-15), U.S. Federal Highway 395 (US-395), and State Route 18 (SR-18). Jurisdictions surrounding the City of Hesperia include the City of Adelanto to the northwest, Town of Apple Valley to the northeast, City of Victorville to the north, and unincorporated San Bernardino County to the south, east and west.

The Project site is comprised of three (3) parcels (APNs: 0405-072-52, 53, and 55) that total approximately 30.52 acres. The site consists of vacant land that is characterized by level terrain and a mixture of ruderal/disturbed vegetation and Joshua tree woodland. The site is bounded by Avenal Street to the north and west, Palmetto Way to the south, and Amargosa Road to the east, refer to *Figure 2, Aerial Imagery Map*. Specifically, the Project site is in Section 14, Township 4 North, Range 5 West, as depicted on the U.S. Geological Survey Baldy Mesa, California 7.5-minute topographic quadrangle map.

5. Project Applicant's Name and Address:
Mr. Ramin Namvar
Rachamim 5, LLC
6001 E. Slauson Avenue
Commerce, CA 90040

6. General Plan Designation:
Existing: Main Street and Freeway Corridor Specific Plan – Regional Commercial (RC)

Proposed: Main Street and Freeway Corridor Specific Plan – Commercial/Industrial Business Park (CIBP)

(see *Figure 3, Existing and Proposed Land Use Designation*)

7. Zoning:

Existing: Regional Commercial (RC)

Proposed: Commercial/Industrial Business Park (CIBP)

(see *Figure 4, Existing and Proposed Zoning)*

8. Project Description:

Rachamin 5, LLC., ("Applicant") proposes to construct up to a 499,714 square-foot industrial building and associated improvements, including loading docks, tractor-trailer stalls, passenger vehicle parking spaces, stormwater facilities, sidewalks, and landscape area on approximately 30.52 acres in the City of Hesperia ("City"). The Project includes approximately 10,000 square feet of office space, 489,714 square feet of industrial/warehouse space, and 255,000 square feet of landscape improvements. In total, the proposed Project includes 72 loading dock positions, 256 tractor-trailer stalls, and 251 passenger vehicle parking spaces, refer to *Figure 5, Site Plan* (July 2022). The Project site is comprised of three (3) parcels (APNs: 0405-072-52, 53, and 55) and is located south of Avenal Street, north of Palmetto Way, and west of Amargosa Road. Project implementation involves a Specific Plan Amendment to modify the Project site's Main Street and Freeway Corridor Specific Plan land use designation from Regional Commercial (RC) to Commercial/Industrial Business Park (CIBP), and a Zone Change to modify the Project site's zoning from Regional Commercial (RC) to Commercial/Industrial Business Park (CIBP). Additionally, the Project requires a Conditional Use Permit to permit the construction and operation of a warehousing and distribution center of a size greater than 200,000 square feet in the Commercial/Industrial Business Park zone.

9. Surrounding Land Uses and Setting:

Land uses surrounding the Project site primarily consist of vacant land, along with some scattered residential, industrial, and utility uses. Specific land uses located in the immediate vicinity of the Project site are provided in the table below.

Location	Existing Land Use	Land Use / Zoning Designation (MSFC-SP)
Project Site	Vacant Land	Regional Commercial (RC)
North	Vacant/Residential	City of Victorville
South	Distribution Warehouse	Commercial Industrial Business Park (CIBP)
East	Amargosa Road/I-15 Freeway	Regional Commercial (RC)
West	Vacant/Utility Building	Regional Commercial (RC)

10. Other Public Agencies Whose Approval is Required (e.g., permits, financing approval, or participation agreement)

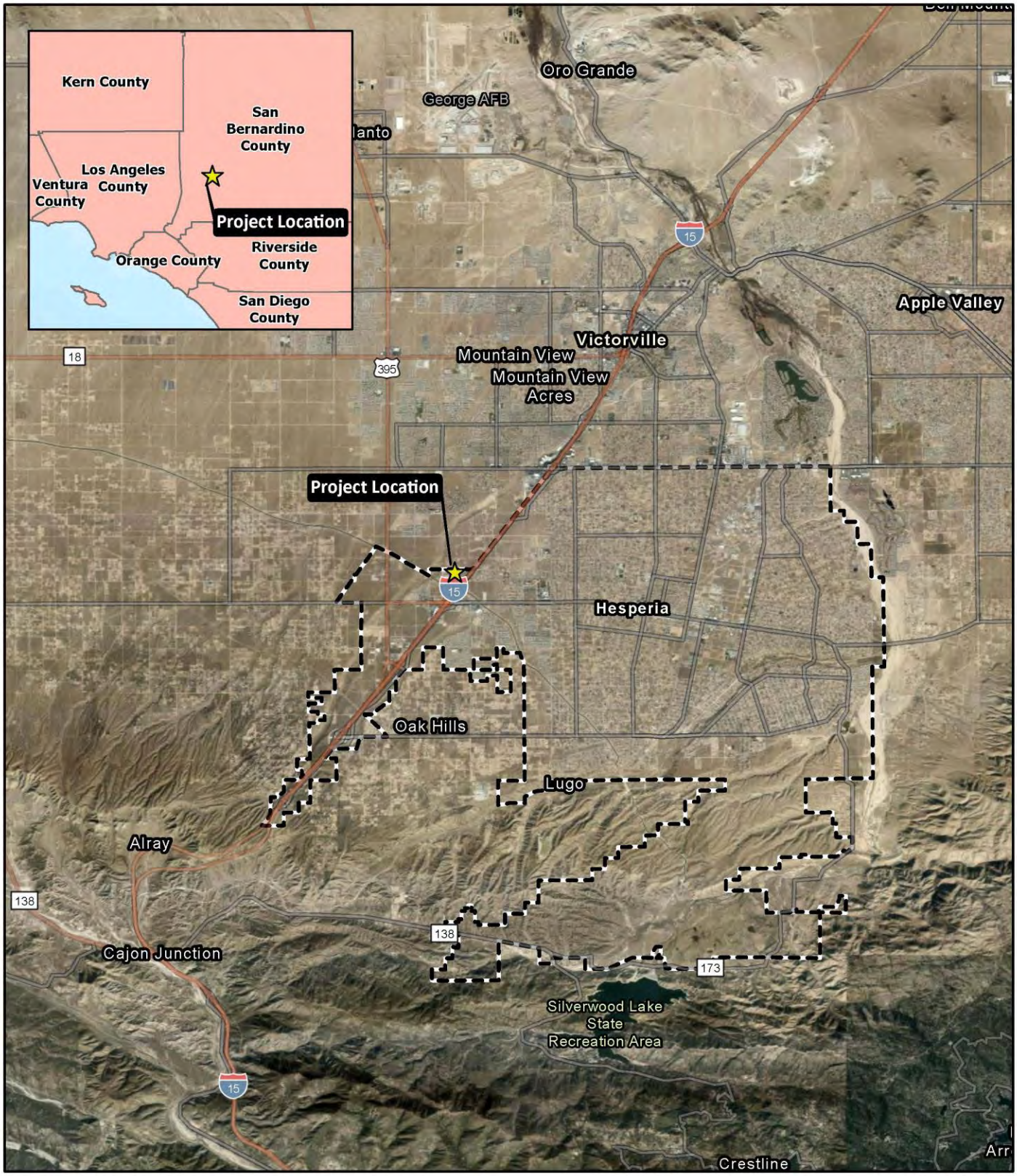
- California Department of Fish and Wildlife

11. California Native American Tribes

Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

The City, Lead Agency, has initiated the AB 52 process sending letters the applicable tribes on October 17, 2024. Three tribes were contacted: The Cabazon Band of Mission Indians, Torres Martinez Desert Cahuilla Indians, and the Yuhaaviatam of San Manual Nation. The Yuhaaviatam of San Manual Nation provided mitigation measures. These mitigation measures are incorporated into Section XVIII. Tribal Cultural Resources of this IS/MND. Consultation will continue through grading operations as required by AB 52.



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N

0 1.43 2.85 5.7

1" = 3.95 miles

Figure 1
Regional Vicinity

APN: 0405-072-[52,53,55]

City of Hesperia, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, California State Parks, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, Earthstar Geographics, Esri, USGS

AMARGOSA ROAD & PALMETTO WAY SPEC. INDUSTRIAL PROJECT, HESPERIA, CA.



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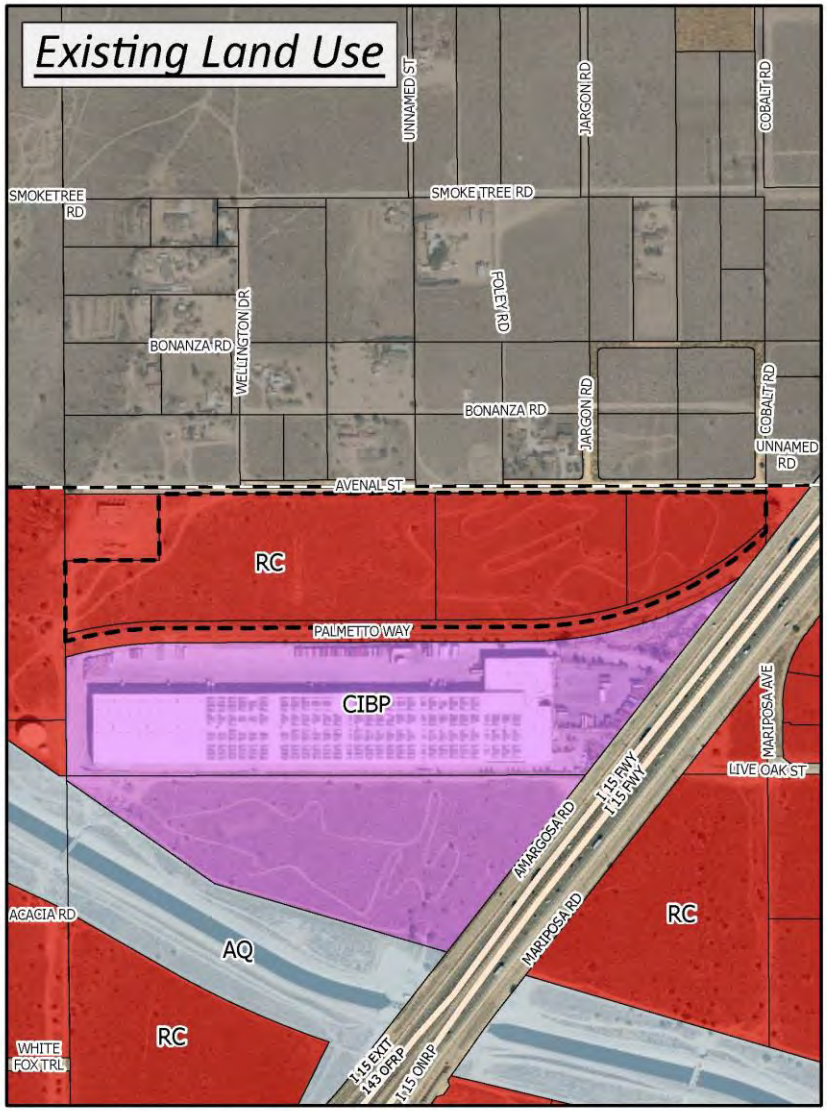
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1" = 3.95 miles

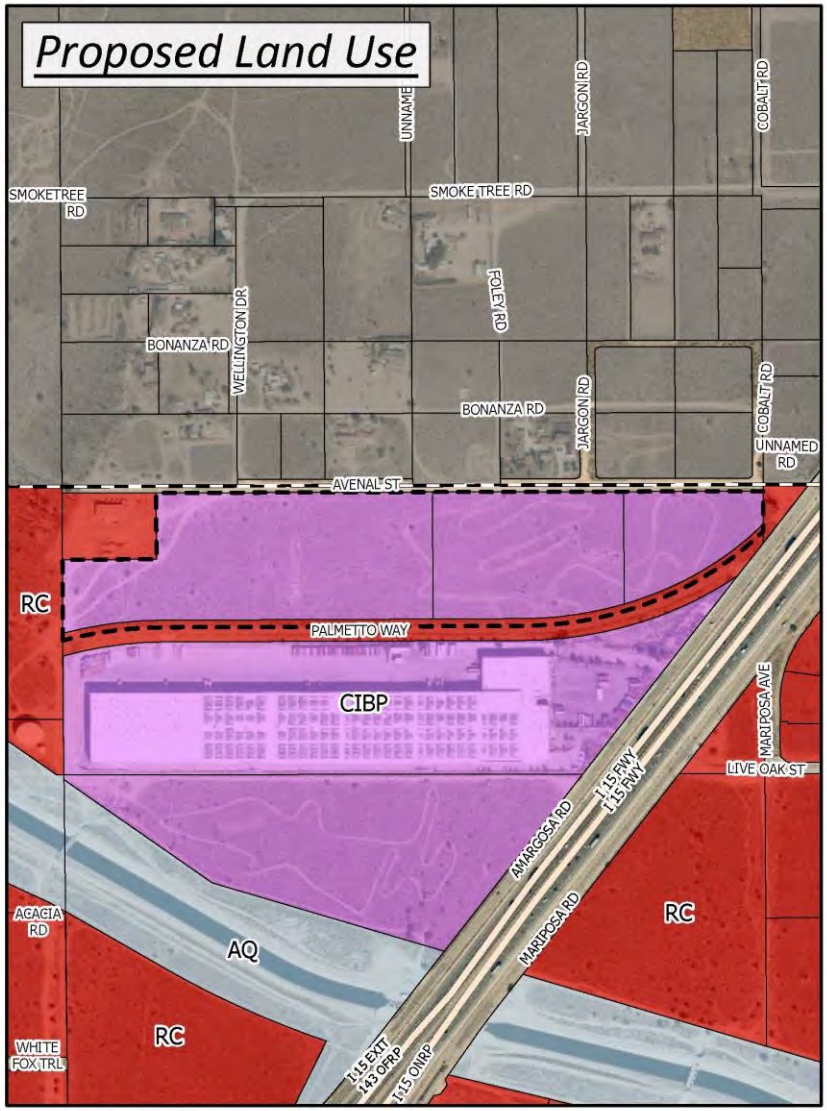
Figure 2
Aerial Imagery Map

APN: 0405-072-[52,53,55]

San Bernardino County, Maxar, Esri Community Maps Contributors, City of Hesperia, California State Parks, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA

AMARGOSA ROAD & PALMETTO WAY SPEC. INDUSTRIAL PROJECT, HESPERIA, CA.





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Project Boundary
City Boundary
Land Use
Aqueduct
Com/Ind Business Park
Regional Commercial
City of Victorville

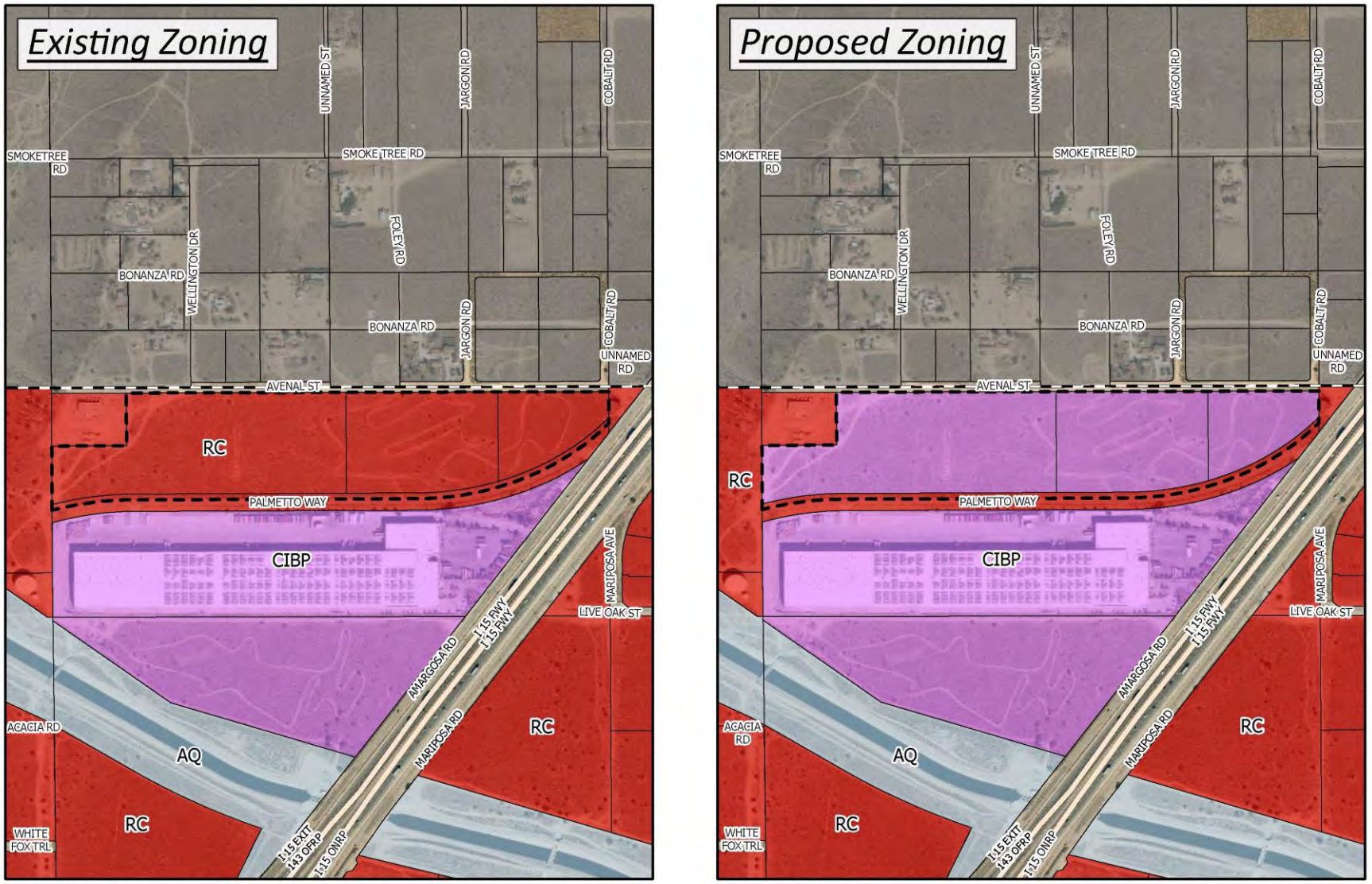
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US Feet

San Bernardino County, Maxar

Figure 3

Existing and Proposed Land Use Designation



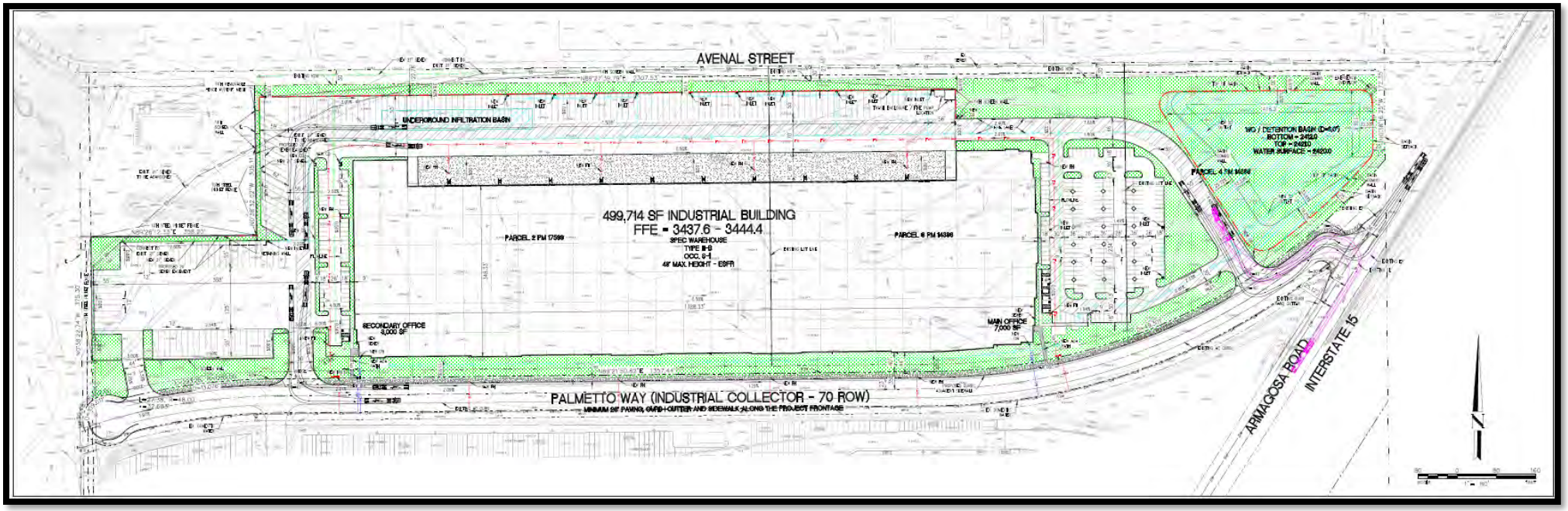
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San Bernardino County, Maxar

Figure 4

Existing and Proposed Zoning

Figure 5: Site Plan (July 2025)



3.2 Environmental Factors Potentially Affected

The environmental factors checked below (☒) would be potentially affected by this Project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐	Aesthetics	☐	Agriculture and Forestry Resources	☐	Air Quality
☐	Biological Resources	☐	Cultural Resources	☐	Energy
☐	Geology/Soils	☒	Greenhouse Gas Emissions	☐	Hazards & Hazardous Materials
☐	Hydrology/Water Quality	☐	Land Use/Planning	☐	Mineral Resources
☐	Noise	☐	Population/Housing	☐	Public Services
☐	Recreation	☒	Transportation/Traffic	☐	Tribal Cultural Resources
☐	Utilities/Service Systems	☐	Wildfire	☐	Mandatory Findings of Significance

3.3 Determination

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION has been prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been adequately analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Edgar Gonzalez — Date
Senior Planner

3.4 Evaluation of Environmental Impacts

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the Project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors, as well as general standards (e.g., the Project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant Impact with Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

    a) **Earlier Analysis Used.** Identify and state where they are available for review.

    b) **Impacts Adequately Addressed.** Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

    c) **Mitigation Measures.** For effects that are "Less than Significant Impact with Mitigation Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the Project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used, or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

    a) the significance criteria or threshold, if any, used to evaluate each question; and

    b) the mitigation measure identified, if any, to reduce the impact to less than significant.

CHAPTER FOUR – INITIAL STUDY CHECKLIST AND SUBSTANTIATION

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
I. Transportation/Traffic – Would the project:				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☒	☐	☐
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☒	☐	☐	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Circulation Element
    b. Safety Element
2. Hesperia Main Street and Freeway Corridor Specific Plan, amended July 15, 2021.
    a. Chapter 13 Circulation Improvements
3. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    a. 3.15 – Transportation
4. Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis. Ganddini Group, Inc. September 6, 2023. (Appendix L)
5. Amargosa and Palmetto High-Cube Warehouse Revised Traffic Impact Analysis. Ganddini Group, Inc. August 21,2025. (Appendix K)
6. Amargosa and Palmetto High-Cube Warehouse Project Vehicle Miles Traveled Analysis, Ganddini Group, Inc. July 8, 2025.

Discussion of Impacts

Would the project:

a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less than Significant Impact with Mitigation Incorporated: A Traffic Impact Analysis (TIA) was prepared by Ganddini Group, Inc dated August 18, 2022. A revised TIA was completed by Ganddini Group on August 21, 2025. The purpose of the TIA is to assess

potential transportation impacts resulting from development of the proposed Project both in the context of the California Environmental Quality Act (CEQA) and City of Hesperia discretionary authority. In accordance with City of Hesperia Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS) (July 2020), existing and future conditions were analyzed for the proposed Project. Based on the study intersections identified in the approved scoping agreement, the study area consists of the following study intersections within the City of Hesperia and California Department of Transportation jurisdictions:

1. Amargosa Road (NS) at Palmetto Way (EW)
2. Key Pointe Drive (NS) at Amargosa Road (EW)
3. Key Pointe Drive (NS) at Main Street (EW)
4. I-15 SB Offramp (NS) at Main Street (EW)
5. I-15 NB Ramps (NS) at Main Street (EW)
6. Project West Driveway (NS) at Palmetto Way (EW)
7. Project Central Driveway (NS) at Palmetto Way (EW)
8. Project East Driveway (NS) at Palmetto Way (EW)

The following scenarios were analyzed during typical weekday AM and PM peak hour conditions:

- Existing
- Opening Year (2027) Without Project
- Opening Year (2027) With Project
- General Plan Buildout (2040) Without Project
- General Plan Buildout (2040) With Project

All study intersections are forecast to operate within acceptable Levels of Service (D or better) during peak hour conditions for Existing, Opening Year (2027) Without Project, and Opening Year (2027) With Project scenarios. Additionally, all study intersections except for the Key Pointe Drive (NS) at Main Street (EW) intersection are forecast to operate within acceptable Levels of Service (D or better) during peak hour conditions for General Plan Buildout (2040) With Project and General Plan Buildout (2040) Without Project scenarios.

The Key Pointe Drive (NS) at Main Street (EW) intersection is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour for General Plan Buildout (2040) With Project and General Plan Buildout (2040) Without Project scenarios. Mitigation Measure **TRANS-1** requires that the Project's fair share is contributed, as determined by the City, to construct a second southbound left turn lane at Key Pointe Drive (NS) at Main Street (EW). **TRANS-1** will ensure that the proposed Project will result in no substantial operational deficiencies at the study intersections for General Plan Buildout (2040) With Project conditions, and impacts will be reduced to less than significant.

A Trip Generation Comparison Analysis was prepared by Ganddini Group, Inc dated November 28, 2022, and updated on February 28, 2025, and updated again on July 8, 2025. The Project proposes a Specific Plan Amendment to modify the Project site's Main Street and Freeway Corridor Specific Plan land use designation from Regional Commercial (RC) to Commercial/Industrial Business Park (CIBP). The purpose of the analysis is to evaluate the change in trip generation that can be expected between the proposed Project which is permitted under the CIBP land use designation, and an alternative land use consisting of

commercial retail that is permitted under the existing RC land use designation. The proposed Project is forecast to generate approximately 1,083 daily Passenger Car Equivalent (PCE) trips, including 90 PCE trips during the AM peak hour and 81 PCE trips during the PM peak hour. The alternative land use consisting of commercial retail is forecast to generate a total of approximately 25,505 daily trips, including 870 fewer trips during the AM peak hour and 2,035 trips during the PM peak hour.

For the alternative commercial retail land use, it should be noted that commercial retail land uses will often locate next to busy roadways to attract motorists already on the street. Therefore, Ganddini reduced the initial trip generation forecast by the applicable pass-by trip rate when calculating the net new trips that will be added to the surrounding street system. However, pass-by trip adjustments were not applied to the alternative commercial retail land use trip generation in accordance with pass-by rates noted in the ITE Trip Generation Manual (11th Edition, 2021) since Amargosa Road adjacent to the Project site is a low volume roadway and pass-by trips would be minimal.

The proposed Project is forecast to generate approximately 25,505 fewer daily trips compared to a commercial retail land use of equivalent size, including 870 fewer trips during the AM peak hour and 2,035 fewer trips during the PM peak hour. Based on the trip generation comparison analysis, the proposed Project consisting of a 499, 714 square-foot industrial building is forecast to generate substantially fewer trips (up to 659% fewer daily trips) compared to an alternative land use composed of 499,714 square feet of commercial retail. Therefore, the Project would not conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities, impacts would be less than significant.

b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Potentially Significant Impact: CEQA Guidelines Section 15064.3 subdivision (b) regards Vehicle Miles Traveled (VMT) and whether the land use project will generate vehicle miles traveled in excess of an applicable threshold of significance. Based on the VMT Analysis prepared by Ganddini Group (dated July 8, 2025), the Project is estimated to generate 73.7 vehicle miles traveled (VMT) per service population under baseline conditions and 38.9 VMT per service population under cumulative conditions. Both estimates exceed the City's established VMT significance threshold of 38.3 VMT per service population. Therefore, the Project would result in a significant transportation impact without mitigation. This topic will be further analyzed in an EIR for the Project.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less than Significant Impact: The Project would not result in any major modifications to the existing access or circulation features. The proposed Project does not include any sharp curves or traffic intersection crossings. Therefore, the Project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses, a less than significant impact would occur.

d) Result in inadequate emergency access?

Less than Significant Impact: The proposed Project is compatible with the design and

operation of the street network and would not result in any major modifications to the existing access or circulation features. The Project proposes three (3) driveways off Palmetto Way. Direct access to the paved tractor-trailer parking area is provided by a 45-foot truck only driveway at the southwest corner of the site, and a 50-foot auto and truck driveway on the south side of the site. Direct access to the paved passenger vehicle parking area is provided by a 50-foot auto and truck driveway at the southeast corner of the site. The Project conforms with local, state, and federal regulations regarding circulation and traffic pattern design. The driveways accommodate traditional fire apparatus, allowing for adequate emergency access. The Project would not result in inadequate emergency access to the Project site. Thus, a less than significant impact would occur.

Mitigation Measures

Mitigation:

(a)

TRANS-1: Contribute fair share, as determined by the City, to construct a second southbound left turn lane at Key Pointe Drive (NS) at Main Street (EW).

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
II. Aesthetics – Except as provided in Public Resources Code Section 21099, would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☒	☐
c) 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). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    - Open Space Element
    - Conservation Element
2. Hesperia Main Street and Freeway Corridor Specific Plan, amended July 15, 2021.
    - Chapter 14 Open Space and Streetscape Improvements
3. Title 16 – Development Code of the Hesperia Municipal Code
    - Section 16.20.135 – Glare
    - Chapter 16.16.405 – Site design standards and guidelines
4. California Department of Transportation, 2018. List of eligible and officially designated State Scenic Highways. 2018. Available on-line at: Scenic Highways | Caltrans

Discussion of Impacts

a) Would the project have a substantial adverse effect on a scenic vista?

Less than Significant Impact: The Hesperia General Plan identifies scenic resources within the City such as the Mojave River, the San Gabriel and San Bernardino Mountains, the Mojave Desert and other surrounding mountains and valleys. The City also consists of numerous washes and other natural water courses such as the Oro Grande Wash, Antelope Valley Wash, Unnamed Wash #2 (Honda Valley Wash), and Unnamed Wash #1 east of Interstate 15. The designated washes provide physical and visual relief from the urban developments and direct stormwater flow safely through the City.

The Project site is located east of the Oro Grande Wash, adjacent to the Wash Protection Overlay boundary. General Plan Exhibit OS-7 identifies three (3) preservation areas within the Oro Grande Wash and the Unnamed Wash #1 that have minimal disturbance and exemplify natural desert habitat. The designated preservation areas within the Wash Protection Overlay boundary are located approximately one (1) mile south, 3.45 miles southwest, and four (4) miles southwest of the Project site. The portion of the Oro Grande Wash adjacent to the Project site has been extensively used by off-road motorcycles and is designated as Recreational-Commercial. The Recreational-Commercial designation allows a broader range of intensive recreational uses. Although the designation allows a greater range of uses, there are restrictions on buildings and development to preserve general landform and landscape. The Recreational-Commercial designation is also utilized as a buffer between the commercial/industrial land uses located adjacent to the freeway and the residential land uses within Oak Hills.

The proposed Project consists of an industrial building up to 499,714 square feet and associated improvements, including loading docks, tractor-trailer stalls, passenger vehicle parking spaces, stormwater facilities, sidewalks, and landscape area. The Project site is not located within the Wash Protection Overlay and the proposed development does not extend into the Wash Protection Overlay boundary. Scenic views from the Project site include distant views of the San Bernardino and San Gabriel Mountains, located south, southwest, and southeast of the site as well as views of the Mojave Desert. The Project site is surrounded by vacant land and residential uses to the north, vacant land and a utility building to the west, Amargosa Road and I-15 Freeway to the east, and a distribution warehouse to the south. The existing distribution warehouse south of the Project site disrupts south, southwest, and southeast views from the Project site. Furthermore, the proposed Project is consistent in scale and character with the existing distribution warehouse. Therefore, Project impacts on a scenic vista would be less than significant.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Less than Significant Impact: The Project site is not located within or adjacent to a scenic highway corridor and does not contain scenic resources, such as rock outcroppings or historic buildings. The nearest State-designated scenic highway is a portion of SR-2 located approximately 15.7 miles southwest of the Project site. Additionally, the nearest State-eligible scenic highway is a portion of SR-138 located approximately 8.0 miles south of the Project site. Therefore, Project impacts on scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway would be less than significant.

c) In nonurbanized areas, 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 publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less than Significant Impact: The Project site is located within an urbanized area and is surrounded by vacant land and residential uses to the north, vacant land and a utility

building to the west, Amargosa Road and I-15 Freeway to the east, and a distribution warehouse to the south. The proposed Project complies with the development standards of the CIBP zone and the Industrial Design Standards and Guidelines within the Main Street and Freeway Corridor Specific Plan (MSFC-SP). The design specifications for the Project will be reviewed by the City for compliance with all applicable provisions set forth by the City's Development Code and the Specific Plan. As part of the City's development review process, the Project's architectural plans are reviewed by City staff and the Planning Commission to determine whether Project design conforms to the Development Code and Specific Plan. Furthermore, the proposed Project is consistent in scale and visual character with the existing distribution warehouse south of the Project site. Therefore, the Project would not conflict with applicable zoning or other regulations governing scenic quality and impacts would be less than significant.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less than Significant Impact: The proposed Project would introduce new sources of light at the Project site including building, parking, and security lighting. Specific Plan Section II, Chapter 11, Item 14 includes design standards for outdoor lighting that apply to industrial development within the MSFC-SP. The MSFC-SP lighting standards govern the placement and design of outdoor lighting fixtures to ensure adequate lighting for public safety while also minimizing light pollution and glare and precluding public nuisances (e.g., unusually high intensity or poor directional lighting that intrudes into neighboring properties or public rights-of-way). Although the proposed Project would be required to adhere to the applicable requirements of the Specific Plan, the proposed Project would introduce new sources of light and glare as the Project includes the construction of an industrial building on an undeveloped Project site. Conformance with the Specific Plan would minimize the potential for the Project to result in adverse light and glare impacts. Therefore, additional light sources are not anticipated to be substantial enough to adversely affect day or nighttime views in the area, a less than significant impact would occur.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
III. Agriculture and Forestry Resources – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to the information compiled by the California Department of Forestry and Fire Protection regarding the State's inventory of forest land, including the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resource Code section 122220(g)), timberland (as defined by Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    - Open Space Element
    - Conservation Element
2. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    - 3.2 – Agricultural Resources

3. California Department of Conservation (CDC), California Important Farmland Finder (CIFF), 2018

Discussion of Impacts

a) Would the project convert Prime Farmland, Unique Farmland or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency to non-agricultural use?

No Impact: The CDC Farmland Mapping and Monitoring Program (FMMP) identifies and maps significant farmland. Farmland is classified using a system of five categories including Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance or Potential, and Grazing Land. The classification of farmland is determined by a soil survey conducted by the Natural Resources Conservations Service (NRCS) which analyses the suitability of soils for agricultural production. Based on the California Important Farmland Finder, the Project site is classified as "Grazing Land". Therefore, the proposed Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impact would occur.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact: The Project site is currently zoned as Regional Commercial (RC) and the proposed zoning designation is Commercial/Industrial Business Park (CIBP). According to the Hesperia General Plan Update Environmental Impact Report (EIR) Exhibit 3.2-2 Williamson Act Map, the Project site is not subject to a Williamson Act Contract. Additionally, there are no properties within the Project's vicinity subject to a Williamson Act Contract. Therefore, the proposed Project would have no potential to conflict with existing zoning for agricultural use, or a Williamson Act contract. No impact would occur.

c) Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined by Public Resource Code section 122220(g)), timberland (as defined by Public Resource Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104 (g))?

No Impact: The Project site is designated Regional Commercial (RC) and the proposed zoning designation is Commercial/Industrial Business Park (CIBP). According to the City's Zoning Map, the Project site is not located within or adjacent to forest land, timberland, or timberland zoned Timberland Production. Therefore, no impact would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact: The Project site is currently vacant and consists of disturbed native vegetation. The site contains sparsely scattered shrubs, trees, and vegetation communities that would not qualify as forest land. Thus, the proposed Project would not result in the conversion of forest land to non-forest use. No impact would occur.

e) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to nonagricultural use or conversion of forest land to non-forest use?

No Impact: As previously discussed under Section II (a), the Project site is classified as "Grazing Land" by the California Department of Conservation and does not meet the definition of Farmland (i.e., "Prime Farmland," "Unique Farmland," or "Farmland of Statewide Importance"). The Project site contains no active agricultural uses under existing conditions. Accordingly, implementation of the Project would not convert areas on the subject property classified as Farmland to non-agricultural use. Additionally, neither the Project site nor its surroundings contain forest land. Therefore, the Project would not result in the conversion of forest land to non-forest use. No impact would occur.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. Air Quality – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    - Conservation Element
2. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    - 3.3 – Air Quality
3. Title 16 – Development Code of the Hesperia Municipal Code
    - Chapter 16.16.360 – Additional development standards
4. Amargosa and Palmetto High-Cube Warehouse Air Quality Impact Analysis City of Hesperia. Urban Crossroads, Inc. February 1, 2023. (Appendix A)
5. Amargosa and Palmetto High-Cube Warehouse Mobile Source Health Risk Assessment City of Hesperia. Urban Crossroads, Inc. February 1, 2023 (Appendix B)

Discussion of Impacts

a) Conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant Impact: The Project site is located within the Mojave Desert Air Basin (MDAB) and is under the jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). The MDAQMD encompasses approximately 20,000 square miles including San Bernardino County's High Desert and Riverside County's Palo Verde Valley. The MDAQMD is responsible for bringing air quality in areas under its jurisdiction into conformity with federal and state air quality standards through the implementation of an Air Quality Management Program (AQMP).

Currently, the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) are exceeded in most parts of the MDAB. The attainment

status of criteria pollutants in the MDAB is shown in Table 4-1 below. In response, the MDAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards. AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

Table 4-1 Attainment Status of Criteria Pollutants in the MDAB

Criteria Pollutant	State Designation	Federal Designation
O_3 – 1-hour standard	Nonattainment	--
O_3 – 8-hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Nonattainment
$PM_{2.5}$	Attainment	Unclassifiable/Attainment
CO	Attainment	Unclassifiable/Attainment
NO_2	Attainment	Unclassifiable/Attainment
SO_2	Unclassifiable/Attainment	Unclassifiable/Attainment
Pb	Attainment	Unclassifiable/Attainment

Note "-" = The national 1-hour O3 standard was revoked effective June 15, 2005.

The Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Mojave Desert set forth a comprehensive set of programs that will lead the MDAB into compliance with federal and state air quality standards. The control measures and related emission reduction estimates within the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with these attainment plans for development projects is determined by demonstrating compliance with the indicators discussed below:

Criterion 1 - Local land use plans and/or population projections

The existing General Plan land use designation of the Project site is Main Street and Freeway Corridor Specific Plan – Regional Commercial (RC) and the proposed designation is Main Street and Freeway Corridor Specific Plan – Commercial/Industrial Business Park (CIBP). The Project uses are allowed under the site's proposed CIBP General Plan land use designation. The Project requires a Specific Plan Amendment and a Zone Change affecting the Project site. The CIBP land use designation allows for a maximum FAR of 0.5 and the proposed Project site has a FAR of 0.376 which is in conformance with the CIBP land use designation. The CIBP land use designation is intended to provide for service commercial, light industrial, light manufacturing, and industrial support uses, mainly conducted in enclosed buildings, which will produce only a small environmental impact, such as noise, vibration, air pollution, glare, or waste disposal.

Criterion 2 - All MDAQMD Rules and Regulations

The Project would be required to comply with all applicable MDAQMD Rules and Regulations, including, but not limited to Rules 401 (Visible Emissions), 402 (Nuisance), and 403 (Fugitive Dust).

Criterion 3 - Demonstrating that the project will not increase the frequency or severity of a violation in the federal or state ambient air quality standards

Consistency Criterion No. 3 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if regional significance thresholds were exceeded. As evaluated in the Air Quality Impact Analysis (Appendix A), the Project's regional construction and operational-source emissions would not exceed applicable regional significance thresholds.

The Project would not have the potential to result in or cause NAAQS or CAAQS violations. Additionally, Project construction and operational-source emissions would not exceed the regional significance thresholds. Further, the Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase. The Project is therefore considered to be consistent with the AQMP and a less than significant impact is expected.

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

Less than Significant Impact: The CAAQS designate the Project site as nonattainment for O3 (1-hour and 8-hour) and PM10, and the NAAQS designates the Project site as nonattainment for O3 (8-hour) and PM10. The AQMD states that individual projects that do not generate operational or construction emissions that exceed the MDAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Alternatively, individual project-related construction and operational emissions that exceed MDAQMD thresholds for project-specific impacts would be considered cumulatively considerable. The following analysis is based on the Air Quality Impact Analysis prepared by Urban Crossroads (Appendix A).

The MDAQMD has developed regional significance thresholds for criteria pollutants, as summarized in Table 4-2. The MDAQMD's Guidelines indicate that any projects in the MDAB with daily emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact.

Table 4-2 Maximum Daily Regional Emissions Thresholds

Pollutant	Daily Threshold (lbs/day)
CO	548 lbs/day
NO_x	137 lbs/day
VOC	137 lbs/day lbs/day
SO_x	137 lbs/day
PM_{10}	82 lbs/day

$PM_{2.5}$	65 lbs/day

*lbs/day – Pounds Per Day

Construction Related Impacts

The Project involves construction activities associated with site preparation, grading, building construction, paving, and architectural coating. Construction activities associated with the Project would result in emissions of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Construction is scheduled to occur from January 2023 to December 2023. Table 4-3 presents the results of the Project's regional construction impact assessment.

Table 4-3 Emissions Summary of Construction - Without Mitigation

Year	Emissions (pounds/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
2023	2.70	16.30	36.00	0.04	3.91	1.37
Winter						
2023	70.80	89.00	73.50	0.12	13.50	7.97
Maximum Daily Emissions	**70.80**	**89.00**	**73.50**	**0.12**	**13.50**	**7.97**
MDAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

The Project-specific evaluation of emissions presented in Tables 4-3 demonstrates that proposed Project construction-source air pollutant emissions would not result in exceedances of regional thresholds. Therefore, proposed Project construction-source emissions would be considered less than significant on a project-specific and cumulative basis.

Operation Related Impacts

Long-term air quality impacts generally involve mobile source emissions generated from project-related traffic and stationary source emissions. Operational emissions would be expected from the following primary sources—mobile source emissions, area source emissions, energy source emissions, and on-site cargo handling equipment emissions. The estimated emissions generated by Project operations are shown in Table 4-4, which presents the results of the Project's regional operation impact assessment. The Project would not exceed the thresholds of significance established by the MDAQMD for emissions of any criteria pollutant. Therefore, operational emissions would be less than significant.

Table 4-4 Summary of Peak Operational Emissions

Source	Emissions (pounds/day)					
	VOC	NO_X	CO	SOx	PM_{10}	$PM_{2.5}$
Summer						
Mobile Source	4.67	13.60	62.00	0.21	5.55	1.22
Area Source	15.10	0.18	21.70	<0.005	0.03	0.04
Energy Source	0.14	2.55	2.14	0.02	0.19	0.19
On-Site Equipment Source	0.23	0.75	32.89	0.00	0.06	0.05

Total Max Daily Emissions	**20.14**	**17.08**	**118.73**	**0.23**	**5.83**	**1.50**
MDAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**
Winter						
Mobile Source	4.27	14.60	46.70	0.20	5.55	1.22
Area Source	11.50	0.00	0.00	0.00	0.00	0.00
Energy Source	0.14	2.55	2.14	0.02	0.19	0.19
On-Site Equipment Source	0.23	0.75	32.89	0.00	0.06	0.05
Total Max Daily Emissions	**16.14**	**17.90**	**81.73**	**0.22**	**5.80**	**1.46**
MDAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that proposed Project operational-source air pollutant emissions would not result in an exceedance of regional thresholds. The Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is designated non-attainment under an applicable federal or state ambient air quality standard. Therefore, the proposed Project operational-source emissions would be considered less than significant on a project-specific and cumulative basis.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant Impact: Sensitive receptors in the Project study area are listed below. All distances are measured from the Project site boundary to the outdoor living areas (e.g., backyards) or at the building façade, whichever is closer to the Project site.

- Residence at 13030 Avenal Street, approximately 71 feet north of the Project site.
- Residence at 13164 Avenal Road, approximately 76 feet north of the Project site.
- Residence at 10445 Avenal Street, approximately 1,263 feet east of the Project site.
- Residence at 13500 Live Oak Street, approximately 1,071 feet southeast of the Project site.
- Residence at 10376 Wellington Road, approximately 227 feet north of the Project site.
- MGA Entertainment, Inc., located at 10200 Amargosa Road, approximately 201 feet south of the Project site.

The Project would have a potentially significant health risk impact if it results in a maximum incremental cancer risk from emission of Toxic Air Contaminants (TACs) of ≥ 10 in one million and/or a chronic & acute hazard index that is ≥1.0. In the case of the Project, the TAC of concern is diesel particulate matter (DPM) that could be generated by Project construction activities, and on-site and off-site DPM that would result from on-going Project operations. Urban Crossroads, Inc. prepared a Mobile Source Health Risk Assessment (Appendix B), dated February 1, 2023, to evaluate the potential mobile-

source emissions health risk impacts associated with the development of the proposed Project.

The maximum incremental cancer risk attributable to Project construction-source DPM emissions is estimated at 2.13 in one million, and the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at 0.20 in one million, which is less than the MDAQMD significance threshold of 10 in one million. Additionally, non-cancer risks were estimated to be <0.01 for both construction and operational impacts, which would not exceed the applicable threshold of 1.0. Table 4-5 provides a summary of the combined construction and operational cancer and non-cancer risks.

Table 4-5 Summary of Construction and Operational Cancer and Non-Cancer Risks

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
30 Year Exposure	Maximum Exposed Sensitive Receptor	2.22	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Annual Average	Maximum Exposed Sensitive Receptor	≤0.01	1.0	NO

The Project-specific evaluation of mobile-source emissions demonstrates that the Project would not result in any potentially significant health risk impacts from exposure to DPM emissions. Project construction and operation will not cause a significant human health or cancer risk to adjacent land uses, a less than significant impact would occur.

d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?

Less than Significant Impact: The Project will not involve land uses that are typically associated with odor complaints such as, agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting operations, refineries, landfills, dairies, and fiberglass molding facilities. Potential odor sources associated with the proposed Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the Project's (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City's solid waste regulations. The Project would also be required to comply with MDAQMD Rule

402 (Nuisance) to prevent occurrences of public nuisances. Therefore, odors associated with the Project construction and operations would be less than significant and no mitigation is required.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. Biological Resources: Would the project:				
a) 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 California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) 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 California Department of Fish and Game or US Fish and Wildlife Service?	☐	☒	☐	☐
c) 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?	☐	☐	☐	☒
d) 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?	☐	☐	☐	☒
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☒

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    - Open Space Element
    - Conservation Element
2. Hesperia Main Street and Freeway Corridor Specific Plan, amended July 15, 2021.
    - Chapter 14 Open Space and Streetscape Improvements

3. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    - 3.4 – Biological Resources
4. Title 16 – Development Code of the Hesperia Municipal Code
    - Chapter 16.24 Protected Plants – Article III Riparian Plant Conservation
5. Desert Native Plant Protection Ordinance Section 88.01.060, County of San Bernardino Development Code, Chapter 88.01 Plant Protection and Management:
6. Tree or Plant Removal Permits Ordinance Section 88.01.050
7. Desert Native Plants Act (Food and Agricultural Code §§ 80001 et seq.)
8. California Food and Agriculture Code, Division 23, Chapter 3: Regulated Native Plants, Ordinance Section 80073
9. Western Joshua Tree Regulations, San Bernardino County, February 2021. Mojave Desert Land Trust (mdlt.org)
10. Joshua trees are now protected by the State of California as a candidate for listing as an endangered species | EZ Online Permitting (sbcounty.gov). Posted October 15, 2020.
11. California Endangered Species Act (CESA) (Office of Administrative Law's Notice ID #Z2019-1112-01 and Z2020-0924-01 Petition to list Western Joshua Tree (*Yucca brevifolia*) as an Endangered Species).
12. Amargosa Road & Palmetto Way Spec. Industrial Project Biological Resources Assessment Report. Casc Engineering and Consulting, Inc. October 2022. (Appendix C)

Discussion of Impacts

a) Would the project 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 California Department of Fish and Wildlife (CDFW) or U.S. Fish and Wildlife Service (USFWS)?

Less Than Significant Impact with Mitigation Incorporated: Casc Engineering and Consulting (Casc) biologist performed a biological site assessment and species inventory at the Project site from April through July of 2022. Prior to circulation of the Draft EIR, biological surveys will be conducted to confirm potential impacts on biological resources. The results of the assessment are included in the Biological Resource Assessment Report (Appendix C). Prior to the site assessment, Casc's biologists researched readily available information, including previous studies and reports, relevant literature, databases, agency websites, Geographic Information Systems (GIS) data, maps, aerial imagery from public domain sources, and in-house records. Desktop research was performed to assess habitats, special-status plant and wildlife species, identify jurisdictional features that may occur within the Project impact area, identify critical habitat and wildlife corridors that may occur in and near the Project site, and to identify and review local or regional plans, policies, and regulations that may apply to the Project site.

A habitat assessment of the Project site and a 500-foot buffer was assessed for special status species including Joshua tree (*Yucca brevifolia*), western burrowing owl (*Athene cunicularia)*, Mohave ground squirrel (*Xerospermophilus mohavensis*), and desert tortoise (*Gopherus agassizii*). The Biological Resources Assessment Report includes a compendium of all plants and animals observed during the site visits from April through July of 2022.

Focused surveys were conducted during the breeding season for burrowing owl (April, June, July, and August 2022). Burrowing owl was absent from the Survey Area at the time of the

surveys. No additional scat, pellets, or other sign was observed near the burrows or anywhere within the Survey Area to indicate occupation. As suitable habitat does exist at the Project Site a 14-30 day preconstruction survey for this species is required per Mitigation Measure **BIO-3**. Mitigation Measure **BIO-3** will ensure that burrowing owl have not occupied the site since the focused surveys were conducted during the 2022 breeding season.

Focused surveys were conducted for Mohave ground squirrel with a total of three trapping sessions which occurred during April, May, and June 2022. Mohave ground squirrel was not captured during the protocol level sessions and is not expected to occur at the Project site. Implementation of the Project will not result in the loss of individual Mohave ground squirrel, nor will Project development adversely affect local or regional populations of these species.

Focused surveys for desert tortoise were performed during April 2022. During the focused surveys no sign (scat, burrows, etc.) of this species was noted and this species is not expected to occur at the Project Site. Implementation of the Project will not result in the loss of individual desert tortoise, nor will Project development adversely affect local or regional populations of these species.

The Project site is undeveloped and has been disturbed by grading. The vegetation is growing and is of small stature where grading has occurred in the past. The Survey Area is dominated by disturbed native vegetation, ruderal species, and friable soils. Wildlife diversity during the field survey was generally low, likely due to the low diversity of the plant assemblage. The commonly observed species within the Survey Area were mourning dove (*Zenaida macroura*) and common raven (*Corvus corax*).Vegetation on site consists of Larrea tridentata-Ambrosia dumosa Shrubland Alliance with dominant species being white bursage (*Ambrosia dumosa*), creosote bush (*Larrea tridentata*) and Mexican tea (*Ephedra trifurca*), and Joshua tree (*Yucca brevifolia*).

Casc's biologist performed an inventory of all Joshua trees within the Survey Area. A total of fifty-two (52) live Joshua trees and seven (7) dead Joshua trees were recorded during the April 27, 2022 site visit. This data is included in *Table 1. Western Joshua Tree Inventory* within the Biological Resource Assessment Report. Per CDFW requirements, each Joshua tree noted in *Table 1. Wester Joshua Tree Inventory* was photographed, general health assessment (height, branching, clonal, etc.) performed, and a GPS location of each tree was recorded.

Shrubs and Western Joshua tree located within the Survey Area provide nesting habitat for a number of nesting bird species. Several nests of cactus wren (*Campylorhynchus brumeicapillus*) were found during the site survey. Other avian species with potential to nest on the Project Site included mourning dove (*Zenaida macroura Calypte anna*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), and house finch (Carpodacus mexicanus). Turkey vulture (*Cathartes aura*) was also noted during the survey and can utilize the site for foraging and thermoregulation. Black-tailed jackrabbit (*Lepus californicus*) is expected to nest and forage on site. And coyote (*Canis latrans*) was observed foraging as evidenced by the presence of sign (scat and tracks).

With incorporation of Mitigation Measures **BIO-1** through **BIO-5**, direct or indirect impacts 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 California Department of Fish and Game or U.S. Fish and Wildlife Service would be less than significant.

b) Would the project 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 California Department of Fish and Game or U.S. Fish and Wildlife Service?

Less Than Significant Impact with Mitigation Incorporated: The Joshua tree is a candidate species in the initial stages of consideration for listing as endangered under the California Endangered Species Act (CESA) (Office of Administrative Law's Notice ID #Z2019-1112-01 and Z2020-0924-01 Petition to list Western Joshua Tree (*Yucca brevifolia*) as an Endangered Species). Therefore, the incorporation of Mitigation Measures **BIO-1** (Incidental Take Permit from CDFW) and **BIO-2** (Desert Native Plant Protection and Relocation Plan) will reduce potential impacts to a less-than-significant level.

c) Would the project 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?

No Impact: The Biological Resource Assessment Report states there is no riparian vegetation within the Project site boundary or in the adjacent buffer areas (see Appendix C). No ephemeral drainage channels, wetlands, or vernal pools were observed on the Project site during the survey. Development of the Project site as proposed would not result in impacts to riparian vegetation community because these resources do not occur on the Project site or within the area of project impacts. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

d) Would the project 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?

No Impact: The Biological Resource Assessment Report states there were no distinct wildlife corridors identified on the Project site or in the immediate area. Additionally, the Project site is not within an area that includes sensitive habitats (e.g., wetlands, vernal pools, critical habitats for sensitive species, etc.). The proposed Project is not anticipated to 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 since the site does not include disturbances to any sensitive areas. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact with Mitigation Incorporated: During October 2020, CDFW proposed the Joshua tree as a candidate threatened species. As a candidate species, the Joshua tree must be evaluated as a threatened species. On October 15, 2020, the County of San Bernardino released a statement regarding Joshua tree preservation. Due to the CDFW listing, the County cannot issue a permit to take (by removal of transplanting) any Joshua tree (sbcounty.gov). Therefore, the Project proponent shall apply for an Incidental Take Permit (ITP) through CDFW. The Project shall also comply with the City's Municipal Code (Chapter 16.24) requiring Joshua tree preservation. Thus, with Municipal Code compliance and the incorporation of Mitigation Measures **BIO-1** (Incidental Take Permit from CDFW) and **BIO-2** (Desert Native Plant Protection and Relocation Plan),

Project impacts will be reduced to less than significant.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact: The General Plan does not identify the Project site, nor the vicinity to be within a Habitat Conservation Plan (HCP) and will not conflict with the provisions of an adopted HCP, Natural Community Conservation Plan (NCCP), or other approved local, regional or State HCP since there is no adopted HCP or NCCP in the Project area or local region. Therefore, no impacts are identified or anticipated, and no mitigation measures are required.

Mitigation Measures

Mitigation:

(a,b,e)

BIO-1: **Incidental Take Permit from CDFW**

Mitigation for direct impacts to the Western Joshua Trees within the Project Site shall be fulfilled through attainment of a Western Joshua Tree Conservation Act (WJTCA) Incidental Take Permit. An Incidental Take Permit (ITP) application and supporting documentation shall be submitted to CDFW for review and approval for removal of Western Joshua trees on the Project site. An ITP establishes a performance standard requiring that the impacts be "minimized and fully mitigated" with "measures that are roughly proportional in extent to the impact of the authorized taking on the species." Therefore, additional mitigation measures, such as the purchase of credits from an approved conservation or mitigation bank, land acquisition, or entry into a conservation easement, will be determined in consultation with CDFW to meet ITP requirements.

A completed application requires a completed CEQA document to accompany the ITP application and fee. CDFW requires the CEQA document to have a state clearing house number, show proof of filing fees, and that the document has been circulated. CDFW will then review the ITP and CEQA document and make a determination of mitigation.

(a,b,e)

BIO-2: **Desert Native Plant Protection and Relocation Plan**

A Desert Native Plant Protection and Relocation Plan (Plan) for the proposed Project shall be composed that will provide detailed specifications for the proposed treatment, avoidance, or relocation of all smoke trees (Cotinus sp.), species in the Agavacea family, mesquite (Prosopis sp.), large creosote bushes (Larrea sp.), Western Joshua trees, and any other plants protected by the State Desert Native Plant Act. Further, the Protected Desert Plant Plan will provide measures to meet the requirements of Chapter 16.24 of the City if Hesperia's (City) Municipal Code to protect, preserves, and mitigate impacts to Western Joshua tree. The City's Protected Plan Policy (HMC 16.24) states the following for commercial and industrial projects:

- The Plan shall be certified by an arborist or registered botanist.
- An application and fee shall be completed and paid to the City of Hesperia.

- Healthy, transplantable Western Joshua trees shall be relocated on-site or may be placed in an adoption program.

The Desert Native Plant Protection and Relocation Plan will address requirements of the City's Protected Plant Policy and provide details from the initial survey of the site's Western Joshua trees and other sensitive desert plant species, detailed specifications for the protection of trees to be preserved on site, and relocation/salvage requirements for those trees or bushes requiring removal and relocation. Specifically, the Plan will include site location and characteristics; relocation requirements including Western Joshua tree and other sensitive desert plant species report and removal/relocation and transplanting specifics; success criteria and associated necessary fees, protective measures prior to, during and after construction, and maintenance after construction.

(a)

BIO-3: Pre-Construction Western Burrowing Owl Clearance Surveys

In accordance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012), two (2) pre-construction clearance surveys shall be conducted 14-30 days and 24 hours prior to any vegetation removal or ground disturbing activities. Once surveys are completed, the qualified biologist shall prepare a final report documenting surveys and findings. If no burrowing owls or occupied burrows are detected, Project construction activities may begin. If an occupied burrow is found within the Project Site during pre-construction clearance surveys, a burrowing owl exclusion and mitigation plan shall be prepared and submitted to the County, which may consult with CDFW for review, prior to initiating Project construction activities.

(a)

BIO-4: Passive and Active Relocation of Western Burrowing Owls

If Western burrowing owls are observed on the Project site during preconstruction surveys, CDFW shall be immediately notified to determine if avoidance of the nest is appropriate until the nest is vacated or to gain concurrence from CDFW on active or passive relocation actions. All passive or relocation activities shall be in concurrence with CDFW guidelines (Staff Report on Burrowing Owl Mitigation 2012).

If burrowing owls are present and nesting on-site the following steps shall be necessary to reduce impacts to less than significant. These steps may be augmented by recommendations from CDFW:

a. Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that: (1) owls have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

b. A qualified biologist shall exclude all owls from active burrows using one-way doors. Concurrently, all inactive burrows and other sources of secondary refuge for burrowing owls shall be collapsed and removed from the site.

c. Following and 24 to 48-hour observation period, all vacated burrows shall be collapsed.

d. A qualified biologist shall conduct a post-exclusion survey confirming the absence of burrowing owls on the Project site. Should newly occupied burrows be discovered on the Project site the exclusion activities shall be repeated.

(a)

BIO-5: Nesting Bird Preconstruction Surveys

If it is not feasible to avoid the nesting bird season (typically January through July for raptors and February through August for other avian species), a qualified biologist shall conduct a pre-construction nesting bird survey for avian species to determine the presence/absence, location, and status of any active nests on or directly adjacent to the Project site. If active nests are located, the extent of the survey buffer area surrounding the nest should be established by the qualified biologist to ensure that direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the MBTA and the CFGC, the nesting bird survey shall occur no earlier than seven (7) days prior to the commencement of construction.

In the event that active nests are discovered, a suitable buffer (distance to be determined by the biologist) shall be established around such active nests, and no construction within the buffer allowed, until the biologist has determined that the nest(s) is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest).

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Cultural Resources – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☒	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☐	☒	☐
c) Disturb any human remains, including those outside of formal cemeteries?	☐	☒	☐	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Conservation Element
    b. Appendix D: Cultural Resources
2. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    a. 3.5 – Cultural Resources
3. Title 16 – Development Code of the Hesperia Municipal Code
    a. Section 16.12.150 Application for planned development
4. Cultural and Paleontological Resources Assessment for Palmetto Way Industrial Building Project, City of Hesperia, San Bernardino County, California. Duke Cultural Resources Management, LLC. September 23, 2022. (Appendix D)

Discussion of Impacts

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant in §15064.5 of the CEQA Guidelines?

Less than Significant Impact: A Cultural and Paleontological Resources Assessment was prepared by Duke Cultural Resources Management, LLC (Duke CRM) dated September 23, 2022 (Appendix D). On September 12, 2022, Duke CRM staff performed a records search. The records search included a review of all recorded cultural resources within a ½ mile radius of the Project, as well as a review of known cultural resource survey and excavation reports. The records search identified three (3) cultural resources within ½ mile of the Project, none of which are located within the current Project area. Resource P-36-0021351 is the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR)-eligible California Aqueduct, located 670 feet from the southwest corner of the Project. Resource P-36-021288, located 2,400 feet northeast of the Project area, is a mid-20th century trash deposit consisting primarily of cans for which CRHR eligibility has not been determined. P-36-021366 is a mid-20th century trash scatter for which CRHR eligibility has not been determined.

On July 27, 2022, Duke CRM archaeologist conducted an intensive pedestrian field survey of the Project area. No cultural or paleontological resources were observed during the field survey. The Project site consisted of little to no vegetation with scattered debris and a motocross track established on the eastern half of the Project area. As a result of negative findings during the South Central Coastal Information Center (SCCIC) records search and field survey, Duke CRM finds that the Project has a low potential to impact cultural resources.

The Project site is currently vacant and there are no known historically or culturally significant resources, structures, buildings, or objects located within the Project area. The Project site does not contain any previously recorded cultural and/or paleontological resources. In addition, the property has been disturbed by grading and motor vehicle use on the site. Thus, the Project site would not cause an adverse change in the significance of a historical resource and impacts to historic resources would be less than significant.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the CEQA Guidelines?

Less than Significant Impact with Mitigation Incorporated: As concluded in the Cultural and Paleontological Resources Assessment prepared by Duke CRM (Appendix D), the Project area does not contain previously recorded cultural and/or paleontological resources. In addition, the property has been disturbed by grading and motor vehicle use on the site. Although, it is not anticipated that unknown cultural resources exist on-site, Mitigation Measure **CUL-1** is identified to ensure that in the event that unanticipated resources are encountered during grading activities, potential impacts would remain less than significant. In the event archeological resources are discovered, grading activities must cease, a qualified archeologist must be consulted, and all discoveries must be documented accordingly. Implementation of the Project is not anticipated to result in a substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5 of the CEQA Guidelines. A less than significant impact with mitigation incorporated would occur.

c) Disturb any human remains, including those outside of formal cemeteries?

Less than Significant Impact with Mitigation Incorporated: Duke CRM conducted a review of online historical aerial photographs and historical USGS quad maps utilizing University of California, Santa Barbara Frame Finder, historicaerials.com, and USGS Historical Topographic Map Explorer. Review of the images dating back to 1902 did not identify possible formal or informal cemeteries in the area. Therefore, a low likelihood exists that human remains could be uncovered during ground-disturbing activities. However, these findings do not preclude the existence of previously unknown human remains located below the ground surface, which may be encountered during construction excavations associated with the proposed Project. As a result, Mitigation Measure **CUL-1** has been identified to reduce potentially significant impacts to previously unknown human remains that may be unexpectedly discovered during project implementation to a less than significant level. Consistent with State law, if at any time during grading human remains are found, the Project is to be conditioned to halt work and contact the San Bernardino County Coroner's Office. Based on compliance with existing regulations and the implementation of Mitigation Measure **CUL-1**, the Project's potential to disturb human remains is considered less than significant with mitigation.

Mitigation Measures

Mitigation:

(b,c)

CUL-1: Inadvertent Finds

In the event that cultural resources are discovered during Project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease. A qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards shall be retained to assess the significance of the find. Work may continue on other portions of the Project site outside the buffered area during this assessment. If the discovery is determined to be of Native American origin, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as outlined in TCR-1, and provided information following the archaeologist's initial assessment to allow for Tribal input on the significance and recommended treatment of the resource.

CUL-2: Monitoring Plan

If significant pre-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

CUL-3: Human remains discovery

If human remains or funerary objects are encountered, all work shall stop in the area (within a 100-foot buffer of the find) and the County Coroner must be notified immediately in accordance with California Health and Safety Code Section 7050.5. No further disturbance shall occur until the Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be prehistoric, the Coroner shall notify the Native American Heritage Commission (NAHC), which will identify and notify the Most Likely Descendant (MLD). With permission of the landowner or authorized representative, the MLD may inspect the site and shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of the remains and any associated items.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. Energy – Would the project:				
a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☒	☐
b) Conflict with or obstruct a State or Local plan for renewable energy or energy efficiency?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Conservation Element
2. City of Hesperia Climate Action Plan, July 20, 2010.
3. Amargosa and Palmetto High-Cube Warehouse Energy Analysis City of Hesperia. Urban Crossroads, Inc. February 1, 2023. (Appendix E)

Discussion of Impacts

a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact: The proposed Project would impact energy resources during construction and operation. The construction activities for the Project would include site preparation, grading, building construction, paving, and architectural coating. The Project would consume energy resources during construction in three (3) general forms:

1. Petroleum-based fuels used to power off-road construction vehicles and equipment on the Project site, construction worker travel to and from the Project site, as well as delivery and haul truck trips (e.g., hauling of demolition material to off-site reuse and disposal facilities);
2. Electricity associated with the conveyance of water that would be used during Project construction for dust control (supply and conveyance) and electricity to power any necessary lighting during construction, electronic equipment, or other construction activities necessitating electrical power; and,
3. Energy used in the production of construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Urban Crossroads prepared an Energy Analysis dated February 1, 2023, to quantify anticipated energy usage associated with construction and operation of the Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

Construction Related Impacts

Construction of the Project would result in fuel consumption from construction tools and equipment, vendor and haul truck trips, and vehicle trips generated from construction workers traveling to and from the site. Construction activities and corresponding fuel energy consumption would be temporary and localized. Construction equipment used by the Project would result in single event consumption of approximately 41,845 gallons of diesel fuel (Appendix E). There are no unusual Project characteristics that would cause construction equipment to be less energy efficient compared with other similar construction sites in other parts of the State. Additionally, Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

Operational Related Impacts

Project facility operational energy demands are estimated at 9,499,636 kBTU/year of natural gas and 2,457,929 kWh/year of electricity. Natural gas would be supplied to the Project by SoCalGas, and electricity would be supplied by SCE. The Project proposes conventional industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other industrial uses of similar scale and configuration.

The Project includes the implementation of sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. In compliance with the California Green Building Standards Code and City requirements, the Project would promote the use of bicycles as an alternative means of transportation by providing short-term and/or long-term bicycle parking accommodations. Additionally, the Project will comply with the applicable Title 24 standards. Compliance itself with applicable Title 24 standards will ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

As supported by the preceding, Project construction and operations would not result in the inefficient, wasteful, or unnecessary consumption of energy. Further, based on the results of the Energy Analysis, the energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy-producing or energy transmission facilities. The Project would not create or otherwise result in a potentially significant impact affecting energy resources or energy delivery systems, a less than significant impact would occur.

b) Conflict with or obstruct a State or Local plan for renewable energy or energy efficiency?

Less Than Significant Impact: The applicable state plans that address renewable energy and energy efficiency are CALGreen, the California Energy Code, and California's Renewable Portfolio Standard. Under the California Renewables Portfolio Standard, the State of California is transitioning to renewable energy through the California's Renewable Energy Program. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. Electricity production from renewable sources is generally considered carbon neutral. Executive Order S-1408, signed in November 2008, expanded the state's renewable portfolios standard (RPS) to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Senate Bill 350 (de Leon) was signed into law September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45

percent by 2027, and 50 percent by 2030. Senate Bill 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures. On September 10, 2018, Governor Brown signed SB 100, which supersedes the SB 350 requirements. Under SB 100, the RPS for public owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Additionally, SB 100 also established a new RPS requirement of 50 percent by 2026. The bill also established a state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under SB 100 the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

The statewide RPS goal is not directly applicable to individual development projects, but to utilities and energy providers such as SCE, which is the utility company that would provide all electricity needs for the Project. Additionally, the Project would comply with the Building Energy Efficiency Standards (Title 24) and CALGreen. Therefore, implementation of the Project would not conflict or obstruct plans for renewable energy. Thus, a less than significant impact would occur.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. Geology and Soils– Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☒	☐
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) 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?	☐	☒	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Safety Element

2. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    a. 3.6 – Geology and Soils
3. Cultural and Paleontological Resources Assessment for Palmetto Way Industrial Building Project, City of Hesperia, San Bernardino County, California. Duke Cultural Resources Management, LLC. September 23, 2022. (Appendix D)
4. Geotechnical Investigation Proposed Warehouse NWC Palmetto Way and Amargosa Road Hesperia, California. Southern California Geotechnical, Inc. July 18, 2022. (Appendix F)

Discussion of Impacts

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Refer to Division of Mines and Geology Special Publication 42.

Less than Significant Impact: The Alquist-Priolo Earthquake Fault Zoning Act (Act) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act requires the State Geologist to establish regulatory zones, known as "Alquist-Priolo (AP) Earthquake Fault Zones," around the surface traces of active faults and to issue appropriate maps. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault (typically 50 feet).

Neither the site nor any area within the jurisdictional boundaries of the City are within an Alquist-Priolo Earthquake Fault Zone. The Project site is not included within any Earthquake Fault Zones as created by the Alquist-Priolo Earthquake Fault Zoning Act. A Geotechnical Investigation was prepared by Southern California Geotechnical (SCG), dated July 18, 2022. SCG did not identify any evidence of faulting during geotechnical investigations. Additionally, the San Andreas Fault is the closest identified Alquist-Priolo Earthquake Fault Zone to the Project site, approximately 12 miles southeast of the site. As there are no known faults located on the Project site and there is no evidence of faulting, the potential for the proposed Project to expose people or structures to adverse effects related to ground rupture is nil. Therefore, a less than significant impact would occur.

ii. Strong seismic ground shaking?

Less than Significant Impact: The Project site is located in a seismically active area of southern California and is expected to experience moderate to severe ground shaking during the lifetime of the Project. However, as stated under section (i) above, the Project site is not located within an Alquist-Priolo Earthquake Fault Zone. The ground shaking risk is not considered substantially different than that of other properties within the City. As a mandatory condition of Project approval, the City will require that the proposed structures be constructed in accordance with the 2019 California Building Code (CBC), Title 24, and the City Building Code, which are

designed to preclude significant adverse effects associated with strong seismic ground shaking. The future buildings and workers on the Project site have the potential to be exposed to strong seismic ground shaking associated with seismic events. Adherence to the recommendations outlined in the City's General Plan and Municipal Code, as well as conditions of approval and the 2019 California Building Code (CBC) Guidelines that are currently adopted by the City, will ensure potential impacts related to strong seismic shaking are less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less than Significant Impact: Liquefaction is a phenomenon associated with shallow groundwater combined with the presence of loose, fine sands, and/or silts within a depth of 50-feet below grade or less. Liquefaction occurs when saturated, loose, fine sands and/or silts are subjected to strong ground shaking resulting from an earthquake event. Due to the increasing overburden pressure with depth, liquefaction of granular soils is generally limited to the upper 50 feet of a soil profile. Increasing duration of the ground shaking during a seismic event can also increase the potential for liquefaction.

Based on review of the City's General Plan Seismic Hazard Zones map, the Project site is not located within a designated zone of liquefaction susceptibility. Additionally, the site is underlain by moderate to high strength alluvium, and the lack of a historic high groundwater table within the upper 50± feet. Therefore, liquefaction is not considered to be a design concern for the Project (Appendix F), a less than significant impact would occur.

iv. Landslides?

Less than Significant impact: Seismically induced landslides and slope failures are common occurrences during or soon after large earthquakes. According to City's General Plan Seismic Hazard Zones map, the Project site is not located within an area that has potential for earthquake-induced landslides. Additionally, the Project site and surrounding areas are relatively flat. Project implementation would not directly or indirectly induce risk of landslide, a less than significant impact would occur.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact: Construction activities associated with the Project would involve earth movement and the exposure of soil, which would temporarily increase erosion susceptibility. In the long-term, development of the subject property would increase impervious surface cover and permanent landscaping on the Project site, thereby reducing the potential for erosion and loss of topsoil that currently occurs. The Project would be required to adhere to standard regulatory requirements, including, but not limited to, requirements of the City's National Pollutant Discharge Elimination System (NPDES) Construction General Permit, which requires adoption of an appropriate Storm Water Pollution Prevention Plan (SWPPP) and implementation of Best Management Practices (BMPs) to reduce erosion from storm water runoff. Based on the preceding, potential impacts associated with erosion or changes in topography, including loss of topsoil are considered less than significant.

c) Would the project 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?

Less than Significant Impact with Mitigation Incorporated: Based on a lack of documentation regarding the placement and compaction of the existing fill materials, the soils of the Project site are considered to consist of undocumented fill. Therefore, the fill soils in their present condition are not suitable for the support of the foundation loads of the proposed building. The fill soils are underlain by native alluvium which possesses varying strengths and densities. The results of laboratory testing indicate that the near-surface soils within the upper 5 to 6± feet possess a potential for moderate to severe collapse when exposed to moisture infiltration as well as moderate consolidation when exposed to load increases in the range of those that will be exerted by the new foundations (Appendix F).

The Project will be required to comply with all requirements and recommendations outlined in the Geotechnical Investigation prepared by Southern California Geotechnical, as required by Mitigation Measure **GEO-1**. Furthermore, the Project will comply with all applicable provisions of the Uniform Building Code (UBC) and California Building Code (CBC) that would act to minimize any unstable soils or unstable geologic units that may be encountered. On this basis, the potential for the Project to be located on a geologic units or soil that is unstable, or that would become unstable as a result of the Project and potentially result in on- or off-site landslides, lateral spreading, subsidence, liquefaction or collapse is less than significant with mitigation incorporated.

d) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

Less than Significant Impact: Expansive soils contain significant amounts of clay particles that swell considerably when wet and shrink when dry. Foundations constructed on these soils are subject to uplifting forces caused by swelling. Without proper mitigation measures, heaving and cracking of both building foundations and slabs-on-grade could result. Laboratory testing performed on a representative sample of the near surface soils indicates that these materials are considered to be non-expansive. Therefore, no design considerations related to expansive soils are considered warranted for the Project site (Appendix F). The subsurface soils at the site are considered non-expansive and a less than significant impact would occur.

e) Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste-water disposal systems where sewers are not available for the disposal of waste water?

No Impact: The Project site is serviced by the City of Hesperia Water District for potable water and sewage. The Project does not propose to utilize a septic tank or alternative wastewater disposal system. Therefore, no impact will occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant Impact with Mitigation Incorporated: A Cultural and Paleontological Resources Assessment was prepared by Duke Cultural Resources Management, LLC (Duke CRM) dated September 23, 2022 (Appendix D). Duke CRM requested that the Western

Science Center (WSC) perform a paleontological records search for known fossil localities within, and in the vicinity of, the Project site. On May 27, 2022, the WSC found that there have been no paleontological resources discovered within the Project area or within a one (1) mile search radius. However, significant fossils have been discovered in similar sediments in other areas of southern California.

The Project is located on Pleistocene age (Qa) sediments. Research indicates that there is a high sensitivity for paleontological resources in the old alluvial deposits that underlie the Project site. Therefore, significant and unique paleontological resources may be impacted by the Project during earth disturbing activities in this area. Mitigation Measure **GEO-2** will ensure that paleontological monitoring is conducted where ground disturbance exceeds four (4) feet below surface within the Project site, which reduces the potential for impacts to paleontological resources to a level that is less than significant under CEQA.

Mitigation Measures

Mitigation:

VII. (c)

GEO-1: **Grading and Construction**
The Project shall incorporate the recommendations provided in the Geotechnical Investigation prepared by Southern California Geotechnical, dated July 18, 2022 (Appendix F). The recommendations are presented in the following sections of the report: Site Grading Recommendations, Construction Considerations, Foundation Design and Construction, Floor Slab Design and Construction, Retaining Wall Design and Construction, and Pavement Design Parameters.

(f)

GEO-2: **Paleontological Monitoring**
A paleontological monitor shall be present during ground disturbing activities below four (4) feet in depth within the Project. The monitor shall work under the direct supervision of a qualified paleontologist (B.S./B.A. in geology, or related discipline with an emphasis in paleontology and demonstrated competence in paleontological research, fieldwork, reporting, and curation).

1. The qualified paleontologist shall be on-site at the pre-construction meeting to discuss monitoring protocols.
2. The paleontological monitor shall be present full-time during ground disturbance below 4 feet in depth within the Project, including but not limited to grading, trenching, utilities, and off-site easements. If, after excavation begins, the qualified paleontologist determines that the sediments are not likely to produce fossil resources, monitoring efforts shall be reduced.
3. The monitor shall be empowered to temporarily halt or redirect grading efforts if paleontological resources are discovered.
4. In the event of a paleontological discovery the monitor shall flag the area and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area.

5. In consultation with the qualified paleontologist, the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant it shall be quickly mapped, documented, removed, and the area cleared.
6. If the discovery is significant the qualified paleontologist shall notify the CLIENT and CITY immediately.
7. In consultation with the CLIENT and CITY the qualified paleontologist shall develop a plan of mitigation which will likely include full-time monitoring, salvage excavation, scientific removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. Greenhouse Gas Emissions – Would the project:				
a) Generate greenhouse gas emissions either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Conservation Element
2. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    a. 3.17 – Greenhouse Gases
3. California's 2017 Climate Change Scoping Plan, prepared by the California Air Resources Board, November 2017. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf
4. City of Hesperia Climate Action Plan, July 20, 2010. Accessed online at Microsoft Word - 23660023 Hesperia CAP.doc (cityofhesperia.us)
5. Amargosa and Palmetto High-Cube Warehouse Greenhouse Gas Analysis City of Hesperia. Urban Crossroads, Inc. February 1, 2023. (Appendix G)

Discussion of Impacts

a) Generate greenhouse gas emissions either directly or indirectly, that may have a significant impact on the environment?

Potentially Significant Impact: Urban Crossroads conducted a Greenhous Gas Analysis for the proposed Project, dated February 1, 2023. The analysis provides the estimated GHG emissions that will result from Project construction and operation. Construction related GHG emissions are quantified and amortized over the life of the Project, which is identified as a 30-year period, in accordance with the MDAQMD which follows the South Coast Air Quality Management District (SCAQMD) recommendation. Project operational emissions would consist of mobile source emissions, area source emissions, energy source emissions, on-site cargo handling equipment emissions, solid waste management, and water supply, treatment, and distribution.

On July 20, 2010, the City of Hesperia adopted the Climate Action Plan (CAP), which provides a framework for reducing GHG emissions and managing resources to best prepare for a changing climate. The CAP recommends GHG emissions targets that are consistent with the reduction targets of the State of California and presents a number of strategies that will make it possible for the City to meet the recommended targets.

Prior to the implementation of current regulatory requirements, Project GHG emissions would total approximately 5,793.17 MTCO2e per year. However, after implementation of current regulatory requirements, Project GHG emissions would total approximately 4,894.17 MTCO2e per year. The Project GHG emissions estimates presented in Table 8-1 reflect contemporary GHG emissions regulatory actions enacted subsequent to adoption of the City's 2010 CAP. These regulatory actions (notably implementation of the Renewables Portfolio Standard) would yield an approximate 9% reduction in Project GHG emissions from sources other than vehicles. An additional 7% reduction in GHG emissions (primarily from vehicular/mobile sources) would be achieved through on-going implementation of the Pavley Fuel Efficiency Standards. These measures, which are not reflected in the CAP, would reduce Project GHG emissions by approximately 16% (Appendix G).

Table 9-1 Project Net Greenhouse Gas Emissions with Implementation of Current Regulatory Requirements

Source	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	R	Total CO_2E
Annual construction-related emissions amortized over 30 years	28.93	1.00E-03	1.33E-03	2.50E-02	29.37
Mobile Source	2,895.00	0.06	0.25	4.43	2,975.00
Area Source	7.30	< 0.005	< 0.005	0.00	7.51
Energy Source	893.00	0.08	0.01	0.00	896.00
Water Source	146.00	3.77	0.09	0.00	267.00
Waste Source	41.91	4.19	0.00	0.00	147.00
On-Site Equipment Source	0.00	0.00	0.00	0.00	572.30
Total CO_2E (All Sources)	**4,894.17**				

The Project has the potential to generate a total of approximately 4,894.17 MTCO2e/yr, after control measures as summarized on Table 8-1, and meets the City's CAP target of a 12% reduction. While the City has not formally adopted a numeric significance threshold, it has previously relied on the SCAQMD-recommended threshold of 3,000 MTCO2e per year to evaluate whether a project may result in a significant GHG impact under CEQA. The SCAQMD, as the expert air quality agency in Southern California, provides substantial evidence that this threshold is consistent with State policy goals and 2050 GHG reduction targets, capturing approximately 90% of emissions from similar land uses, consistent with Executive Order S-3-05's goal of reducing GHG emissions to 80% below 1990 levels by 2050. This threshold applies to residential, commercial, and industrial projects, including warehouses and industrial parks (SCAQMD 2008).

Because the Project's estimated GHG emissions (4,894.17 MTCO2e per year) exceed the SCAQMD 3,000 MTCO2e/year threshold, the Project would be considered to have the potential to result in a significant GHG impact. This impact will be further analyzed in the Draft Environmental Impact Report (DEIR), and Appendix G will be updated to include detailed SCAQMD threshold analyses. Compliance with the CAP, while reducing emissions, does not eliminate the need for this additional analysis.

An individual project cannot generate enough GHG emissions to influence global climate change. The project participates in this potential impact by its incremental contribution combined with the cumulative increase of all other sources of GHGs, which when taken together may have a significant impact on global climate change... The project exceeds the SCAQMD thresholds and therefore impacts are potentially significant and will be studied further in the Project's EIR.

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Potentially Significant Impact: The Project exceeds the SCAQMD-recommended threshold of 3,000 MTCO2e per year. Therefore, the Project has the potential to result in a significant GHG impact. This impact will be further analyzed in the Draft Environmental Impact Report (DEIR), and the Greenhouse Gas Analysis (Appendix G), will be updated to include a detailed analysis of the Project relative to the SCAQMD threshold.

Mitigation Measures

Mitigation:

Mitigation measures will be evaluated in the Project's DEIR.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
X. Hazards and Hazardous Materials – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) 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?	☐	☐	☐	☒
e) 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?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Safety Element
2. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.

a. 3.7 – Hazards and Hazardous Materials
3. Hazard Mitigation Plan, City of Hesperia, 2017. Accessed online at 2017-Hazard-Mitigation-Plan (cityofhesperia.us)
4. City of Hesperia Emergency Plan, September 12, 2008. Accessed online at Microsoft Word - 2008 EOP.docx (cityofhesperia.us)
5. Envirostor, Department of Toxic Substances Control, 2019. https://www.envirostor.dtsc.ca.gov/public/
6. Heliports in California, United States of America. Accessed online on January 11, 2023 https://www.airnav.com/airports/us/CA?type=H&use=R
7. FHSZ Viewer, The California Department of Forestry and Fire Protection's Fire and Resource Assessment Program (FRAP), accessed January 11, 2023. https://egis.fire.ca.gov/FHSZ/

Discussion of Impacts

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less than Significant Impact: Project implementation would not cause routine transport, use, or disposal of hazardous materials. However, equipment used and stored at the site during Project construction and operation will utilize substances considered to be hazardous by regulatory bodies, such as diesel fuel and gasoline. These types of materials are not acutely hazardous, and all storage, handling, use, and disposal of these materials are regulated by federal and state requirements. Project construction and operational activities are required to strictly adhere to federal and state requirements. The use, transport, storage, and disposal of hazardous materials must comply with existing regulations established by several agencies, including the Department of Toxic Substances Control (DTSC), the U.S. Environmental Protection Agency (EPA), the US Department of Transportation (USDOT), the Occupational Safety & Health Administration (OSHA), the California Code of Regulations (CalOSHA), and the state Unified Hazardous Waste and Hazardous Materials Management Regulatory Program. The amount of hazardous material discharge during construction is expected to be less than significant, and the Project would be required to comply with applicable laws, ordinances, and procedures. Thus, Project impacts would be less than significant.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact: As discussed in Section IX(a), any handling activities associated with hazardous or potentially hazardous materials would comply with all applicable federal, state, and local agencies and regulations. Both short-term construction and long-term operation of the proposed Project would comply with all applicable federal, State, and local agencies and regulations with the policies and programs established by agencies such as the EPA, Department of Transportation, Department of Toxic Substances Control, Cal/OSHA, Resource Conservation and Recovery Act (RCRA), and the state Unified Hazardous Waste and Hazardous Materials Management Regulatory Program. Adherence to the applicable policies and programs of these agencies would

ensure that any transport or interaction with hazardous materials would occur in the safest possible manner, reducing the opportunity for the accidental release of hazardous materials into the environment. Any handling of hazardous materials would be limited in both quantities and concentrations. Based on the preceding, impacts would be less than significant.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact: The closest schools to the Project site are Topaz Preparatory Academy approximately 1.0 mile east of the site, Mirus Secondary School approximately 1.3 miles southeast of the site, and Maple Elementary School approximately 1.5 miles northeast of the site. As previously discussed, handling activities associated with hazardous or potentially hazardous materials would comply with all applicable federal, state, and local agencies and regulations. Project construction and operation is anticipated to handle and use diesel fuel and gasoline. Any handling of hazardous materials would be limited in both quantities and concentrations. Given that there are no schools within one-quarter mile of the proposed Project, no impact would occur.

d) 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?

No Impact: Government Code Section 65962.5 describes that before an application for a development project is completed, the Applicant and/or Lead Agency shall indicate whether the site is included on any of the lists compiled pursuant to that section and identify which list(s). According to the Cortese List (DTSC, EnviroStor 2019), the Project site is not included on a list of hazardous materials sites. Nor are there any hazardous materials sites listed in the vicinity of the Project site. Therefore, the proposed Project would not create a significant hazard and no impact would occur.

e) 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?

No Impact: The nearest airport is Hesperia Airport approximately 5.3 miles southeast of the site. The Project site is not within an airport influence area or safety zone. Given the Project site's distance from any airport, the Project will not create a safety hazard or excessive noise for people residing or working in the Project area. Thus, no impact would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact: The City adopted its Hazard Mitigation Plan (HMP) in 2017. The HMP requires the proposed Project to comply with the City's Emergency Operations Plan. The Project site and immediate surroundings do not contain emergency shelters or facilities. Additionally, the Project does not involve construction or operational

characteristics which would interfere or impact emergency response or evacuation of the Project site or immediate surrounding area. Egress and ingress to the Project site will be maintained and circulation on-site is provided to comply with County and City requirements. Therefore, potential impacts to the implementation of or physical interference with an adopted emergency response plan or emergency evacuation plan would be less than significant and no mitigation would be required.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant Impact: Impacts associated with wildland fires are also addressed in Section XX, *Wildfire,* of this Initial Study. The potential for wildland fires represents a hazard, particularly within areas adjacent to open space or within close proximity to wildland fuels. The proposed Project would remove the sparse desert vegetation that currently occupies the Project site. Additionally, the Project would comply with the California Fire Code. The San Bernardino County Fire Station 305 is located approximately 2.7 southwest of the Project site. Compliance with the San Bernardino County Fire Department's regulations and policies would ensure that the Project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires. Impacts would be less than significant.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. Hydrology and Water Quality – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) 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:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) 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	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Conservation Element
    b. Open Space Element
    c. Safety Element
2. Hesperia Main Street and Freeway Corridor Specific Plan, amended July 15, 2021.

a. Chapter 14 Open Space and Streetscape Improvements
3. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    a. 3.8 – Hydrology and Water Quality
4. Title 16 – Development Code of the Hesperia Municipal Code
    a. Section 16.40.050 Drainage and runoff control
5. FEMA Flood map Service Center, Federal Emergency Management Agency. Accessed January 13, 2023.
6. Hesperia Spec. Industrial, Industrial Buildings City of Hesperia, CA Preliminary Hydrology Report. WestLAND Group, Inc. July 2022. (Appendix H)
7. Conceptual Water Quality Management Plan for Hesperia Spec Industrial. WestLAND Group, Inc. July 13, 2022. (Appendix I)

Discussion of Impacts

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less than Significant Impact: In order to comply with the New Development and Redevelopment Standards of the Mojave River Watershed NPDES Permit (Phase II Small MS4 General Permit), a Conceptual Water Quality Management Plan (WQMP) was prepared by WestLAND Group, dated July 13, 2022 to determine the best capability of the Project to use BMPs to manage and capture stormwater runoff. With the implementation of the Stormwater Quality Control Measures outlined in the WQMP as approved by the City, the volume of stormwater runoff and potential pollution loads in stormwater runoff will be reduced to the maximum extent possible. The WQMP describes spill prevention, control and cleanup BMPs which reduce the potential for soil contamination and/or groundwater contamination.

Additionally, WestLAND Group prepared a Hydrology Report dated July 2022. The purpose of the Hydrology Report is to identify the mitigation measures that must be implemented during final design in order to ensure that the project does not have adverse impacts to downstream properties. Based on the report, the Project includes a combination of an at grade detention basin and underground infiltration basin to treat stormwater runoff. The proposed development provides enough volume to capture the entire runoff volume generated from a 100-year storm event and does not release any runoff off-site for up to a 100-year storm event. The Project conforms with conditions related to water quality standards and waste discharge requirements to reduce the potential to substantially degrade surface or groundwater quality. Thus, a less than significant impact would occur.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less than Significant Impact: The Project site is serviced by the Hesperia Water District. Water supply is obtained entirely from groundwater located in the Alto Sub-Basin of the Mojave River Watershed and groundwater aquifer. The City's municipal water system extracts its water supply from the underground aquifers through 18 active groundwater wells located throughout the City. According to the Hesperia Water District 2020 Urban Water Management Plan (UWMP), Hesperia has reliable supplies to meet its retail customer demands in normal, single dry years, and five consecutive dry year conditions through 2045.

Development of the proposed Project would increase the amount of impervious surface on-site which could reduce the amount of water percolating down into the underground aquifer that underlies the Project site and a majority of the City. However, the Project's proposed drainage system implements the BMPs provided in the Hydrology Report and WQMP to ensure that Project impacts are less than significant.

c) 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:

i) result in substantial erosion or siltation on- or off-site;

Less than Significant Impact: The proposed Project would not alter the existing drainage pattern of the site or area in a manner which would result in substantial erosion or siltation on- or off-site. Project flows are collected through the nearest catch basin which is conveyed to infiltration/retention basins via a storm drain system. The storm drain system is designed to efficiently direct flow into infiltration/detention basins, as well as a single underground infiltration basin. The proposed Project conveys flows into the underground infiltration system and when filled, flows will be conveyed into the infiltration/retention basin. The proposed development provides enough volume to capture the entire runoff volume generated from a 100-year storm event and does not release any runoff off-site for up to a 100-year storm event (Appendix I). Therefore, a less than significant impact would occur.

ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; or

Less than Significant Impact: As indicated in section i) above, the proposed Project includes a combination of above ground and underground infiltration/retention basins to capture Project runoff. Therefore, Project implementation would have a less than significant impact on surface runoff both on- and offsite.

iii) 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?

Less than Significant Impact: The Project proposes enough volume to capture the entire runoff volume generated from a 100-year storm event and will not release any runoff off-site for up to a 100-year storm event. To store the volume, the development proposes a combination of above ground and underground infiltration/retention basins. Since the development will not release runoff off-site, the development will not negatively impact downstream conditions (Appendix H). Therefore, Project impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

No Impact: The Project site is not located in a flood hazard, tsunami, or seiche zone. The Pacific Ocean is located over 70 miles southwest of the Project site. Consequently, there is no potential for tsunamis to impact the Project. In addition, no steep hillsides subject to mudflow are located on or near the Project site. According to the City's General Plan, the Project site is not located within a dam inundation area and there is

no levee located within the vicinity of the Project site. There is no potential for inundation. Accordingly, the Project site has no potential to be impacted by seiches, mudflows, and/or tsunamis. No impact would occur.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact: A WQMP and Hydrology Report were prepared by WestLAND Group to determine the best capability of the Project to use BMPs to manage and capture stormwater runoff. With the implementation of the Stormwater Quality Control Measures outlined in the WQMP and Hydrology Report as approved by the City, the volume of stormwater runoff and potential pollution loads in stormwater runoff will be reduced to the maximum extent possible. The Project is designed to meet City regulations regarding construction and operation for the Project. Thus, the Project will comply with City water quality control plans and sustainable groundwater management plans to reduce impact to a less than significant impact level.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. Land Use and Planning – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) 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?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Land Use Element
2. Hesperia Main Street and Freeway Corridor Specific Plan, amended July 15, 2021.
    a. Chapter 5 Land Use Districts
3. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    a. 3.9 – Land Use Planning

Discussion of Impacts

Would the project:

a) Physically divide an established community?

No Impact: According to the City's General Plan, the Project site is designated as Regional Commercial (RC) and the proposed land use designation is Commercial/Industrial Business Park (CIBP). The Project site is currently vacant, and the surrounding areas include vacant land and residential uses to the north, vacant land and a utility building to the west, Amargosa Road and I-15 Freeway to the east, and a distribution warehouse to the south. Therefore, no established communities exist within the Project site, nor does the Project propose or require elements or operations that would divide an off-site community. Based on the preceding, the Project would not physically divide an established community and no impact would occur.

b) 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?

Less Than Significant Impact: The General Plan land use designation for the Project site is Regional Commercial (RC) and the proposed land use designation is Commercial/Industrial Business Park (CIBP). The Project is consistent with the land use designation of CIBP (with approval of a Conditional Use Permit, as discussed below). Approval of the proposed Specific Plan Amendment would eliminate any potential inconsistency between the proposed Project and the site's existing land use designation.

As the City's General Plan Land Use Map and the Zoning Map are the same, the existing zoning designation for the Project site is Regional Commercial (RC) and the proposed zoning designation is Commercial/Industrial Business Park (CIBP). Therefore, approval of the proposed Zone Change would eliminate any potential inconsistency between the proposed Project and the site's existing zoning (with approval of a Conditional Use Permit, as discussed below).

Among the permitted uses in the CIBP zone, warehousing and wholesale distribution centers are permitted at 200,000 square feet or less. Warehouses and wholesale distribution centers over 200,000 square feet are conditionally permitted. The Specific Plan states that the maximum gross floor area ratio in CIBP zone is 0.50. Additionally, maximum building height within the zone is 60 feet with the exception that building heights shall be limited to 45 feet within the portion of the site that falls within 100 feet of an adjacent residential zone. For properties that are located west of the Interstate 15, building height is limited to 60 feet at the front setback line, thereafter, height may be increased at the rate of 1 foot in height for every additional 3-foot increase in the front yard setback, up to a maximum building height of 150 feet (City of Hesperia 2021).

The Applicant proposes to construct up to a 499,714 square-foot industrial building and associated improvements, including loading docks, tractor-trailer stalls, passenger vehicle parking spaces, stormwater facilities, sidewalks, and landscape area, which would require a Conditional Use Permit. As part of the Project approvals, the Project Applicant is requesting approval of a Conditional Use Permit. Assuming that the City's decisionmakers approve the Conditional Use Permit, the Project would be an allowable use within the CIBP zone. Additionally, the Project plans would be reviewed by City staff to ensure consistency with all applicable development standards and regulations. Therefore, implementation of the proposed Project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation, a less than significant impact would occur.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. Mineral Resources – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) 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?	☐	☐	☐	☒

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Open Space Element
2. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    b. 3.10 – Mineral Resources
3. California Department of Conservation, Mineral Land Use Classification. Accessed January 16, 2023.

Discussion of Impacts

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

b) 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?

a-b) No Impact: According to the California Department of Conservation, Mineral Land Classification map, the Project site is part of the 1993 Open File Report (OFR) 92-06 and the 1994 OFR 94-07. However, the Project site is not located within an area known to be underlain by regionally- or locally-important mineral resources, as disclosed by the City's General Plan and the associated General Plan DEIR (City of Hesperia, 2010, p. 3.10-3). Furthermore, the Project site is not located in a Significant Mineral Aggregate Resource Area (SMARA). Accordingly, implementation of the proposed Project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the State of California. Additionally, there are no resource recovery sites delineated within the City boundaries, Project vicinity, or surrounding areas. Therefore, the proposed Project would not result in the loss of availability of locally important mineral resources and no impact would occur.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. Noise – Would the project result in:				
a) 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?	☐	☐	☒	☐
b) Generation of 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?	☐	☐	☐	☒

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Noise Element
2. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    a. 3.11 – Noise
3. Title 16 – Development Code of the Hesperia Municipal Code
    a. Section 16.20.125 Noise
4. Amargosa and Palmetto High-Cube Warehouse Noise Impact and Vibration Analysis City of Hesperia. Urban Crossroads, Inc. January 27, 2023. (Appendix J)

Discussion of Impacts

Would the project result in:

a) 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?

Less than Significant Impact: The Project includes approximately 10,000 square feet of office space, 489,714 square feet of industrial/warehouse space, and 255,000 square feet of landscape improvements. In total, the proposed Project includes 72 loading dock positions, 256 tractor-trailer stalls, and 251 passenger vehicle parking spaces. The Project will produce noise levels that are associated with construction and industrial activities. Urban Crossroads prepared a Noise Impact and Vibration Analysis dated January 27, 2023

(Appendix J). The Noise Impact and Vibration Analysis was prepared to satisfy applicable City of Hesperia standards and thresholds of significance based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines.

Construction Related Impacts:
The City's Municipal Code Section 16.20.125, *Noise,* states that construction activities are limited to the hours of 7:00 a.m. to 7:00 p.m. on any day and at any time on Sundays and federal holidays. Neither the City of Hesperia General Plan or County Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts. The FTA considers a daytime exterior construction noise level of 80 dBA Leq as a reasonable threshold for noise sensitive residential land use (Appendix J).

Construction noise levels will vary due to each stage of construction requiring a specific equipment mix, depending on the work to be completed. As a result of the equipment mix, each stage has its own noise characteristics; some stages have higher continuous noise levels than others, and some have higher impact noise levels than others. Project construction activities are expected to occur in the following stages: site preparation, grading, building construction, paving, and architectural coating. Table 14-1 presents the combined noise levels for the loudest construction equipment, assuming they operate at the same time.

Table 14-1 Construction Reference Noise Levels

Construction Stage	Reference Construction Activity	Reference Noise Level @ 50 Feet (dBA L_{eg})	Combined Noise Level (dBA L_{eg})	Combined Sound Power Level (PWL)
Site Preparation	Crawler Tractors	78	80	112
	Hauling Trucks	72		
	Rubber Tired Dozers	75		
Grading	Graders	81	83	115
	Excavators	77		
	Compactors	76		
Building Construction	Cranes	73	81	115
	Tractors	80		
	Welders	70		
Paving	Pavers	74	83	115
	Paving Equipment	82		
	Rollers	73		
Architectural Coating	Cranes	73	77	109
	Air Compressors	74		
	Generator Sets	70		

As shown in Table 14-1 above, modeled unmitigated construction noise levels reached up 83 dBA Leq, assuming all equipment for the stage is utilized at the same time. To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA Leq is

used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA Leq significance threshold during Project construction activities with a maximum noise level of 59.7 dBA Leq, as shown on Table 14-2. Therefore, the noise impacts due to Project construction noise are considered less than significant at all receiver locations.

Table 14-2 Construction Level Compliance

Receiver Location	Construction Noise Levels (dBA L_{eg})		
	Highest Construction Noise Levels	Threshold	Threshold Exceeded?
R1	59.7	80	No
R2	59.5	80	No
R3	45.1	80	No
R4	47.1	80	No
R5	55.9	80	No

It is anticipated that nighttime concrete pouring activities will occur as a part of Project building construction activities. Nighttime concrete pouring activities are often used to support reduced concrete mixer truck transit times and lower air temperatures than during the daytime hours and are generally limited to the actual building pad area. Since the nighttime concrete pours will take place outside the permitted City of Hesperia Municipal Code, Section 16.20.125.E.3 hours of 7:00 a.m. to 7:00 p.m. on any day and at any time on Sundays and federal holidays, the Project Applicant will be required to obtain authorization for nighttime work from the City of Hesperia.

As shown on Table 14-3, the noise levels associated with the nighttime concrete pour activities are estimated to range from 29.9 to 47.3 dBA Leq at the nearest noise sensitive receiver locations and will satisfy the City of Hesperia 55 dBA Leq nighttime stationary-source exterior hourly average Leq residential noise level threshold at all the receiver locations. Based on the results of this analysis, all nearest noise receiver locations will experience less than significant impacts due to the Project related nighttime concrete pour activities.

Table 14-3 Nighttime Concrete Pour Noise Level Compliance

Receiver Location	Use	Construction Noise Levels (dBA Leq)		
		Paving Construction	Nighttime Threshold	Threshold Exceeded?
R1	Residence	47.3	55	No
R2	Residence	47.2	55	No
R3	Residence	29.9	55	No
R4	Residence	31.7	55	No
R5	Residence	40.3	55	No

Operation Related Impacts:

Potential noise impacts associated with the operations of the Project are a result of loading dock activity, trailer parking activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements. To present the potential worst-case noise conditions, this analysis provided below assumes the Project would be operational 24

hours per day, seven days per week. Consistent with similar warehouse and industrial uses, the Project business operations would primarily be conducted within the enclosed buildings, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays.

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. Table 14-4 presents the projected noise levels assuming the worst-case noise environment for loading dock activity, trailer parking activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements all operating at the same time.

Table 14-4 Operational Reference Noise Level Measurements

Noise Source	Noise Source Height (Feet)	Min./Hour		Reference Noise Level (dBA L_{eq}) @ 50 Feet	Sound Power Level (dBA)
		Day	Night		
Loading Dock Activity	8’	60	60	65.7	111.5
Trailer Parking Activity	8’	60	60	62.8	103.4
Roof-Top Air Conditioning Units	5’	39	28	57.2	88.9
Trash Enclosure Activity	5’	10	10	57.3	89.0
Parking Lot Vehicle Movements	5’	60	60	52.6	81.1
Truck Movements	8’	60	60	59.8	93.2

Using the reference noise levels to represent the proposed Project operations that include loading dock activity, trailer parking activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the receiver locations. To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Hesperia exterior noise level standards at nearby noise-sensitive receiver locations. Table 14-5 shows the operational noise levels associated with the Project will satisfy the City of Hesperia exterior noise level standards. Therefore, operational impacts are less than significant.

Table 14-5 Operational Noise Level Compliance

Receiver Location	Project Operational Noise Levels (dBA Leq)		Noise Level Standards (dBA Leq)		Noise Level Standards Exceeded?	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	45.9	45.9	60	55	No	No
R2	41.2	41.2	60	55	No	No
R3	37.6	37.5	60	55	No	No
R4	43.6	43.6	60	55	No	No
R5	47.7	47.7	60	55	No	No

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise sources. As indicated

on Table 14-6, the Project will generate daytime operational noise level increases ranging from 0.0 to 1.3 dBA Leq at the nearest receiver locations. Table 14-7 shows that the Project will generate a nighttime operational noise level increase ranging from 0.0 to 1.5 dBA Leq at the nearest receiver locations. The Project-related operational noise level increases will satisfy the operational noise level increase significance criteria. Therefore, the incremental Project operational noise level increase is considered less than significant at all receiver locations.

Table 14-6 Daytime Project Operational Noise Level Increases

Receiver Location	Total Project Operational Noise Level	Measurement Location	Reference Ambient Noise Levels	Combined Project and Ambient	Project Increase	Increase Criteria	Increase Criteria Exceeded?
R1	45.9	L1	61.0	61.1	0.1	5.0	No
R2	41.2	L2	55.6	55.8	0.2	5.0	No
R3	37.6	L3	58.6	58.6	0.0	5.0	No
R4	43.6	L4	62.7	62.8	0.1	5.0	No
R5	47.7	L5	52.3	53.6	1.3	5.0	No

Table 14-7 Nighttime Project Operational Noise Level Increases

Receiver Location	Total Project Operational Noise Level	Measurement Location	Reference Ambient Noise Levels	Combined Project and Ambient	Project Increase	Increase Criteria	Increase Criteria Exceeded?
R1	37.9	L1	65.7	65.7	0.0	1.5	No
R2	36.1	L2	55.2	55.3	0.1	5.0	No
R3	39.9	L3	43.2	44.9	1.7	5.0	No
R4	45.5	L4	45.8	48.7	2.9	5.0	No
R5	42.4	L5	50.8	51.4	0.6	5.0	No

Traffic generated by the operation of the proposed Project will influence the traffic noise levels in surrounding off-site areas and at the Project site. To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, Urban Crossroads developed noise contours based on the Amargosa and Palmetto High-Cube Warehouse Traffic Impact Analysis prepared by the Ganddini Group, Inc. (Appendix K). Noise contours were used to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels.

Opening Year (2024) without Project conditions exterior noise levels range from 60.9 to 78.2 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Opening Year (2024) with Project conditions will range from 65.0 to 78.2 dBA CNEL. Therefore, the Project off-site traffic noise level increases range from 0.0 to 4.1 dBA CNEL. Based on the significance criteria for off-site traffic noise, land uses adjacent to the study area roadway segments would experience less than significant noise level increases on receiving land uses due to the Project-related traffic.

Additionally, General Plan Buildout (2040) without Project exterior noise levels range from 67.6 to 78.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. General Plan Buildout (2040) with Project conditions will range from

77.1 to 80.5 dBA CNEL. Therefore, Project off-site traffic noise level increases range from 0.0 to 1.3 dBA CNEL. Based on the significance criteria for off-site traffic noise, land uses adjacent to the study area roadway segments would experience less than significant noise level increases on receiving land uses due to the Project-related traffic. Therefore, Project operational impacts would be less than significant.

b) Generation of excessive ground borne vibration or ground borne noise levels?

Less than Significant Impact:

Construction Effects:
Project construction can generate varying degrees of groundborne vibration, depending on the construction procedure and the construction equipment used. Operation of construction equipment generates vibrations that spread through the ground and dimmish in amplitude with distance from the source. The effect on buildings located in the vicinity depends on soil type, ground strata, and construction characteristics of receiver buildings. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at high levels. Ground-borne vibrations from construction activities rarely reach levels that damage structures.

At distances ranging from 71 to 1,263 feet from Project construction activities, construction vibration velocity levels range from 0.000 to 0.0.19 in/sec PPV. Based on maximum acceptable continuous vibration threshold of 0.2 PPV (in/sec), the typical Project construction vibration levels will fall below the building damage thresholds at all the noise sensitive receiver locations. Therefore, the Project-related vibration impacts are considered less than significant during typical construction activities at the Project site (Appendix J).

Ground-borne vibration decreases rapidly with distance. The vibration levels reported at the sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter. The potential impacts associated with construction vibration would be less than significant. Operation of the Project would not create significant groundborne vibration or groundborne noise. Thus, impacts are less than significant.

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?

No Impact: The Project site is not located within an airport land use plan, within two miles of a public airport, or within the vicinity of a private airstrip. The nearest airport is Hesperia Airport approximately 5.3 miles southeast of the site. The Project site is not within an airport influence area or safety zone. Given the Project site's distance from the private airport, the Project would not expose people residing or working in the Project Area to excessive noise levels. No impact would occur.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. Population and Housing – Would the project:				
a) Induce substantial unplanned 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)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Land Use Element
2. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    a. 3.12 – Population and Housing

Discussion of Impacts

Would the project:

a) Induce substantial unplanned 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)?

Less than Significant Impact: The CEQA Guidelines Section 15126.2(e) states growth-inducing impacts are not assumed to be beneficial, detrimental, or of little significance to the environment, but that a proposed project should be assessed in how it could foster economic growth or population growth, or the construction of additional housing, either directly or indirectly. The most immediate presence of potential growth related to the proposed Project would be the labor force associated with the construction and operation of the industrial building. The Project does not propose new residential development and would not directly contribute to population growth within the City.

Project-related employment demands would likely be filled by the existing personnel pool within the City and neighboring communities, with little or no measurable increase in the City's resident population. Significant population growth is therefore not anticipated to result from Project implementation. The Project is consistent with the goals of the Main Street and Freeway Corridor Specific Plan to facilitate and encourage development in the areas surrounding Main Street and the freeway. Although the Project may include infrastructure improvements such as paving along the Project

frontage or constructing a new curb, gutter, and sidewalk, these improvements would be concentrated to the immediate surroundings of the Project site and are unlikely to encourage unanticipated population growth. Based on the preceding, the potential for the Project to induce substantial growth directly or indirectly is considered less than significant.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact: No houses currently exist within the Project site. Additionally, the Project does not propose uses or activities that would otherwise displace housing assets or persons. Based on the preceding, the proposed Project would have no impact related to displacement of housing or people.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. Public Services – Would the project:				
a) 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 rations, response times or other performance objectives for any of the public services:				
i) Fire protection?	☐	☐	☒	☐
ii) Police protection?	☐	☐	☒	☐
iii) Schools?	☐	☐	☒	☐
iv) Parks?	☐	☐	☒	☐
v) Other public facilities?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Land Use Element
2. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    a. 3.13 – Public Services

Discussion of Impacts

Would the project:

a) 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 rations, response times or other performance objectives for any of the public services:

i) Fire protection?

Less than Significant Impact: Fire protection services to the Project site are provided by the San Bernardino County Fire Department. The Project site is served by the San Bernardino County Fire Station 305, located at 8331 Caliente Road, approximately 2.7 miles southwest of the Project site. There are two additional fire stations in the City,

Station 304 located at 15660 Eucalyptus Street and Station 302 located at 17288 Olive Street. The proposed Project does not include the construction or modification of fire protection facilities.

The Project will be constructed to current building code requirements regarding fire suppression and access. Furthermore, the Project will be subject to the review and approval of the San Bernardino County Fire Department. According to the Hesperia General Plan EIR, there are adequate firefighting resources in the region to serve the proposed Project. Therefore, construction of a new or expanded fire station would not be required.

Incremental fire protection service demands generated by the Project are offset through Project payment of City of Hesperia Development Impact Fees. A portion of the City's Development Impact Fees are allocated for fire protection services. The Project Applicant would pay incumbent City Development Impact Fees at issuance of building permit(s). Based on the foregoing, the proposed Project would receive adequate fire protection service and would not result in the need for new or physically altered fire protection facilities. Impacts to fire protection facilities would be less than significant.

ii) Police protection?

Less than Significant Impact: Police protection services to the Project site are provided by the San Bernardino County Sheriff's Department. The Project site is served by the Hesperia Police Department, located at 15840 Smoke Tree Street, approximately 3.2 miles southeast of the site. The Project would introduce a new industrial facility and employees to the Project site, which would result in an incremental increase in demand for police protection services. However, the Project is not anticipated to require or result in the construction of new or physically altered police facilities. Additionally, incremental police protection service demands generated by the Project are offset through Project payment of City of Hesperia Development Impact Fees. Based on the foregoing, the proposed Project would receive adequate police protection service, and would not result in the need for new or physically altered police protection facilities. Impacts on police protection facilities would be less than significant.

iii) Schools?

Less than Significant Impact: The Project site is located within the Hesperia Unified School District. Nearby schools include Topaz Preparatory Academy approximately 1.0 mile east of the site, Mirus Secondary School approximately 1.3 miles southeast of the site, and Maple Elementary School approximately 1.5 miles northeast of the site. The proposed Project would not create a direct demand for public school services, as the Project does not include residential uses. However, the Project may contribute indirectly to the demand for public school services if Project employees and their school age children relocate to school districts serving the City. Project impacts would be incremental and would be offset through Project payment of City of Hesperia Development Impact Fees. As the Project would not directly generate students and indirect impacts would be incremental, the Project would not cause or contribute to a need to construct new or physically altered public school facilities, and Project impacts on schools would be less than significant.

iv) Parks?

Less than Significant Impact: The proposed Project would not increase the demand for public park facilities and would not result in the need to modify existing or construct new park facilities. As discussed in the *XVI. Recreation* section of this Initial Study, the Project does not include any type of residential use or other land use that may generate a population that would increase the demand for public park facilities. As such, implementation of the proposed Project would not adversely affect parks and public facilities or require the construction of new or modified public facilities, a less than significant impact would occur.

v) Other public facilities

Less than Significant Impact: Demand for public facilities is generated by the population within a facility's service area. The Project would not induce population growth and therefore would not create a demand for public facilities/services, including libraries, community recreation centers, post offices, and animal shelters. As such, implementation of the proposed Project would not adversely affect or require the construction of new or modified public facilities, a less than significant impact would occur.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. Recreation				
a) Would the project 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?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Land Use Element
2. Hesperia Main Street and Freeway Corridor Specific Plan, amended July 15, 2021.
    a. Chapter 14 Open Space and Streetscape Improvements
3. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    a. 3.14 – Recreation
4. California Government Code § 66477

Discussion of Impacts

a) Would the project 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?

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

a-b) No Impact: The Applicant proposes to construct an industrial building up to 499,714 square feet and associated improvements. The Project does not include any type of residential use or other land use that may generate a population that would increase the utilization of existing neighborhood and regional parks or other recreational facilities. Accordingly, implementation of the proposed Project would not result in substantial physical deterioration of an existing neighborhood or regional park. The Project does not include any new on- or off-site recreation facilities, nor the expansion of any existing off-site recreational facilities. Thus, environmental effects related to the use, construction, or expansion of recreational facilities would not occur with implementation of the proposed Project. No impact on recreational facilities would occur.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. Tribal Cultural Resources – Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code 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:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒	☐	☐
b) 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 Public Resources Code 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.	☐	☒	☐	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Open Space Element
    b. Conservation Element
2. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    a. 3.5 – Cultural Resources
3. Title 16 – Development Code of the Hesperia Municipal Code
    a. Section 16.20.305 Change of use, alteration or demolition of a registered landmark or historic resource
4. Cultural and Paleontological Resources Assessment for Palmetto Way Industrial Building Project, City of Hesperia, San Bernardino County, California. Duke Cultural Resources Management, LLC. September 23, 2022. (Appendix D)

Discussion of Impacts

a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or

Less than Significant Impact with Mitigation Incorporated: A Cultural and Paleontological Resources Assessment was prepared by Duke Cultural Resources Management, LLC (Duke CRM) dated September 23, 2022 (Appendix D). On September

12, 2022, Duke CRM staff performed a records search. The records search included a review of all recorded cultural resources within a ½ mile radius of the Project, as well as a review of known cultural resource survey and excavation reports. The records search identified three (3) cultural resources within ½ mile of the Project, none of which are located within the current Project area. Resource P-36-0021351 is the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR)-eligible California Aqueduct, located 670 feet from the southwest corner of the Project. Resource P-36-021288, located 2,400 feet northeast of the Project area, is a mid-20th century trash deposit consisting primarily of cans for which CRHR eligibility has not been determined. P-36-021366 is a mid-20th century trash scatter for which CRHR eligibility has not been determined.

On July 27, 2022, Duke CRM archaeologist conducted an intensive pedestrian field survey of the Project area. No cultural or paleontological resources were observed during the field survey. The Project site consisted of little to no vegetation with scattered debris and a motocross track established on the eastern half of the Project area. As a result of negative findings during the South Central Coastal Information Center (SCCIC) records search and field survey, Duke CRM finds that the Project has a low potential to impact cultural resources.

Duke CRM submitted an inquiry to the State of California Native American Heritage Commission (NAHC) to ascertain the presence of known sacred sites, Native American cultural resources, and/or Native American human remains within the boundaries of the proposed Project. The NAHC response letter dated June 21, 2022, indicated Native American cultural resources have been identified within the general vicinity of the Project location (Appendix D). The letter indicated that the Chemehuevi Indian Tribe and the San Manuel Band of Mission Indians shall be contacted. Mitigation Measure **TCR-1** ensures that the Chemehuevi Indian Tribe and the San Manuel Band of Mission Indians are contacted and reduces project impacts to less than significant.

b) 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 Public Resources Code 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.

Less than Significant Impact with Mitigation Incorporated: As discussed above in section (a), the NAHC response letter dated June 21, 2022, indicated Native American cultural resources have been identified within the general vicinity of the Project location (Appendix D). The letter indicated that the Chemehuevi Indian Tribe and the San Manuel Band of Mission Indians shall be contacted. The City conducted consultation with 3 tribes starting in October of 2024. The Yuhaaviatam of San Manuel Nation provided mitigation, which has been incorporated into this initial study. Mitigation Measure **TCR-1, and TCR-2** ensures that the San Manuel Band of Mission Indians are contacted and reduces project impacts to less than significant.

Mitigation Measures

Mitigation:

(a, b)

TCR-1: Tribal Notification and Monitoring Plan

The Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN) shall be contacted, as detailed in CUL-1, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project, should YSMN elect to place a monitor on-site.

TCR-2: Tribal Coordination and Documentation Sharing with YSMN

Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to YSMN. The Lead Agency and/or applicant shall, in good faith, consult with YSMN throughout the life of the project

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. Utilities and Service Systems – Would the project:				
a) Require or result in the relocation or construction of new or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☒	☐
c) 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?	☐	☐	☒	☐
d) 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?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Land Use Element
2. Draft Environmental Impact Report for the City of Hesperia General Plan Update, May 26, 2010.
    a. 3.16 – Utilities and Service Systems

Discussion of Impacts

Would the project:

a) Require or result in the relocation or construction of new or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less than Significant Impact: Water and sewer services will be provided to the Project site by the City of Hesperia Water District. The City will require payment of applicable water and sewer connection and service fees for the Project. Fee payment will provide funds for water and wastewater system maintenance and future expansion, acting to offset the Project's incremental demands for water and wastewater collection and treatment services. The proposed Project includes a combination of an above ground infiltration basin and underground CMP infiltration basin to treat stormwater runoff for water quality purposes. Electrical services will be provided to the Project by Southern California Edison and gas will be provided by the Southwest Gas Corporation. Due to the vacant, undeveloped nature of the Project site, both dry and wet utilities, including domestic water, sanitary sewer, and electricity, need to be extended onto the Project site. However, the proposed Project will not require or result in the relocation or construction of new or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities. Therefore, environmental impacts related to the construction and relocation of utility facilities would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

Less than Significant Impact: The City of Hesperia 2020 Draft Urban Water Management Plan (UWMP) and 2008 Water Master Plan provide a framework that accommodate for future growth within the City. According to the 2020 UWMP from the Hesperia Water District, the District has not experienced water supply constraints or deficiencies. Table 19-1 describes data from the 2020 Draft UWMP which shows that the District's base years for average, single dry, and multiple dry years are sufficient in meeting historical water demands.

Table 19-1 Five Consecutive Dry Years Water Supply and Demand through 2045 (acre-feet per year)

		2025	2030	2035	2040	2045
First Year	Supply Totals	15,250	16,290	16,990	17,740	18,420
	Demand Totals	15,250	16,290	16,990	17,740	18,420
	Difference	0	0	0	0	0
Second Year	Supply Totals	15,460	16,430	17,140	17,880	18,540
	Demand Totals	15,460	16,430	17,140	17,880	18,540
	Difference	0	0	0	0	0
Third Year	Supply Totals	15,670	16,570	17,290	18,020	18,660
	Demand Totals	15,670	16,570	17,290	18,020	18,660
	Difference	0	0	0	0	0
Fourth Year	Supply Totals	15,880	16,710	17,440	18,160	18,780
	Demand Totals	15,880	16,710	17,440	18,160	18,780
	Difference	0	0	0	0	0

Fifth Year	Supply Totals	16,090	16,850	17,590	18,300	18,900
	Demand Totals	16,090	16,850	17,590	18,300	18,900
	Difference	0	0	0	0	0

As illustrated in Table 19-1, the City's water demands can be met under multiple dry years. Future water supply will meet projected demand due to diversified supply and conservation measures. The Hesperia Water District has sufficient water resources available to supply water service to the Project. Sufficient water supplies are available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Therefore, impacts associated with water supply availability would be less than significant.

c) 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?

Less than Significant Impact: Wastewater services are provided by the Victor Valley Wastewater Reclamation Authority (VVWRA). VVWRA owns and operates the Hesperia Subregional Water Recycling Facility. Currently, this facility is capable of treating up to 1.0 million gallons per day (mgd) of wastewater that is expandable to 4.0 mgd. The Hesperia Subregional Water Recycling Facility is connected to an interceptor system that extends approximately 15 miles from the regional treatment facility (Victorville) south to I Avenue and Hercules in the City of Hesperia. No solid waste is treated at the Hesperia Subregional Water Recycling Facility. Solid waste is returned to the sewer line where it continues via VVWRA's 3-mile interceptor to the VVWRA Regional Wastewater Treatment Plant (RWWTP) in Victorville. When measured in 2016, the RWWTP treated on average 12.5 mgd of wastewater and had a maximum treatment capacity of 18.0 mgd. (City of Hesperia 2016, 2021; Hesperia Water District 2016, 2021). According to the wastewater generation rates used in the Project's air quality, greenhouse gas emissions, and energy analyses, the Project would generate approximately 0.332057 mgd of wastewater. Wastewater from the proposed Project is not anticipated to exceed the capacity to the wastewater treatment provider, even when considering existing and cumulative demand. Project impacts are expected to be less than significant.

d) 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?

Less than Significant Impact: Approximately 75% or more of solid waste generated by the City is being recycled (Advance Disposal 2021), exceeding the 50 percent requirement pursuant to the California Integrated Waste Management Act of 1989 (AB939). Sanitation services are administered by Advance Disposal, located at 17105 Mesa Street, Hesperia. Any remaining waste is collected and hauled to the Victorville Sanitary Landfill at 18600 Stoddard Wells Road in Victorville, owned and operated by the County of San Bernardino. The Victorville Landfill has a maximum permitted daily throughput of 3,000 tons, has a maximum capacity of 93,400,000 cubic yards, and has a remaining capacity of 79,400,000 cubic yards. As of 2020, this landfill was expected to remain open for another 27 years. Based on the CalRecycle Industrial Section

Generation Rates chart, the Project would generate approximately 30,675 pounds of solid waste per day.

Table 19-2 Estimated Solid Waste Generation

Waste Generation Source	Square Feet	Generation Rate, pounds per day	
		Per square foot	Total
Industrial	489,850	.0625 pounds	30,615 (lbs/day)
Office	10 ,000	0.006 pounds	60 (lbs/day)
Source: CalRecycle, 2019b, Estimated Solid Waste Generation Rates (ca.gov)			

Industrial waste, defined in Section 17225.35 of Title 14 of the California Code of Regulations, is not subject to the requirements of the AB 341 regulation (CalRecycle, 2019b). The industrial uses proposed by the Project, and solid waste generated by those uses, would not otherwise conflict with federal, state, and local statutes and regulations related to solid waste. Based on the preceding, the potential for the Project to 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 is less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant Impact: The Project would be implemented and operated in compliance with applicable City General Plan Goals and Policies, and would comport with City Zoning regulations—specifically, the Project would comply with local, state, and federal initiatives and directives acting to reduce and divert solid waste from landfill waste streams. As described in section (d) above, the Project would comply with the California Integrated Waste Management Act of 1989 (AB 939) and AB 341 as implemented by the City. The proposed Project is required to comply with all applicable federal, state, County, and City statues and regulations related to solid waste as a standard project condition of approval. Therefore, a less than significant impact would occur.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. Wildfire – If located in or near a State Responsibility Area ("SRA"), lands classified as very high fire hazard severity zone, or other hazardous fire areas that may be designated by the Fire Chief, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) 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?	☐	☐	☒	☐
c) 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?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

Project Impacts and Mitigation Measures

Sources:

1. City of Hesperia General Plan, 2010.
    a. Safety Element
2. California Department of Forestry and Fire Protection. Very High Fire Hazard Severity Zones in LRA – Western Riverside County. December 2009.

Discussion of Impacts

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant Impact: Wildland fire protection in California is the responsibility of the state, local government, or the federal government. The Project site is located within a Local Responsibility Area (LRA), as identified on the latest Fire Hazard Severity Zone (FHSZ) map prepared by the California Department of Forestry and Fire Protection (CALFIRE). The Project site is not located in a State Responsibility Area (SRA) or classified as a Very High Fire Severity Zone (VHFSZ) within a LRA. The proposed Project does not block access to the Project site or to surrounding properties and does not impede the City's evacuation program. Furthermore, the Project will be subject to the review and approval of

the San Bernardino County Fire Department. Based on the preceding, the potential for the Project to substantially impair an adopted emergency response or evacuation plan is less than significant.

b) 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?

Less than Significant Impact: As discussed above in section (a), the Project site is not located within a SRA fire hazard zone. The Project site is relatively flat and does not contain considerable slopes that would exacerbate wildfire risk. Additionally, the Project site currently consists of sparse desert vegetation that would be removed with Project implementation. Prevailing winds are a concern throughout the desert region. However, the proposed Project does not cause greater wildfire risks than other developments throughout the City of Hesperia. Therefore, a less than significant impact would occur.

c) 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?

Less than Significant Impact: The Project does not require the installation or maintenance of associated infrastructure that would exacerbate fire risks or result in temporary or ongoing impacts to the environment. Although the Project may include infrastructure improvements such as paving along the Project frontage or constructing a new curb, gutter, and sidewalk, these improvements would be concentrated to the immediate surroundings of the Project site and are unlikely to exacerbate fire risk, a less than significant impact would occur.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less than Significant Impact: According to General Plan Exhibit SF-2, the Project site is identified within FEMA Zone X, which designates areas that are outside of the 100-year flood or are protected from the 100-year flood by levees. Additionally, the Project site and the site's surroundings are relatively flat. Therefore, the Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, a less than significant impact would occur.

	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. Mandatory Findings of Significance				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California History or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? (Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Discussion of Impacts

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California History or prehistory?

Less than Significant Impact with Mitigation Incorporated: The proposed Project would not substantially impact any scenic vistas, scenic resources, or the visual character of the area, and would not result in excessive light or glare. The Project site is located within an area that contains vacant land, residential uses, and light industrial/warehouse uses. The proposed Project would not significantly impact any sensitive species, plant communities, fish, wildlife, or habitat for any sensitive species with incorporation of Mitigation Measures **BIO-1** through **BIO-5**.

As described in Section VI and Section XVIII, adverse impacts to historical resources would be less than significant with incorporation of Mitigation Measures **CUL-1** and **TCR-1**. Based on the preceding analysis of potential impacts in the responses to Sections I through XX, no evidence is presented that the proposed Project would degrade the quality of the environment.

Impacts related to degradation of biological resources and cultural resources would be less than significant with mitigation incorporated.

b) Does the project have impacts that are individually limited, but cumulatively considerable? (Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Potentially Significant Impact: Cumulative impacts can result from the interactions of environmental changes resulting from one proposed Project with changes resulting from other past, present, and future projects that affect the same resources, utilities and infrastructure systems, public systems, transportation network elements, air basin, watershed, or other physical conditions. Such impacts could be short-term and temporary, usually consisting of overlapping construction impacts, as well as long-term, due to the permanent land use changes and operational characteristics involved with the proposed Project.

The Project's estimated greenhouse gas emissions exceed the SCAQMD-recommended threshold of 3,000 MTCO2e per year. As such, the Project could contribute incrementally to cumulatively significant GHG impacts in combination with other past, present, and reasonably foreseeable projects. These cumulative impacts will be fully analyzed in the Draft Environmental Impact Report (DEIR).

Where appropriate, the environmental checklist questions above include discussion regarding cumulative impacts of the Project when developed in conjunction with related projects. Adherence to applicable regulations would reduce certain environmental impacts; however, because the Project exceeds the SCAQMD GHG threshold, its contribution to cumulative GHG emissions may be significant. Therefore, GHG-related cumulative impacts are considered potentially significant and will be further evaluated in the DEIR.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Potentially Significant Impact: Based on the analysis of the Project's impacts in this Initial Study, there are no significant long-term effects related to noise, hazardous materials, , increased demand for water use, wastewater disposal, and electricity use, or increased demand on emergency response services; however the Project's estimated greenhouse gas emissions and VMT exceed applicable thresholds and therefore have the potential to cause adverse effects on human beings directly or indirectly.

While temporary construction-related effects remain less than significant, and the Project is generally consistent with applicable plans, GHG and VMT-related impacts are considered potentially significant and will be addressed in the forthcoming DEIR.

CHAPTER FIVE – MITIGATION, MONITORING, AND REPORTING PROGRAM (MMRP)

Mitigation measures are included within each section of the initial study checklist and are provided below. Table 5-: Mitigation Monitoring and Reporting Program outlines the potential impacts and mitigation measures of the proposed Project and assigns responsibility for the oversight of each mitigation measure. This Table shall be included in all bid documents and included as a part of the Project development.

Table 5-1. Mitigation Monitoring and Reporting Program

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
Transportation/Traffic				
I. Transportation/ Traffic	**TRANS-1:** Contribute fair share as determined by the City to construct a second southbound left turn lane at Key Pointe Drive (NS) at Main Street (EW).	Applicant and City of Hesperia	Prior to issuance of occupancy permit	Less than Significant
Biological Resources				
V. Biological Resources	**BIO-1 Incidental Take Permit from CDFW** Mitigation for direct impacts to the Western Joshua Trees within the Project Site shall be fulfilled through attainment of a Western Joshua Tree Conservation Act (WJTCA) Incidental Take Permit. An Incidental Take Permit (ITP) application and supporting documentation shall be submitted to CDFW for review and approval for removal of Western Joshua trees on the Project site. An ITP establishes a performance standard requiring that the impacts be "minimized and fully mitigated" with "measures that are roughly proportional in extent to the impact of the authorized taking on the species." Therefore,	Applicant and City of Hesperia	Prior to issuance of grading permit	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	additional mitigation measures, such as the purchase of credits from an approved conservation or mitigation bank, land acquisition, or entry into a conservation easement, will be determined in consultation with CDFW to meet ITP requirements. A completed application requires a completed CEQA document to accompany the ITP application and fee. CDFW requires the CEQA document to have a state clearing house number, show proof of filing fees, and that the document has been circulated. CDFW will then review the ITP and CEQA document and make a determination of mitigation.			
V. Biological Resources	**BIO-2 Desert Native Plant Protection and Relocation Plan** A Desert Native Plant Protection and Relocation Plan (Plan) for the proposed Project shall be composed that will provide detailed specifications for the proposed treatment, avoidance, or relocation of all smoke trees (Cotinus sp.), species in the Agavacea family, mesquite (Prosopis sp.), large creosote bushes (Larrea sp.), Western Joshua trees, and any other plants protected by the State Desert Native Plant Act. Further, the Protected Desert Plant Plan will provide measures to meet the requirements of Chapter 16.24 of the City if Hesperia's (City) Municipal Code to protect, preserves, and mitigate impacts to Western Joshua tree. The	Applicant and City of Hesperia	Prior to issuance of grading permit	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	City's Protected Plan Policy (HMC 16.24) states the following for commercial and industrial projects: • The Plan shall be certified by an arborist or registered botanist. • An application and fee shall be completed and paid to the City of Hesperia. • Healthy, transplantable Western Joshua trees shall be relocated on-site or may be placed in an adoption program. The Desert Native Plant Protection and Relocation Plan will address requirements of the City's Protected Plant Policy and provide details from the initial survey of the site's Western Joshua trees and other sensitive desert plant species, detailed specifications for the protection of trees to be preserved on site, and relocation/salvage requirements for those trees or bushes requiring removal and relocation. Specifically, the Plan will include site location and characteristics; relocation requirements including Western Joshua tree and other sensitive desert plant species report and removal/relocation and transplanting specifics; success criteria and associated necessary fees, protective measures prior to, during and after construction, and maintenance after construction.			

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
V. Biological Resources	**BIO-3 Pre-Construction Western Burrowing Owl Clearance Surveys** In accordance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012), two (2) pre-construction clearance surveys shall be conducted 14-30 days and 24 hours prior to any vegetation removal or ground disturbing activities. Once surveys are completed, the qualified biologist shall prepare a final report documenting surveys and findings. If no burrowing owls or occupied burrows are detected, Project construction activities may begin. If an occupied burrow is found within the Project Site during pre-construction clearance surveys, a burrowing owl exclusion and mitigation plan shall be prepared and submitted to the County, which may consult with CDFW for review, prior to initiating Project construction activities.	Applicant and City of Hesperia	14-30 days and 24 hours prior to any vegetation removal or ground disturbing activities.	Less than Significant
V. Biological Resources	**BIO-4 Passive and Active Relocation of Western Burrowing Owls** If Western burrowing owls are observed on the Project site during preconstruction surveys, CDFW shall be immediately notified to determine if avoidance of the nest is appropriate until the nest is vacated or to gain concurrence from CDFW on active or passive relocation actions. All passive or relocation activities shall be in concurrence with CDFW guidelines (Staff Report on Burrowing Owl Mitigation 2012).	Applicant and City of Hesperia	If Western burrowing owls are observed on the Project site during preconstruction surveys	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	If burrowing owl are present and nesting on-site the following steps shall be necessary to reduce impacts to less than significant. These steps may be augmented by recommendations from CDFW: a. Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that: (1) owls have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. b. A qualified biologist shall exclude all owls from active burrows using one-way doors. Concurrently, all inactive burrows and other sources of secondary refuge for burrowing owls shall be collapsed and removed from the site. c. Following and 24 to 48-hour observation period, all vacated burrows shall be collapsed. d. A qualified biologist shall conduct a post-exclusion survey confirming the absence of burrowing owls on the Project site. Should newly occupied burrows be discovered on the Project			

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	site the exclusion activities shall be repeated.			
V. Biological Resources	**BIO-5 Nesting Bird Preconstruction Surveys** If it is not feasible to avoid the nesting bird season (typically January through July for raptors and February through August for other avian species), a qualified biologist shall conduct a pre-construction nesting bird survey for avian species to determine the presence/absence, location, and status of any active nests on or directly adjacent to the Project site. If active nests are located, the extent of the survey buffer area surrounding the nest should be established by the qualified biologist to ensure that direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the MBTA and the CFGC, the nesting bird survey shall occur no earlier than seven (7) days prior to the commencement of construction. In the event that active nests are discovered, a suitable buffer (distance to be determined by the biologist) shall be established around such	Applicant and City of Hesperia	Within 7-days of the commencement of construction activities (if construction activities commence during the nesting/breeding season of native bird species – February through August).	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	active nests, and no construction within the buffer allowed, until the biologist has determined that the nest(s) is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest).			
Cultural Resources				
VI. Cultural Resources	**CUL-1 Inadvertent Finds** In the event that cultural resources are discovered during Project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease. A qualified archaeologist meeting the Secretary of the Interior's Professional Qualification Standards shall be retained to assess the significance of the find. Work may continue on other portions of the Project site outside the buffered area during this assessment. If the discovery is determined to be of Native American origin, the Yuhaaviatam of San Manuel Nation Cultural Resources Department (YSMN) shall be contacted, as outlined in TCR-1, and provided information following the archaeologist's initial assessment to allow for Tribal input on the significance and recommended treatment of the resource.	Applicant and City of Hesperia	If previously unidentified cultural materials are unearthed during construction	Less than Significant
VI. Cultural Resources	**CUL-2: Monitoring Plan** If significant pre-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring	Applicant and City of Hesperia	If previously unidentified cultural materials are unearthed during construction	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	and Treatment Plan, the drafts of which shall be provided to YSMN for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.			
VI. Cultural Resources	**CUL-3: Human remains discovery** If human remains or funerary objects are encountered, all work shall stop in the area (within an 100-foot buffer of the find) and the County Coroner must be notified immediately in accordance with California Health and Safety Code Section 7050.5. No further disturbance shall occur until the Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be prehistoric, the Coroner shall notify the Native American Heritage Commission (NAHC), which will identify and notify the Most Likely Descendant (MLD). With permission of the landowner or authorized representative, the MLD may inspect the site and shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of the remains and any associated items.	Applicant and City of Hesperia	If previously unidentified human remains are unearthed during construction	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
Geology and Soils				
VIII. Geology and Soils	**GEO-1 Grading and Construction** The Project shall incorporate the recommendations provided in the Geotechnical Investigation prepared by Southern California Geotechnical, dated July 18, 2022 (Appendix F). The recommendations are presented in the following sections of the report: Site Grading Recommendations, Construction Considerations, Foundation Design and Construction, Floor Slab Design and Construction, Retaining Wall Design and Construction, and Pavement Design Parameters.	Applicant and City of Hesperia	Prior to start of construction	Less than Significant
VIII. Geology and Soils	**GEO-2 Paleontological Monitoring** A paleontological monitor shall be present during ground disturbing activities below four (4) feet in depth within the Project. The monitor shall work under the direct supervision of a qualified paleontologist (B.S./B.A. in geology, or related discipline with an emphasis in paleontology and demonstrated competence in paleontological research, fieldwork, reporting, and curation). 1. The qualified paleontologist shall be on-site at the pre-construction meeting to discuss monitoring protocols. 2. The paleontological monitor shall be present full-time during ground	Applicant and City of Hesperia	During ground disturbing activities below four (4) feet in depth within the Project	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	disturbance below 4 feet in depth within the Project, including but not limited to grading, trenching, utilities, and off-site easements. If, after excavation begins, the qualified paleontologist determines that the sediments are not likely to produce fossil resources, monitoring efforts shall be reduced. 3. The monitor shall be empowered to temporarily halt or redirect grading efforts if paleontological resources are discovered. 4. In the event of a paleontological discovery the monitor shall flag the area and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area. 5. In consultation with the qualified paleontologist, the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant it shall be quickly mapped, documented, removed, and the area cleared. 6. If the discovery is significant the qualified paleontologist shall notify the CLIENT and CITY immediately. 7. In consultation with the CLIENT and CITY the qualified paleontologist shall develop a plan of mitigation which will likely include full-time monitoring, salvage excavation,			

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
	scientific removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find.			
Tribal Cultural Resources				
XVIII. Tribal Cultural Resources	**TCR-1: Tribal Notification and Monitoring Plan** The Yuhaaviatam of San Manuel Nation Cultural Resources Management Department (YSMN) shall be contacted, as detailed in CUL-1, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a Cultural Resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with YSMN, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents YSMN for the remainder of the project, should YSMN elect to place a monitor on-site.	Applicant and City of Hesperia	If previously unidentified cultural materials are unearthed during construction	Less than Significant

Section Number	Mitigation Measures	Responsible for Monitoring	Timing	Impact after Mitigation
XVIII. Tribal Cultural Resources	**TCR-2: Tribal Coordination and Documentation Sharing with YSMN** Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to YSMN. The Lead Agency and/or applicant shall, in good faith, consult with YSMN throughout the life of the project	Applicant and City of Hesperia	If previously unidentified cultural materials are unearthed during construction	Less than Significant

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APPENDIX A
Amargosa and Palmetto High-Cube Warehouse Air Quality Impact Analysis

Amargosa and Palmetto High-Cube Warehouse

AIR QUALITY IMPACT ANALYSIS

CITY OF HESPERIA

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FEBRUARY 1, 2023

TABLE OF CONTENTS

TABLE OF CONTENTS ..... **I**
APPENDICES ..... **II**
LIST OF EXHIBITS ..... **II**
LIST OF TABLES ..... **II**
LIST OF ABBREVIATED TERMS ..... **III**
EXECUTIVE SUMMARY **1**
ES.1 Summary of Findings 1
ES.2 Standard Regulatory Requirements/Best Available Control Measures 1
ES.3 Construction-Source MMs 2
ES.4 Operational-Source MMs 2
1 INTRODUCTION **4**
1.1 Site Location 4
1.2 Project Description 4
2 AIR QUALITY SETTING **8**
2.1 Mojave Desert Air Basin 8
2.2 Regional Climate 8
2.3 Criteria Pollutants 9
2.4 Existing Air Quality 16
2.5 Regional Air Quality 19
2.6 Local Air Quality 19
2.7 Regulatory Background 20
3 PROJECT AIR QUALITY IMPACT **26**
3.1 Introduction 26
3.2 Standards of Significance 26
3.3 Models Employed To Analyze Air Quality 27
3.4 Construction Emissions 27
3.5 Operational Emissions 30
3.6 CO “Hot Spot” Analysis 33
3.7 AQMP 35
3.8 Potential Impacts to Sensitive Receptors 36
3.9 Odors 39
3.10 Cumulative Impacts 39
4 REFERENCES **42**
5 CERTIFICATIONS **45**

APPENDICES

APPENDIX 2.1: STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS
APPENDIX 3.1: CALEEMOD CONSTRUCTION EMISSIONS MODEL OUTPUTS
APPENDIX 3.2: CALEEMOD OPERATIONAL EMISSIONS MODEL OUTPUTS

LIST OF EXHIBITS

EXHIBIT 1-A: LOCATION MAP 5
EXHIBIT 1-B: SITE PLAN 6
EXHIBIT 3-A: SENSITIVE RECEPTOR LOCATIONS 38

LIST OF TABLES

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS 1
TABLE 2-1: CRITERIA POLLUTANTS 9
TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (1 OF 2) 17
TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (2 OF 2) 18
TABLE 2-3: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE MDAB 19
TABLE 2-4: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2018-2020 20
TABLE 3-1: MAXIMUM REGIONAL DAILY EMISSIONS THRESHOLDS 26
TABLE 3-2: CONSTRUCTION DURATION 28
TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS 28
TABLE 3-4: EMISSIONS SUMMARY OF CONSTRUCTION – WITHOUT MITIGATION 29
TABLE 3-5: PASSENGER CAR FLEET MIX 31
TABLE 3-6: TRUCK FLEET MIX 32
TABLE 3-7: SUMMARY OF PEAK OPERATIONAL EMISSIONS 33
TABLE 3-8: CO MODEL RESULTS 34
TABLE 3-9: TRAFFIC VOLUMES 34

LIST OF ABBREVIATED TERMS

(1)	Reference
%	Percent
1992 CO Plan	1992 Federal Attainment Plan for Carbon Monoxide
$\mu g/m^3$	Microgram per Cubic Meter
AB 2595	California Clean Air Act
AQIA	Air Quality Impact Analysis
AQMIS	Air Quality and Meteorological Information System
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
BACM	Best Available Control Measures
BMPs	Best Management Practices
BSC	Building Standards Commission
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model™
CALGreen	California Green Building Standards Code
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CIBP	Commercial/Industrial Business Park
CO	Carbon Monoxide
COHb	Carboxyhemoglobin
EPA	Environmental Protection Agency
g/L	Grams Per Liter
GHG	Greenhouse Gas
HRA	Health Risk Assessment
lbs/day	Pounds per Day
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
MWELO	Model Water Efficient Landscape Ordinance
NAAQS	National Ambient Air Quality Standards
N_2	Nitrogen
NO	Nitric Oxide
N_2O	Nitrous Oxide

NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
O_2	Oxygen
O_3	Ozone
Pb	Lead
PM_{10}	Particulate Matter 10 microns in diameter or less
$PM_{2.5}$	Particulate Matter 2.5 microns in diameter or less
ppm	Parts Per Million
Project	Amargosa and Palmetto High-Cube Warehouse
ROG	Reactive Organic Gases
RECLAIM	Regional Clean Air Incentives Market
SDAB	Southeast Desert Air Basin
SCAQMD	South Coast Air Quality Management District
sf	Square Feet
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SO_4	Sulfates
SO_X	Oxides of Sulfur
TAC	Toxic Air Contaminant
TIA	Hesperia Commerce Center II Traffic Impact Analysis
TSF	Thousand Square Feet
VOC	Volatile Organic Compound
VPH	Vehicles Per Hour

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Amargosa and Palmetto High-Cube Warehouse Air Quality Impact Analysis* (AQIA) are summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines* (1). Table ES-1 shows the findings of less than significant for each potential air quality impact under CEQA. As shown, no mitigation measures (MM) are required.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Regional Construction Emissions	3.4	*Less Than Significant*	*n/a*
Regional Operational Emissions	3.5	*Less Than Significant*	*n/a*
CO "Hot Spot" Analysis	3.6	*Less Than Significant*	*n/a*
Air Quality Management Plan	3.7	*Less Than Significant*	*n/a*
Sensitive Receptors	3.8	*Less Than Significant*	*n/a*
Odors	3.9	*Less Than Significant*	*n/a*
Cumulative Impacts	3.10	*Less Than Significant*	*n/a*

ES.2 STANDARD REGULATORY REQUIREMENTS/BEST AVAILABLE CONTROL MEASURES

Measures listed below (or equivalent language) shall appear on all Project grading plans, construction specifications and bid documents, and the City shall ensure such language is incorporated prior to issuance of any development permits. Mojave Desert Air Quality Management District (MDAQMD) Rules that are currently applicable during construction activity for this Project include but are not limited to Rule 1113 (Architectural Coatings) (2). It should be noted that these Best Available Control Measures (BACMs) are not mitigation as they are standard regulatory requirements. As such, credit for Rule 1113 has been taken.

MDAQMD RULE 1113

This rule serves to limit the Volatile Organic Compound (VOC) content of architectural coatings used on projects in the MDAQMD. Any person who supplies, sells, offers for sale, or manufactures

any architectural coating for use on projects in the MDAQMD must comply with the current VOC standards set in this rule (2)[1].

ES.3 CONSTRUCTION-SOURCE MMS

The Project would not exceed any thresholds of significance for construction-source emissions. As such, a less than significant impact would occur for Project-related construction-source emissions and no mitigation would be required.

ES.4 OPERATIONAL-SOURCE MMS

The Project would not exceed any thresholds of significance for operational-source emissions. As such, a less than significant impact would occur for Project-related operational-source emissions and no mitigation would be required.

[1] Only paints no more than 50 g/L of VOC consistent with MDAQMD Rule 1113 for flat coatings shall be used.

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1 INTRODUCTION

This report presents the results of the AQIA prepared by Urban Crossroads, Inc., for the proposed Amargosa and Palmetto High-Cube Warehouse (Project).

The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the Project and recommend measures to mitigate impacts considered potentially significant in comparison to thresholds established by the MDAQMD.

1.1 SITE LOCATION

The proposed Project is located on the northwest corner of Amargosa Road, and Palmetto Way in the City of Hesperia as shown on Exhibit 1-A.

1.2 PROJECT DESCRIPTION

The proposed Project is to consist of 499,850[2] square high-cube fulfillment center warehouse building as shown on Exhibit 1-B. The proposed project is anticipated to be constructed and fully operational by year 2024.

It is expected that the Project business operations would primarily be conducted within the enclosed building, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays. This analysis includes a conservative assumption of on-site Project-related emission sources for potential future tenants, including architectural coatings, consumer products, landscape maintenance equipment, natural gas, electricity, mobile operations, and on-site cargo handling equipment. This analysis is intended to describe air quality impacts associated with the expected typical operational activities at the Project site. To present a conservative approach, this report assumes the Project would operate 24-hours daily for seven days per week.

2 The proposed building square footage utilized in this analysis is based on a previous site plan which assumed a slightly smaller building square footage. Nonetheless, the emissions analyzed in this report would not change and a less than significant impact is expected.

EXHIBIT 1-A: LOCATION MAP

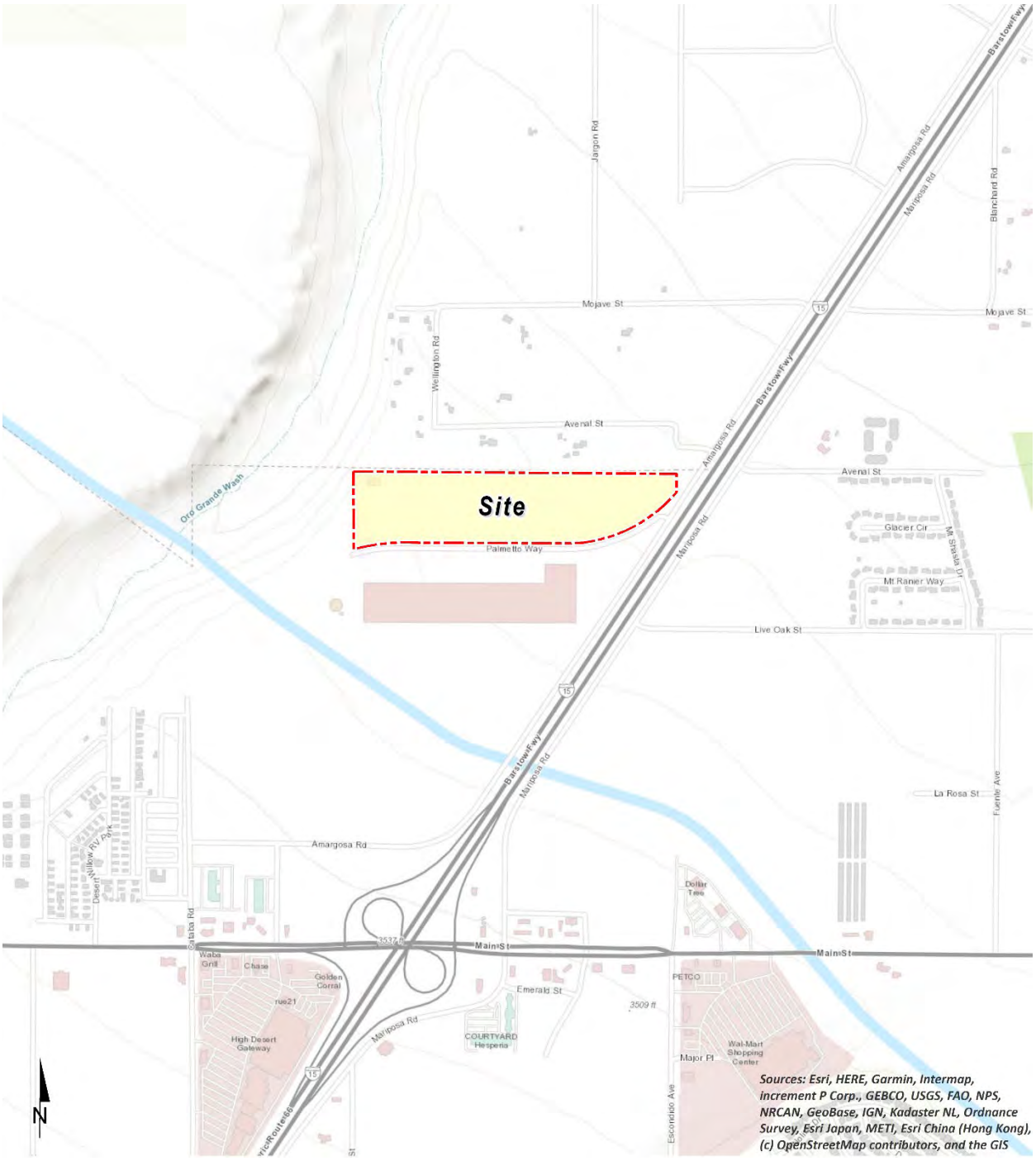
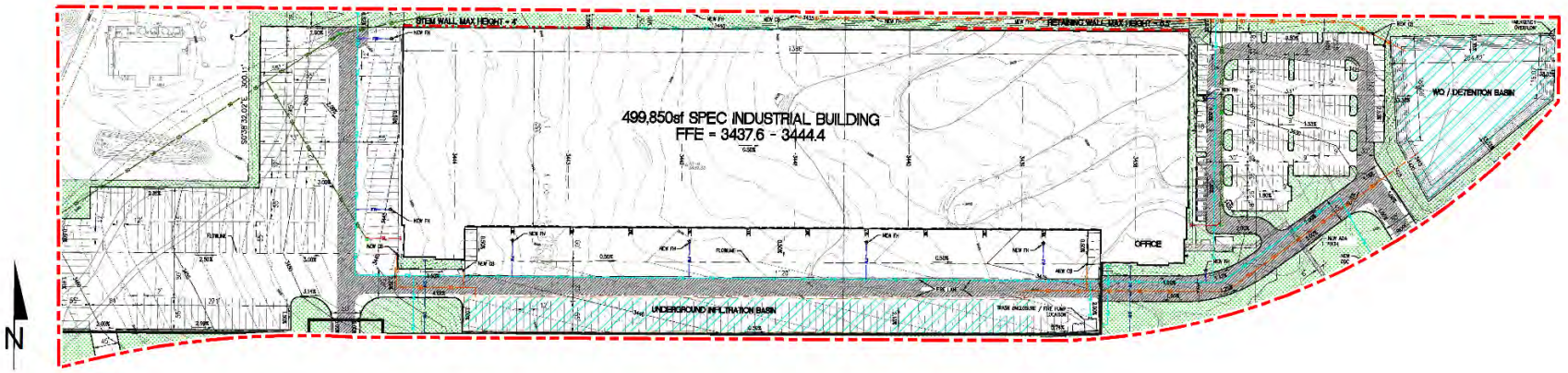


EXHIBIT 1-B: SITE PLAN



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2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 MOJAVE DESERT AIR BASIN

The Project site is located in the portion of the County of San Bernardino, California, that is part of the Mojave Desert Air Basin (MDAB) and is under the jurisdiction of the MDAQMD. The air quality assessment for the Project evaluates emissions impacts associated with short-term construction and long-term operation of the Project. A number of air quality modeling tools are available to assess the air quality impacts of projects. In addition, certain air districts, such as the MDAQMD, have created guidelines and requirements to conduct air quality analyses. The MDAQMD's current guidelines, included in its *California Environmental Quality Act and Federal Conformity Guidelines* (August 2016), were adhered to in the assessment of air quality impacts for the Project.

2.2 REGIONAL CLIMATE

Air quality in the Project area is not only affected by various emissions sources (mobile, industry, etc.) but is also affected by atmospheric conditions such as wind speed, wind direction, temperature, and rainfall.

The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains within the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada Mountains to the north; air masses pushed onshore in Southern California by differential heating are channeled through the MDAB. The MDAB is separated from the Southern California coastal and Central California valley regions by mountains (highest elevation is approximately 10,000 feet), whose passes form the main channels for these air masses. The Mojave Desert is bordered on the southwest by the San Bernardino Mountains, separated from the San Gabriel Mountains by the Cajon Pass (4,200 feet). A lesser pass lies between the San Bernardino Mountains and the Little San Bernardino Mountains in the Morongo Valley. The Palo Verde Valley portion of the Mojave Desert lies in the low desert, at the eastern end of a series of valleys (notably the Coachella Valley), whose primary channel is the San Gorgonio Pass (2,300 feet) between the San Bernardino and San Jacinto Mountains.

During the summer, the MDAB is generally influenced by a Pacific subtropical high cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist, and unstable air masses from the south. The MDAB averages between three and seven inches of precipitation per year (from 16 to 30 days with at least 0.01 inch of precipitation). The MDAB is classified as a dry-hot desert climate, with portions classified

as dry-very hot desert, to indicate that at least three months have maximum average temperatures over 100.4° F.

Snow is common above 5,000 feet in elevation, resulting in moderate snowpack and limited spring runoff. Below 5,000 feet, any precipitation normally occurs as rainfall. Pacific storm fronts normally move into the area from the west, driven by prevailing winds from the west and southwest. During late summer, moist high-pressure systems from the Pacific collide with rising heated air from desert areas, resulting in brief, high-intensity thunderstorms that can cause high winds and localized flash flooding.

2.3 CRITERIA POLLUTANTS

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and health effects are identified below (3):

TABLE 2-1: CRITERIA POLLUTANTS

Criteria Pollutant	Description	Sources	Health Effects
Carbon Monoxide (CO)	CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone (O_3), motor vehicles operating at slow speeds are the primary source of CO in the MDAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia

Criteria Pollutant	Description	Sources	Health Effects
			(oxygen deficiency) as seen at high altitudes.
Sulfur Dioxide (SO_2)	SO_2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_X)	Coal or oil burning power plants and industries, refineries, diesel engines	A few minutes of exposure to low levels of SO_2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2. Animal studies suggest that despite SO_2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. In these studies, efforts to separate the effects of SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.

Criteria Pollutant	Description	Sources	Health Effects
NO_X	NO_X consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring station.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. In animals, exposure to levels of NO_2 considerably higher than ambient concentrations result in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of O_3 exposure increases when animals are exposed to a combination of O_3 and NO_2.
O_3	O_3 is a highly reactive and unstable gas that is formed when VOCs and NO_X, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer	Formed when reactive organic gases (ROG) and nitrogen oxides react in the presence of sunlight. ROG sources include any source	Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for O_3 effects. Short-term exposure (lasting for a

Criteria Pollutant	Description	Sources	Health Effects
	months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.	that burns fuels, (e.g., gasoline, natural gas, wood, oil) solvents, petroleum processing and storage and pesticides.	few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated O_3 levels are associated with increased school absences. In recent years, a correlation between elevated ambient O_3 levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple outdoor sports and live in communities with high O_3 levels. O_3 exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes O_3 may be more toxic than exposure to O_3 alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.
Particulate Matter	PM_{10} (Particulate Matter less than 10 microns): A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particulate matter pollution is a major cause of reduce visibility	Sources of PM_{10} include road dust, windblown dust and construction. Also formed from other pollutants (acid rain, NO_X, SO_X,	A consistent correlation between elevated ambient fine particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of

Criteria Pollutant	Description	Sources	Health Effects
	(haze) which is caused by the scattering of light and consequently the significant reduction air clarity. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. Additionally, it should be noted that PM_{10} is considered a criteria air pollutant. $PM_{2.5}$ (Particulate Matter less than 2.5 microns): A similar air pollutant to PM_{10} consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO_2 release from power plants and industrial facilities and nitrates that are formed from NO_X release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. $PM_{2.5}$ is a criteria air pollutant.	organics). Incomplete combustion of any fuel. $PM_{2.5}$ comes from fuel combustion in motor vehicles, equipment and industrial sources, residential and agricultural burning. Also formed from reaction of other pollutants (acid rain, NO_X, SO_X, organics).	asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$.
Volatile Organic Compounds (VOC)	VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not	Organic chemicals are widely used as ingredients in household products. Paints, varnishes and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing and hobby products.	Breathing VOCs can irritate the eyes, nose and throat, can cause difficulty breathing and nausea, and can damage the central nervous system as well as other organs. Some VOCs can cause cancer. Not all VOCs have all these health effects, though many have several.

Criteria Pollutant	Description	Sources	Health Effects
	form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms VOC and ROG (see below) interchangeably.	Fuels are made up of organic chemicals. All of these products can release organic compounds while you are using them, and, to some degree, when they are stored.	
Reactive Organic Gases (ROG)	Similar to VOC, ROGs are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms ROG and VOC (see previous) interchangeably.	Sources similar to VOCs.	Health effects similar to VOCs.
Lead (Pb)	Lead is a heavy metal that is highly persistent in the environment and is considered a criteria pollutant. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. The major sources of lead emissions are ore and metals processing, particularly lead smelters, and piston-engine aircraft operating on leaded aviation gasoline. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. It should be noted that the	Metal smelters, resource recovery, leaded gasoline, deterioration of lead paint.	Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.

Criteria Pollutant	Description	Sources	Health Effects
	Project does not include operational activities such as metal processing or lead acid battery manufacturing. As such, the Project is not anticipated to generate a quantifiable amount of lead emissions.		Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.
Odor	Odor means the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves.	Odors can come from many sources including animals, human activities, industry, natures, and vehicles.	Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

2.4 EXISTING AIR QUALITY

Existing air quality is measured at established MDAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 2-2 (4).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards. At the time of this AQIA, the most recent state and federal standards were updated by CARB on May ,4 2016 and are presented in Table 2-2. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, PM_{10}, and $PM_{2.5}$ are not to be exceeded. All others are not to be equaled or exceeded. It should be noted that the three-year period is presented for informational purposes and is not the basis for how the State assigns attainment status. Attainment status for a pollutant means that the Air District meets the standards set by the United State Environmental Protection Agency (EPA) or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the NAAQS or CAAQS standards. In order to improve air quality in nonattainment areas, a State Implementation Plan (SIP) is drafted. The SIP outlines the measures that the state will take to improve air quality. Once nonattainment areas meet the standards and additional redesignation requirements, the EPA will designate the area as a maintenance area (5).

TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

Ambient Air Quality Standards						
Pollutant	**Averaging Time**	**California Standards [1]**		**National Standards [2]**		
		Concentration [3]	**Method [4]**	**Primary [3,5]**	**Secondary [3,6]**	**Method [7]**
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	**No National Standards**		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

See footnotes on next page …

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TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (2 OF 2)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.
2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.
3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.
4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.
5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.
6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.
7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.
8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.
9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.
10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.
11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.
12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.
13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.
14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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2.5 REGIONAL AIR QUALITY

Air pollution contributes to a wide variety of adverse health effects. The EPA has established NAAQS for six of the most common air pollutants: O_3, PM_{10}, $PM_{2.5}$, CO, NO_2, SO_2 and Pb which are known as criteria pollutants. The MDAQMD monitors levels of various criteria pollutants at 6 permanent monitoring stations throughout the air district (6). On February 20, 2019, CARB posted the 2018 amendments to the state and national area designations. See Table 2-3 for attainment designations for the MDAB and the Southeast Desert Air Basin (SDAB) (7). Appendix 2.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the MDAB and SDAB.

TABLE 2-3: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE MDAB

Criteria Pollutant	State Designation	Federal Designation
O_3 – 1-hour standard	Nonattainment	--
O_3 – 8-hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Nonattainment
$PM_{2.5}$	Attainment	Unclassifiable/Attainment
CO	Attainment	Unclassifiable/Attainment
NO_2	Attainment	Unclassifiable/Attainment
SO_2	Unclassifiable/Attainment	Unclassifiable/Attainment
Pb	Attainment	Unclassifiable/Attainment

Note: See Appendix 2.1 for a detailed map of State/National Area Designations within the MDAB and SDAB
"-" = The national 1-hour O_3 standard was revoked effective June 15, 2005.

2.6 LOCAL AIR QUALITY

Relative to the Project site, the nearest long-term air quality monitoring site for O_3 and PM_{10} was obtained from the MDAQMD Hesperia-Olive Street monitoring station, located approximately 5.08 miles east of the project site in Hesperia. Data for CO, NO_2, and $PM_{2.5}$ was obtained from the MDAQMD Victorville-Park Avenue, located approximately 5.75 miles northeast of the project site in Victorville. It should be noted that the Victorville-Park monitoring station was utilized in lieu of the Hesperia-Olive Street monitoring station only where data was not available from the nearest monitoring site.

The most recent three (3) years of data available is shown on Table 2-4 and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Project site. Data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ was obtained using the CARB iADAM: Air Quality and Data Statistics and the Air Quality and Meteorological Information System (AQMIS) (8) (9). Data for SO_2 has been omitted as attainment is regularly met and few monitoring stations measure SO_2 concentrations. It should be noted that the table below is provided for informational purposes.

TABLE 2-4: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2018-2020

Pollutant	Standard	Year		
		2018	2019	2020
O_3				
Maximum Federal 1-Hour Concentration (ppm)		0.113	0.108	0.118
Maximum Federal 8-Hour Concentration (ppm)		0.100	0.088	0.094
Number of Days Exceeding State 1-Hour Standard	> 0.09 ppm	9	9	9
Number of Days Exceeding State/Federal 8-Hour Standard	> 0.070 ppm	71	47	46
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	5.408	1.493	5.461
NO_2				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	51.4	56.0	59.4
Annual Federal Standard Design Value		12	11	13
PM_{10}				
Maximum Federal 24-Hour Concentration ($\mu g/m^3$)	> 150 $\mu g/m^3$	138.9	157.7	224.1
Annual Federal Arithmetic Mean ($\mu g/m^3$)		27.8	24.5	28.2
Number of Days Exceeding Federal 24-Hour Standard	> 150 $\mu g/m^3$	0	1	1
Number of Days Exceeding State 24-Hour Standard	> 50 $\mu g/m^3$	--	--	--
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration ($\mu g/m^3$)	> 35 $\mu g/m^3$	32.7	17.8	48.4
Annual Federal Arithmetic Mean ($\mu g/m^3$)	> 12 $\mu g/m^3$	7.9	7.0	9.7
Number of Days Exceeding Federal 24-Hour Standard	> 35 $\mu g/m^3$	0	0	4

Source: California Air Resource Board iADAM: Air Quality Data Statistics and AQMIS
ppm = Parts Per Million
$\mu g/m^3$ – microgram per cubic meter
-- = data not available

2.7 REGULATORY BACKGROUND

2.7.1 FEDERAL REGULATIONS

The EPA is responsible for setting and enforcing the NAAQS for O_3, CO, NO_X, SO_2, PM_{10}, and Pb (10). The EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer Continental Shelf). The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (11). The CAA also mandates that states submit and implement SIPs for local areas not meeting these

standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions) (12) (13). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. Table 2-3 (previously presented) provides the NAAQS within the MDAB.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_X. NO_X is a collective term that includes all forms of NO_X which are emitted as byproducts of the combustion process.

2.7.2 CALIFORNIA REGULATIONS

CARB

CARB, which became part of the CalEPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. AB 2595 mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for SO_4, visibility, hydrogen sulfide (H_2S), and vinyl chloride (C_2H_3Cl). However, at this time, H_2S and C_2H_3Cl are not measured at any monitoring stations in the MDAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (14) (10).

Local air quality management districts, such as the MDAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare Air Quality Management Plans (AQMP) that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g., motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;

- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a 5% or more annual reduction in emissions or 15% or more in a period of three years for ROGs, NO_X, CO and PM_{10}. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than 5% per year under certain circumstances.

TITLE 24 ENERGY EFFICIENCY STANDARDS AND CALIFORNIA GREEN BUILDING STANDARDS

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that will be effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons (15). The Project would be required to comply with the applicable standards in place at the time building permit document submittals are made. These require, among other items (16):

NONRESIDENTIAL MANDATORY MEASURES

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.

- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reuse or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
  - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
  - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor- mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
  - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
  - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).

- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

2.7.3 AIR QUALITY MANAGEMENT PLANNING

Currently, the NAAQS and CAAQS are exceeded in most parts of the MDAB. The NAAQS, the Project region within the MDAB is in nonattainment for O_3 (8-hour) and PM_{10}. For the CAAQS, the Project region within the MDAB is in nonattainment for O_3 (1-hour and 8-hour) and PM_{10}. In response, the MDAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards (17). AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.7.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will violate an air quality standard or contribute to an existing or projected air quality violation. Additionally, the Project has been evaluated to determine if it will result in a cumulatively considerable net increase of a criteria pollutant for which the MDAB is non-attainment under an applicable federal or state ambient air quality standard. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the Initial Study Checklist in Appendix G of the *State CEQA Guidelines* (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (1):

- 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 non-attainment under an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

The MDAQMD has developed regional significance thresholds for regulated pollutants, shown below in Table 3-1. The MDAQMD's *Guidelines* indicate that any projects in the MDAB with daily regional emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact (18).

TABLE 3-1: MAXIMUM REGIONAL DAILY EMISSIONS THRESHOLDS

Pollutant	Daily Threshold (lbs/day)
CO	548 lbs/day
NO_X	137 lbs/day
VOC	137 lbs/day
SO_X	137 lbs/day
PM_{10}	82 lbs/day
$PM_{2.5}$	65 lbs/day

Note: lbs/day – pounds per day

3.3 MODELS EMPLOYED TO ANALYZE AIR QUALITY

3.3.1 CALEEMOD

Land uses such as the Project affect air quality through construction-source and operational-source emissions.

In May 2022 California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of CalEEMod version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation (19). Accordingly, the latest version of CalEEMod has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendices 3.1 and 3.2.

3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the Project will result in emissions of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

GRADING ACTIVITIES

Dust is typically a major concern during grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalEEMod was utilized to calculate fugitive dust emissions resulting from this phase of activity. Based on consultation with the client, it is anticipated that approximately 300 cubic yards of soil import will be required. Although it is anticipated that soil will be imported from within the City of Hesperia, a conservative hauling trip distance of 20 miles was utilized.

OFF-SITE UTILITY AND INFRASTRUCTURE IMPROVEMENTS

In addition, to support the Project development, there will be paving for off-site improvements associated with roadway construction and utility installation, as well as installation of fire hydrants and street lighting. It is expected that the off-site construction activities would not take place at one location for the entire duration of construction. Impacts associated with these activities are not expected to exceed the emissions identified for Project-related construction activities since the off-site construction areas would have physical constraints on the amount of

daily activity that could occur. The physical constraints would limit the amount of construction equipment that could be used, and any off-site and utility infrastructure construction would not use equipment totals that would exceed the equipment totals on Table 3-3. As such, no impacts beyond what has already been identified in this report are expected to occur.

3.4.1 CONSTRUCTION DURATION

Construction is expected to commence in January 2023 and will last through December 2023. Construction duration by phase is shown on Table 3-2. The construction schedule utilized in the analysis represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[3] The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines*. The duration of construction activity was based on the 2024 opening year.

3.4.2 CONSTRUCTION EQUIPMENT

Site specific construction fleet may vary due to specific project needs at the time of construction. The associated construction equipment was generally based on CalEEMod defaults. A detailed summary of construction equipment assumptions by phase is provided at Table 3-3. Please refer to specific detailed modeling inputs/outputs contained in Appendix 3.1 of this analysis.

TABLE 3-2: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Site Preparation	1/15/2023	2/1/2023	13
Grading	2/1/2023	3/31/2023	43
Building Construction	3/15/2023	11/30/2023	187
Paving	11/15/2023	12/30/2023	33
Architectural Coating	11/6/2023	12/30/2023	40

TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Phase Name	Equipment	Number	Hours Per Day
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Grading	Excavators	2	8

[3] As shown in the CalEEMod User's Guide Version 2022.1, Section 4.3"OFFROAD Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

Phase Name	Equipment	Number	Hours Per Day
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
	Crawler Tractors	2	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

3.4.3 CONSTRUCTION EMISSIONS SUMMARY

IMPACTS WITHOUT MITIGATION

CalEEMod calculates maximum daily emissions for summer and winter periods. As such, the estimated maximum daily construction emissions without mitigation for both summer and winter periods are summarized on Table 3-4. Detailed construction model outputs are presented in Appendix 3.1. Under the assumed scenarios, Project construction-source emissions would not exceed the applicable MDAQMD regional thresholds for any criteria pollutant. As such, emissions generated during Project construction are less than significant and mitigation is not required.

TABLE 3-4: EMISSIONS SUMMARY OF CONSTRUCTION – WITHOUT MITIGATION

Year	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
2023	2.70	16.30	36.00	0.04	3.91	1.37
Winter						
2023	70.80	89.00	73.50	0.12	13.50	7.97
Maximum Daily Emissions	**70.80**	**89.00**	**73.50**	**0.12**	**13.50**	**7.97**
SCAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod construction-source emissions are presented in Appendix 3.1.

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the Project will result in emissions of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Operational emissions would be expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- On-Site Cargo Handling Equipment Emissions

Unless otherwise noted, all emissions modeling presented herein employed CalEEMod default inputs and parameters.

3.5.1 AREA SOURCE EMISSIONS

ARCHITECTURAL COATINGS

Over a period of time the buildings that are part of this Project will require maintenance and will therefore produce emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings.

CONSUMER PRODUCTS

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants.

LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. It should be noted that as October 9, 2021, Governor Gavin Newsom signed AB 1346. The bill aims to ban the sale of new gasoline-powered equipment under 25 gross horsepower (known as small off-road engines [SOREs]) by 2024.

3.5.2 ENERGY SOURCE EMISSIONS

COMBUSTION EMISSIONS ASSOCIATED WITH NATURAL GAS AND ELECTRICITY

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the MDAB, criteria pollutant emissions from offsite generation of electricity are generally excluded from the evaluation of significance and only natural gas use is considered.

3.5.3 MOBILE SOURCE EMISSIONS

The Project related operational air quality emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the *Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis* were utilized in this analysis (20).

3.5.3.1 APPROACH FOR ANALYSIS OF THE PROJECT

In order to determine emissions from passenger car vehicles, the CalEEMod defaults were utilized for trip length and trip purpose for the proposed industrial land uses.

For the proposed industrial uses, it is important to note that although the *Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis* does not breakdown passenger cars by type, this analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1[4] & LDT2[5]), Medium-Duty-Vehicles (MDV), and Motorcycles (MCY) vehicle types. To account for emissions generated by passenger cars, the following fleet mix was utilized in this analysis:

TABLE 3-5: PASSENGER CAR FLEET MIX

Land Use	% Vehicle Type				
	LDA	LDT1	LDT2	MDV	MCY
High Cube Fulfillment (Non-Sort Facility) Warehouse	52.72%	4.97%	22.22%	17.18%	2.88%

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, MDV, and MCY vehicle types.

To determine emissions from trucks for the proposed industrial uses, the analysis incorporated SCAQMD recommended truck trip length 15.3 miles for 2-axle (LHDT1, LHDT2) trucks, 14.2 miles 3-axle (MHDT) trucks and 40 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using traffic trip percentages taken from the *Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis*. The trip length function for the general light industrial and manufacturing uses has been revised to 30.47 miles with an assumption of 100% primary trips for the proposed industrial land uses.

In order to be consistent with the *Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis*, trucks are broken down by truck type. The truck fleet mix is estimated by rationing the trip rates for each truck type based on information provided in the *Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis*. Heavy trucks are broken down by truck type (or axle type) and are categorized as either Light-Heavy-Duty Trucks (LHDT1[6] & LHDT2 [7])/2-axle, Medium-Heavy-Duty Trucks (MHDT)/3-axle, and Heavy-Heavy-Duty Trucks

[4] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[5] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

[6] Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.

[7] Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

(HHDT)/4+-axle. To account for emissions generated by trucks, the following fleet mix was utilized in this analysis:

TABLE 3-6: TRUCK FLEET MIX

Land Use	% Vehicle Type			
	LHDT1	LHDT2	MHDT	HHDT
High Cube Fulfillment (Non-Sort Facility) Warehouse	13.03%	3.49%	20.87%	62.61%

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) relative to the total number of truck trips.

FUGITIVE DUST RELATED TO VEHICULAR TRAVEL

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of break and tire wear particulates.

3.5.4 ON-SITE CARGO HANDLING EQUIPMENT EMISSIONS

It is common for warehouse buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. For this particular Project, on-site modeled operational equipment includes up to two (2) 200 horsepower (hp), compressed natural gas or gasoline-powered tractors/loaders/backhoes operating at 4 hours a day[8] for 365 days of the year.

3.5.6 OPERATIONAL EMISSIONS SUMMARY

As previously stated, CalEEMod utilizes summer and winter EMFAC2021 emission factors in order to derive vehicle emissions associated with Project operational activities, which vary by season. The estimated operational-source emissions are summarized on Table 3-7. Detailed operation model outputs for the Project are presented in Appendix 3.2. As shown on Table 3-7, the Project's daily regional emissions from on-going operations will not exceed any of the thresholds of significance.

[8] Based on Table II-3, Port and Rail Cargo Handling Equipment Demographics by Type, from CARB's Technology Assessment: Mobile Cargo Handling Equipment document, a single piece of equipment could operate up to 2 hours per day (Total Average Annual Activity divided by Total Number Pieces of Equipment). As such, the analysis conservatively assumes that the tractor/loader/backhoe would operate up to 4 hours per day.

TABLE 3-7: SUMMARY OF PEAK OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
Mobile Source	4.67	13.60	62.00	0.21	5.55	1.22
Area Source	15.10	0.18	21.70	< 0.005	0.03	0.04
Energy Source	0.14	2.55	2.14	0.02	0.19	0.19
On-Site Equipment Source	0.23	0.75	32.89	0.00	0.06	0.05
Total Maximum Daily Emissions	**20.14**	**17.08**	**118.73**	**0.23**	**5.83**	**1.50**
MDAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Winter						
Mobile Source	4.27	14.60	46.70	0.20	5.55	1.22
Area Source	11.50	0.00	0.00	0.00	0.00	0.00
Energy Source	0.14	2.55	2.14	0.02	0.19	0.19
On-Site Equipment Source	0.23	0.75	32.89	0.00	0.06	0.05
Total Maximum Daily Emissions	**16.14**	**17.90**	**81.73**	**0.22**	**5.80**	**1.46**
SCAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod operational-source emissions are presented in Appendix 3.2.

3.6 CO "HOT SPOT" ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or "hot spots." Further, detailed modeling of Project-specific CO "hot spots" is not needed to reach this conclusion. An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur.

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SCAB is now designated as attainment.

To establish a more accurate record of baseline CO concentrations affecting the SCAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards, as shown on Table 3-8.

TABLE 3-8: CO MODEL RESULTS

Intersection Location	CO Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire Boulevard/Veteran Avenue	4.6	3.5	3.7
Sunset Boulevard/Highland Avenue	4	4.5	3.5
La Cienega Boulevard/Century Boulevard	3.7	3.1	5.2
Long Beach Boulevard/Imperial Highway	3	3.1	8.4

Source: 2003 AQMP, Appendix V: Modeling and Attainment Demonstrations
Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

Based on the SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (*1992 CO Plan*), peak carbon monoxide concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 8.4 ppm 8-hr CO concentration measured at the Long Beach Blvd. and Imperial Hwy. intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 7.7 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (21). In contrast, an adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur.

Traffic volumes generating the CO concentrations for the "hot spot" analysis is shown on Table 3-9. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vph and AM/PM traffic volumes of 8,062 vph and 7,719 vph respectively (21). The *2003 AQMP* estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm)[9].

TABLE 3-9: TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire Boulevard/Veteran Avenue	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset Boulevard/Highland Avenue	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega Boulevard/Century Boulevard	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach Boulevard/Imperial Highway	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: 2003 AQMP

[9] Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm)

Trip generation estimates for the Project indicate that the proposed warehouse uses would generate an estimated maximum of approximately 77 trips during the PM peak hour.

Moreover, the ambient 1-hr CO concentration within the Project study area is estimated to be 5.461 ppm (data from Victorville station for 2020). Therefore, even if the traffic volumes for the Project were double or even triple of the traffic volumes generated at the Long Beach Blvd. and Imperial Hwy. intersection, coupled with the on-going improvements in ambient air quality, the Project would not be capable of resulting in a CO "hot spot" at any study area intersections.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph)—or 24,000 vph where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (22).

Based on the preceding, the potential for the project to result in or cause adverse CO "hotspots" is considered less-than-significant.

3.7 AQMP

The Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Mojave Desert set forth a comprehensive set of programs that will lead the MDAB into compliance with federal and state air quality standards. The control measures and related emission reduction estimates within the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with these attainment plans for development projects is determined by demonstrating compliance the indicators discussed below:

3.7.1 CONSISTENCY CRITERION NO. 1

Local land use plans and/or population projections

The existing General Plan Land Use designation of the Project site is "General Commercial" (C2). The Project uses are allowed under the site's existing C2 General Plan Land Use designation. The Project does not propose or require a General Plan Amendment affecting the Project site or any off-site City of Hesperia properties. The C2 land use designation allows for a maximum FAR of 1.0, the proposed Project site has a FAR of 0.376 which is in conformance with the C2 land use designation. The C2 land use designation is intended for goods and services of general nature, as well as professional offices that meet both short and long term needs of the City's population (23). The Project Applicant proposes land uses that are consistent with development anticipated under the site's existing General Plan designation. The Project would therefore conform to local land use plans.

3.7.4 CONSISTENCY CRITERION NO. 2

All MDAQMD Rules and Regulations

The Project would be required to comply with all applicable MDAQMD Rules and Regulations, including, but not limited to Rules 401 (Visibile Emissions), 402 (Nuisance), and 403 (Fugitive Dust).

3.7.3 CONSISTENCY CRITERION NO. 3

Demonstrating that the project will not increase the frequency or severity of a violation in the federal or state ambient air quality standards

Consistency Criterion No. 3 refers to violations of the CAAQS and NAAQS. CAAQS and NAAQS violations would occur if regional significance thresholds were exceeded. As evaluated, the Project's regional construction and operational emissions would not exceed applicable regional significance thresholds. As such, a less than significant impact is expected.

AQMP CONSISTENCY CONCLUSION

The Project would not have the potential to result in or cause NAAQS or CAAQS violations. Additionally, Project construction and operational-source emissions would not exceed the regional or localized significance thresholds. Further, the Project will not exceed the assumptions in the AQMP based on the years of Project build-out phase.

The Project is therefore considered to be consistent with the AQMP.

3.8 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS

As per the MDAQMD's *Guidelines*, the following project types located within a specified distance to an existing or planned sensitive receptor land use must be evaluated to determine exposure of substantial pollutant concentrations to sensitive receptors (18):

- Any industrial project within 1,000 feet;
- A distribution center (40 or more trucks per day) within 1,000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

As the Project consists of approximately 499,700 sf of warehousing use, the potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long-term health care facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, childcare centers, and athletic facilities can also be considered as sensitive receptors.

Receptors in the Project study area are described below and shown on Exhibit 3-A. All distances are measured from the Project sites boundary to the outdoor living areas (e.g., backyards) or at the building façade, whichever is closer to the Project sites. The selection of receptor locations

is based on Federal Highway Administration (FHWA) guidelines and is consistent with additional guidance provided by Caltrans and the Federal Transit Administration (FTA). Distance is measured in a straight line from the project boundary to each receptor location.

R1: Location R1 represents the existing residence at 13030 Avenal Street, approximately 71 feet north of the Project site. R1 is placed in the private outdoor living areas (backyard) facing the Project site.

R2: Location R2 represents the existing residence at 13164 Avenal Road, approximately 76 feet north of the Project site. R2 is placed in the private outdoor living areas (backyard) facing the Project site.

R3: Location R3 represents the existing residence at 10445 Avenal Street, approximately 1,263 feet east of the Project site. R3 is placed in the private outdoor living areas (backyard) facing the Project site.

R4: Location R4 represents the existing residence at 13500 Live Oak Street, approximately 1,071 feet southeast of the Project site Since there are no private outdoor living areas (backyards) facing the Project site, receptor R4 is placed at the residential building façade.

R5: Location R5 represents the existing residence at 10376 Wellington Road, approximately 227 feet north of the Project site. R5 is placed in the private outdoor living areas (backyard) facing the Project site.

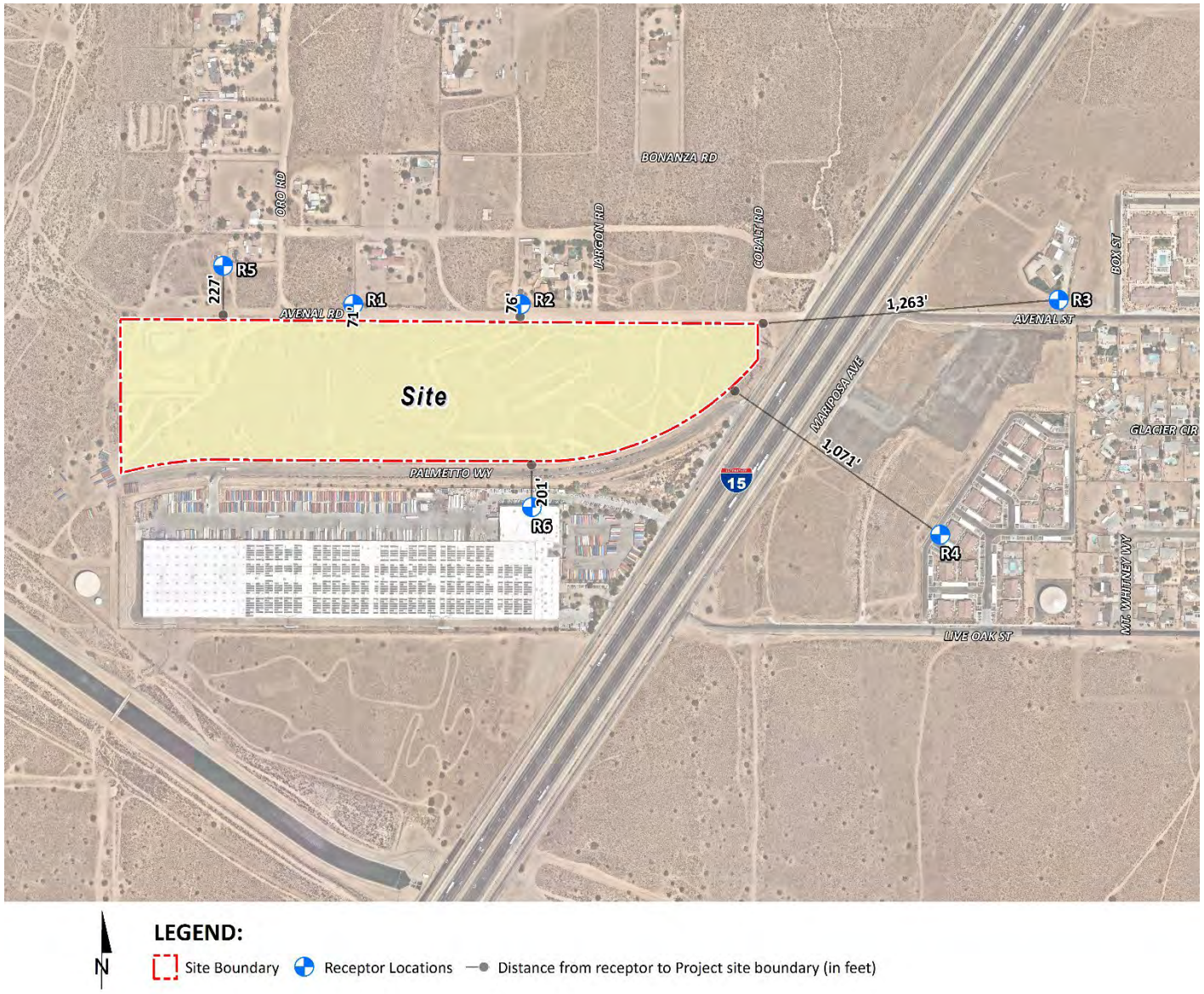
R6: Location R6 represents MGA Entertainment, Inc., located at 10200 Amargosa Road, approximately 201 feet south of the Project site.

Based on Exhibit 3-A, and as described above, the nearest sensitive receptor is a residence at 13030 Avenal Street, approximately 71 feet north of the Project site.

The Project would have a potentially significant health risk impact if it results in a maximum incremental cancer risk from emission of Toxic Air Contaminants (TACs) of ≥ 10 in one million and/or a chronic & acute hazard index that is ≥1.0. In the case of the Project, the TAC of concern is diesel particulate matter (DPM) that could be generated by Project construction activities, and on-site and off-site DPM that would result from on-going Project operations.

For purposes of this evaluation, a Health Risk Assessment (HRA) has been prepared by Urban Crossroads, Inc. under a separate cover. The results of the *Amargosa and Palmetto High-Cube Warehouse Mobile Source Health Risk Assessment* (Urban Crossroads, Inc.) indicate that the Project would not result in any potentially significant health risk impacts from exposure to DPM emissions (24).

EXHIBIT 3-A: SENSITIVE RECEPTOR LOCATIONS



3.9 ODORS

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants
- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The Project does not propose or require land uses that would be substantive sources of objectionable odors. Potential temporary and intermittent odors may result from construction equipment exhaust, the application of asphalt and architectural coatings, Temporary and intermittent construction-source emissions are controlled through existing requirements and industry Best Management Practices (BMPs) addressing proper storage of and application construction materials.

Over the life of the Project, odors may result from storage of municipal solid waste pending its transport to area landfills. . Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City of Hesperia's solid waste regulations.

The Project would also be required to comply with MDAQMD Rule 402. Rule 402 provides that "[a] person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." (25). Based on the preceding, the potential for the Project to create objectionable odors affecting a substantial number of people is considered less-than-significant.

3.10 CUMULATIVE IMPACTS

The MDAQMD relies on the SCAQMD guidance for determining cumulative impacts. The SCAQMD has recognized that there is typically insufficient information to quantitatively evaluate the cumulative contributions of multiple projects because each project applicant has no control over nearby projects.

The SCAQMD published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (26). In this report the SCAQMD clearly states (Page D-3):

> *"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Consistent with above SCAQMD guidance, Project operational or construction emissions that do not exceed the MDAQMD's project-specific thresholds would not cause a cumulatively considerable increase in emissions for those pollutants for which MDAB is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Conversely, Project construction and operational emissions that exceed MDAQMD thresholds for project-specific impacts would be considered cumulatively considerable.

CONSTRUCTION IMPACTS

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that Project construction-source air pollutant emissions would not result in exceedances of MDAQMD thresholds. Therefore, Project construction-source emissions would be considered less than significant on a project-specific and cumulative basis.

OPERATIONAL IMPACTS

The Project-specific evaluation of emissions presented in the preceding analysis demonstrates that Project operational-source air pollutant emissions would not result in exceedances of MDAQMD thresholds. Therefore, Project operational-source emissions would be considered less than significant on a project-specific and cumulative basis.

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5 CERTIFICATIONS

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Amargosa and Palmetto High-Cube Warehouse Project. The information contained in this air quality impact assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5987.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 2.1:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

APPENDIX C

MAPS AND TABLES OF AREA DESIGNATIONS FOR STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS

APPENDIX C

MAPS AND TABLES OF AREA DESIGNATIONS FOR STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS

This attachment fulfills the requirement of Health and Safety Code section 40718 for CARB to publish maps that identify areas where one or more violations of any State ambient air quality standard (State standard) or national ambient air quality standard (national standard) have been measured. The national standards are those promulgated under section 109 of the federal Clean Air Act (42 U.S.C. 7409).

This attachment is divided into three parts. The first part comprises a table showing the levels, averaging times, and measurement methods for each of the State and national standards. This is followed by a section containing maps and tables showing the area designations for each pollutant for which there is a State standard in the California Code of Regulations, title 17, section 70200. The last section contains maps and tables showing the most current area designations for the national standards.

Ambient Air Quality Standards

(Updated 5/4/16)

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	**No National Standards**		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

See footnotes on next page ...

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$)as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Area Designations for the State Ambient Air Quality Standards

The following maps and tables show the area designations for each pollutant with a State standard set forth in the California Code of Regulations, title 17, section 60200. Each area is identified as attainment, nonattainment, nonattainment-transitional, or unclassified for each pollutant, as shown below:

Attainment	A
Nonattainment	N
Nonattainment-Transitional	NA-T
Unclassified	U

In general, CARB designates areas by air basin for pollutants with a regional impact and by county for pollutants with a more local impact. However, when there are areas within an air basin or county with distinctly different air quality deriving from sources and conditions not affecting the entire air basin or county, CARB may designate a smaller area. Generally, when boundaries of the designated area differ from the air basin or county boundaries, the description of the specific area is referenced at the bottom of the summary table.

FIGURE 1


2020
Area Designations for State
Ambient Air Quality Standards
OZONE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Sutter Buttes
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Lake
Colusa
Sutter
Yuba
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
SAN JOAQUIN VALLEY
San Benito
Fresno
NORTH CENTRAL COAST
Kings
Tulare
Inyo
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
Riverside
Orange
SOUTH COAST
SALTON SEA
San Diego
Imperial
SAN DIEGO
Unclassified
Attainment
Nonattainment-Transitional
Nonattainment
Air Basin
County
Last Updated: October 2020
Air Quality Planning and Science Division, CARB

TABLE 1

California Ambient Air Quality Standards
Area Designations for Ozone [1]

	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN				
Alpine County			X	
Inyo County	X			
Mono County	X			
LAKE COUNTY AIR BASIN				X
LAKE TAHOE AIR BASIN				X
MOJAVE DESERT AIR BASIN	X			
MOUNTAIN COUNTIES AIR BASIN				
Amador County		X		
Calaveras County	X			
El Dorado County (portion)	X			
Mariposa County	X			
Nevada County	X			
Placer County (portion)	X			
Plumas County			X	
Sierra County			X	
Tuolumne County	X			
NORTH CENTRAL COAST AIR BASIN				X
NORTH COAST AIR BASIN				X

	N	NA-T	U	A
NORTHEAST PLATEAU AIR BASIN				X
SACRAMENTO VALLEY AIR BASIN				
Colusa and Glenn Counties				X
Shasta County		X		
Sutter/Yuba Counties				
Sutter Buttes	X			
Remainder of Sutter County	X			
Yuba County	X			
Yolo/Solano Counties		X		
Remainder of Air Basin	X			
SALTON SEA AIR BASIN	X			
SAN DIEGO AIR BASIN	X			
SAN FRANCISCO BAY AREA AIR BASIN	X			
SAN JOAQUIN VALLEY AIR BASIN	X			
SOUTH CENTRAL COAST AIR BASIN				
San Luis Obispo County	X			
Santa Barbara County	X			
Ventura County	X			
SOUTH COAST AIR BASIN	X			

[1] AB 3048 (Olberg) and AB 2525 (Miller) signed into law in 1996, made changes to Health and Safety Code, section 40925.5. One of the changes allows nonattainment districts to become nonattainment-transitional for ozone by operation of law.

FIGURE 2


2020
Area Designations for State
Ambient Air Quality Standards
PM10
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Lake
Colusa
Sutter
Yuba
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
Yosemite NP
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
SAN JOAQUIN VALLEY
San Benito
Fresno
Inyo
NORTH CENTRAL COAST
Kings
Tulare
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
Riverside
Orange
SOUTH COAST
SALTON SEA
Imperial
San Diego
SAN DIEGO
Unclassified
Attainment
Nonattainment
Air Basin
County
Last Updated: October 2020
Air Quality Planning and Science Division, CARB

TABLE 2

California Ambient Air Quality Standards
Area Designation for Suspended Particulate Matter (PM_{10})

	N	U	A
GREAT BASIN VALLEYS AIR BASIN	X		
LAKE COUNTY AIR BASIN			X
LAKE TAHOE AIR BASIN	X		
MOJAVE DESERT AIR BASIN	X		
MOUNTAIN COUNTIES AIR BASIN			
Amador County		X	
Calaveras County	X		
El Dorado County (portion)	X		
Mariposa County			
- Yosemite National Park	X		
- Remainder of County		X	
Nevada County	X		
Placer County (portion)	X		
Plumas County	X		
Sierra County	X		
Tuolumne County		X	

	N	U	A
NORTH CENTRAL COAST AIR BASIN	X		
NORTH COAST AIR BASIN			
Del Norte, Sonoma (portion) and Trinity Counties			X
Remainder of Air Basin	X		
NORTHEAST PLATEAU AIR BASIN			
Siskiyou County			X
Remainder of Air Basin		X	
SACRAMENTO VALLEY AIR BASIN			
Shasta County			X
Remainder of Air Basin	X		
SALTON SEA AIR BASIN	X		
SAN DIEGO AIR BASIN	X		
SAN FRANCISCO BAY AREA AIR BASIN	X		
SAN JOAQUIN VALLEY AIR BASIN	X		
SOUTH CENTRAL COAST AIR BASIN	X		
SOUTH COAST AIR BASIN	X		

FIGURE 3


2020
Area Designations for State
Ambient Air Quality Standards
PM2.5
N
0 50 100 150 200
Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
Portola Valley
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Lake
Colusa
Yuba
Sutter
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
SAN JOAQUIN VALLEY
San Benito
Fresno
Inyo
NORTH CENTRAL COAST
Kings
Tulare
Monterey
County Portion of Federal Ozone AQMA
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
Riverside
Orange
SOUTH COAST
SALTON SEA
San Diego
Imperial
SAN DIEGO
Calexico
Unclassified
Attainment
Nonattainment
Air Basin
County
Last Updated: October 2020
Air Quality Planning and Science Division, CARB

TABLE 3

California Ambient Air Quality Standards
Area Designations for Fine Particulate Matter ($PM_{2.5}$)

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			X
LAKE COUNTY AIR BASIN			X
LAKE TAHOE AIR BASIN			X
MOJAVE DESERT AIR BASIN			
San Bernardino County			
- County portion of federal Southeast Desert Modified AQMA for Ozone[1]			X
Remainder of Air Basin			X
MOUNTAIN COUNTIES AIR BASIN			
Plumas County			
- Portola Valley[2]	X		
Remainder of Air Basin		X	
NORTH CENTRAL COAST AIR BASIN			X
NORTH COAST AIR BASIN			X
NORTHEAST PLATEAU AIR BASIN			X
SACRAMENTO VALLEY AIR BASIN			
Butte County	X		
Colusa County			X
Glenn County			X
Placer County (portion)			X
Sacramento County			X
Shasta County			X
Sutter and Yuba Counties			X
Remainder of Air Basin		X	

	N	U	A
SALTON SEA AIR BASIN			
Imperial County			
- City of Calexico[3]	X		
Remainder of Air Basin			X
SAN DIEGO AIR BASIN	X		
SAN FRANCISCO BAY AREA AIR BASIN	X		
SAN JOAQUIN VALLEY AIR BASIN	X		
SOUTH CENTRAL COAST AIR BASIN			
San Luis Obispo County			X
Santa Barbara County		X	
Ventura County			X
SOUTH COAST AIR BASIN	X		

[1] California Code of Regulations, title 17, section 60200(b)

[2] California Code of Regulations, title 17, section 60200(c)

[3] California Code of Regulations, title 17, section 60200(a)

FIGURE 4

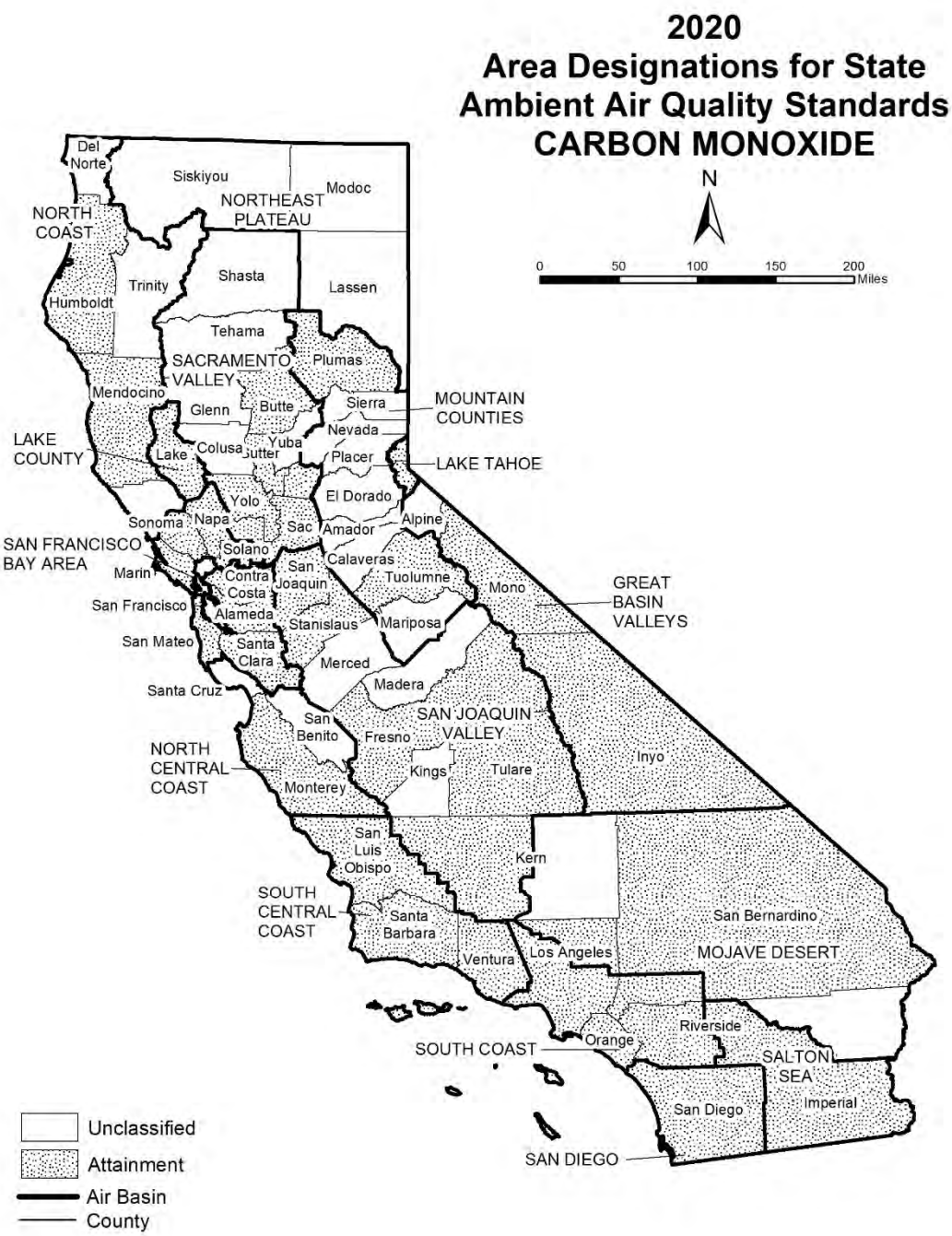

2020
Area Designations for State
Ambient Air Quality Standards
CARBON MONOXIDE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Lake
Colusa
Sutter
Yuba
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
San Benito
SAN JOAQUIN VALLEY
Fresno
Inyo
NORTH CENTRAL COAST
Kings
Tulare
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
Riverside
Orange
SOUTH COAST
SALTON SEA
San Diego
Imperial
SAN DIEGO
Unclassified
Attainment
Air Basin
County
Last Updated: October 2020
Air Quality Planning and Science Division, CARB

TABLE 4

California Ambient Air Quality Standards
Area Designation for Carbon Monoxide*

	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN				
Alpine County			X	
Inyo County				X
Mono County				X
LAKE COUNTY AIR BASIN				X
LAKE TAHOE AIR BASIN				X
MOJAVE DESERT AIR BASIN				
Kern County (portion)			X	
Los Angeles County (portion)				X
Riverside County (portion)			X	
San Bernardino County (portion)				X
MOUNTAIN COUNTIES AIR BASIN				
Amador County			X	
Calaveras County			X	
El Dorado County (portion)			X	
Mariposa County			X	
Nevada County			X	
Placer County (portion)			X	
Plumas County				X
Sierra County			X	
Tuolumne County				X
NORTH CENTRAL COAST AIR BASIN				
Monterey County				X
San Benito County			X	
Santa Cruz County			X	
NORTH COAST AIR BASIN				
Del Norte County			X	
Humboldt County				X
Mendocino County				X
Sonoma County (portion)			X	
Trinity County			X	
NORTHEAST PLATEAU AIR BASIN			X	

	N	NA-T	U	A
SACRAMENTO VALLEY AIR BASIN				
Butte County				X
Colusa County			X	
Glenn County			X	
Placer County (portion)				X
Sacramento County				X
Shasta County			X	
Solano County (portion)				X
Sutter County				X
Tehama County			X	
Yolo County				X
Yuba County			X	
SALTON SEA AIR BASIN				X
SAN DIEGO AIR BASIN				X
SAN FRANCISCO BAY AREA AIR BASIN				X
SAN JOAQUIN VALLEY AIR BASIN				
Fresno County				X
Kern County (portion)				X
Kings County			X	
Madera County			X	
Merced County			X	
San Joaquin County				X
Stanislaus County				X
Tulare County				X
SOUTH CENTRAL COAST AIR BASIN				X
SOUTH COAST AIR BASIN				X

* The area designated for carbon monoxide is a county or portion of a county

FIGURE 5


2020
Area Designations for State
Ambient Air Quality Standards
NITROGEN DIOXIDE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Lake
Colusa
Yuba
Sutter
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
SAN JOAQUIN VALLEY
San Benito
Fresno
NORTH CENTRAL COAST
Kings
Tulare
Inyo
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
CA 60 (Portion)
Riverside
Orange
SOUTH COAST
SALTON SEA
San Diego
Imperial
SAN DIEGO
Calexico
Los Angeles
San Bernardino
CA 60 (Portion)
Riverside
Orange
Attainment
Nonattainment
Air Basin
County
Last Updated: October 2020
Air Quality Planning and Science Division, CARB

TABLE 5

California Ambient Air Quality Standards
Area Designations for Nitrogen Dioxide

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			X
LAKE COUNTY AIR BASIN			X
LAKE TAHOE AIR BASIN			X
MOJAVE DESERT AIR BASIN			X
MOUNTAIN COUNTIES AIR BASIN			X
NORTH CENTRAL COAST AIR BASIN			X
NORTH COAST AIR BASIN			X
NORTHEAST PLATEAU AIR BASIN			X

	N	U	A
SACRAMENTO VALLEY AIR BASIN			X
SALTON SEA AIR BASIN			X
SAN DIEGO AIR BASIN			X
SAN FRANCISCO BAY AREA AIR BASIN			X
SAN JOAQUIN VALLEY AIR BASIN			X
SOUTH CENTRAL COAST AIR BASIN			X
SOUTH COAST AIR BASIN			
CA 60 Near-road Portion of San Bernardino, Riverside, and Los Angeles Counties	X		
Remainder of Air Basin			X

FIGURE 6


2020
Area Designations for State
Ambient Air Quality Standards
SULFUR DIOXIDE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
Nevada
MOUNTAIN COUNTIES
LAKE COUNTY
Lake
Colusa
Sutter
Yuba
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
San Benito
Fresno
SAN JOAQUIN VALLEY
Inyo
NORTH CENTRAL COAST
Kings
Tulare
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
Riverside
Orange
SOUTH COAST
SALTON SEA
San Diego
Imperial
SAN DIEGO
Attainment
Air Basin
County
Last Updated: October 2020
Air Quality Planning and Science Division, CARB

TABLE 6

California Ambient Air Quality Standards
Area Designation for Sulfur Dioxide*

	N	A
GREAT BASIN VALLEYS AIR BASIN		X
LAKE COUNTY AIR BASIN		X
LAKE TAHOE AIR BASIN		X
MOJAVE DESERT AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X

	N	A
SACRAMENTO VALLEY AIR BASIN		X
SALTON SEA AIR BASIN		X
SAN DIEGO AIR BASIN		X
SAN FRANCISCO BAY AREA AIR BASIN		X
SAN JOAQUIN VALLEY AIR BASIN		X
SOUTH CENTRAL COAST AIR BASIN		X
SOUTH COAST AIR BASIN		X

* The area designated for sulfur dioxide is a county or portion of a county. Since all areas in the State are in attainment for this standard, air basins are indicated here for simplicity.

FIGURE 7


2020
Area Designations for State
Ambient Air Quality Standards
SULFATES
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
Nevada
MOUNTAIN COUNTIES
LAKE COUNTY
Lake
Colusa
Sutter
Yuba
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
SAN JOAQUIN VALLEY
San Benito
Fresno
Inyo
NORTH CENTRAL COAST
Kings
Tulare
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
Riverside
Orange
SOUTH COAST
SALTON SEA
San Diego
Imperial
SAN DIEGO
Attainment
Air Basin
County
Last Updated: October 2020
Air Quality Planning and Science Division, CARB

TABLE 7

California Ambient Air Quality Standards
Area Designation for Sulfates

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			X
LAKE COUNTY AIR BASIN			X
LAKE TAHOE AIR BASIN			X
MOJAVE DESERT AIR BASIN			X
MOUNTAIN COUNTIES AIR BASIN			X
NORTH CENTRAL COAST AIR BASIN			X
NORTH COAST AIR BASIN			X
NORTHEAST PLATEAU AIR BASIN			X

	N	U	A
SACRAMENTO VALLEY AIR BASIN			X
SALTON SEA AIR BASIN			X
SAN DIEGO AIR BASIN			X
SAN FRANCISCO BAY AREA AIR BASIN			X
SAN JOAQUIN VALLEY AIR BASIN			X
SOUTH CENTRAL COAST AIR BASIN			X
SOUTH COAST AIR BASIN			X

FIGURE 8


2020
Area Designations for State
Ambient Air Quality Standards
LEAD
N
0 50 100 150 200
Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
Nevada
MOUNTAIN COUNTIES
LAKE COUNTY
Lake
Colusa
Sutter
Yuba
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
SAN JOAQUIN VALLEY
San Benito
Fresno
Inyo
NORTH CENTRAL COAST
Kings
Tulare
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
Riverside
Orange
SOUTH COAST
SALTON SEA
San Diego
Imperial
SAN DIEGO
Attainment
Air Basin
County
Last Updated: October 2020
Air Quality Planning and Science Division, CARB

TABLE 8

California Ambient Air Quality Standards
Area Designations for Lead (particulate)*

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			X
LAKE COUNTY AIR BASIN			X
LAKE TAHOE AIR BASIN			X
MOJAVE DESERT AIR BASIN			X
MOUNTAIN COUNTIES AIR BASIN			X
NORTH CENTRAL COAST AIR BASIN			X
NORTH COAST AIR BASIN			X
NORTHEAST PLATEAU AIR BASIN			X
SACRAMENTO VALLEY AIR BASIN			X

	N	U	A
SALTON SEA AIR BASIN			X
SAN DIEGO AIR BASIN			X
SAN FRANCISCO BAY AREA AIR BASIN			X
SAN JOAQUIN VALLEY AIR BASIN			X
SOUTH CENTRAL COAST AIR BASIN			X
SOUTH COAST AIR BASIN			X

* The area designated for lead is a county or portion of a county. Since all areas in the State are in attainment for this standard, air basins are indicated here for simplicity.

FIGURE 9

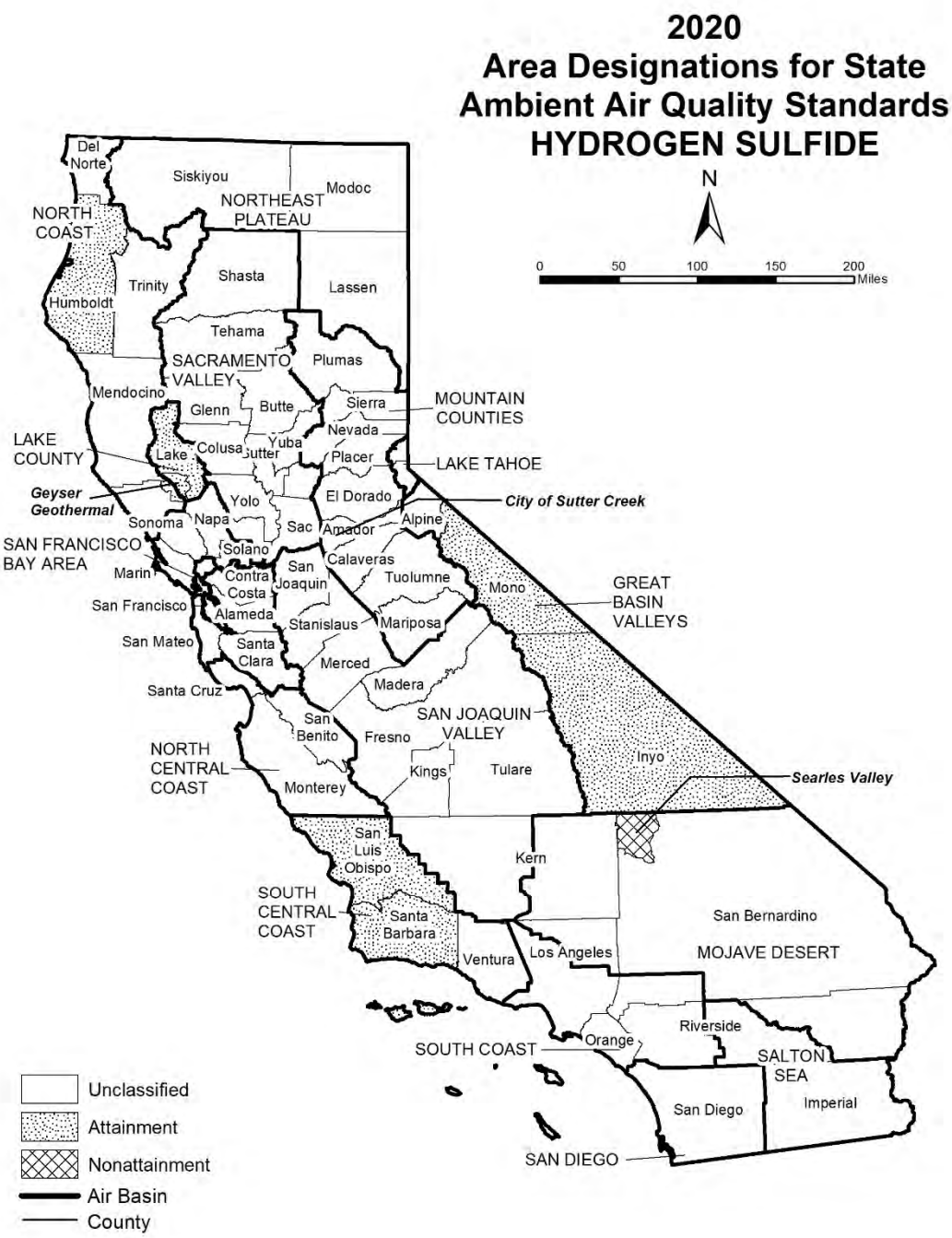

2020
Area Designations for State
Ambient Air Quality Standards
HYDROGEN SULFIDE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Lake
Colusa
Sutter
Yuba
Placer
LAKE TAHOE
Geyser Geothermal
Yolo
El Dorado
City of Sutter Creek
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
San Benito
Fresno
SAN JOAQUIN VALLEY
Inyo
NORTH CENTRAL COAST
Kings
Tulare
Searles Valley
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
MOJAVE DESERT
Riverside
SOUTH COAST
Orange
SALTON SEA
San Diego
Imperial
SAN DIEGO
Unclassified
Attainment
Nonattainment
Air Basin
County
Last Updated: October 2020
Air Quality Planning and Science Division, CARB

TABLE 9

California Ambient Air Quality Standards
Area Designation for Hydrogen Sulfide*

	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN				
Alpine County			X	
Inyo County				X
Mono County				X
LAKE COUNTY AIR BASIN				X
LAKE TAHOE AIR BASIN			X	
MOJAVE DESERT AIR BASIN				
Kern County (portion)			X	
Los Angeles County (portion)			X	
Riverside County (portion)			X	
San Bernardino County (portion)				
- Searles Valley Planning Area[1]	X			
- Remainder of County			X	
MOUNTAIN COUNTIES AIR BASIN				
Amador County				
- City of Sutter Creek	X			
- Remainder of County			X	
Calaveras County			X	
El Dorado County (portion)			X	
Mariposa County			X	
Nevada County			X	
Placer County (portion)			X	
Plumas County			X	
Sierra County			X	
Tuolumne County			X	

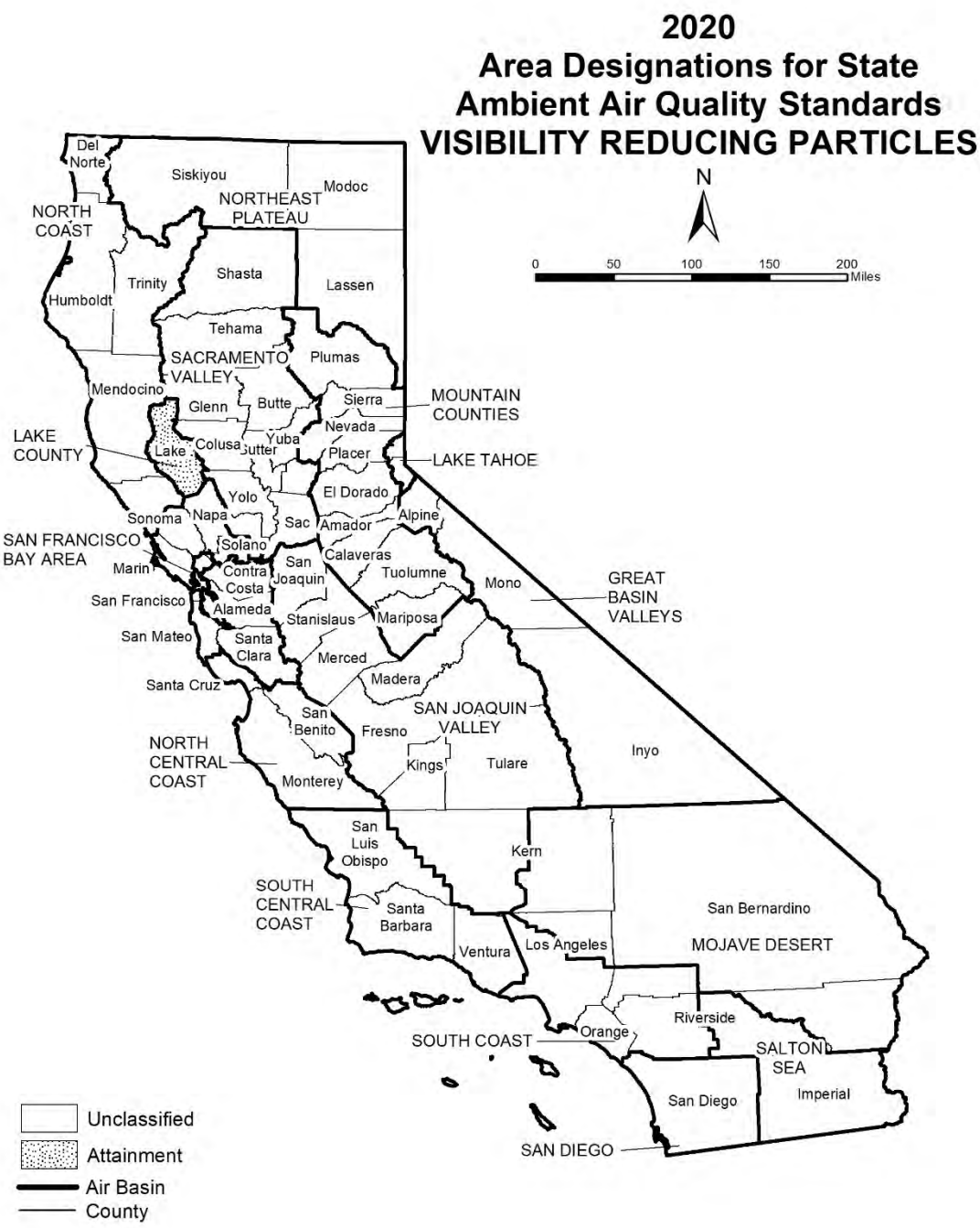
	N	NA-T	U	A
NORTH CENTRAL COAST AIR BASIN			X	
NORTH COAST AIR BASIN				
Del Norte County			X	
Humboldt County				X
Mendocino County			X	
Sonoma County (portion)				
- Geyser Geothermal Area[2]				X
- Remainder of County			X	
Trinity County			X	
NORTHEAST PLATEAU AIR BASIN			X	
SACRAMENTO VALLEY AIR BASIN			X	
SALTON SEA AIR BASIN			X	
SAN DIEGO AIR BASIN			X	
SAN FRANCISCO BAY AREA AIR BASIN			X	
SAN JOAQUIN VALLEY AIR BASIN			X	
SOUTH CENTRAL COAST AIR BASIN				
San Luis Obispo County				X
Santa Barbara County				X
Ventura County			X	
SOUTH COAST AIR BASIN			X	

* The area designated for hydrogen sulfide is a county or portion of a county

[1] 52 Federal Register 29384 (August 7, 1987)

[2] California Code of Regulations, title 17, section 60200(d)

FIGURE 10



Last Updated: October 2020
Air Quality Planning and Science Division, CARB

TABLE 10

California Ambient Air Quality Standards
Area Designation for Visibility Reducing Particles

	N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN			X	
LAKE COUNTY AIR BASIN				X
LAKE TAHOE AIR BASIN			X	
MOJAVE DESERT AIR BASIN			X	
MOUNTAIN COUNTIES AIR BASIN			X	
NORTH CENTRAL COAST AIR BASIN			X	
NORTH COAST AIR BASIN			X	
NORTHEAST PLATEAU AIR BASIN			X	

	N	NA-T	U	A
SACRAMENTO VALLEY AIR BASIN			X	
SALTON SEA AIR BASIN			X	
SAN DIEGO AIR BASIN			X	
SAN FRANCISCO BAY AREA AIR BASIN			X	
SAN JOAQUIN VALLEY AIR BASIN			X	
SOUTH CENTRAL COAST AIR BASIN			X	
SOUTH COAST AIR BASIN			X	

Area Designations for the National Ambient Air Quality Standards

The following maps and tables show the area designations for each pollutant with a national ambient air quality standard. Additional information about the federal area designations is available on the U.S. EPA website:

https://www.epa.gov/green-book

Over the last several years, U.S. EPA has been reviewing the levels of the various national standards. The agency has already promulgated new standard levels for some pollutants and is considering revising the levels for others. Information about the status of these reviews is available on the U.S. EPA website:

https://www.epa.gov/criteria-air-pollutants

Designation Categories

Suspended Particulate Matter (PM_{10}). The U.S. EPA uses three categories to designate areas with respect to PM_{10}:

- Attainment (A)
- Nonattainment (N)
- Unclassifiable (U)

Ozone, Fine Suspended Particulate Matter ($PM_{2.5}$), Carbon Monoxide (CO), and Nitrogen Dioxide (NO_2). The U.S. EPA uses two categories to designate areas with respect to these standards:

- Nonattainment (N)
- Unclassifiable/Attainment (U/A)

The national 1-hour ozone standard was revoked effective June 15, 2005, and the area designations map reflects the 2015 national 8-hour ozone standard of 0.070 ppm. Area designations were finalized on August 3, 2018.

On December 14, 2012, the U.S. EPA established a new national annual primary $PM_{2.5}$ standard of 12.0 µg/m^3. Area designations were finalized in December 2014. The current designation map reflects the most recently revised (2012) annual average standard of 12.0 µg/m^3 as well as the 24-hour standard of 35 µg/m^3, revised in 2006.

On January 22, 2010, the U.S. EPA established a new national 1-hour NO_2 standard of 100 parts per billion (ppb) and retained the annual average standard of 53 ppb. Designations for the primary NO_2 standard became effective on February 29, 2012. All areas of California meet this standard.

Sulfur Dioxide (SO_2). The U.S. EPA uses three categories to designate areas with respect to the 24-hour and annual average sulfur dioxide standards. These designation categories are:

- Nonattainment (N),
- Unclassifiable (U), and
- Unclassifiable/Attainment (U/A).

On June 2, 2010, the U.S. EPA established a new primary 1-hour SO_2 standard of 75 parts per billion (ppb). At the same time, U.S. EPA revoked the 24-hour and annual

average standards. Area designations for the 1-hour SO_2 standard were finalized on December 21, 2017 and are reflected in the area designations map.

Lead (particulate). The U.S. EPA promulgated a new rolling 3-month average lead standard in October 2008 of 0.15 µg/m^3. Designations were made for this standard in November 2010.

Designation Areas

From time to time, the boundaries of the California air basins have been changed to facilitate the planning process. CARB generally initiates these changes, and they are not always reflected in the U.S. EPA's area designations. For purposes of consistency, the maps in this attachment reflect area designation boundaries and nomenclature as promulgated by the U.S. EPA. In some cases, these may not be the same as those adopted by CARB. For example, the national area designations reflect the former Southeast Desert Air Basin. In accordance with Health and Safety Code section 39606.1, CARB redefined this area in 1996 to be the Mojave Desert Air Basin and Salton Sea Air Basin. The definitions and boundaries for all areas designated for the national standards can be found in Title 40, Code of Federal Regulations (CFR), Chapter I, Subchapter C, Part 81.305. They are available on the web at:

https://ecfr.io/Title-40/se40.20.81_1305

FIGURE 11

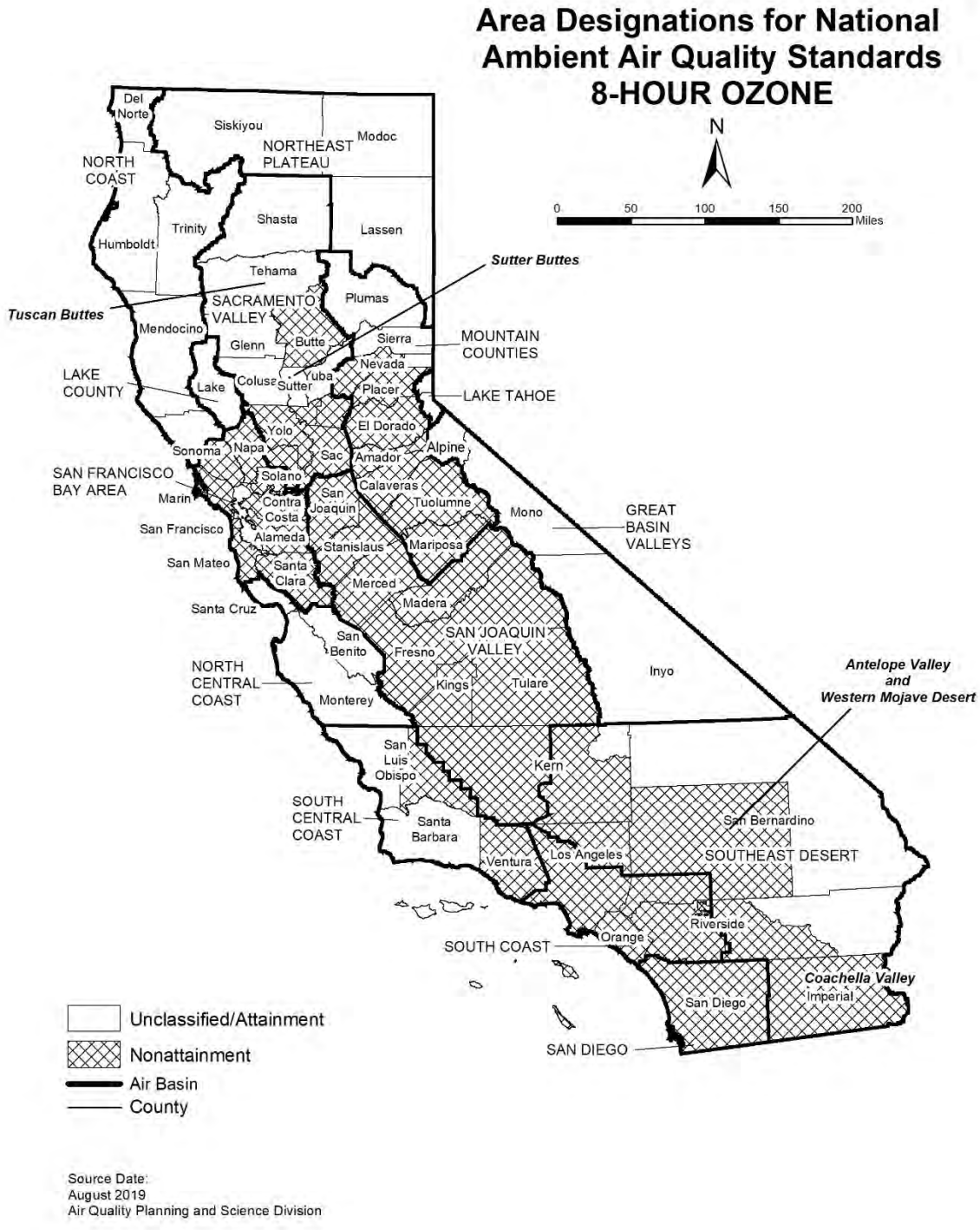

Area Designations for National Ambient Air Quality Standards
8-HOUR OZONE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
Sutter Buttes
Tuscan Buttes
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Colusa
Yuba
Sutter
Lake
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
San Benito
SAN JOAQUIN VALLEY
Fresno
Inyo
NORTH CENTRAL COAST
Kings
Tulare
Antelope Valley and Western Mojave Desert
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
SOUTHEAST DESERT
Riverside
Orange
SOUTH COAST
Coachella Valley
Imperial
San Diego
SAN DIEGO
Unclassified/Attainment
Nonattainment
Air Basin
County
Source Date:
August 2019
Air Quality Planning and Science Division

TABLE 11

National Ambient Air Quality Standards
Area Designations for 8-Hour Ozone*

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		X
LAKE COUNTY AIR BASIN		X
LAKE TAHOE AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		
Amador County	X	
Calaveras County	X	
El Dorado County (portion)[1]	X	
Mariposa County	X	
Nevada County		
- Western Nevada County	X	
- Remainder of County		X
Placer County (portion)[1]	X	
Plumas County		X
Sierra County		X
Tuolumne County	X	
NORTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X
SACRAMENTO VALLEY AIR BASIN		
Butte County	X	
Colusa County		X
Glenn County		X
Sacramento Metro Area[1]	X	
Shasta County		X
Sutter County		
- Sutter Buttes	X	
- Southern portion of Sutter County[1]	X	
- Remainder of Sutter County		X
Tehama County		
- Tuscan Buttes	X	
- Remainder of Tehama County		X

	N	U/A
SACRAMENTO VALLEY AIR BASIN (cont.)		
Yolo County[1]	X	
Yuba County		X
SAN DIEGO COUNTY	X	
SAN FRANCISCO BAY AREA AIR BASIN	X	
SAN JOAQUIN VALLEY AIR BASIN	X	
SOUTH CENTRAL COAST AIR BASIN[2]		
San Luis Obispo County		
- Eastern San Luis Obispo County	X	
- Remainder of County		X
Santa Barbara County		X
Ventura County		
- Area excluding Anacapa and San Nicolas Islands	X	
- Channel Islands[2]		X
SOUTH COAST AIR BASIN[2]	X	
SOUTHEAST DESERT AIR BASIN		
Kern County (portion)	X	
- Indian Wells Valley		X
Imperial County	X	
Los Angeles County (portion)	X	
Riverside County (portion)		
- Coachella Valley	X	
- Non-AQMA portion		X
San Bernardino County		
- Western portion (AQMA)	X	
- Eastern portion (non-AQMA)		X

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.
NOTE: This map and table reflect the 2015 8-hour ozone standard of 0.070 ppm.

[1] For this purpose, the Sacramento Metro Area comprises all of Sacramento and Yolo Counties, the Sacramento Valley Air Basin portion of Solano County, the southern portion of Sutter County, and the Sacramento Valley and Mountain Counties Air Basins portions of Placer and El Dorado counties.

[2] South Central Coast Air Basin Channel Islands:
Santa Barbara County includes Santa Cruz, San Miguel, Santa Rosa, and Santa Barbara Islands.
Ventura County includes Anacapa and San Nicolas Islands.
South Coast Air Basin:
Los Angeles County includes San Clemente and Santa Catalina Islands.

FIGURE 12


Area Designations for National Ambient Air Quality Standards PM10
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Shasta
Lassen
Trinity
Humboldt
Tehema
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Colusa
Yuba
Lake
Sutter
Placer
LAKE TAHOE
Yolo
El Dorado
Alpine
Sacramento County
Sonoma
Napa
Sac
Amador
SAN FRANCISCO BAY AREA
Marin
Solano
Calaveras
Mono
Mono Basin
San Joaquin
Contra Costa
Tuolumne
Mammoth Lake
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Inyo
Santa Cruz
San Benito
Fresno
SAN JOAQUIN VALLEY
Owens Valley
Coso Junction
Trona
NORTH CENTRAL COAST
Monterey
Kings
Tulare
San Luis Obispo
Kern
Indian Wells Valley
San Bernardino
SOUTH CENTRAL COAST
Santa Barbara
Ventura
Los Angeles
SOUTHEAST DESERT
Riverside
Coachella Valley
Orange
SOUTH COAST
Imperial
San Diego
SAN DIEGO COUNTY
Unclassified
Attainment
Nonattainment
Air Basin
County
Source Date:
October 2020
Air Quality Planning and Science Division

TABLE 12

National Ambient Air Quality Standards
Area Designations for Suspended Particulate Matter (PM_{10})*

	N	U	A
GREAT BASIN VALLEYS AIR BASIN			
Alpine County		X	
Inyo County			
- Owens Valley Planning Area	X		
- Coso Junction			X
- Remainder of County		X	
Mono County			
- Mammoth Lake Planning Area			X
- Mono Lake Basin	X		
- Remainder of County		X	
LAKE COUNTY AIR BASIN		X	
LAKE TAHOE AIR BASIN		X	
MOUNTAIN COUNTIES AIR BASIN			
Placer County (portion)[1]		X	
Remainder of Air Basin		X	
NORTH CENTRAL COAST AIR BASIN		X	
NORTH COAST AIR BASIN		X	
NORTHEAST PLATEAU AIR BASIN		X	
SACRAMENTO VALLEY AIR BASIN			
Butte County		X	
Colusa County		X	
Glenn County		X	
Placer County (portion)[1]		X	
Sacramento County[2]			X
Shasta County		X	
Solano County (portion)		X	
Sutter County		X	
Tehama County		X	
Yolo County		X	
Yuba County		X	

	N	U	A
SAN DIEGO COUNTY		X	
SAN FRANCISCO BAY AREA AIR BASIN		X	
SAN JOAQUIN VALLEY AIR BASIN			X
SOUTH CENTRAL COAST AIR BASIN		X	
SOUTH COAST AIR BASIN			X
SOUTHEAST DESERT AIR BASIN			
Eastern Kern County			
- Indian Wells Valley			X
- Portion within San Joaquin Valley Planning Area	X		
- Remainder of County		X	
Imperial County			
- Imperial Valley Planning Area[3]			X
- Remainder of County		X	
Los Angeles County (portion)		X	
Riverside County (portion)			
- Coachella Valley[4]	X		
- Non-AQMA portion		X	
San Bernardino County			
- Trona	X		
- Remainder of County	X		

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

[1] U.S. EPA designation puts the Sacramento Valley Air Basin portion of Placer County in the Mountain Counties Air Basin.

[2] Air quality in Sacramento County meets the national PM_{10} standards. The request for redesignation to attainment was approved by U.S. EPA in September 2013.

[3] The request for redesignation to attainment for the Imperial Valley Planning Area was approved by U.S. EPA and in September 2020, effective October 2020.

[4] Air quality in Coachella Valley meets the national PM_{10} standards. A request for redesignation to attainment has been submitted to U.S. EPA.

FIGURE 13


Area Designations for National Ambient Air Quality Standards PM2.5
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTH COAST
NORTHEAST PLATEAU
Humboldt
Trinity
Shasta
Lassen
Tehama
SACRAMENTO VALLEY
Plumas
Butte
Glenn
Sierra
MOUNTAIN COUNTIES
Mendocino
Nevada
LAKE COUNTY
Colusa
Yuba
Placer
Lake
Sutter
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sacramento
Alpine
Amador
Solano
Calaveras
SAN FRANCISCO BAY AREA
Marin
Tuolumne
GREAT BASIN VALLEYS
Contra Costa
San Joaquin
Mono
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
Fresno
NORTH CENTRAL COAST
San Benito
SAN JOAQUIN VALLEY
Inyo
Tulare
Monterey
Kings
San Luis Obispo
Kern
San Bernardino
SOUTH CENTRAL COAST
Santa Barbara
SOUTHEAST DESERT
Ventura
Los Angeles
Riverside
Orange
SOUTH COAST
San Diego
Imperial
SAN DIEGO COUNTY
Unclassified/Attainment
Nonattainment
Air Basin
County
Source Date:
August 2019
Air Quality Planning and Science Division

TABLE 13

National Ambient Air Quality Standards
Area Designations for Fine Particulate Matter ($PM_{2.5}$)

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		X
LAKE COUNTY AIR BASIN		X
LAKE TAHOE AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		
Plumas County		
- Portola Valley Portion of Plumas	X	
- Remainder of Plumas County		X
Remainder of Air Basin		X
NORTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X
SACRAMENTO VALLEY AIR BASIN		
Sacramento Metro Area[1]	X	
Sutter County		X
Yuba County (portion)		X
Remainder of Air Basin		X

	N	U/A
SAN DIEGO COUNTY		X
SAN FRANCISCO BAY AREA AIR BASIN[2]	X	
SAN JOAQUIN VALLEY AIR BASIN	X	
SOUTH CENTRAL COAST AIR BASIN		X
SOUTH COAST AIR BASIN[3]	X	
SOUTHEAST DESERT AIR BASIN		
Imperial County (portion)[4]	X	
Remainder of Air Basin		X

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305. This map reflects the 2006 24-hour $PM_{2.5}$ standard as well as the 1997 and 2012 $PM_{2.5}$ annual standards.

[1] For this purpose, Sacramento Metro Area comprises all of Sacramento and portions of El Dorado, Placer, Solano, and Yolo Counties. Air quality in this area meets the national $PM_{2.5}$ standards. A Determination of Attainment for the 2006 24-hour $PM_{2.5}$ standard was made by U.S. EPA in June 2017.

[2] Air quality in this area meets the national $PM_{2.5}$ standards. A Determination of Attainment for the 2006 24-hour $PM_{2.5}$ standard was made by U.S. EPA in June 2017.

[3] Those lands of the Santa Rosa Band of Cahulla Mission Indians in Riverside County are designated Unclassifiable/Attainment.

[4] That portion of Imperial County encompassing the urban and surrounding areas of Brawley, Calexico, El Centro, Heber, Holtville, Imperial, Seeley, and Westmorland. Air quality in this area meets the national $PM_{2.5}$ standards. A Determination of Attainment for the 2006 24-hour $PM_{2.5}$ standard was made by U.S. EPA in June 2017.

FIGURE 14


Area Designations for National Ambient Air Quality Standards
CARBON MONOXIDE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
Colusa
Lake
Sutter
Yuba
Placer
LAKE TAHOE
LAKE COUNTY
Yolo
El Dorado
Napa
Alpine
Sonoma
Sac
Amador
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
SAN JOAQUIN VALLEY
San Benito
Fresno
NORTH CENTRAL COAST
Inyo
Tulare
Monterey
Kings
San Luis Obispo
Kern
SOUTH CENTRAL COAST
SOUTHEAST DESERT
Santa Barbara
Ventura
Los Angeles
San Bernardino
Riverside
Orange
SOUTH COAST
San Diego
Imperial
SAN DIEGO COUNTY
Unclassified/Attainment
Air Basin
County
Source Date:
August 2019
Air Quality Planning and Science Division

TABLE 14

National Ambient Air Quality Standards
Area Designations for Carbon Monoxide*

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		X
LAKE COUNTY AIR BASIN		X
LAKE TAHOE AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X

	N	U/A
SACRAMENTO VALLEY AIR BASIN		X
SAN DIEGO COUNTY		X
SAN FRANCISCO BAY AREA AIR BASIN		X
SAN JOAQUIN VALLEY AIR BASIN		X
SOUTH CENTRAL COAST AIR BASIN		X
SOUTH COAST AIR BASIN		X
SOUTHEAST DESERT AIR BASIN		X

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

FIGURE 15


Area Designations for National Ambient Air Quality Standards
NITROGEN DIOXIDE
N
0 50 100 150 200
Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehema
Plumas
SACRAMENTO VALLEY
Mendocino
Glenn
Butte
Sierra
Nevada
MOUNTAIN COUNTIES
Colusa
Yuba
Placer
LAKE COUNTY
Lake
Sutter
LAKE TAHOE
Yolo
El Dorado
Napa
Alpine
Sonoma
Sac
Amador
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
San Joaquin
Contra Costa
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
SAN JOAQUIN VALLEY
San Benito
Fresno
NORTH CENTRAL COAST
Inyo
Tulare
Monterey
Kings
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
SOUTHEAST DESERT
Los Angeles
San Bernardino
Ventura
Riverside
Orange
SOUTH COAST
San Diego
Imperial
SAN DIEGO COUNTY
Unclassified/Attainment
Air Basin
County
Source Date:
August 2019
Air Quality Planning and Science Division

TABLE 15

National Ambient Air Quality Standards
Area Designations for Nitrogen Dioxide*

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		X
LAKE COUNTY AIR BASIN		X
LAKE TAHOE AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X

	N	U/A
SACRAMENTO VALLEY AIR BASIN		X
SAN DIEGO COUNTY		X
SAN FRANCISCO BAY AREA AIR BASIN		X
SAN JOAQUIN VALLEY AIR BASIN		X
SOUTH CENTRAL COAST AIR BASIN		X
SOUTH COAST AIR BASIN		X
SOUTHEAST DESERT AIR BASIN		X

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

FIGURE 16



Source Date:
August 2019
Air Quality Planning and Science Division

TABLE 16

National Ambient Air Quality Standards
Area Designations for Sulfur Dioxide*

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		X
LAKE COUNTY AIR BASIN		X
LAKE TAHOE AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X
SACRAMENTO VALLEY AIR BASIN		X
SAN DIEGO COUNTY		X
SAN FRANCISCO BAY AREA AIR BASIN		X
SAN JOAQUIN VALLEY AIR BASIN		
Fresno County		X
Kern County (portion)		X
Kings County		X
Madera County		X
Merced County		X
San Joaquin County		X
Stanislaus County		X
Tulare County		X

	N	U/A
SOUTH CENTRAL COAST AIR BASIN		
San Luis Obispo County		X
Santa Barbara County		X
Ventura County		X
Channel Islands[1]		X
SOUTH COAST AIR BASIN		X
SOUTHEAST DESERT AIR BASIN		
Imperial County		X
Remainder of Air Basin		X

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.
NOTE: This map and table reflect the 2010 1-hour SO_2 standard of 75 ppb.

[1] South Central Coast Air Basin Channel Islands:
Santa Barbara County includes Santa Cruz, San Miguel, Santa Rosa, and Santa Barbara Islands.
Ventura County includes Anacapa and San Nicolas Islands.
Note that the San Clemente and Santa Catalina Islands are considered part of Los Angeles County, and therefore, are included as part of the South Coast Air Basin.

FIGURE 17


Area Designations for National Ambient Air Quality Standards
LEAD
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
Colusa
Lake
Sutter
Yuba
Placer
LAKE TAHOE
LAKE COUNTY
Yolo
El Dorado
Napa
Alpine
Sonoma
Sac
Amador
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
San Joaquin
Contra Costa
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Santa Cruz
Madera
SAN JOAQUIN VALLEY
San Benito
Fresno
NORTH CENTRAL COAST
Inyo
Tulare
Monterey
Kings
San Luis Obispo
Kern
SOUTH CENTRAL COAST
SOUTHEAST DESERT
Santa Barbara
Ventura
Los Angeles
San Bernardino
Riverside
Orange
SOUTH COAST
San Diego
Imperial
SAN DIEGO COUNTY
Unclassified/Attainment
Nonattainment
Air Basin
County
Source Date:
August 2019
Air Quality Planning and Science Division

TABLE 17

National Ambient Air Quality Standards
Area Designations for Lead (particulate)

	N	U/A
GREAT BASIN VALLEYS AIR BASIN		X
LAKE COUNTY AIR BASIN		X
LAKE TAHOE AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X
SACRAMENTO VALLEY AIR BASIN		X

	N	U/A
SAN DIEGO COUNTY		X
SAN FRANCISCO BAY AREA AIR BASIN		X
SAN JOAQUIN VALLEY AIR BASIN		X
SOUTH CENTRAL COAST AIR BASIN		X
SOUTH COAST AIR BASIN		
Los Angeles County (portion)[1]	X	
Remainder of Air Basin		X
SOUTHEAST DESERT AIR BASIN		X

[1] Portion of County in Air Basin, not including Channel Islands

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APPENDIX 3.1:

CALEEMOD CONSTRUCTION EMISSIONS MODEL OUTPUTS

14848-Palmetto Industrial (Construction) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

3.3. Grading (2023) - Unmitigated

3.5. Building Construction (2023) - Unmitigated

3.7. Paving (2023) - Unmitigated

3.9. Architectural Coating (2023) - Unmitigated

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	14848-Palmetto Industrial (Construction)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	1.40
Location	34.436795901992426, -117.37836806854374
County	San Bernardino-Mojave Desert
City	Hesperia
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5106
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	500	1000sqft	11.5	499,700	255,000	—	—	—
Parking Lot	508	Space	3.93	0.00	0.00	—	—	—

Other Non-Asphalt Surfaces	659	1000sqft	15.1	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.18	2.70	16.3	36.0	0.04	0.62	3.28	3.91	0.58	0.79	1.37	—	7,900	7,900	0.24	0.41	19.0	8,047
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.1	70.8	89.0	73.5	0.12	4.50	9.00	13.5	4.14	3.83	7.97	—	15,076	15,076	0.53	0.55	0.59	15,254
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.49	9.46	16.0	22.8	0.03	0.68	2.33	3.02	0.63	0.65	1.28	—	5,240	5,240	0.18	0.23	4.52	5,319
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.45	1.73	2.93	4.16	0.01	0.12	0.43	0.55	0.12	0.12	0.23	—	868	868	0.03	0.04	0.75	881

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	3.18	2.70	16.3	36.0	0.04	0.62	3.28	3.91	0.58	0.79	1.37	—	7,900	7,900	0.24	0.41	19.0	8,047
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	11.1	70.8	89.0	73.5	0.12	4.50	9.00	13.5	4.14	3.83	7.97	—	15,076	15,076	0.53	0.55	0.59	15,254
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.49	9.46	16.0	22.8	0.03	0.68	2.33	3.02	0.63	0.65	1.28	—	5,240	5,240	0.18	0.23	4.52	5,319
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.45	1.73	2.93	4.16	0.01	0.12	0.43	0.55	0.12	0.12	0.23	—	868	868	0.03	0.04	0.75	881

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.83	4.90	47.0	38.0	0.05	2.53	—	2.53	2.33	—	2.33	—	5,530	5,530	0.22	0.04	—	5,549
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.17	1.67	1.35	< 0.005	0.09	—	0.09	0.08	—	0.08	—	197	197	0.01	< 0.005	—	198
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	—	32.6	32.6	< 0.005	< 0.005	—	32.7
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.12	1.15	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	235	235	0.01	0.01	0.03	238
Vendor	0.01	< 0.005	0.15	0.07	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	132	132	< 0.005	0.02	0.01	137
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.63	8.63	< 0.005	< 0.005	0.02	8.75

Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.70	4.70	< 0.005	< 0.005	0.01	4.90
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.43	1.43	< 0.005	< 0.005	< 0.005	1.45
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.78	0.78	< 0.005	< 0.005	< 0.005	0.81
Hauling	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	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.00	4.20	40.9	32.7	0.06	1.96	—	1.96	1.80	—	1.80	—	6,715	6,715	0.27	0.05	—	6,738
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.49	4.82	3.85	0.01	0.23	—	0.23	0.21	—	0.21	—	791	791	0.03	0.01	—	794

Dust From Material Movement	—	—	—	—	—	—	0.31	0.31	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.88	0.70	< 0.005	0.04	—	0.04	0.04	—	0.04	—	131	131	0.01	< 0.005	—	131
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.32	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	269	269	0.01	0.01	0.03	272
Vendor	0.02	0.02	0.56	0.26	< 0.005	0.01	0.03	0.03	0.01	0.01	0.02	—	495	495	< 0.005	0.07	0.03	515
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	62.7	62.7	< 0.005	0.01	< 0.005	65.6
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.17	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	32.6	32.6	< 0.005	< 0.005	0.06	33.1
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	58.3	58.3	< 0.005	0.01	0.07	60.7
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.38	7.38	< 0.005	< 0.005	0.01	7.73
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	5.40	5.40	< 0.005	< 0.005	0.01	5.48
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.65	9.65	< 0.005	< 0.005	0.01	10.1

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	< 0.005	< 0.005	< 0.005	1.28

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.62	1.36	12.8	14.3	0.03	0.60	—	0.60	0.55	—	0.55	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.62	1.36	12.8	14.3	0.03	0.60	—	0.60	0.55	—	0.55	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.83	0.69	6.56	7.32	0.01	0.31	—	0.31	0.28	—	0.28	—	1,347	1,347	0.05	0.01	—	1,352
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.20	1.34	< 0.005	0.06	—	0.06	0.05	—	0.05	—	223	223	0.01	< 0.005	—	224
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.46	1.27	1.30	20.6	0.00	0.00	0.17	0.17	0.00	0.00	0.00	—	3,193	3,193	0.13	0.10	13.5	3,240
Vendor	0.10	0.08	2.23	1.07	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	2,078	2,078	< 0.005	0.28	5.51	2,168
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.23	1.12	1.39	13.8	0.00	0.00	0.17	0.17	0.00	0.00	0.00	—	2,823	2,823	0.14	0.10	0.35	2,858
Vendor	0.10	0.07	2.36	1.09	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	2,080	2,080	< 0.005	0.28	0.14	2,165
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.64	0.58	0.76	7.93	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,490	1,490	0.07	0.05	2.97	1,510
Vendor	0.05	0.04	1.21	0.55	0.01	0.01	0.06	0.07	0.01	0.02	0.04	—	1,065	1,065	< 0.005	0.15	1.22	1,110
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.45	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	247	247	0.01	0.01	0.49	250
Vendor	0.01	0.01	0.22	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	176	176	< 0.005	0.02	0.20	184
Hauling	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	0.00

3.7. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.04	0.88	8.06	10.0	0.01	0.41	—	0.41	0.38	—	0.38	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.73	0.91	< 0.005	0.04	—	0.04	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	0.99	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	202	202	0.01	0.01	0.02	204
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.10	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	18.8	18.8	< 0.005	< 0.005	0.04	19.0
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.11	3.11	< 0.005	< 0.005	0.01	3.15
Vendor	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	0.00
Hauling	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	0.00

3.9. Architectural Coating (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.25	1.54	< 0.005	0.05	—	0.05	0.05	—	0.05	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	66.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.14	0.17	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	19.5	19.5	< 0.005	< 0.005	—	19.6
Architectural Coatings	—	7.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.23	3.23	< 0.005	< 0.005	—	3.24
Architectural Coatings	—	1.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.22	0.28	2.77	0.00	0.00	0.03	0.03	0.00	0.00	0.00	—	565	565	0.03	0.02	0.07	572
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.34	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	63.7	63.7	< 0.005	< 0.005	0.13	64.6
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	10.6	10.6	< 0.005	< 0.005	0.02	10.7
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/15/2023	2/1/2023	5.00	13.0	—
Grading	Grading	2/1/2023	3/31/2023	5.00	43.0	—
Building Construction	Building Construction	3/15/2023	11/30/2023	5.00	187	—
Paving	Paving	11/15/2023	12/30/2023	5.00	33.0	—
Architectural Coating	Architectural Coating	11/6/2023	12/30/2023	5.00	40.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38

Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Site Preparation	Crawler Tractors	Diesel	Average	4.00	8.00	87.0	0.43

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	15.0	10.2	HHDT,MHDT

Grading	Hauling	0.88	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	210	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	63.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	42.0	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	786,896	262,299	49,795

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	45.5	0.00	—
Grading	300	—	172	0.00	—
Paving	0.00	0.00	0.00	0.00	19.1

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	3.93	100%
Other Non-Asphalt Surfaces	15.1	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	33.6	annual days of extreme heat
Extreme Precipitation	4.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	22.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A

Drought	1	1	1	2
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	32.2
AQ-DPM	57.9
Drinking Water	29.7
Lead Risk Housing	13.8
Pesticides	0.00
Toxic Releases	25.0
Traffic	83.1
Effect Indicators	—
CleanUp Sites	73.4
Groundwater	0.00
Haz Waste Facilities/Generators	65.9

Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	84.6
Cardio-vascular	99.5
Low Birth Weights	5.81
Socioeconomic Factor Indicators	—
Education	67.1
Housing	11.2
Linguistic	19.9
Poverty	67.2
Unemployment	82.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	66.22610035
Employed	25.70255357
Education	—
Bachelor's or higher	31.64378288
High school enrollment	2.258437059
Preschool enrollment	41.10098807
Transportation	—
Auto Access	89.83703323
Active commuting	14.92364943
Social	—

2-parent households	97.98537149
Voting	43.48774541
Neighborhood	—
Alcohol availability	89.68304889
Park access	26.5622995
Retail density	22.41755422
Supermarket access	25.03528808
Tree canopy	7.25009624
Housing	—
Homeownership	84.70422174
Housing habitability	80.57230848
Low-inc homeowner severe housing cost burden	56.2941101
Low-inc renter severe housing cost burden	70.48633389
Uncrowded housing	64.30129603
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.6
Asthma ER Admissions	14.5
High Blood Pressure	1.1
Cancer (excluding skin)	0.9
Asthma	37.3
Coronary Heart Disease	1.0
Chronic Obstructive Pulmonary Disease	1.6
Diagnosed Diabetes	6.3
Life Expectancy at Birth	28.4
Cognitively Disabled	58.3
Physically Disabled	16.0

Heart Attack ER Admissions	1.2
Mental Health Not Good	58.7
Chronic Kidney Disease	1.3
Obesity	41.7
Pedestrian Injuries	90.6
Physical Health Not Good	24.5
Stroke	2.9
Health Risk Behaviors	—
Binge Drinking	95.3
Current Smoker	59.6
No Leisure Time for Physical Activity	48.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8
Elderly	53.1
English Speaking	52.3
Foreign-born	39.5
Outdoor Workers	27.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	86.5
Traffic Density	80.1
Traffic Access	23.0
Other Indices	—
Hardship	53.1
Other Decision Support	—
2016 Voting	53.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Client indicated construction schedule
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases Standard 8-hour work day
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction

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APPENDIX 3.2:

CALEEMOD OPERATIONAL EMISSIONS MODEL OUTPUTS

14848-Palmetto Industrial (Operations) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.2. Unmitigated

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	14848-Palmetto Industrial (Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	1.40
Location	34.436795901992426, -117.37836806854374
County	San Bernardino-Mojave Desert
City	Hesperia
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5106
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	500	1000sqft	11.5	499,700	255,000	—	—	—
Parking Lot	508	Space	3.93	0.00	0.00	—	—	—

Other Non-Asphalt Surfaces	659	1000sqft	15.1	0.00	0.00	—	—	—
User Defined Industrial	500	User Defined Unit	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.34	19.9	16.4	85.9	0.23	0.47	5.30	5.78	0.47	0.99	1.46	475	27,622	28,096	49.0	2.32	72.7	30,086
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.08	15.9	17.1	48.9	0.21	0.44	5.30	5.75	0.43	0.99	1.42	475	26,308	26,782	49.0	2.34	1.89	28,706
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.31	17.1	15.3	56.2	0.19	0.42	4.52	4.94	0.41	0.84	1.26	475	23,582	24,056	48.9	2.09	26.7	25,929
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.15	3.11	2.79	10.2	0.03	0.08	0.82	0.90	0.08	0.15	0.23	78.6	3,904	3,983	8.10	0.35	4.43	4,293

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.20	4.67	13.6	62.0	0.21	0.25	5.30	5.55	0.24	0.99	1.22	—	21,482	21,482	0.43	1.73	72.7	22,082
Area	3.86	15.1	0.18	21.7	< 0.005	0.03	—	0.03	0.04	—	0.04	—	89.4	89.4	< 0.005	0.01	—	92.0
Energy	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	5,392	5,392	0.49	0.03	—	5,414
Water	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Waste	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Total	9.34	19.9	16.4	85.9	0.23	0.47	5.30	5.78	0.47	0.99	1.46	475	27,622	28,096	49.0	2.32	72.7	30,086
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.80	4.27	14.6	46.7	0.20	0.25	5.30	5.55	0.24	0.99	1.22	—	20,257	20,257	0.44	1.76	1.89	20,794
Area	—	11.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	5,392	5,392	0.49	0.03	—	5,414
Water	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Waste	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Total	5.08	15.9	17.1	48.9	0.21	0.44	5.30	5.75	0.43	0.99	1.42	475	26,308	26,782	49.0	2.34	1.89	28,706
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.13	3.67	12.6	43.3	0.17	0.21	4.52	4.73	0.20	0.84	1.04	—	17,487	17,487	0.38	1.50	26.7	17,972
Area	1.90	13.2	0.09	10.7	< 0.005	0.01	—	0.01	0.02	—	0.02	—	44.1	44.1	< 0.005	< 0.005	—	45.4
Energy	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	5,392	5,392	0.49	0.03	—	5,414
Water	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Waste	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Total	6.31	17.1	15.3	56.2	0.19	0.42	4.52	4.94	0.41	0.84	1.26	475	23,582	24,056	48.9	2.09	26.7	25,929
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.75	0.67	2.30	7.90	0.03	0.04	0.82	0.86	0.04	0.15	0.19	—	2,895	2,895	0.06	0.25	4.43	2,975

Area	0.35	2.42	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.30	7.30	< 0.005	< 0.005	—	7.51
Energy	0.05	0.03	0.47	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	893	893	0.08	0.01	—	896
Water	—	—	—	—	—	—	—	—	—	—	—	36.7	109	146	3.77	0.09	—	267
Waste	—	—	—	—	—	—	—	—	—	—	—	41.9	0.00	41.9	4.19	0.00	—	147
Total	1.15	3.11	2.79	10.2	0.03	0.08	0.82	0.90	0.08	0.15	0.23	78.6	3,904	3,983	8.10	0.35	4.43	4,293

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	4.83	4.36	3.01	58.6	0.11	0.05	0.44	0.49	0.04	0.13	0.17	—	11,178	11,178	0.40	0.28	43.2	11,313
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
User Defined Industrial	0.37	0.31	10.6	3.40	0.10	0.20	0.72	0.92	0.19	0.23	0.42	—	10,304	10,304	0.03	1.46	29.5	10,769
Total	5.20	4.67	13.6	62.0	0.21	0.25	1.16	1.41	0.24	0.36	0.60	—	21,482	21,482	0.43	1.73	72.7	22,082

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	4.45	3.98	3.35	43.3	0.10	0.05	0.44	0.49	0.04	0.13	0.17	—	9,948	9,948	0.41	0.30	1.12	10,048
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
User Defined Industrial	0.35	0.29	11.2	3.41	0.10	0.20	0.72	0.92	0.19	0.23	0.42	—	10,309	10,309	0.03	1.46	0.77	10,746
Total	4.80	4.27	14.6	46.7	0.20	0.25	1.16	1.41	0.24	0.36	0.60	—	20,257	20,257	0.44	1.76	1.89	20,794
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.70	0.62	0.55	7.38	0.02	0.01	0.07	0.08	0.01	0.02	0.03	—	1,442	1,442	0.06	0.04	2.63	1,459
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
User Defined Industrial	0.06	0.05	1.76	0.52	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	1,453	1,453	< 0.005	0.21	1.80	1,516
Total	0.75	0.67	2.30	7.90	0.03	0.04	0.18	0.22	0.04	0.06	0.09	—	2,895	2,895	0.06	0.25	4.43	2,975

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,205	2,205	0.21	0.03	—	2,217
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	143	143	0.01	< 0.005	—	144
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,348	2,348	0.22	0.03	—	2,361
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,205	2,205	0.21	0.03	—	2,217
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	143	143	0.01	< 0.005	—	144
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,348	2,348	0.22	0.03	—	2,361
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	365	365	0.03	< 0.005	—	367
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	23.7	23.7	< 0.005	< 0.005	—	23.9
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	389	389	0.04	< 0.005	—	391

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Parking Lot	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

Other Non-Asphalt Surfaces	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
User Defined Industrial	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
Total	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Parking Lot	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
Other Non-Asphalt Surfaces	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
User Defined Industrial	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
Total	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.03	0.47	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	504	504	0.04	< 0.005	—	505
Parking Lot	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
Other Non-Asphalt Surfaces	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

User Defined Industrial	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
Total	0.05	0.03	0.47	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	504	504	0.04	< 0.005	—	505

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	10.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.86	3.56	0.18	21.7	< 0.005	0.03	—	0.03	0.04	—	0.04	—	89.4	89.4	< 0.005	0.01	—	92.0
Total	3.86	15.1	0.18	21.7	< 0.005	0.03	—	0.03	0.04	—	0.04	—	89.4	89.4	< 0.005	0.01	—	92.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	10.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	11.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.35	0.32	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.30	7.30	< 0.005	< 0.005	—	7.51
Total	0.35	2.42	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.30	7.30	< 0.005	< 0.005	—	7.51

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	36.7	109	146	3.77	0.09	—	267
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	36.7	109	146	3.77	0.09	—	267

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	41.9	0.00	41.9	4.19	0.00	—	147
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	41.9	0.00	41.9	4.19	0.00	—	147

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	790	391	369	245,576	14,380	7,113	6,713	4,469,970
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	115	57.0	53.5	35,722	3,502	1,736	1,629	1,088,464

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

0	0.00	786,896	262,299	49,795

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	2,307,966	349	0.0330	0.0040	9,499,636
Parking Lot	149,963	349	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	349	0.0330	0.0040	0.00
User Defined Industrial	0.00	349	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	115,555,625	5,645,327
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	470	0.00
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit

Temperature and Extreme Heat	33.6	annual days of extreme heat
Extreme Precipitation	4.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	22.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	32.2
AQ-DPM	57.9
Drinking Water	29.7
Lead Risk Housing	13.8

Pesticides	0.00
Toxic Releases	25.0
Traffic	83.1
Effect Indicators	—
CleanUp Sites	73.4
Groundwater	0.00
Haz Waste Facilities/Generators	65.9
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	84.6
Cardio-vascular	99.5
Low Birth Weights	5.81
Socioeconomic Factor Indicators	—
Education	67.1
Housing	11.2
Linguistic	19.9
Poverty	67.2
Unemployment	82.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	66.22610035
Employed	25.70255357
Education	—

Bachelor's or higher	31.64378288
High school enrollment	2.258437059
Preschool enrollment	41.10098807
Transportation	—
Auto Access	89.83703323
Active commuting	14.92364943
Social	—
2-parent households	97.98537149
Voting	43.48774541
Neighborhood	—
Alcohol availability	89.68304889
Park access	26.5622995
Retail density	22.41755422
Supermarket access	25.03528808
Tree canopy	7.25009624
Housing	—
Homeownership	84.70422174
Housing habitability	80.57230848
Low-inc homeowner severe housing cost burden	56.2941101
Low-inc renter severe housing cost burden	70.48633389
Uncrowded housing	64.30129603
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.6
Asthma ER Admissions	14.5
High Blood Pressure	1.1
Cancer (excluding skin)	0.9

Asthma	37.3
Coronary Heart Disease	1.0
Chronic Obstructive Pulmonary Disease	1.6
Diagnosed Diabetes	6.3
Life Expectancy at Birth	28.4
Cognitively Disabled	58.3
Physically Disabled	16.0
Heart Attack ER Admissions	1.2
Mental Health Not Good	58.7
Chronic Kidney Disease	1.3
Obesity	41.7
Pedestrian Injuries	90.6
Physical Health Not Good	24.5
Stroke	2.9
Health Risk Behaviors	—
Binge Drinking	95.3
Current Smoker	59.6
No Leisure Time for Physical Activity	48.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8
Elderly	53.1
English Speaking	52.3
Foreign-born	39.5
Outdoor Workers	27.8
Climate Change Adaptive Capacity	—

Impervious Surface Cover	86.5
Traffic Density	80.1
Traffic Access	23.0
Other Indices	—
Hardship	53.1
Other Decision Support	—
2016 Voting	53.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Client indicated construction schedule

Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases Standard 8-hour work day
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Construction: Dust From Material Movement	Ex
Operations: Vehicle Data	Trip Characteristics based on information provided in the Traffic Analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle
Operations: Refrigerants	Unrefrigerated warehouse modeled with no refrigerant emissions

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APPENDIX B
Amargosa and Palmetto High-Cube Warehouse Mobile Source Health Risk Assessment

Amargosa and Palmetto High-Cube Warehouse

MOBILE SOURCE HEALTH RISK ASSESSMENT

CITY OF HESPERIA

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FEBRUARY 1, 2023

TABLE OF CONTENTS

TABLE OF CONTENTS I
APPENDICES I
LIST OF EXHIBITS II
LIST OF TABLES II
LIST OF ABBREVIATED TERMS III
EXECUTIVE SUMMARY 1
1 INTRODUCTION 5
1.1 Site Location 5
1.2 Project Description 5
2 BACKGROUND 9
2.1 Background on Recommended Methodology 9
2.2 Construction Health Risk Assessment 9
2.3 Operational Health Risk Assessment 12
2.4 Exposure Quantification 17
2.5 Carcinogenic Chemical Risk 19
2.6 Non-carcinogenic Exposures 20
2.7 Potential Project-Related DPM Source Cancer and Non-Cancer Risks 20
3 REFERENCES 25
4 CERTIFICATIONS 27

APPENDICES

APPENDIX 2.1: CALEEMOD OUTPUTS
APPENDIX 2.2: EMFAC EMISSIONS SUMMARY
APPENDIX 2.3: AERMOD MODEL INPUT/OUTPUT
APPENDIX 2.4: RISK CALCULATIONS

LIST OF EXHIBITS

EXHIBIT 1-A: LOCATION MAP 6
EXHIBIT 1-B: SITE PLAN 7
EXHIBIT 2-A: MODELED CONSTRUCTION EMISSION SOURCES 11
EXHIBIT 2-B: MODELED ON-SITE EMISSION SOURCES 14
EXHIBIT 2-C: MODELED OFF-SITE EMISSION SOURCES 15
EXHIBIT 2-D: RECEPTOR LOCATIONS 23

LIST OF TABLES

TABLE ES-1: SUMMARY OF CONSTRUCTION CANCER AND NON-CANCER RISKS 3
TABLE ES-2: SUMMARY OF OPERATIONAL CANCER AND NON-CANCER RISKS 3
TABLE ES-3: SUMMARY OF CONSTRUCTION AND OPERATIONAL CANCER AND NON-CANCER RISKS 4
TABLE 2-1: CONSTRUCTION DURATION 10
TABLE 2-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS 10
TABLE 2-3: 2024 WEIGHTED AVERAGE DPM EMISSIONS FACTORS 13
TABLE 2-4: DPM EMISSIONS FROM PROJECT TRUCKS (2024 ANALYSIS YEAR) 16
TABLE 2-5: AERMOD MODEL PARAMETERS 17
TABLE 2-6: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (CONSTRUCTION ACTIVITY) 18
TABLE 2-7: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (30 YEAR RESIDENTIAL) 18
TABLE 2-8: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (25 YEAR WORKER) 19

LIST OF ABBREVIATED TERMS

(1)	Reference
µg	Microgram
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
APS	Auxiliary Power System
AQMD	Air Quality Management District
ARB	Air Resources Board
CEQA	California Environmental Quality Act
CPF	Cancer Potency Factor
DPM	Diesel Particulate Matter
EMFAC	Emission Factor Model
EPA	Environmental Protection Agency
HHD	Heavy Heavy-Duty
HI	Hazard Index
HRA	Health Risk Assessment
LHD	Light Heavy-Duty
MATES	Multiple Air Toxics Exposure Study
MDAQMD	Mojave Desert Air Quality Management District
MEIR	Maximally Exposed Individual Receptor
MEIW	Maximally Exposed Individual Worker
MHD	Medium Heavy-Duty
NAD	North American Datum
OEHHA	Office of Environmental Health Hazard Assessment
PM_{10}	Particulate Matter 10 microns in diameter or less
Project	Amargosa and Palmetto High-Cube Warehouse
REL	Reference Exposure Level
RM	Recommended Measures
SCAQMD	South Coast Air Quality Management District
SRA	Source Receptor Area
TAC	Toxic Air Contaminant
TA	Traffic Analysis
TRU	Transport Refrigeration Unit
URF	Unit Risk Factor
UTM	Universal Transverse Mercator
VMT	Vehicle Miles Traveled

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EXECUTIVE SUMMARY

This report evaluates the potential mobile-source emissions health risk impacts associated with the development of the proposed Project. More specifically, potential health risk impacts that could result from exposure to Toxic Air Contaminants (TACs), in this case, diesel particulate matter (DPM) generated by heavy-duty diesel trucks accessing the site. This section summarizes the significance criteria and Project health risks.

The results of the health risk assessment from Project-generated DPM emissions are provided in Table ES-1, ES-2, and ES-3, presented subsequently.

CONSTRUCTION IMPACTS

The land use with the greatest potential exposure to Project construction-source DPM emissions is Location R2 which is located approximately 76 feet north the Project site at an existing residence located at 13164 Avenal Road. R2 is placed in the private outdoor living area (backyard) facing the Project site. At the maximally exposed individual receptor (MEIR), the maximum incremental cancer risk attributable to Project construction-source DPM emissions is estimated at 2.13 in one million, which is less than the Mojave Desert Air Quality Management District's (MDAQMD) significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction activity. All other receptors during construction activity would experience less risk than what is identified for this location. The nearest modeled receptors are illustrated on Exhibit 2-D.

OPERATIONAL IMPACTS

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project operational-source DPM emissions is Location R4 which is located approximately 1,071 feet southeast of the Project site at an existing residence located at 13500 Live Oak Street. Since there are no private outdoor living areas facing the Project site, R4 is placed at the building façade nearest the Project site. At the MEIR, the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at 0.20 in one million, which is less than the MDAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled residential receptors are exposed to lesser concentrations and are located at a greater distance from the Project site than the MEIR analyzed herein, and TACs generally dissipates with distance from the source, all other residential receptors in the vicinity of the Project site would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby residences. The nearest modeled receptors are illustrated on Exhibit 2-D.

Worker Exposure Scenario[1]*:*

The worker receptor land use with the greatest potential exposure to Project operational-source DPM emissions is Location R6, which represents the potential worker receptor approximately 201 feet south of the Project site. At the maximally exposed individual worker (MEIW), the maximum incremental cancer risk impact is 0.04 in one million which is less than the MDAQMD's threshold of 10 in one million. Maximum non-cancer risks at this same location were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled worker receptors are located at a greater distance than the MEIW analyzed herein, and DPM dissipates with distance from the source, all other worker receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent workers. The nearest modeled receptors are illustrated on Exhibit 2-D.

School Child Exposure Scenario:

Proximity to sources of toxics is critical to determining the impact. In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70-percent drop-off in particulate pollution levels at 500 feet. Based on California Air Resources Board (CARB) emissions and modeling analyses, an 80-percent drop-off in pollutant concentrations is expected at approximately 1,000 feet from a distribution center (1).

The 1,000-foot evaluation distance is supported by research-based findings concerning Toxic Air Contaminant (TAC) emission dispersion rates from roadways and large sources showing that emissions diminish substantially between 500 and 1,000 feet from emission sources.

A one-quarter mile radius, or 1,320 feet, is commonly utilized for identifying sensitive receptors, such as schools, that may be impacted by a proposed project. This radius is more robust than, and therefore provides a more health protective scenario for evaluation than the 1,000-foot impact radius identified above.

There are no schools within ¼ mile of the Project site. The nearest school is Topaz Preparatory Academy, which is located approximately 5,580 feet southeast of the Project site. Because there is no reasonable potential that TAC emissions would cause significant health impacts at distances of more than ¼ mile from the air pollution source, there would be no significant impacts that would occur to any schools in the vicinity of the Project.

CONSTRUCTION AND OPERATIONAL IMPACTS

The land use with the greatest potential increased cancer risk due to exposure to Project construction-source and operational-source DPM emissions is Location R2. At this location, the

1 MDAQMD guidance does not require assessment of the potential health risk to on-site workers. Excerpts from the document OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines—The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003), also indicate that it is not necessary to examine the health effects to on-site workers unless required by RCRA (Resource Conservation and Recovery Act) / CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) or the worker resides on-site.

maximum incremental cancer risk attributable to Project construction and operational DPM source emissions is estimated at 2.22 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction and operational activity. All other receptors during construction and operational activity would experience less risk than what is identified for this location. The nearest modeled receptors are illustrated on Exhibit 2-D.

TABLE ES-1: SUMMARY OF CONSTRUCTION CANCER AND NON-CANCER RISKS

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
0.96 Year Exposure	Maximum Exposed Sensitive Receptor	2.13	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Annual Average	Maximum Exposed Sensitive Receptor	≤0.01	1.0	NO

TABLE ES-2: SUMMARY OF OPERATIONAL CANCER AND NON-CANCER RISKS

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
30 Year Exposure	Maximum Exposed Sensitive Receptor	0.20	10	NO
25 Year Exposure	Maximum Exposed Worker Receptor	0.04	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Annual Average	Maximum Exposed Sensitive Receptor	≤0.01	1.0	NO
Annual Average	Maximum Exposed Worker Receptor	≤0.01	1.0	NO

TABLE ES-3: SUMMARY OF CONSTRUCTION AND OPERATIONAL CANCER AND NON-CANCER RISKS

Time Period	Location	Maximum Lifetime Cancer Risk (Risk per Million)	Significance Threshold (Risk per Million)	Exceeds Significance Threshold
30 Year Exposure	Maximum Exposed Sensitive Receptor	2.22	10	NO
Time Period	**Location**	**Maximum Hazard Index**	**Significance Threshold**	**Exceeds Significance Threshold**
Annual Average	Maximum Exposed Sensitive Receptor	≤0.01	1.0	NO

1 INTRODUCTION

The purpose of this Health Risk Assessment (HRA) is to evaluate Project-related impacts to nearby sensitive receptors (residents) and workers as a result of heavy-duty diesel trucks accessing the site.

The MDAQMD identifies that if a proposed Project is expected to generate/attract heavy-duty diesel trucks, which emit DPM, preparation of a mobile source HRA is recommended. This document serves to meet the MDAQMD's recommendation for preparation of an HRA. The mobile source HRA has been prepared in accordance with all relevant and appropriate procedures presented by the United States Environmental Protection Agency (U.S. EPA), California EPA and MDAQMD. Cancer risk is expressed in terms of expected incremental incidence per million population. The MDAQMD has established an incidence rate of ten (10) persons per million as the maximum acceptable incremental cancer risk due to DPM exposure from a project such as the proposed Project. This threshold serves to determine whether or not a given project has a potentially significant development-specific and cumulatively considerable impact.

The MDAQMD has also established non-carcinogenic risk parameters for use in HRAs. Non-carcinogenic risks are quantified by calculating a "hazard index," expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at or below which health effects are not likely to occur. A hazard index less of than one (1.0) means that adverse health effects are not expected. In this HRA, non-carcinogenic exposures of less than 1.0 are considered less-than-significant. Both the cancer risk and non-carcinogenic risk thresholds are applied to the nearest sensitive receptors below.

1.1 SITE LOCATION

The proposed Project is located on the northwest corner of Amargosa Road, and Palmetto Way in the City of Hesperia as shown on Exhibit 1-A.

1.2 PROJECT DESCRIPTION

The proposed Project is to consist of 499,850[2] square high-cube fulfillment center warehouse building as shown on Exhibit 1-B. the proposed project is anticipated to be constructed and fully operational by year 2024.

2 The proposed building square footage utilized in this analysis is based on a previous site plan which assumed a slightly smaller building square footage. Nonetheless, the emissions analyzed in this report would not change and a less than significant impact is expected.

EXHIBIT 1-A: LOCATION MAP

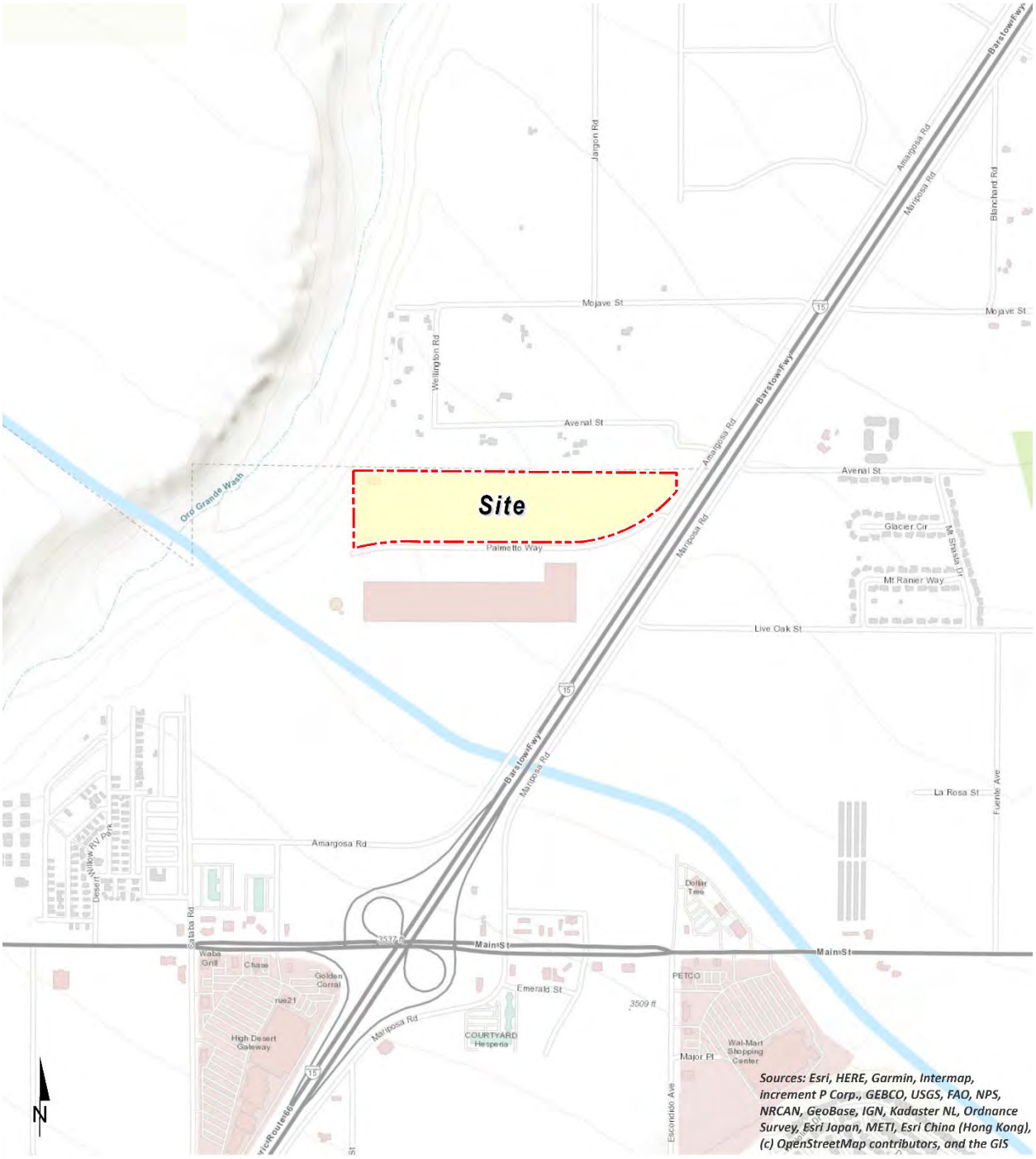
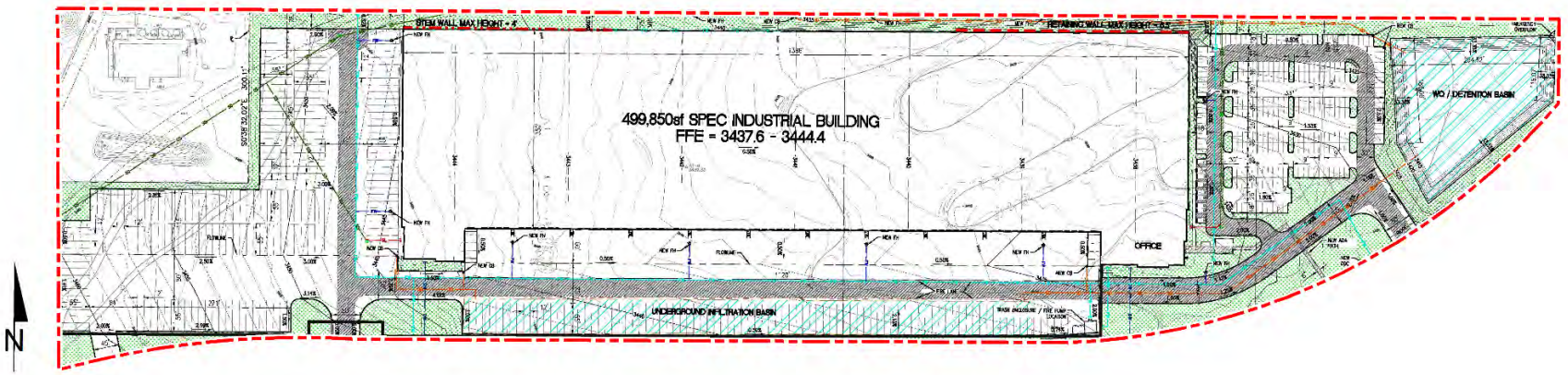


EXHIBIT 1-B: SITE PLAN



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2 BACKGROUND

2.1 BACKGROUND ON RECOMMENDED METHODOLOGY

This HRA is based on applicable guidelines to produce conservative estimates of human health risk posed by exposure to DPM. The conservative nature of this analysis is due primarily to the following factors:

- The ARB-adopted diesel exhaust Unit Risk Factor (URF) of 300 in one million per $\mu g/m^3$ is based upon the upper 95 percentile of estimated risk for each of the epidemiological studies utilized to develop the URF. Using the 95th percentile URF represents a very conservative (health-protective) risk posed by DPM because it represents breathing rates that are high for the human body (95% higher than the average population).
- The emissions derived assume that every truck accessing the Project site will idle for 15 minutes under the unmitigated scenario, and this is an overestimation of actual idling times and thus conservative.[3] The California Air Resources Board (CARB's) anti-idling requirements impose a 5-minute maximum idling time and therefore the analysis conservatively overestimates DPM emissions from idling by a factor of 3.

2.2 CONSTRUCTION HEALTH RISK ASSESSMENT

2.2.1 EMISSIONS CALCULATIONS

The emissions calculations for the construction HRA component are based on an assumed mix of construction equipment and hauling activity as presented in the *Amargosa and Palmetto High-Cube Warehouse Air Quality Impact Analysis* ("technical study") prepared by Urban Crossroads, Inc. (2).

Construction related DPM emissions are expected to occur primarily as a function of heavy-duty construction equipment that would be operating on-site.

As discussed in the technical study, the Project would result in approximately 250 total working-days of construction activity. The construction duration by phase is shown on Table 2-1. A detailed summary of construction equipment assumptions by phase is provided at Table 2-2. The CalEEMod emissions outputs are presented in Appendix 2.1. The modeled emission sources for construction activity are illustrated on Exhibit 2-A.

[3] Although the Project is required to comply with ARB's idling limit of 5 minutes, staff at SCAQMD recommends that the on-site idling emissions should be estimated for 15 minutes of truck idling (personal communication, in person, with Jillian Wong, December 22, 2016), which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc.

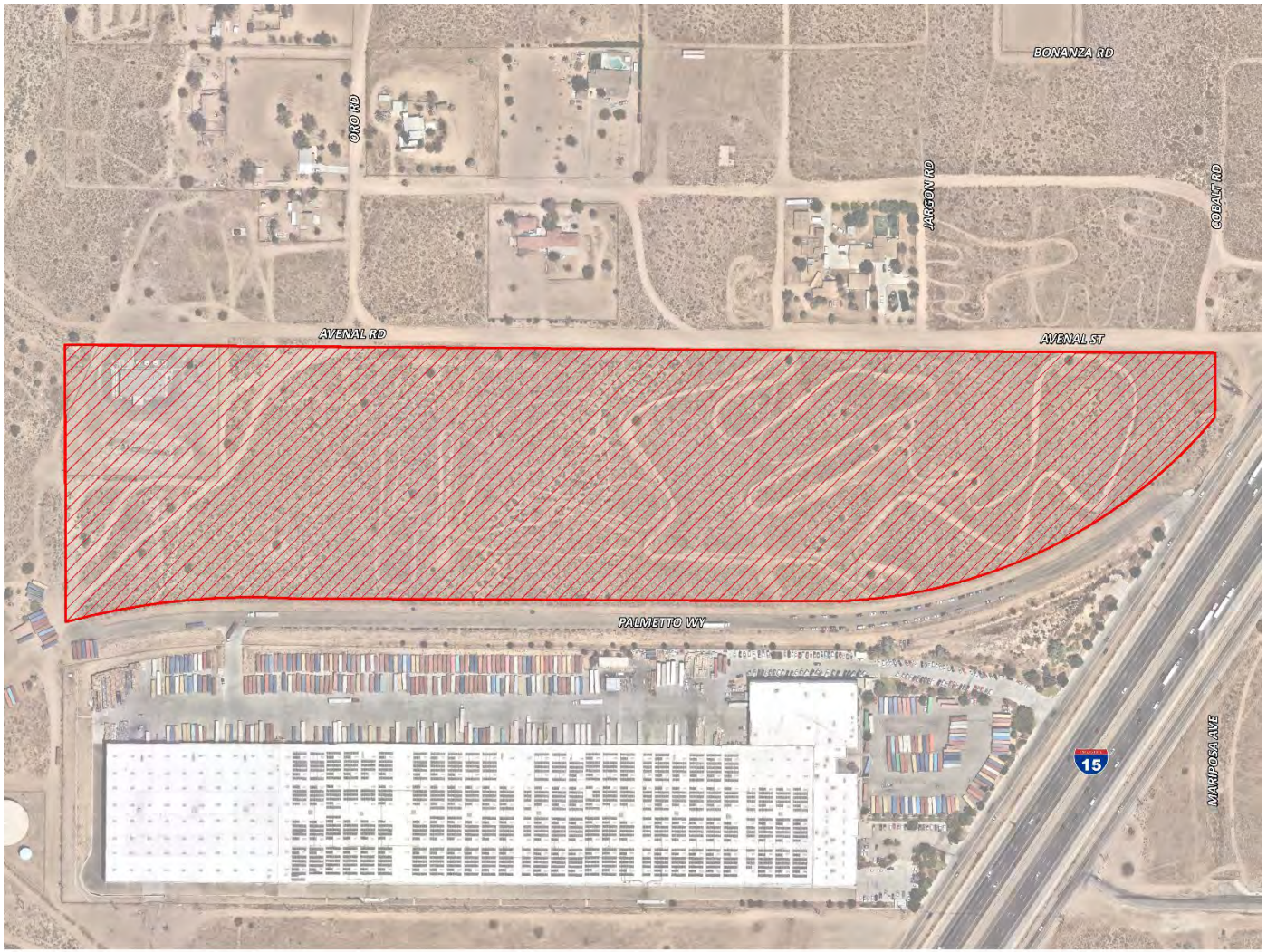
TABLE 2-1: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Site Preparation	1/15/2023	2/1/2023	13
Grading	2/1/2023	3/31/2023	43
Building Construction	3/15/2023	11/30/2023	187
Paving	11/15/2023	12/30/2023	33
Architectural Coating	11/6/2023	12/30/2023	40

TABLE 2-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Phase Name	Equipment	Number	Hours Per Day
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Grading	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
	Crawler Tractors	2	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

EXHIBIT 2-A: MODELED CONSTRUCTION EMISSION SOURCES



2.3 OPERATIONAL HEALTH RISK ASSESSMENT

2.3.1 ON-SITE AND OFF-SITE TRUCK ACTIVITY

Vehicle DPM emissions were calculated using emission factors for particulate matter less than 10µm in diameter (PM_{10}) generated with the 2021 version of the EMission FACtor model (EMFAC) developed by the CARB. EMFAC 2021 is a mathematical model that CARB developed to calculate emission rates from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the ARB to project changes in future emissions from on-road mobile sources (3). The most recent version of this model, EMFAC 2021, incorporates regional motor vehicle data, information and estimates regarding the distribution of vehicle miles traveled (VMT) by speed, and number of starts per day.

Several distinct emission processes are included in EMFAC 2021. Emission factors calculated using EMFAC 2021 are expressed in units of grams per vehicle miles traveled (g/VMT) or grams per idle-hour (g/idle-hr), depending on the emission process. The emission processes and corresponding emission factor units associated with diesel particulate exhaust for this Project are presented below.

For this Project, annual average PM_{10} emission factors were generated by running EMFAC 2021 in EMFAC Mode for vehicles in the San Bernardino County jurisdiction. The EMFAC Mode generates emission factors in terms of grams of pollutant emitted per vehicle activity and can calculate a matrix of emission factors at specific values of temperature, relative humidity, and vehicle speed. The model was run for speeds traveled in the vicinity of the Project. The vehicle travel speeds for each segment modeled are summarized below.

- Idling – on-site loading/unloading and truck gate
- 5 miles per hour – on-site vehicle movement including driving and maneuvering
- 25 miles per hour – off-site vehicle movement including driving and maneuvering.

Calculated emission factors are shown at Table 2-3. As a conservative measure, a 2024 EMFAC 2021 run was conducted and a static 2024 emissions factor data set was used for the entire duration of analysis herein (e.g., 30 years). Use of 2024 emission factors would overstate potential impacts since this approach assumes that emission factors remain “static” and do not change over time due to fleet turnover or cleaner technology with lower emissions that would be incorporated into vehicles after 2024. Additionally, based on EMFAC 2021, Light-Heavy-Duty Trucks are comprised of 59.6% diesel, Medium-Heavy-Duty Trucks are comprised of 75.1% diesel, and Heavy-Heavy-Duty Trucks are comprised of 99.7% diesel. Trucks fueled by diesel are accounted for by these percentages accordingly in the emissions factor generation. Appendix 2.2 includes additional details on the emissions estimates from EMFAC.

The vehicle DPM exhaust emissions were calculated for running exhaust emissions. The running exhaust emissions were calculated by applying the running exhaust PM_{10} emission factor (g/VMT) from EMFAC over the total distance traveled. The following equation was used to estimate off-site emissions for each of the different vehicle classes comprising the mobile sources (4):

$Emissions_{speedA}$ (g/s) = $EF_{RunExhaust}$ (g/VMT) * Distance (VMT/trip) * Number of Trips (trips/day) / seconds per day

Where:

$Emissions_{speedA}$ (g/s): Vehicle emissions at a given speed A;

$EF_{RunExhaust}$ (g/VMT): EMFAC running exhaust PM_{10} emission factor at speed A;

Distance (VMT/trip): Total distance traveled per trip.

Similar to off-site traffic, on-site vehicle running emissions were calculated by applying the running exhaust PM_{10} emission factor (g/VMT) from EMFAC and the total vehicle trip number over the length of the driving path using the same formula presented above for on-site emissions. In addition, on-site vehicle idling exhaust emissions were calculated by applying the idle exhaust PM_{10} emission factor (g/idle-hr) from EMFAC and the total truck trip over the total assumed idle time (15 minutes). The following equation was used to estimate the on-site vehicle idling emissions for each of the different vehicle classes (4):

$Emissions_{idle}$ (g/s) = EF_{idle} (g/hr) * Number of Trips (trips/day) * Idling Time (min/trip) *

60 minutes per hour / seconds per day

Where:

$Emissions_{idle}$ (g/s): Vehicle emissions during idling;

EF_{idle}(g/s): EMFAC idle exhaust PM_{10} emission factor.

TABLE 2-3: 2024 WEIGHTED AVERAGE DPM EMISSIONS FACTORS

Speed	Weighted Average
0 (idling)	0.08786 (g/idle-hr)
5	0.02217 (g/s)
25	0.00958 (g/s)

Each roadway was modeled as a line source (made up of multiple adjacent volume sources). Due to the large number of volume sources modeled for this analysis, the corresponding coordinates of each volume source have not been included in this report but are included in Appendix 2.3. The DPM emission rate for each volume source was calculated by multiplying the emission factor (based on the average travel speed along the roadway) by the number of trips and the distance traveled along each roadway segment and dividing the result by the number of volume sources along that roadway, as illustrated on Table 2-4. The modeled emission sources are illustrated on Exhibit 2-B for on-site sources and Exhibit 2-C for off-site sources. The modeling domain is limited to the Project's primary truck route and includes off-site sources in the study area for more than ¾ mile. This modeling domain is more inclusive and conservative than using only a ¼ mile modeling domain which is the distance supported by several reputable studies which conclude that the greatest potential risks occur within a ¼ mile of the primary source of emissions (1) (in the case of the Project, the primary source of emissions is the on-site idling and on-site travel).

EXHIBIT 2-B: MODELED ON-SITE EMISSION SOURCES

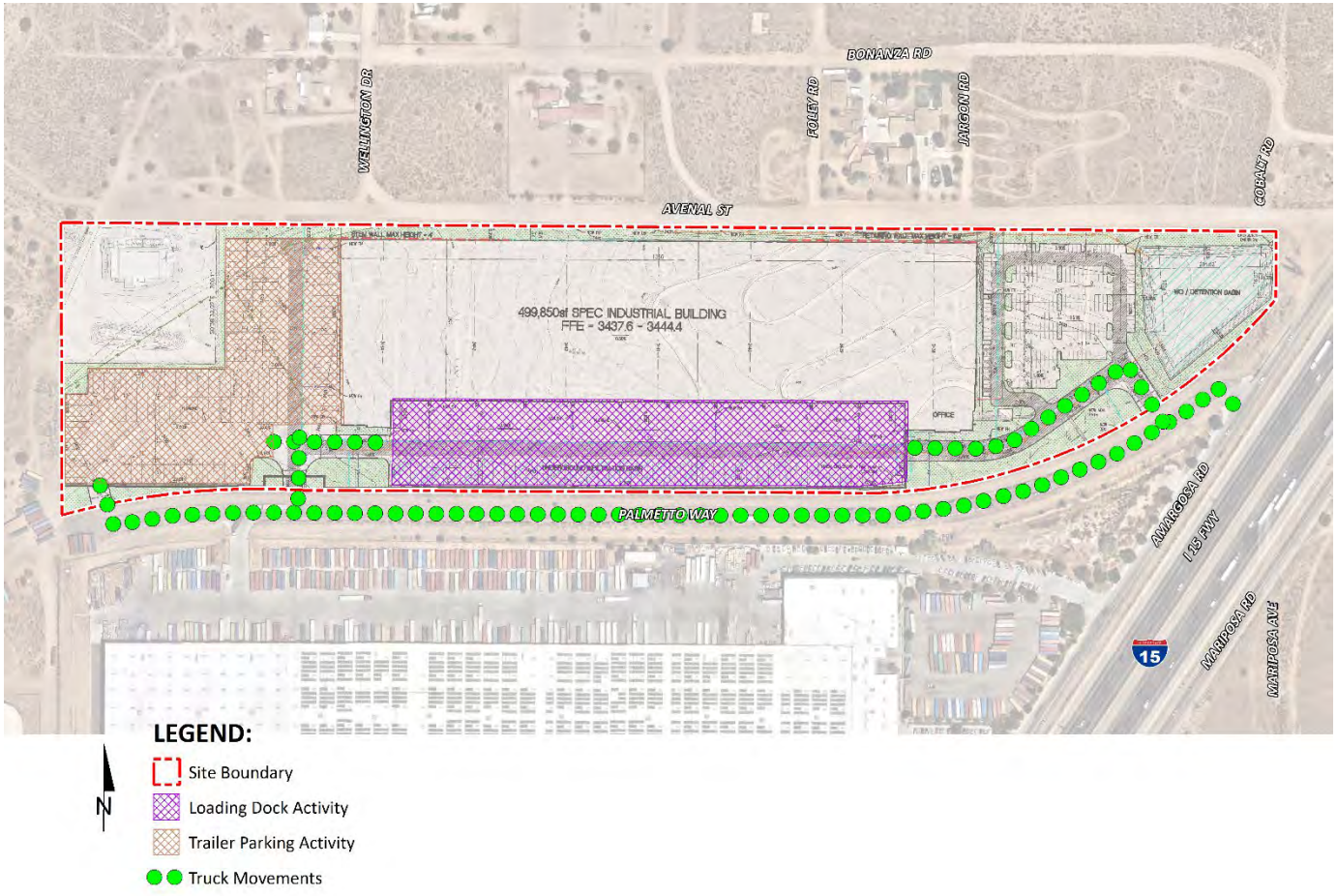


EXHIBIT 2-C: MODELED OFF-SITE EMISSION SOURCES

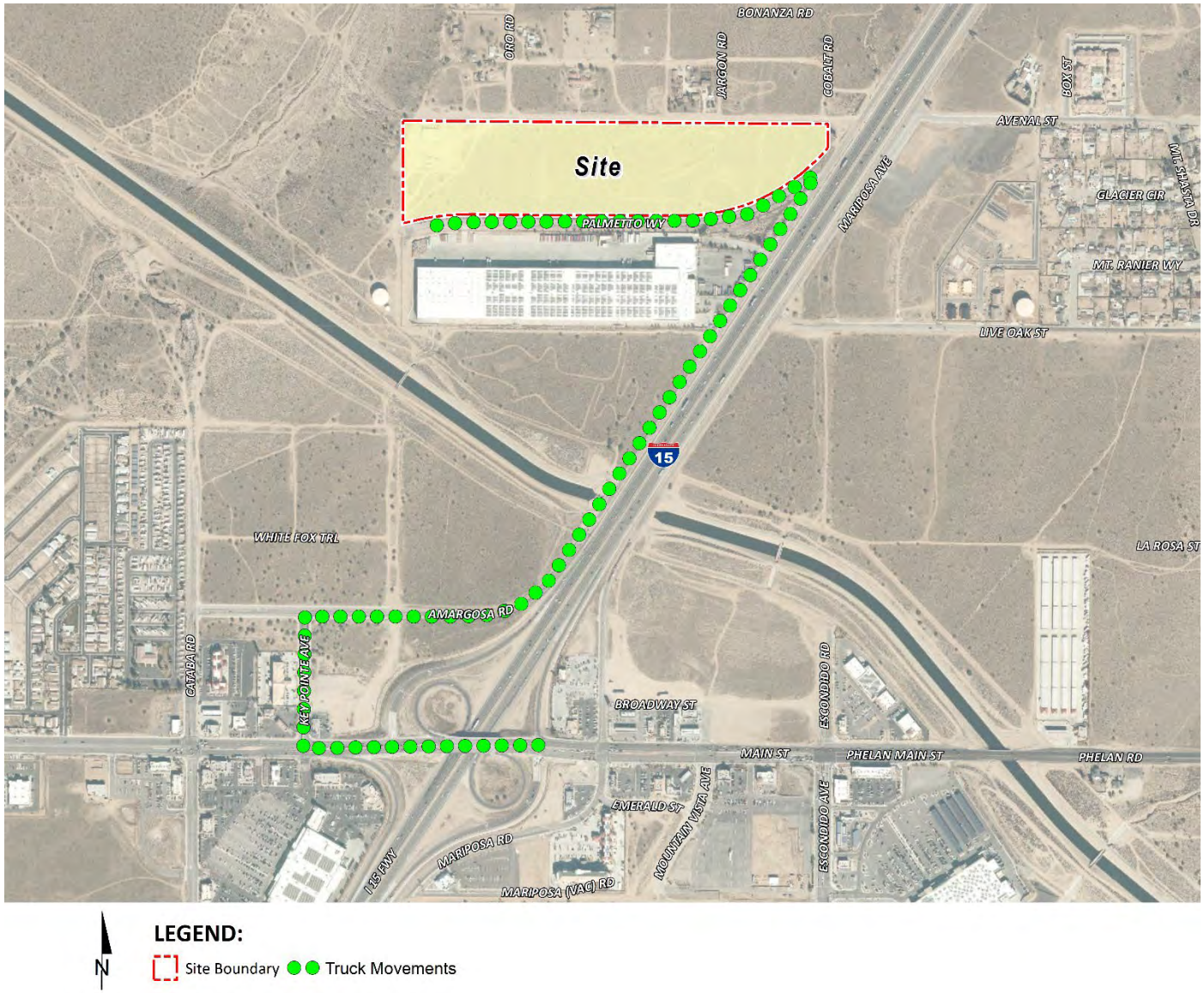


TABLE 2-4: DPM EMISSIONS FROM PROJECT TRUCKS (2024 ANALYSIS YEAR)

Truck Emission Rates						
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling	58			0.0879	1.26	1.462E-05
On-Site Travel 5%	6	0.84	0.0222		0.02	2.168E-07
On-Site Travel 20%	23	1.34	0.0222		0.03	3.439E-07
On-Site Travel 75%	86	10.35	0.0222		0.23	2.655E-06
On-Site Travel 100%	115	24.82	0.0222		0.55	6.369E-06
Off-Site Travel - Palmeto Way 5% Inbound/Outbound	6	0.45	0.0096		0.00	5.032E-08
Off-Site Travel - Palmeto Way 25% Inbound/Outbound	29	10.63	0.0096		0.10	1.179E-06
Off-Site Travel - Amargosa Road 100% Inbound/Outbound	115	89.98	0.0096		0.86	9.979E-06
Off-Site Travel - Main Street 100% Inbound/Outbound	115	66.31	0.0096		0.64	7.354E-06

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2021. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

On-site truck idling was estimated to occur as trucks enter and travel through the Project site. Although the Project's diesel-fueled truck and equipment operators will be required by State law to comply with CARB's idling limit of 5 minutes, staff at SCAQMD recommends that the on-site idling emissions be calculated assuming 15 minutes of truck idling (5), which would take into account on-site idling which occurs while the trucks are waiting to pull up to the truck bays, idling at the bays, idling at check-in and check-out, etc. As such, this analysis calculates truck idling at 15 minutes, consistent with SCAQMD's recommendation. Even though the Project is not within the jurisdiction of the SCAQMD, these recommendations are relevant for CEQA purposes since MDAQMD does not provide similar guidance.

The Project is expected to generate a total of approximately 905 vehicular trip-ends (actual vehicles) per day (453 vehicles inbound + 453 vehicles outbound) which includes 790 two-way passenger car trip-ends (395 passenger cars inbound + 395 passenger cars outbound) and 115 two-way truck trip-ends per day (58 trucks inbound + 58 trucks outbound) (6).

2.4 EXPOSURE QUANTIFICATION

The Environmental Protection Agency's (U.S. EPA's) AERMOD model has been utilized for this analysis. For purposes of this analysis, the Lakes AERMOD View (Version 11.0.0) was used to calculate annual average particulate concentrations associated with site operations. Lakes AERMOD View was utilized to incorporate the U.S. EPA's latest AERMOD Version 22112 (7).

The model offers additional flexibility by allowing the user to assign an initial release height and vertical dispersion parameters for mobile sources representative of a roadway. For this HRA, the roadways were modeled as adjacent volume sources. Roadways were modeled using the U.S. EPA's haul route methodology for modeling of on-site and off-site truck movement. More specifically, the Haul Road Volume Source Calculator in Lakes AERMOD View has been utilized to determine the release height parameters. Based on the US EPA methodology, the Project's modeled sources would result in a release height of 3.49 meters, and an initial lateral dimension of 4.0 meters, and an initial vertical dimension of 3.25 meters.

Model parameters are presented in Table 2-5 (8). The model requires additional input parameters including emission data and local meteorology. Meteorological data from the Daggett Airport monitoring station located in MDAQMD was used to represent local weather conditions and prevailing winds (9).

TABLE 2-5: AERMOD MODEL PARAMETERS

Dispersion Coefficient (Urban/Rural)	Rural
Terrain (Flat/Elevated)	Elevated (Regulatory Default)
Averaging Time	1 year (5-year Meteorological Data Set)
Receptor Height	0 meters (Regulatory Default)

Universal Transverse Mercator (UTM) coordinates for World Geodetic System (WGS) 84 were used to locate the Project site boundaries, each volume source location, and receptor locations in the Project site's vicinity. The AERMOD dispersion model summary output files for the

proposed Project are presented in Appendix 2.3. Modeled sensitive receptors were placed at residential and non-residential locations.

Receptors may be placed at applicable structure locations for residential and worker property and not necessarily the boundaries of the properties containing these uses because the human receptors (residents and workers) spend a majority of their time at the residence or in the workplace's building, and not on the property line. It should be noted that the primary purpose of receptor placement is focused on long-term exposure. For example, the HRA evaluates the potential health risks to residents and workers over a period of 30 or 25 years of exposure, respectively. Notwithstanding, as a conservative measure, receptors were placed at either the outdoor living area or the building façade, whichever is closer to the Project site.

For purposes of this HRA, receptors include both residential and non-residential (worker) land uses in the vicinity of the Project. These receptors are included in the HRA since residents and workers may be exposed at these locations over a long-term duration of 30 and 25 years, respectively. This methodology is consistent with MDAQMD and OEHHA recommended guidance.

Any impacts to residents or workers located further away from the Project site than the modeled residential and workers would have a lesser impact than what has already been disclosed in the HRA at the MEIR and MEIW because concentrations dissipate with distance.

All receptors were set to existing elevation height so that only ground-level concentrations are analyzed. United States Geological Survey (USGS) Digital Elevation Model (DEM) terrain data based on a 7.5-minute topographic quadrangle map series using AERMAP was utilized in the HRA modeling to set elevations (10).

Discrete variants for daily breathing rates, exposure frequency, and exposure duration were obtained from relevant distribution profiles presented in the 2015 OEHHA Guidelines. Tables 2-6 through 2-8 summarize the Exposure Parameters for Residents and Workers based on 2015 OEHHA Guidelines. Appendix 2.4 includes the detailed risk calculation.

TABLE 2-6: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (CONSTRUCTION ACTIVITY)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/day)
0 to 2	1,090	10	0.96	1.0	260	8

TABLE 2-7: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (30 YEAR RESIDENTIAL)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/day)
-0.25 to 0	361	10	0.25	0.85	350	24

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Fraction of Time at Home	Exposure Frequency (days/year)	Exposure Time (hours/day)
0 to 2	1,090	10	2	0.85	350	24
2 to 16	572	3	14	0.72	350	24
16 to 30	261	1	14	0.73	350	24

TABLE 2-8: EXPOSURE ASSUMPTIONS FOR INDIVIDUAL CANCER RISK (25 YEAR WORKER)

Age	Daily Breathing Rate (L/kg-day)	Age Specific Factor	Exposure Duration (years)	Exposure Frequency (days/year)	Exposure Time (hours/day)
16 to 41	230	1	25	250	12

2.5 CARCINOGENIC CHEMICAL RISK

Excess cancer risks are estimated as the upper-bound incremental probability that an individual will develop cancer over a lifetime as a direct result of exposure to potential carcinogens over a specified exposure duration. The estimated risk is expressed as a unitless probability. The cancer risk attributed to a chemical is calculated by multiplying the chemical intake or dose at the human exchange boundaries (e.g., lungs) by the chemical-specific cancer potency factor (CPF). A risk level of 10 in one million implies a likelihood that up to 10 people, out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of toxic air contaminants over a specified duration of time.

Guidance from CARB and the California Environmental Protection Agency, Office of Environmental Health Hazard Assessment (OEHHA) recommends a refinement to the standard point estimate approach when alternate human body weights and breathing rates are utilized to assess risk for susceptible subpopulations such as children. For the inhalation pathway, the procedure requires the incorporation of several discrete variates to effectively quantify dose. Once determined, contaminant dose is multiplied by the cancer potency factor (CPF) in units of inverse dose expressed in milligrams per kilogram per day $(mg/kg/day)^{-1}$ to derive the cancer risk estimate. Therefore, to assess exposures, the following dose algorithm was utilized.

$$DOSE_{air} = (C_{air} \times [BR/BW] \times A \times EF) \times (1 \times 10^{-6})$$

Where:

$DOSE_{air}$ = chronic daily intake (mg/kg/day)

Cair = concentration of contaminant in air (ug/m^3)

[BR/BW] = daily breathing rate normalized to body weight (L/kg BW-day)

A = inhalation absorption factor

EF = exposure frequency (days/365 days)

BW = body weight (kg)

1×10^{-6} = conversion factors (µg to mg, L to m^3)

$RISK_{air} = DOSE_{air} \times CPF \times ED/AT$

Where:

$DOSE_{air}$ = chronic daily intake (mg/kg/day)

CPF = cancer potency factor

ED = number of years within particular age group

AT = averaging time

2.6 NON-CARCINOGENIC EXPOSURES

An evaluation of the potential noncarcinogenic effects of chronic exposures was also conducted. Adverse health effects are evaluated by comparing a compound's annual concentration with its toxicity factor or Reference Exposure Level (REL). The REL for diesel particulates was obtained from OEHHA for this analysis. The chronic reference exposure level (REL) for DPM was established by OEHHA as 5 µg/m^3 (11).

The non-cancer hazard index was calculated as follows:

The relationship for the non-cancer health effects of DPM is given by the following equation:

$$HI_{DPM} = C_{DPM}/REL_{DPM}$$

Where:

HI_{DPM} = Hazard Index; an expression of the potential for non-cancer health effects.

C_{DPM} = Annual average DPM concentration (µg/m^3).

REL_{DPM} = Reference exposure level (REL) for DPM; the DPM concentration at which no adverse health effects are anticipated.

2.7 POTENTIAL PROJECT-RELATED DPM SOURCE CANCER AND NON-CANCER RISKS

CONSTRUCTION IMPACTS

The land use with the greatest potential exposure to Project construction-source DPM emissions is Location R2 which is located approximately 76 feet north the Project site at an existing residence located at 13164 Avenal Road. R2 is placed in the private outdoor living area (backyard) facing the Project site. At the MEIR, the maximum incremental cancer risk attributable to Project construction-source DPM emissions is estimated at 2.13 in one million, which is less than the

MDAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction activity. All other receptors during construction activity would experience less risk than what is identified for this location. The nearest modeled receptors are illustrated on Exhibit 2-D.

OPERATIONAL IMPACTS

Residential Exposure Scenario:

The residential land use with the greatest potential exposure to Project operational-source DPM emissions is Location R4 which is located approximately 1,071 feet southeast of the Project site at an existing residence located at 13500 Live Oak Street. Since there are no private outdoor living areas facing the Project site, R4 is placed at the building façade nearest the Project site. At the MEIR, the maximum incremental cancer risk attributable to Project operational-source DPM emissions is estimated at 0.20 in one million, which is less than the MDAQMD's significance threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled residential receptors are exposed to lesser concentrations and are located at a greater distance from the Project site than the MEIR analyzed herein, and TACs generally dissipates with distance from the source, all other residential receptors in the vicinity of the Project site would be exposed to less emissions and therefore less risk than the MEIR identified herein. As such, the Project will not cause a significant human health or cancer risk to nearby residences. The nearest modeled receptors are illustrated on Exhibit 2-D.

Worker Exposure Scenario[4]*:*

The worker receptor land use with the greatest potential exposure to Project operational-source DPM emissions is Location R6, which represents the potential worker receptor approximately 201 feet south of the Project site. At the MEIW, the maximum incremental cancer risk impact is 0.04 in one million which is less than the MDAQMD's threshold of 10 in one million. Maximum non-cancer risks at this same location were estimated to be <0.01, which would not exceed the applicable significance threshold of 1.0. Because all other modeled worker receptors are located at a greater distance than the MEIW analyzed herein, and DPM dissipates with distance from the source, all other worker receptors in the vicinity of the Project would be exposed to less emissions and therefore less risk than the MEIW identified herein. As such, the Project will not cause a significant human health or cancer risk to adjacent workers. The nearest modeled receptors are illustrated on Exhibit 2-D.

4 MDAQMD guidance does not require assessment of the potential health risk to on-site workers. Excerpts from the document OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines—The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2003), also indicate that it is not necessary to examine the health effects to on-site workers unless required by RCRA (Resource Conservation and Recovery Act) / CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) or the worker resides on-site.

School Child Exposure Scenario:

Proximity to sources of toxics is critical to determining the impact. In traffic-related studies, the additional non-cancer health risk attributable to proximity was seen within 1,000 feet and was strongest within 300 feet. California freeway studies show about a 70-percent drop-off in particulate pollution levels at 500 feet. Based on California Air Resources Board (CARB) emissions and modeling analyses, an 80-percent drop-off in pollutant concentrations is expected at approximately 1,000 feet from a distribution center (1).

The 1,000-foot evaluation distance is supported by research-based findings concerning Toxic Air Contaminant (TAC) emission dispersion rates from roadways and large sources showing that emissions diminish substantially between 500 and 1,000 feet from emission sources.

A one-quarter mile radius, or 1,320 feet, is commonly utilized for identifying sensitive receptors, such as schools, that may be impacted by a proposed project. This radius is more robust than, and therefore provides a more health protective scenario for evaluation than the 1,000-foot impact radius identified above.

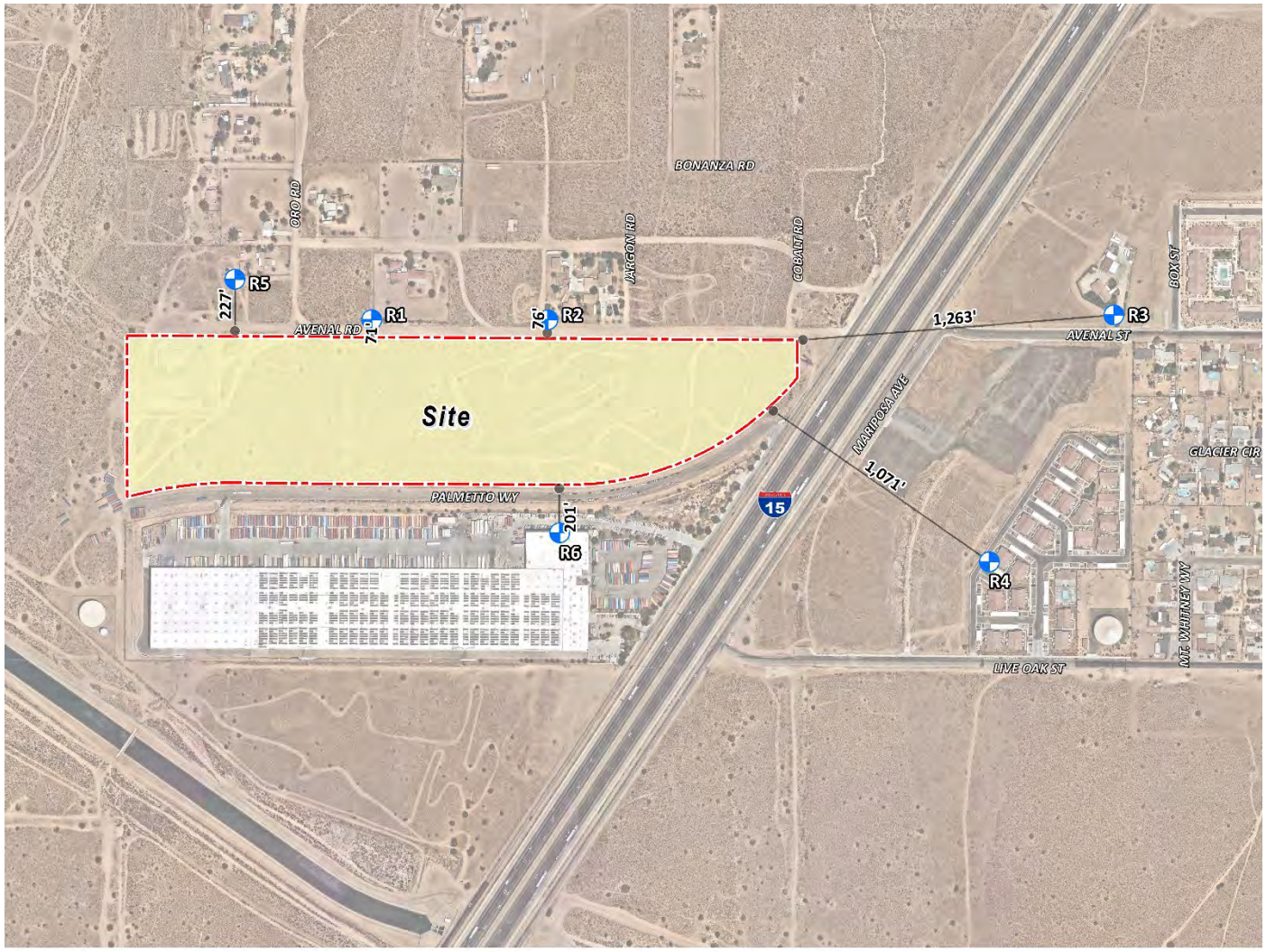
There are no schools within ¼ mile of the Project site. The nearest school is Topaz Preparatory Academy, which is located approximately 5,580 feet southeast of the Project site. Because there is no reasonable potential that TAC emissions would cause significant health impacts at distances of more than ¼ mile from the air pollution source, there would be no significant impacts that would occur to any schools in the vicinity of the Project.

CONSTRUCTION AND OPERATIONAL IMPACTS

The land use with the greatest potential increased cancer risk due to exposure to Project construction-source and operational-source DPM emissions is Location R2. At this location, the maximum incremental cancer risk attributable to Project construction and operational DPM source emissions is estimated at 2.22 in one million, which is less than the threshold of 10 in one million. At this same location, non-cancer risks were estimated to be <0.01, which would not exceed the applicable threshold of 1.0. As such, the Project will not cause a significant human health or cancer risk to adjacent land uses as a result of Project construction and operational activity. All other receptors during construction and operational activity would experience less risk than what is identified for this location. The nearest modeled receptors are illustrated on Exhibit 2-D.

It should be noted that the receptors presented in Exhibit 2-D do not represent all modeled receptors.

EXHIBIT 2-D: RECEPTOR LOCATIONS



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3 REFERENCES

1. **Air Resources Board.** *Air Quality and Land Use Handbook: A Community Health Perspective.* 2005.

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4 CERTIFICATIONS

The contents of this health risk assessment represent an accurate depiction of the impacts to sensitive receptors associated with the proposed Amargosa and Palmetto High-Cube Warehouse Project. The information contained in this health risk assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me at (949) 660-1994.

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PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Environmental Site Assessment – American Society for Testing and Materials • June 2013
Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
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APPENDIX 2.1:

CALEEMOD OUTPUTS

14848-Palmetto Industrial (Construction) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

3.3. Grading (2023) - Unmitigated

3.5. Building Construction (2023) - Unmitigated

3.7. Paving (2023) - Unmitigated

3.9. Architectural Coating (2023) - Unmitigated

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	14848-Palmetto Industrial (Construction)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	1.40
Location	34.436795901992426, -117.37836806854374
County	San Bernardino-Mojave Desert
City	Hesperia
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5106
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	500	1000sqft	11.5	499,700	255,000	—	—	—
Parking Lot	508	Space	3.93	0.00	0.00	—	—	—

Other Non-Asphalt Surfaces	659	1000sqft	15.1	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.18	2.70	16.3	36.0	0.04	0.62	3.28	3.91	0.58	0.79	1.37	—	7,900	7,900	0.24	0.41	19.0	8,047
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.1	70.8	89.0	73.5	0.12	4.50	9.00	13.5	4.14	3.83	7.97	—	15,076	15,076	0.53	0.55	0.59	15,254
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.49	9.46	16.0	22.8	0.03	0.68	2.33	3.02	0.63	0.65	1.28	—	5,240	5,240	0.18	0.23	4.52	5,319
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.45	1.73	2.93	4.16	0.01	0.12	0.43	0.55	0.12	0.12	0.23	—	868	868	0.03	0.04	0.75	881

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	3.18	2.70	16.3	36.0	0.04	0.62	3.28	3.91	0.58	0.79	1.37	—	7,900	7,900	0.24	0.41	19.0	8,047
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	11.1	70.8	89.0	73.5	0.12	4.50	9.00	13.5	4.14	3.83	7.97	—	15,076	15,076	0.53	0.55	0.59	15,254
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.49	9.46	16.0	22.8	0.03	0.68	2.33	3.02	0.63	0.65	1.28	—	5,240	5,240	0.18	0.23	4.52	5,319
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.45	1.73	2.93	4.16	0.01	0.12	0.43	0.55	0.12	0.12	0.23	—	868	868	0.03	0.04	0.75	881

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.83	4.90	47.0	38.0	0.05	2.53	—	2.53	2.33	—	2.33	—	5,530	5,530	0.22	0.04	—	5,549
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.17	1.67	1.35	< 0.005	0.09	—	0.09	0.08	—	0.08	—	197	197	0.01	< 0.005	—	198
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	—	32.6	32.6	< 0.005	< 0.005	—	32.7
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.12	1.15	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	235	235	0.01	0.01	0.03	238
Vendor	0.01	< 0.005	0.15	0.07	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	132	132	< 0.005	0.02	0.01	137
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.63	8.63	< 0.005	< 0.005	0.02	8.75

Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.70	4.70	< 0.005	< 0.005	0.01	4.90
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.43	1.43	< 0.005	< 0.005	< 0.005	1.45
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.78	0.78	< 0.005	< 0.005	< 0.005	0.81
Hauling	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	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.00	4.20	40.9	32.7	0.06	1.96	—	1.96	1.80	—	1.80	—	6,715	6,715	0.27	0.05	—	6,738
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.49	4.82	3.85	0.01	0.23	—	0.23	0.21	—	0.21	—	791	791	0.03	0.01	—	794

Dust From Material Movement	—	—	—	—	—	—	0.31	0.31	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.88	0.70	< 0.005	0.04	—	0.04	0.04	—	0.04	—	131	131	0.01	< 0.005	—	131
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.32	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	269	269	0.01	0.01	0.03	272
Vendor	0.02	0.02	0.56	0.26	< 0.005	0.01	0.03	0.03	0.01	0.01	0.02	—	495	495	< 0.005	0.07	0.03	515
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	62.7	62.7	< 0.005	0.01	< 0.005	65.6
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.17	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	32.6	32.6	< 0.005	< 0.005	0.06	33.1
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	58.3	58.3	< 0.005	0.01	0.07	60.7
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.38	7.38	< 0.005	< 0.005	0.01	7.73
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	5.40	5.40	< 0.005	< 0.005	0.01	5.48
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.65	9.65	< 0.005	< 0.005	0.01	10.1

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	< 0.005	< 0.005	< 0.005	1.28

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.62	1.36	12.8	14.3	0.03	0.60	—	0.60	0.55	—	0.55	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.62	1.36	12.8	14.3	0.03	0.60	—	0.60	0.55	—	0.55	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.83	0.69	6.56	7.32	0.01	0.31	—	0.31	0.28	—	0.28	—	1,347	1,347	0.05	0.01	—	1,352
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.20	1.34	< 0.005	0.06	—	0.06	0.05	—	0.05	—	223	223	0.01	< 0.005	—	224
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.46	1.27	1.30	20.6	0.00	0.00	0.17	0.17	0.00	0.00	0.00	—	3,193	3,193	0.13	0.10	13.5	3,240
Vendor	0.10	0.08	2.23	1.07	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	2,078	2,078	< 0.005	0.28	5.51	2,168
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.23	1.12	1.39	13.8	0.00	0.00	0.17	0.17	0.00	0.00	0.00	—	2,823	2,823	0.14	0.10	0.35	2,858
Vendor	0.10	0.07	2.36	1.09	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	2,080	2,080	< 0.005	0.28	0.14	2,165
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.64	0.58	0.76	7.93	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,490	1,490	0.07	0.05	2.97	1,510
Vendor	0.05	0.04	1.21	0.55	0.01	0.01	0.06	0.07	0.01	0.02	0.04	—	1,065	1,065	< 0.005	0.15	1.22	1,110
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.45	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	247	247	0.01	0.01	0.49	250
Vendor	0.01	0.01	0.22	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	176	176	< 0.005	0.02	0.20	184
Hauling	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	0.00

3.7. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.04	0.88	8.06	10.0	0.01	0.41	—	0.41	0.38	—	0.38	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.73	0.91	< 0.005	0.04	—	0.04	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	0.99	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	202	202	0.01	0.01	0.02	204
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.10	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	18.8	18.8	< 0.005	< 0.005	0.04	19.0
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.11	3.11	< 0.005	< 0.005	0.01	3.15
Vendor	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	0.00
Hauling	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	0.00

3.9. Architectural Coating (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.25	1.54	< 0.005	0.05	—	0.05	0.05	—	0.05	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	66.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.14	0.17	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	19.5	19.5	< 0.005	< 0.005	—	19.6
Architectural Coatings	—	7.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.23	3.23	< 0.005	< 0.005	—	3.24
Architectural Coatings	—	1.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.22	0.28	2.77	0.00	0.00	0.03	0.03	0.00	0.00	0.00	—	565	565	0.03	0.02	0.07	572
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.34	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	63.7	63.7	< 0.005	< 0.005	0.13	64.6
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	10.6	10.6	< 0.005	< 0.005	0.02	10.7
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/15/2023	2/1/2023	5.00	13.0	—
Grading	Grading	2/1/2023	3/31/2023	5.00	43.0	—
Building Construction	Building Construction	3/15/2023	11/30/2023	5.00	187	—
Paving	Paving	11/15/2023	12/30/2023	5.00	33.0	—
Architectural Coating	Architectural Coating	11/6/2023	12/30/2023	5.00	40.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38

Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Site Preparation	Crawler Tractors	Diesel	Average	4.00	8.00	87.0	0.43

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	15.0	10.2	HHDT,MHDT

Grading	Hauling	0.88	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	210	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	63.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	42.0	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	786,896	262,299	49,795

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	45.5	0.00	—
Grading	300	—	172	0.00	—
Paving	0.00	0.00	0.00	0.00	19.1

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	3.93	100%
Other Non-Asphalt Surfaces	15.1	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	33.6	annual days of extreme heat
Extreme Precipitation	4.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	22.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A

Drought	1	1	1	2
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	32.2
AQ-DPM	57.9
Drinking Water	29.7
Lead Risk Housing	13.8
Pesticides	0.00
Toxic Releases	25.0
Traffic	83.1
Effect Indicators	—
CleanUp Sites	73.4
Groundwater	0.00
Haz Waste Facilities/Generators	65.9

Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	84.6
Cardio-vascular	99.5
Low Birth Weights	5.81
Socioeconomic Factor Indicators	—
Education	67.1
Housing	11.2
Linguistic	19.9
Poverty	67.2
Unemployment	82.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	66.22610035
Employed	25.70255357
Education	—
Bachelor's or higher	31.64378288
High school enrollment	2.258437059
Preschool enrollment	41.10098807
Transportation	—
Auto Access	89.83703323
Active commuting	14.92364943
Social	—

2-parent households	97.98537149
Voting	43.48774541
Neighborhood	—
Alcohol availability	89.68304889
Park access	26.5622995
Retail density	22.41755422
Supermarket access	25.03528808
Tree canopy	7.25009624
Housing	—
Homeownership	84.70422174
Housing habitability	80.57230848
Low-inc homeowner severe housing cost burden	56.2941101
Low-inc renter severe housing cost burden	70.48633389
Uncrowded housing	64.30129603
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.6
Asthma ER Admissions	14.5
High Blood Pressure	1.1
Cancer (excluding skin)	0.9
Asthma	37.3
Coronary Heart Disease	1.0
Chronic Obstructive Pulmonary Disease	1.6
Diagnosed Diabetes	6.3
Life Expectancy at Birth	28.4
Cognitively Disabled	58.3
Physically Disabled	16.0

Heart Attack ER Admissions	1.2
Mental Health Not Good	58.7
Chronic Kidney Disease	1.3
Obesity	41.7
Pedestrian Injuries	90.6
Physical Health Not Good	24.5
Stroke	2.9
Health Risk Behaviors	—
Binge Drinking	95.3
Current Smoker	59.6
No Leisure Time for Physical Activity	48.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8
Elderly	53.1
English Speaking	52.3
Foreign-born	39.5
Outdoor Workers	27.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	86.5
Traffic Density	80.1
Traffic Access	23.0
Other Indices	—
Hardship	53.1
Other Decision Support	—
2016 Voting	53.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Client indicated construction schedule
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases Standard 8-hour work day
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction

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APPENDIX 2.2:

EMFAC EMISSIONS SUMMARY

Emissions	Phase	Lb/Day	# Days	Emissions	Avg/Lb Day	Avg/Hourly
On-Site	Site Preparation	2.53	13	32.89	2.53	0.31625
Exhaust PM-10	Grading	1.96	43	84.28	1.96	0.245
	Building Construction	0.60	187	112.2	0.6	0.075
	Paving	0.41	33	13.53	0.41	0.05125
	Architectural Coatings	0.05	40	2	0.05	0.00625
		5.55	250	244.9	0.9796	0.12245
Off-Site	Site Preparation	5.00E-03	13	0.065	0.005	0.000625
Exhaust PM-10	Grading	1.50E-02	43	0.645	0.015	0.001875
	Building Construction	3.00E-02	187	5.61	0.03	0.00375
	Paving	0.00E+00	33	0	0	0
	Architectural Coatings	0.00E+00	40	0	0	0
		5.00E-02	250	6.32	0.02528	0.00316

Phase	Start Date	End Date	No. Days
Site Preparation	1/15/2023	2/1/2023	13
Grading	2/1/2023	3/31/2023	43
Building Construction	3/15/2023	11/30/2023	187
Paving	11/15/2023	12/30/2023	33
Arch Coatings	11/6/2023	12/30/2023	40
		Total Days of Construction	**250**

AVERAGE EMISSION FACTOR
SAN BERNARDINO COUNTY 2024

Speed	LHD1	LHD2	MHD	HHD
0	0.368686	0.58149	0.061905	0.01056
5	0.053893	0.072455	0.025539	0.01164
25	0.024164	0.034126	0.006884	0.00608

Speed	**Weighted Average Emissions**
0	**0.08786**
5	**0.02217**
25	**0.00958**

Truck Emission Rates						
Source	Trucks Per Day	VMT [a] (miles/day)	Truck Emission Rate [b] (grams/mile)	Truck Emission Rate [b] (grams/idle-hour)	Daily Truck Emissions [c] (grams/day)	Modeled Emission Rates (g/second)
On-Site Idling	58			0.0879	1.26	1.462E-05
On-Site Travel 5%	6	0.84	0.0222		0.02	2.168E-07
On-Site Travel 20%	23	1.34	0.0222		0.03	3.439E-07
On-Site Travel 75%	86	10.35	0.0222		0.23	2.655E-06
On-Site Travel 100%	115	24.82	0.0222		0.55	6.369E-06
Off-Site Travel - Palmeto Way 5% Inbound/Outbound	6	0.45	0.0096		0.00	5.032E-08
Off-Site Travel - Palmeto Way 25% Inbound/Outbound	29	10.63	0.0096		0.10	1.179E-06
Off-Site Travel - Amargosa Road 100% Inbound/Outbound	115	89.98	0.0096		0.86	9.979E-06
Off-Site Travel - Main Street 100% Inbound/Outbound	115	66.31	0.0096		0.64	7.354E-06

[a] Vehicle miles traveled are for modeled truck route only.

[b] Emission rates determined using EMFAC 2021. Idle emission rates are expressed in grams per idle hour rather than grams per mile.

[c] This column includes the total truck travel and truck idle emissions. For idle emissions this column includes emissions based on the assumption that each truck idles for 15 minutes.

calendar_y	season_m	sub_area	vehicle_class	fuel	temperatu	relative_hu	process	speed_tim	pollutant	emission_rate
2024	Annual	San Berna	HHDT	Dsl	60	70	RUNEX	5	PM10	0.011671
2024	Annual	San Berna	HHDT	Dsl	60	70	RUNEX	25	PM10	0.006095
2024	Annual	San Berna	HHDT	Dsl			IDLEX		PM10	0.010587
2024	Annual	San Berna	LHDT1	Dsl	60	70	RUNEX	5	PM10	0.11751
2024	Annual	San Berna	LHDT1	Dsl	60	70	RUNEX	25	PM10	0.052688
2024	Annual	San Berna	LHDT1	Dsl			IDLEX		PM10	0.803903
2024	Annual	San Berna	LHDT2	Dsl	60	70	RUNEX	5	PM10	0.098901
2024	Annual	San Berna	LHDT2	Dsl	60	70	RUNEX	25	PM10	0.046582
2024	Annual	San Berna	LHDT2	Dsl			IDLEX		PM10	0.793735
2024	Annual	San Berna	MHDT	Dsl	60	70	RUNEX	5	PM10	0.033995
2024	Annual	San Berna	MHDT	Dsl	60	70	RUNEX	25	PM10	0.009163
2024	Annual	San Berna	MHDT	Dsl			IDLEX		PM10	0.0824

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: San Bernardino (MD)
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calendar `	Vehicle Ca	Model Yea	Speed	Fuel	Population
San Berna	2024	HHDT	Aggregate	Aggregate	Gasoline	2.67372
San Berna	2024	HHDT	Aggregate	Aggregate	Diesel	12942
San Berna	2024	HHDT	Aggregate	Aggregate	Natural Ga	34.4553
San Berna	2024	LHDT1	Aggregate	Aggregate	Gasoline	13065.1
San Berna	2024	LHDT1	Aggregate	Aggregate	Diesel	11067.9
San Berna	2024	LHDT2	Aggregate	Aggregate	Gasoline	1727.12
San Berna	2024	LHDT2	Aggregate	Aggregate	Diesel	4731.8
San Berna	2024	MHDT	Aggregate	Aggregate	Gasoline	898.666
San Berna	2024	MHDT	Aggregate	Aggregate	Diesel	2714.45
San Berna	2024	MHDT	Aggregate	Aggregate	Natural Ga	8.40173

HHDT% GAS/NG	0.00286
HHDT% DSL	0.99714
LHDT1% GAS	0.54138
LHDT1% DSL	0.45862
LHDT2% GAS	0.2674
LHDT2% DSL	0.7326
MHDT% GAS	0.24872
MHDT% DSL	0.75128

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APPENDIX 2.3:

AERMOD MODEL INPUT/OUTPUT

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.0.0
** Lakes Environmental Software Inc.
** Date: 9/19/2022
** File: C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 Construction\14848
Construction.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "14848 Construction.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC Main 100%
** PREFIX
** Length of Side = 14.00
** Configuration = Adjacent
** Emission Rate = 0.0003981533
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 9
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** 464736.807, 3809792.354, 1066.45, 3.49, 6.51
** 464737.119, 3809533.869, 1070.00, 3.49, 6.51
** 464839.826, 3809535.430, 1069.12, 3.49, 6.51
** 464953.147, 3809541.673, 1068.06, 3.49, 6.51
** 465010.276, 3809542.298, 1068.03, 3.49, 6.51
** 465066.781, 3809543.547, 1068.00, 3.49, 6.51
** 465144.201, 3809541.361, 1068.00, 3.49, 6.51
** 465196.224, 3809538.430, 1067.07, 3.49, 6.51
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   LOCATION L0001191     VOLUME   464925.904 3809792.635 1064.36
   LOCATION L0001192     VOLUME   464911.904 3809792.614 1064.59
   LOCATION L0001193     VOLUME   464897.904 3809792.593 1064.85
   LOCATION L0001194     VOLUME   464883.904 3809792.572 1065.00
   LOCATION L0001195     VOLUME   464869.904 3809792.551 1065.00
   LOCATION L0001196     VOLUME   464855.904 3809792.531 1065.06
   LOCATION L0001197     VOLUME   464841.904 3809792.510 1065.27
   LOCATION L0001198     VOLUME   464827.904 3809792.489 1065.49
   LOCATION L0001199     VOLUME   464813.904 3809792.468 1065.74
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   LOCATION L0001200     VOLUME   464799.904 3809792.447 1066.00
   LOCATION L0001201     VOLUME   464785.904 3809792.427 1066.00
   LOCATION L0001202     VOLUME   464771.904 3809792.406 1066.00
   LOCATION L0001203     VOLUME   464757.904 3809792.385 1066.18
   LOCATION L0001204     VOLUME   464743.904 3809792.364 1066.39
   LOCATION L0001205     VOLUME   464736.815 3809785.451 1066.72
   LOCATION L0001206     VOLUME   464736.832 3809771.451 1067.00
   LOCATION L0001207     VOLUME   464736.849 3809757.451 1067.00
   LOCATION L0001208     VOLUME   464736.866 3809743.451 1067.01
   LOCATION L0001209     VOLUME   464736.883 3809729.451 1067.06
   LOCATION L0001210     VOLUME   464736.900 3809715.451 1067.12
   LOCATION L0001211     VOLUME   464736.916 3809701.451 1067.54
   LOCATION L0001212     VOLUME   464736.933 3809687.451 1067.95
   LOCATION L0001213     VOLUME   464736.950 3809673.451 1068.00
   LOCATION L0001214     VOLUME   464736.967 3809659.451 1068.00
   LOCATION L0001215     VOLUME   464736.984 3809645.451 1068.35
   LOCATION L0001216     VOLUME   464737.001 3809631.451 1068.82
   LOCATION L0001217     VOLUME   464737.018 3809617.451 1069.03
   LOCATION L0001218     VOLUME   464737.035 3809603.451 1069.07
   LOCATION L0001219     VOLUME   464737.052 3809589.451 1069.29
   LOCATION L0001220     VOLUME   464737.069 3809575.451 1069.71
   LOCATION L0001221     VOLUME   464737.086 3809561.451 1070.00
   LOCATION L0001222     VOLUME   464737.102 3809547.451 1070.00
   LOCATION L0001223     VOLUME   464737.537 3809533.875 1070.01
   LOCATION L0001224     VOLUME   464751.535 3809534.088 1070.00
   LOCATION L0001225     VOLUME   464765.534 3809534.301 1070.00
   LOCATION L0001226     VOLUME   464779.532 3809534.514 1070.00
   LOCATION L0001227     VOLUME   464793.530 3809534.726 1070.00
   LOCATION L0001228     VOLUME   464807.529 3809534.939 1069.76
   LOCATION L0001229     VOLUME   464821.527 3809535.152 1069.30
   LOCATION L0001230     VOLUME   464835.526 3809535.364 1069.02
   LOCATION L0001231     VOLUME   464849.510 3809535.963 1069.00
   LOCATION L0001232     VOLUME   464863.489 3809536.734 1068.97
   LOCATION L0001233     VOLUME   464877.468 3809537.504 1068.95
   LOCATION L0001234     VOLUME   464891.447 3809538.274 1068.92
   LOCATION L0001235     VOLUME   464905.426 3809539.044 1068.90
   LOCATION L0001236     VOLUME   464919.404 3809539.814 1068.87
   LOCATION L0001237     VOLUME   464933.383 3809540.585 1068.47
   LOCATION L0001238     VOLUME   464947.362 3809541.355 1068.07
   LOCATION L0001239     VOLUME   464961.353 3809541.763 1068.00
   LOCATION L0001240     VOLUME   464975.352 3809541.916 1068.00
   LOCATION L0001241     VOLUME   464989.351 3809542.069 1068.00
   LOCATION L0001242     VOLUME   465003.350 3809542.222 1068.00
   LOCATION L0001243     VOLUME   465017.348 3809542.454 1068.00
   LOCATION L0001244     VOLUME   465031.345 3809542.763 1068.00
   LOCATION L0001245     VOLUME   465045.341 3809543.073 1067.96
   LOCATION L0001246     VOLUME   465059.338 3809543.382 1067.84
   LOCATION L0001247     VOLUME   465073.333 3809543.362 1067.75
   LOCATION L0001248     VOLUME   465087.328 3809542.967 1067.77
   LOCATION L0001249     VOLUME   465101.322 3809542.572 1067.78
   LOCATION L0001250     VOLUME   465115.317 3809542.177 1067.79
   LOCATION L0001251     VOLUME   465129.311 3809541.782 1067.81
   LOCATION L0001252     VOLUME   465143.306 3809541.387 1067.82
   LOCATION L0001253     VOLUME   465157.284 3809540.624 1067.84
   LOCATION L0001254     VOLUME   465171.262 3809539.836 1067.54
   LOCATION L0001255     VOLUME   465185.240 3809539.049 1067.14
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   LOCATION VOL2         VOLUME     465159.187  3810684.724     1051.710
   LOCATION VOL3         VOLUME     465253.570  3810684.400     1050.000
   LOCATION VOL4         VOLUME     465347.889  3810684.400     1048.530
   LOCATION VOL5         VOLUME     465441.869  3810684.739     1047.430
   LOCATION VOL6         VOLUME     465535.509  3810685.417     1046.000
   LOCATION VOL7         VOLUME     465629.489  3810685.417     1044.800
   LOCATION VOL8         VOLUME     465680.041  3810685.417     1044.460
   LOCATION VOL9         VOLUME     465610.828  3810631.812     1046.000
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   LOCATION VOL11        VOLUME     465422.530  3810591.438     1048.860
   LOCATION VOL12        VOLUME     465328.890  3810591.099     1050.000
   LOCATION VOL13        VOLUME     465234.910  3810590.420     1051.430
   LOCATION VOL14        VOLUME     465140.591  3810591.438     1052.650
   LOCATION VOL15        VOLUME     465046.611  3810591.438     1054.000
   LOCATION VOL16        VOLUME     464963.149  3810591.438     1055.000
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.0003981533
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 26
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   LOCATION L0000860     VOLUME   464969.568 3809792.096 1064.00
   LOCATION L0000861     VOLUME   464978.157 3809791.976 1064.00
   LOCATION L0000862     VOLUME   464986.746 3809791.857 1064.00
   LOCATION L0000863     VOLUME   464995.335 3809791.738 1064.00
   LOCATION L0000864     VOLUME   465003.925 3809791.618 1064.00
   LOCATION L0000865     VOLUME   465012.514 3809791.499 1063.96
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   LOCATION L0000868     VOLUME   465038.281 3809791.141 1063.52
   LOCATION L0000869     VOLUME   465046.871 3809791.022 1063.50
   LOCATION L0000870     VOLUME   465055.460 3809790.903 1063.50
   LOCATION L0000871     VOLUME   465064.048 3809790.939 1063.50
   LOCATION L0000872     VOLUME   465072.634 3809791.185 1063.49
   LOCATION L0000873     VOLUME   465081.221 3809791.430 1063.48
   LOCATION L0000874     VOLUME   465089.784 3809791.937 1063.47
   LOCATION L0000875     VOLUME   465098.276 3809793.230 1063.42
   LOCATION L0000876     VOLUME   465106.750 3809794.614 1063.29
   LOCATION L0000877     VOLUME   465115.114 3809796.572 1063.15
   LOCATION L0000878     VOLUME   465123.478 3809798.529 1063.05
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LOCATION L0000882 VOLUME 465155.119 3809811.860 1062.13
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LOCATION L0000886 VOLUME 465183.386 3809831.104 1062.00
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LOCATION L0000889 VOLUME 465201.896 3809848.962 1061.57
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LOCATION L0000893 VOLUME 465223.721 3809875.495 1060.72
LOCATION L0000894 VOLUME 465228.759 3809882.453 1060.61
LOCATION L0000895 VOLUME 465233.797 3809889.410 1060.58
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LOCATION L0000897 VOLUME 465243.873 3809903.325 1060.60
LOCATION L0000898 VOLUME 465248.911 3809910.282 1060.50
LOCATION L0000899 VOLUME 465253.950 3809917.240 1060.25
LOCATION L0000900 VOLUME 465258.988 3809924.197 1060.04
LOCATION L0000901 VOLUME 465263.997 3809931.175 1059.92
LOCATION L0000902 VOLUME 465268.769 3809938.317 1059.74
LOCATION L0000903 VOLUME 465273.541 3809945.460 1059.49
LOCATION L0000904 VOLUME 465278.313 3809952.603 1059.16
LOCATION L0000905 VOLUME 465283.084 3809959.745 1058.99
LOCATION L0000906 VOLUME 465287.856 3809966.888 1058.90
LOCATION L0000907 VOLUME 465292.628 3809974.030 1058.75
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LOCATION L0000914 VOLUME 465326.009 3810024.044 1057.86
LOCATION L0000915 VOLUME 465330.701 3810031.239 1057.65
LOCATION L0000916 VOLUME 465335.392 3810038.435 1057.37
LOCATION L0000917 VOLUME 465340.084 3810045.630 1057.01
LOCATION L0000918 VOLUME 465344.776 3810052.826 1057.00
LOCATION L0000919 VOLUME 465349.468 3810060.021 1057.00
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LOCATION L0000932 VOLUME 465410.461 3810153.563 1055.27
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LOCATION L0000935 VOLUME 465424.488 3810175.181 1054.69
LOCATION L0000936 VOLUME 465429.163 3810182.387 1054.45
LOCATION L0000937 VOLUME 465433.837 3810189.594 1054.18
LOCATION L0000938 VOLUME 465438.511 3810196.801 1054.00
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LOCATION L0000941 VOLUME 465452.534 3810218.422 1054.00
LOCATION L0000942 VOLUME 465457.208 3810225.629 1054.00
LOCATION L0000943 VOLUME 465461.883 3810232.836 1053.77
LOCATION L0000944 VOLUME 465466.557 3810240.043 1053.54

LOCATION L0000945 VOLUME 465471.231 3810247.249 1053.30
LOCATION L0000946 VOLUME 465475.905 3810254.456 1053.06
LOCATION L0000947 VOLUME 465480.580 3810261.663 1053.00
LOCATION L0000948 VOLUME 465485.254 3810268.870 1053.00
LOCATION L0000949 VOLUME 465489.928 3810276.077 1053.00
LOCATION L0000950 VOLUME 465494.602 3810283.284 1052.86
LOCATION L0000951 VOLUME 465499.277 3810290.491 1052.59
LOCATION L0000952 VOLUME 465503.951 3810297.698 1052.33
LOCATION L0000953 VOLUME 465508.625 3810304.905 1052.14
LOCATION L0000954 VOLUME 465513.300 3810312.111 1052.03
LOCATION L0000955 VOLUME 465517.974 3810319.318 1052.00
LOCATION L0000956 VOLUME 465522.594 3810326.560 1051.97
LOCATION L0000957 VOLUME 465527.201 3810333.810 1051.86
LOCATION L0000958 VOLUME 465531.809 3810341.060 1051.67
LOCATION L0000959 VOLUME 465536.417 3810348.309 1051.38
LOCATION L0000960 VOLUME 465541.024 3810355.559 1050.98
LOCATION L0000961 VOLUME 465545.632 3810362.809 1050.59
LOCATION L0000962 VOLUME 465550.240 3810370.058 1050.20
LOCATION L0000963 VOLUME 465554.847 3810377.308 1049.99
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LOCATION L0000965 VOLUME 465564.063 3810391.807 1049.75
LOCATION L0000966 VOLUME 465568.670 3810399.057 1049.52
LOCATION L0000967 VOLUME 465573.278 3810406.306 1049.21
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LOCATION L0000971 VOLUME 465591.709 3810435.305 1048.02
LOCATION L0000972 VOLUME 465596.316 3810442.555 1048.10
LOCATION L0000973 VOLUME 465600.924 3810449.804 1048.13
LOCATION L0000974 VOLUME 465605.602 3810457.008 1048.10
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LOCATION L0000976 VOLUME 465615.193 3810471.262 1048.00
LOCATION L0000977 VOLUME 465619.988 3810478.388 1048.00
LOCATION L0000978 VOLUME 465624.784 3810485.515 1048.00
LOCATION L0000979 VOLUME 465629.579 3810492.642 1048.00
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LOCATION L0000981 VOLUME 465639.171 3810506.895 1048.00
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LOCATION L0000983 VOLUME 465648.762 3810521.149 1047.75
LOCATION L0000984 VOLUME 465653.557 3810528.276 1047.50
LOCATION L0000985 VOLUME 465658.353 3810535.403 1047.26
LOCATION L0000986 VOLUME 465663.148 3810542.529 1047.10
LOCATION L0000987 VOLUME 465667.944 3810549.656 1047.01
LOCATION L0000988 VOLUME 465672.740 3810556.783 1046.98
LOCATION L0000989 VOLUME 465677.535 3810563.910 1046.74
LOCATION L0000990 VOLUME 465682.331 3810571.036 1046.51
LOCATION L0000991 VOLUME 465687.126 3810578.163 1046.27
LOCATION L0000992 VOLUME 465691.750 3810585.402 1046.03
LOCATION L0000993 VOLUME 465696.334 3810592.666 1046.00
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LOCATION L0000996 VOLUME 465710.087 3810614.460 1045.68
LOCATION L0000997 VOLUME 465711.073 3810620.563 1045.53
LOCATION L0000998 VOLUME 465703.108 3810623.780 1045.67
LOCATION L0000999 VOLUME 465695.143 3810626.996 1045.64
LOCATION L0001000 VOLUME 465687.524 3810624.720 1045.72
LOCATION L0001001 VOLUME 465680.025 3810620.529 1045.86
LOCATION L0001002 VOLUME 465672.686 3810616.066 1046.00
LOCATION L0001003 VOLUME 465665.351 3810611.595 1046.02
LOCATION L0001004 VOLUME 465658.016 3810607.124 1046.12
LOCATION L0001005 VOLUME 465650.681 3810602.653 1046.29
LOCATION L0001006 VOLUME 465643.347 3810598.183 1046.53
LOCATION L0001007 VOLUME 465636.012 3810593.712 1046.75
LOCATION L0001008 VOLUME 465628.677 3810589.241 1046.90
LOCATION L0001009 VOLUME 465621.342 3810584.770 1047.03
LOCATION L0001010 VOLUME 465614.007 3810580.300 1047.17

LOCATION L0001011 VOLUME 465606.672 3810575.829 1047.35
LOCATION L0001012 VOLUME 465599.337 3810571.358 1047.49
LOCATION L0001013 VOLUME 465591.334 3810568.334 1047.60
LOCATION L0001014 VOLUME 465583.176 3810565.643 1047.68
LOCATION L0001015 VOLUME 465575.018 3810562.952 1047.81
LOCATION L0001016 VOLUME 465566.861 3810560.262 1047.92
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LOCATION L0001018 VOLUME 465550.545 3810554.880 1048.04
LOCATION L0001019 VOLUME 465542.388 3810552.189 1048.13
LOCATION L0001020 VOLUME 465534.230 3810549.498 1048.22
LOCATION L0001021 VOLUME 465526.072 3810546.808 1048.31
LOCATION L0001022 VOLUME 465517.648 3810545.375 1048.36
LOCATION L0001023 VOLUME 465509.100 3810544.520 1048.39
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LOCATION L0001026 VOLUME 465483.485 3810541.710 1048.48
LOCATION L0001027 VOLUME 465474.951 3810540.729 1048.52
LOCATION L0001028 VOLUME 465466.417 3810539.748 1049.00
LOCATION L0001029 VOLUME 465457.828 3810539.683 1049.04
LOCATION L0001030 VOLUME 465449.239 3810539.641 1049.19
LOCATION L0001031 VOLUME 465440.649 3810539.600 1049.35
LOCATION L0001032 VOLUME 465432.059 3810539.558 1049.51
LOCATION L0001033 VOLUME 465423.469 3810539.517 1049.65
LOCATION L0001034 VOLUME 465414.879 3810539.475 1049.78
LOCATION L0001035 VOLUME 465406.289 3810539.434 1049.91
LOCATION L0001036 VOLUME 465397.699 3810539.392 1050.04
LOCATION L0001037 VOLUME 465389.109 3810539.351 1050.20
LOCATION L0001038 VOLUME 465380.519 3810539.310 1050.36
LOCATION L0001039 VOLUME 465371.929 3810539.268 1050.52
LOCATION L0001040 VOLUME 465363.340 3810539.227 1050.56
LOCATION L0001041 VOLUME 465354.750 3810539.185 1050.56
LOCATION L0001042 VOLUME 465346.160 3810539.144 1050.56
LOCATION L0001043 VOLUME 465337.570 3810539.102 1050.60
LOCATION L0001044 VOLUME 465328.980 3810539.061 1050.72
LOCATION L0001045 VOLUME 465320.390 3810539.019 1050.85
LOCATION L0001046 VOLUME 465311.800 3810538.978 1050.97
LOCATION L0001047 VOLUME 465303.210 3810538.936 1051.13
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LOCATION L0001050 VOLUME 465277.441 3810538.812 1051.61
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LOCATION L0001053 VOLUME 465251.671 3810538.688 1051.98
LOCATION L0001054 VOLUME 465243.081 3810538.646 1052.00
LOCATION L0001055 VOLUME 465234.491 3810538.605 1052.00
LOCATION L0001056 VOLUME 465225.901 3810538.563 1052.00
LOCATION L0001057 VOLUME 465217.311 3810538.522 1052.00
LOCATION L0001058 VOLUME 465208.721 3810538.481 1052.00
LOCATION L0001059 VOLUME 465200.131 3810538.439 1052.00
LOCATION L0001060 VOLUME 465191.542 3810538.398 1052.00
LOCATION L0001061 VOLUME 465182.952 3810538.356 1052.23
LOCATION L0001062 VOLUME 465174.362 3810538.315 1052.52
LOCATION L0001063 VOLUME 465165.772 3810538.273 1052.81
LOCATION L0001064 VOLUME 465157.182 3810538.232 1053.00
LOCATION L0001065 VOLUME 465148.592 3810538.190 1053.00
LOCATION L0001066 VOLUME 465140.002 3810538.164 1053.00
LOCATION L0001067 VOLUME 465131.412 3810538.164 1053.00
LOCATION L0001068 VOLUME 465122.822 3810538.164 1053.24
LOCATION L0001069 VOLUME 465114.232 3810538.164 1053.53
LOCATION L0001070 VOLUME 465105.642 3810538.164 1053.81
LOCATION L0001071 VOLUME 465097.052 3810538.164 1054.00
LOCATION L0001072 VOLUME 465088.462 3810538.164 1054.00
LOCATION L0001073 VOLUME 465079.872 3810538.164 1054.00
LOCATION L0001074 VOLUME 465071.282 3810538.164 1054.00
LOCATION L0001075 VOLUME 465062.692 3810538.164 1054.00
LOCATION L0001076 VOLUME 465054.102 3810538.164 1054.00

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   LOCATION L0001077     VOLUME   465045.512 3810538.164 1054.00
   LOCATION L0001078     VOLUME   465036.922 3810538.164 1054.10
   LOCATION L0001079     VOLUME   465028.343 3810537.768 1054.39
   LOCATION L0001080     VOLUME   465019.767 3810537.289 1054.67
   LOCATION L0001081     VOLUME   465011.190 3810536.809 1054.96
   LOCATION L0001082     VOLUME   465002.613 3810536.330 1055.16
   LOCATION L0001083     VOLUME   464994.037 3810535.850 1055.36
   LOCATION L0001084     VOLUME   464985.460 3810535.371 1055.56
   LOCATION L0001085     VOLUME   464976.884 3810534.891 1055.73
   LOCATION L0001086     VOLUME   464968.382 3810533.814 1055.84
   LOCATION L0001087     VOLUME   464959.954 3810532.156 1055.93
   LOCATION L0001088     VOLUME   464951.525 3810530.498 1055.99
** End of LINE VOLUME Source ID = SLINE7
** Source Parameters **
** LINE VOLUME Source ID = SLINE6
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   SRCPARAM L0001191     0.000006033      3.49      6.51      3.25
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   SRCPARAM L0001240     0.000006033      3.49      6.51      3.25
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   SRCPARAM VOL4         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL5         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL6         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL7         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL8         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL9         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL10        0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL11        0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL12        0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL13        0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL14        0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL15        0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL16        0.0009642775     5.000    21.842     1.400
** LINE VOLUME Source ID = SLINE7
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SRCPARAM L0000964     0.000001724      3.49      4.00      3.25
SRCPARAM L0000965     0.000001724      3.49      4.00      3.25
SRCPARAM L0000966     0.000001724      3.49      4.00      3.25
SRCPARAM L0000967     0.000001724      3.49      4.00      3.25
SRCPARAM L0000968     0.000001724      3.49      4.00      3.25
SRCPARAM L0000969     0.000001724      3.49      4.00      3.25
SRCPARAM L0000970     0.000001724      3.49      4.00      3.25
SRCPARAM L0000971     0.000001724      3.49      4.00      3.25
SRCPARAM L0000972     0.000001724      3.49      4.00      3.25
SRCPARAM L0000973     0.000001724      3.49      4.00      3.25
SRCPARAM L0000974     0.000001724      3.49      4.00      3.25
SRCPARAM L0000975     0.000001724      3.49      4.00      3.25
SRCPARAM L0000976     0.000001724      3.49      4.00      3.25
SRCPARAM L0000977     0.000001724      3.49      4.00      3.25
SRCPARAM L0000978     0.000001724      3.49      4.00      3.25
SRCPARAM L0000979     0.000001724      3.49      4.00      3.25
SRCPARAM L0000980     0.000001724      3.49      4.00      3.25
SRCPARAM L0000981     0.000001724      3.49      4.00      3.25
SRCPARAM L0000982     0.000001724      3.49      4.00      3.25
SRCPARAM L0000983     0.000001724      3.49      4.00      3.25
SRCPARAM L0000984     0.000001724      3.49      4.00      3.25
SRCPARAM L0000985     0.000001724      3.49      4.00      3.25
SRCPARAM L0000986     0.000001724      3.49      4.00      3.25
SRCPARAM L0000987     0.000001724      3.49      4.00      3.25
SRCPARAM L0000988     0.000001724      3.49      4.00      3.25
SRCPARAM L0000989     0.000001724      3.49      4.00      3.25
SRCPARAM L0000990     0.000001724      3.49      4.00      3.25
SRCPARAM L0000991     0.000001724      3.49      4.00      3.25
SRCPARAM L0000992     0.000001724      3.49      4.00      3.25
SRCPARAM L0000993     0.000001724      3.49      4.00      3.25
SRCPARAM L0000994     0.000001724      3.49      4.00      3.25
SRCPARAM L0000995     0.000001724      3.49      4.00      3.25
SRCPARAM L0000996     0.000001724      3.49      4.00      3.25
SRCPARAM L0000997     0.000001724      3.49      4.00      3.25
SRCPARAM L0000998     0.000001724      3.49      4.00      3.25
SRCPARAM L0000999     0.000001724      3.49      4.00      3.25
SRCPARAM L0001000     0.000001724      3.49      4.00      3.25
SRCPARAM L0001001     0.000001724      3.49      4.00      3.25
SRCPARAM L0001002     0.000001724      3.49      4.00      3.25
SRCPARAM L0001003     0.000001724      3.49      4.00      3.25
SRCPARAM L0001004     0.000001724      3.49      4.00      3.25
SRCPARAM L0001005     0.000001724      3.49      4.00      3.25
SRCPARAM L0001006     0.000001724      3.49      4.00      3.25
SRCPARAM L0001007     0.000001724      3.49      4.00      3.25
SRCPARAM L0001008     0.000001724      3.49      4.00      3.25
SRCPARAM L0001009     0.000001724      3.49      4.00      3.25
SRCPARAM L0001010     0.000001724      3.49      4.00      3.25
SRCPARAM L0001011     0.000001724      3.49      4.00      3.25
SRCPARAM L0001012     0.000001724      3.49      4.00      3.25
SRCPARAM L0001013     0.000001724      3.49      4.00      3.25
SRCPARAM L0001014     0.000001724      3.49      4.00      3.25
SRCPARAM L0001015     0.000001724      3.49      4.00      3.25
SRCPARAM L0001016     0.000001724      3.49      4.00      3.25
SRCPARAM L0001017     0.000001724      3.49      4.00      3.25
SRCPARAM L0001018     0.000001724      3.49      4.00      3.25
SRCPARAM L0001019     0.000001724      3.49      4.00      3.25
SRCPARAM L0001020     0.000001724      3.49      4.00      3.25
SRCPARAM L0001021     0.000001724      3.49      4.00      3.25
SRCPARAM L0001022     0.000001724      3.49      4.00      3.25
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SRCPARAM L0001023     0.000001724      3.49      4.00      3.25
SRCPARAM L0001024     0.000001724      3.49      4.00      3.25
SRCPARAM L0001025     0.000001724      3.49      4.00      3.25
SRCPARAM L0001026     0.000001724      3.49      4.00      3.25
SRCPARAM L0001027     0.000001724      3.49      4.00      3.25
SRCPARAM L0001028     0.000001724      3.49      4.00      3.25
SRCPARAM L0001029     0.000001724      3.49      4.00      3.25
SRCPARAM L0001030     0.000001724      3.49      4.00      3.25
SRCPARAM L0001031     0.000001724      3.49      4.00      3.25
SRCPARAM L0001032     0.000001724      3.49      4.00      3.25
SRCPARAM L0001033     0.000001724      3.49      4.00      3.25
SRCPARAM L0001034     0.000001724      3.49      4.00      3.25
SRCPARAM L0001035     0.000001724      3.49      4.00      3.25
SRCPARAM L0001036     0.000001724      3.49      4.00      3.25
SRCPARAM L0001037     0.000001724      3.49      4.00      3.25
SRCPARAM L0001038     0.000001724      3.49      4.00      3.25
SRCPARAM L0001039     0.000001724      3.49      4.00      3.25
SRCPARAM L0001040     0.000001724      3.49      4.00      3.25
SRCPARAM L0001041     0.000001724      3.49      4.00      3.25
SRCPARAM L0001042     0.000001724      3.49      4.00      3.25
SRCPARAM L0001043     0.000001724      3.49      4.00      3.25
SRCPARAM L0001044     0.000001724      3.49      4.00      3.25
SRCPARAM L0001045     0.000001724      3.49      4.00      3.25
SRCPARAM L0001046     0.000001724      3.49      4.00      3.25
SRCPARAM L0001047     0.000001724      3.49      4.00      3.25
SRCPARAM L0001048     0.000001724      3.49      4.00      3.25
SRCPARAM L0001049     0.000001724      3.49      4.00      3.25
SRCPARAM L0001050     0.000001724      3.49      4.00      3.25
SRCPARAM L0001051     0.000001724      3.49      4.00      3.25
SRCPARAM L0001052     0.000001724      3.49      4.00      3.25
SRCPARAM L0001053     0.000001724      3.49      4.00      3.25
SRCPARAM L0001054     0.000001724      3.49      4.00      3.25
SRCPARAM L0001055     0.000001724      3.49      4.00      3.25
SRCPARAM L0001056     0.000001724      3.49      4.00      3.25
SRCPARAM L0001057     0.000001724      3.49      4.00      3.25
SRCPARAM L0001058     0.000001724      3.49      4.00      3.25
SRCPARAM L0001059     0.000001724      3.49      4.00      3.25
SRCPARAM L0001060     0.000001724      3.49      4.00      3.25
SRCPARAM L0001061     0.000001724      3.49      4.00      3.25
SRCPARAM L0001062     0.000001724      3.49      4.00      3.25
SRCPARAM L0001063     0.000001724      3.49      4.00      3.25
SRCPARAM L0001064     0.000001724      3.49      4.00      3.25
SRCPARAM L0001065     0.000001724      3.49      4.00      3.25
SRCPARAM L0001066     0.000001724      3.49      4.00      3.25
SRCPARAM L0001067     0.000001724      3.49      4.00      3.25
SRCPARAM L0001068     0.000001724      3.49      4.00      3.25
SRCPARAM L0001069     0.000001724      3.49      4.00      3.25
SRCPARAM L0001070     0.000001724      3.49      4.00      3.25
SRCPARAM L0001071     0.000001724      3.49      4.00      3.25
SRCPARAM L0001072     0.000001724      3.49      4.00      3.25
SRCPARAM L0001073     0.000001724      3.49      4.00      3.25
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SRCPARAM L0001075     0.000001724      3.49      4.00      3.25
SRCPARAM L0001076     0.000001724      3.49      4.00      3.25
SRCPARAM L0001077     0.000001724      3.49      4.00      3.25
SRCPARAM L0001078     0.000001724      3.49      4.00      3.25
SRCPARAM L0001079     0.000001724      3.49      4.00      3.25
SRCPARAM L0001080     0.000001724      3.49      4.00      3.25
SRCPARAM L0001081     0.000001724      3.49      4.00      3.25
SRCPARAM L0001082     0.000001724      3.49      4.00      3.25
SRCPARAM L0001083     0.000001724      3.49      4.00      3.25
SRCPARAM L0001084     0.000001724      3.49      4.00      3.25
SRCPARAM L0001085     0.000001724      3.49      4.00      3.25
SRCPARAM L0001086     0.000001724      3.49      4.00      3.25
SRCPARAM L0001087     0.000001724      3.49      4.00      3.25
SRCPARAM L0001088     0.000001724      3.49      4.00      3.25
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** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 1"
** WeekDays:
   EMISFACT L0001190     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001190     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001190     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001190     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001191     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001191     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001191     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001191     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001192     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001192     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001192     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001192     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001193     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001193     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001193     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001193     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001194     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001194     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001194     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001194     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001195     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001195     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001195     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001195     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001196     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001196     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001196     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001196     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001197     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001197     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001197     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001197     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001198     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001198     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001198     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001198     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001199     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001199     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001199     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001199     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001200     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001200     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001200     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001200     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001201     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001201     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001201     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001201     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001202     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001202     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001202     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001202     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001203     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001203     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001203     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001203     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001204     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001204     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001204     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001204     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001205     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001205     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001205     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001205     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001206     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001206     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001206     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001206     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001207     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001207     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001207     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001207     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001208     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001208     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001208     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001208     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001209     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001209     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001209     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001209     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001210     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001210     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001210     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001210     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001211     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001211     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001211     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001211     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001212     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001212     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001212     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001212     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001213     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001213     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001213     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001213     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001214     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001214     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001214     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001214     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001215     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001215     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001215     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001215     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001216     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001216     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001216     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001217     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001217     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001218     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001218     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001218     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001219     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001219     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001220     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001220     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001221     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001221     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001221     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001221     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001222     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001222     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001222     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001222     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001223     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001223     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001223     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001223     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001224     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001224     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001224     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001225     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001225     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001225     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001225     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001226     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001226     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
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EMISFACT L0001238     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001224     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001224     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001225     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001225     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001225     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001225     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001226     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001226     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001226     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001226     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001227     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001227     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001227     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001227     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001228     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001228     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001228     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001228     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001229     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001229     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001229     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001229     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001230     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001230     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001230     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001230     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001231     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001231     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001231     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001231     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001232     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001232     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001232     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001232     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001233     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001233     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001233     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001233     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001234     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001234     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001234     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001234     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001235     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001235     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001235     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001235     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001236     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001236     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001236     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001236     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001237     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001237     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001237     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001237     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001238     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001238     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001238     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001238     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001239     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001239     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001239     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001239     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001240     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001240     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001240     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001240     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001241     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001241     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001241     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001241     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001242     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001242     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001242     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001242     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001243     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001243     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001243     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001243     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001244     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001244     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001244     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001244     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001245     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001245     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001245     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001245     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001246     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001246     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001246     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001246     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001247     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001247     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001247     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001247     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001248     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001248     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001248     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001248     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001249     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001249     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001249     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001249     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001250     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001250     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001250     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001250     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001251     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001251     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001251     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001251     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001252     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001252     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001252     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001252     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001253     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001253     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001253     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001253     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001254     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001254     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001254     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001254     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001255     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001255     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001255     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001255     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL7         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL8         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL9         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** Saturday:
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL10        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL11        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL12        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL13        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
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   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL14        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL15        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL16        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT L0000858     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000858     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000858     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000858     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000859     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000859     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000859     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000859     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000860     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000860     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000860     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000860     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000861     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0000861     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0000861     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0000861     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000862     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000862     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000862     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000862     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000863     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000863     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000863     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000863     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000864     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000864     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000864     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000865     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000865     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0000865     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000866     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000866     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000866     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000867     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000867     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000868     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000868     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000869     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0000869     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000871     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000878     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
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EMISFACT L0000879     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000880     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000880     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0000881     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0000886     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
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EMISFACT L0000894     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001088     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** AERMOD Receptor Pathway
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RE FINISHED
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** AERMOD Meteorology Pathway
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   SURFDATA 23161 2015 DAGGETT/FAA_AIRPORT
   UAIRDATA 3120 2015
   PROFBASE 588.3 METERS
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** AERMOD Output Pathway
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   SUMMFILE "14848 Construction.sum"
OU FINISHED
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** Project Parameters
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** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
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** AERMOD View Ver. 11.0.0
** Lakes Environmental Software Inc.
** Date: 9/19/2022
** File: C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 Construction\14848
Construction.ADI
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** AERMOD Control Pathway
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   ERRORFIL "14848 Construction.err"
CO FINISHED
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** AERMOD Source Pathway
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SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
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** PREFIX
** Length of Side = 14.00
** Configuration = Adjacent
** Emission Rate = 0.0003981533
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 9
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** 464737.119, 3809533.869, 1070.00, 3.49, 6.51
** 464839.826, 3809535.430, 1069.12, 3.49, 6.51
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   LOCATION L0001210     VOLUME   464736.900 3809715.451 1067.12
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   LOCATION L0001213     VOLUME   464736.950 3809673.451 1068.00
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   LOCATION L0001241     VOLUME   464989.351 3809542.069 1068.00
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   LOCATION L0001248     VOLUME   465087.328 3809542.967 1067.77
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   LOCATION VOL5         VOLUME     465441.869  3810684.739     1047.430
   LOCATION VOL6         VOLUME     465535.509  3810685.417     1046.000
   LOCATION VOL7         VOLUME     465629.489  3810685.417     1044.800
   LOCATION VOL8         VOLUME     465680.041  3810685.417     1044.460
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC
** PREFIX
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** Configuration = Adjacent
** Emission Rate = 0.0003981533
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 26
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LOCATION L0001012 VOLUME 465599.337 3810571.358 1047.49
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LOCATION L0001014 VOLUME 465583.176 3810565.643 1047.68
LOCATION L0001015 VOLUME 465575.018 3810562.952 1047.81
LOCATION L0001016 VOLUME 465566.861 3810560.262 1047.92
LOCATION L0001017 VOLUME 465558.703 3810557.571 1047.99
LOCATION L0001018 VOLUME 465550.545 3810554.880 1048.04
LOCATION L0001019 VOLUME 465542.388 3810552.189 1048.13
LOCATION L0001020 VOLUME 465534.230 3810549.498 1048.22
LOCATION L0001021 VOLUME 465526.072 3810546.808 1048.31
LOCATION L0001022 VOLUME 465517.648 3810545.375 1048.36
LOCATION L0001023 VOLUME 465509.100 3810544.520 1048.39
LOCATION L0001024 VOLUME 465500.553 3810543.665 1048.42
LOCATION L0001025 VOLUME 465492.018 3810542.691 1048.45
LOCATION L0001026 VOLUME 465483.485 3810541.710 1048.48
LOCATION L0001027 VOLUME 465474.951 3810540.729 1048.52
LOCATION L0001028 VOLUME 465466.417 3810539.748 1049.00
LOCATION L0001029 VOLUME 465457.828 3810539.683 1049.04
LOCATION L0001030 VOLUME 465449.239 3810539.641 1049.19
LOCATION L0001031 VOLUME 465440.649 3810539.600 1049.35
LOCATION L0001032 VOLUME 465432.059 3810539.558 1049.51
LOCATION L0001033 VOLUME 465423.469 3810539.517 1049.65
LOCATION L0001034 VOLUME 465414.879 3810539.475 1049.78
LOCATION L0001035 VOLUME 465406.289 3810539.434 1049.91
LOCATION L0001036 VOLUME 465397.699 3810539.392 1050.04
LOCATION L0001037 VOLUME 465389.109 3810539.351 1050.20
LOCATION L0001038 VOLUME 465380.519 3810539.310 1050.36
LOCATION L0001039 VOLUME 465371.929 3810539.268 1050.52
LOCATION L0001040 VOLUME 465363.340 3810539.227 1050.56
LOCATION L0001041 VOLUME 465354.750 3810539.185 1050.56
LOCATION L0001042 VOLUME 465346.160 3810539.144 1050.56
LOCATION L0001043 VOLUME 465337.570 3810539.102 1050.60
LOCATION L0001044 VOLUME 465328.980 3810539.061 1050.72
LOCATION L0001045 VOLUME 465320.390 3810539.019 1050.85
LOCATION L0001046 VOLUME 465311.800 3810538.978 1050.97
LOCATION L0001047 VOLUME 465303.210 3810538.936 1051.13
LOCATION L0001048 VOLUME 465294.620 3810538.895 1051.29
LOCATION L0001049 VOLUME 465286.030 3810538.854 1051.45
LOCATION L0001050 VOLUME 465277.441 3810538.812 1051.61
LOCATION L0001051 VOLUME 465268.851 3810538.771 1051.73
LOCATION L0001052 VOLUME 465260.261 3810538.729 1051.85
LOCATION L0001053 VOLUME 465251.671 3810538.688 1051.98
LOCATION L0001054 VOLUME 465243.081 3810538.646 1052.00
LOCATION L0001055 VOLUME 465234.491 3810538.605 1052.00
LOCATION L0001056 VOLUME 465225.901 3810538.563 1052.00
LOCATION L0001057 VOLUME 465217.311 3810538.522 1052.00
LOCATION L0001058 VOLUME 465208.721 3810538.481 1052.00
LOCATION L0001059 VOLUME 465200.131 3810538.439 1052.00
LOCATION L0001060 VOLUME 465191.542 3810538.398 1052.00
LOCATION L0001061 VOLUME 465182.952 3810538.356 1052.23
LOCATION L0001062 VOLUME 465174.362 3810538.315 1052.52
LOCATION L0001063 VOLUME 465165.772 3810538.273 1052.81
LOCATION L0001064 VOLUME 465157.182 3810538.232 1053.00
LOCATION L0001065 VOLUME 465148.592 3810538.190 1053.00
LOCATION L0001066 VOLUME 465140.002 3810538.164 1053.00
LOCATION L0001067 VOLUME 465131.412 3810538.164 1053.00
LOCATION L0001068 VOLUME 465122.822 3810538.164 1053.24
LOCATION L0001069 VOLUME 465114.232 3810538.164 1053.53
LOCATION L0001070 VOLUME 465105.642 3810538.164 1053.81
LOCATION L0001071 VOLUME 465097.052 3810538.164 1054.00
LOCATION L0001072 VOLUME 465088.462 3810538.164 1054.00
LOCATION L0001073 VOLUME 465079.872 3810538.164 1054.00
LOCATION L0001074 VOLUME 465071.282 3810538.164 1054.00
LOCATION L0001075 VOLUME 465062.692 3810538.164 1054.00

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   LOCATION L0001076     VOLUME   465054.102 3810538.164 1054.00
   LOCATION L0001077     VOLUME   465045.512 3810538.164 1054.00
   LOCATION L0001078     VOLUME   465036.922 3810538.164 1054.10
   LOCATION L0001079     VOLUME   465028.343 3810537.768 1054.39
   LOCATION L0001080     VOLUME   465019.767 3810537.289 1054.67
   LOCATION L0001081     VOLUME   465011.190 3810536.809 1054.96
   LOCATION L0001082     VOLUME   465002.613 3810536.330 1055.16
   LOCATION L0001083     VOLUME   464994.037 3810535.850 1055.36
   LOCATION L0001084     VOLUME   464985.460 3810535.371 1055.56
   LOCATION L0001085     VOLUME   464976.884 3810534.891 1055.73
   LOCATION L0001086     VOLUME   464968.382 3810533.814 1055.84
   LOCATION L0001087     VOLUME   464959.954 3810532.156 1055.93
   LOCATION L0001088     VOLUME   464951.525 3810530.498 1055.99
** End of LINE VOLUME Source ID = SLINE7
** Source Parameters **
** LINE VOLUME Source ID = SLINE6
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   SRCPARAM L0001191     0.000006033      3.49      6.51      3.25
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   SRCPARAM L0001198     0.000006033      3.49      6.51      3.25
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   SRCPARAM L0001202     0.000006033      3.49      6.51      3.25
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   SRCPARAM L0001213     0.000006033      3.49      6.51      3.25
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   SRCPARAM L0001223     0.000006033      3.49      6.51      3.25
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   SRCPARAM L0001234     0.000006033      3.49      6.51      3.25
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   SRCPARAM L0001237     0.000006033      3.49      6.51      3.25
   SRCPARAM L0001238     0.000006033      3.49      6.51      3.25
   SRCPARAM L0001239     0.000006033      3.49      6.51      3.25
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   SRCPARAM L0001240     0.000006033      3.49      6.51      3.25
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   SRCPARAM L0001243     0.000006033      3.49      6.51      3.25
   SRCPARAM L0001244     0.000006033      3.49      6.51      3.25
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   SRCPARAM L0001248     0.000006033      3.49      6.51      3.25
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   SRCPARAM L0001251     0.000006033      3.49      6.51      3.25
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   SRCPARAM L0001253     0.000006033      3.49      6.51      3.25
   SRCPARAM L0001254     0.000006033      3.49      6.51      3.25
   SRCPARAM L0001255     0.000006033      3.49      6.51      3.25
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   SRCPARAM VOL1         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL2         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL3         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL4         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL5         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL6         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL7         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL8         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL9         0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL10        0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL11        0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL12        0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL13        0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL14        0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL15        0.0009642775     5.000    21.842     1.400
   SRCPARAM VOL16        0.0009642775     5.000    21.842     1.400
** LINE VOLUME Source ID = SLINE7
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   SRCPARAM L0000859     0.000001724      3.49      4.00      3.25
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   SRCPARAM L0000863     0.000001724      3.49      4.00      3.25
   SRCPARAM L0000864     0.000001724      3.49      4.00      3.25
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   SRCPARAM L0000889     0.000001724      3.49      4.00      3.25
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SRCPARAM L0000996     0.000001724      3.49      4.00      3.25
SRCPARAM L0000997     0.000001724      3.49      4.00      3.25
SRCPARAM L0000998     0.000001724      3.49      4.00      3.25
SRCPARAM L0000999     0.000001724      3.49      4.00      3.25
SRCPARAM L0001000     0.000001724      3.49      4.00      3.25
SRCPARAM L0001001     0.000001724      3.49      4.00      3.25
SRCPARAM L0001002     0.000001724      3.49      4.00      3.25
SRCPARAM L0001003     0.000001724      3.49      4.00      3.25
SRCPARAM L0001004     0.000001724      3.49      4.00      3.25
SRCPARAM L0001005     0.000001724      3.49      4.00      3.25
SRCPARAM L0001006     0.000001724      3.49      4.00      3.25
SRCPARAM L0001007     0.000001724      3.49      4.00      3.25
SRCPARAM L0001008     0.000001724      3.49      4.00      3.25
SRCPARAM L0001009     0.000001724      3.49      4.00      3.25
SRCPARAM L0001010     0.000001724      3.49      4.00      3.25
SRCPARAM L0001011     0.000001724      3.49      4.00      3.25
SRCPARAM L0001012     0.000001724      3.49      4.00      3.25
SRCPARAM L0001013     0.000001724      3.49      4.00      3.25
SRCPARAM L0001014     0.000001724      3.49      4.00      3.25
SRCPARAM L0001015     0.000001724      3.49      4.00      3.25
SRCPARAM L0001016     0.000001724      3.49      4.00      3.25
SRCPARAM L0001017     0.000001724      3.49      4.00      3.25
SRCPARAM L0001018     0.000001724      3.49      4.00      3.25
SRCPARAM L0001019     0.000001724      3.49      4.00      3.25
SRCPARAM L0001020     0.000001724      3.49      4.00      3.25
SRCPARAM L0001021     0.000001724      3.49      4.00      3.25
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SRCPARAM L0001022     0.000001724      3.49      4.00      3.25
SRCPARAM L0001023     0.000001724      3.49      4.00      3.25
SRCPARAM L0001024     0.000001724      3.49      4.00      3.25
SRCPARAM L0001025     0.000001724      3.49      4.00      3.25
SRCPARAM L0001026     0.000001724      3.49      4.00      3.25
SRCPARAM L0001027     0.000001724      3.49      4.00      3.25
SRCPARAM L0001028     0.000001724      3.49      4.00      3.25
SRCPARAM L0001029     0.000001724      3.49      4.00      3.25
SRCPARAM L0001030     0.000001724      3.49      4.00      3.25
SRCPARAM L0001031     0.000001724      3.49      4.00      3.25
SRCPARAM L0001032     0.000001724      3.49      4.00      3.25
SRCPARAM L0001033     0.000001724      3.49      4.00      3.25
SRCPARAM L0001034     0.000001724      3.49      4.00      3.25
SRCPARAM L0001035     0.000001724      3.49      4.00      3.25
SRCPARAM L0001036     0.000001724      3.49      4.00      3.25
SRCPARAM L0001037     0.000001724      3.49      4.00      3.25
SRCPARAM L0001038     0.000001724      3.49      4.00      3.25
SRCPARAM L0001039     0.000001724      3.49      4.00      3.25
SRCPARAM L0001040     0.000001724      3.49      4.00      3.25
SRCPARAM L0001041     0.000001724      3.49      4.00      3.25
SRCPARAM L0001042     0.000001724      3.49      4.00      3.25
SRCPARAM L0001043     0.000001724      3.49      4.00      3.25
SRCPARAM L0001044     0.000001724      3.49      4.00      3.25
SRCPARAM L0001045     0.000001724      3.49      4.00      3.25
SRCPARAM L0001046     0.000001724      3.49      4.00      3.25
SRCPARAM L0001047     0.000001724      3.49      4.00      3.25
SRCPARAM L0001048     0.000001724      3.49      4.00      3.25
SRCPARAM L0001049     0.000001724      3.49      4.00      3.25
SRCPARAM L0001050     0.000001724      3.49      4.00      3.25
SRCPARAM L0001051     0.000001724      3.49      4.00      3.25
SRCPARAM L0001052     0.000001724      3.49      4.00      3.25
SRCPARAM L0001053     0.000001724      3.49      4.00      3.25
SRCPARAM L0001054     0.000001724      3.49      4.00      3.25
SRCPARAM L0001055     0.000001724      3.49      4.00      3.25
SRCPARAM L0001056     0.000001724      3.49      4.00      3.25
SRCPARAM L0001057     0.000001724      3.49      4.00      3.25
SRCPARAM L0001058     0.000001724      3.49      4.00      3.25
SRCPARAM L0001059     0.000001724      3.49      4.00      3.25
SRCPARAM L0001060     0.000001724      3.49      4.00      3.25
SRCPARAM L0001061     0.000001724      3.49      4.00      3.25
SRCPARAM L0001062     0.000001724      3.49      4.00      3.25
SRCPARAM L0001063     0.000001724      3.49      4.00      3.25
SRCPARAM L0001064     0.000001724      3.49      4.00      3.25
SRCPARAM L0001065     0.000001724      3.49      4.00      3.25
SRCPARAM L0001066     0.000001724      3.49      4.00      3.25
SRCPARAM L0001067     0.000001724      3.49      4.00      3.25
SRCPARAM L0001068     0.000001724      3.49      4.00      3.25
SRCPARAM L0001069     0.000001724      3.49      4.00      3.25
SRCPARAM L0001070     0.000001724      3.49      4.00      3.25
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SRCPARAM L0001073     0.000001724      3.49      4.00      3.25
SRCPARAM L0001074     0.000001724      3.49      4.00      3.25
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SRCPARAM L0001076     0.000001724      3.49      4.00      3.25
SRCPARAM L0001077     0.000001724      3.49      4.00      3.25
SRCPARAM L0001078     0.000001724      3.49      4.00      3.25
SRCPARAM L0001079     0.000001724      3.49      4.00      3.25
SRCPARAM L0001080     0.000001724      3.49      4.00      3.25
SRCPARAM L0001081     0.000001724      3.49      4.00      3.25
SRCPARAM L0001082     0.000001724      3.49      4.00      3.25
SRCPARAM L0001083     0.000001724      3.49      4.00      3.25
SRCPARAM L0001084     0.000001724      3.49      4.00      3.25
SRCPARAM L0001085     0.000001724      3.49      4.00      3.25
SRCPARAM L0001086     0.000001724      3.49      4.00      3.25
SRCPARAM L0001087     0.000001724      3.49      4.00      3.25
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   SRCPARAM L0001088     0.000001724      3.49      4.00      3.25
** ------------------------------------------------------------------

** Variable Emissions Type: "By Hour / Day (HRDOW)"
** Variable Emission Scenario: "Scenario 1"
** WeekDays:
   EMISFACT L0001190     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001190     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001190     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001190     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001191     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001191     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001191     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001191     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001192     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001192     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001192     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001192     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001193     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001193     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001193     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001193     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001194     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001194     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001194     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001194     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001195     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001195     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001195     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001195     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001196     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001196     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001196     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001196     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001197     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001197     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001197     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001197     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001198     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001198     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001198     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001199     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001199     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001199     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001199     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001200     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001200     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001200     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001200     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001201     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001201     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001201     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001201     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001202     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001202     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001202     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001202     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001203     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001203     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001203     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001203     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001204     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001204     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT L0001204     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT L0001204     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001205     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001205     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001205     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001205     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001206     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001206     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001206     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001206     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001207     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001207     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001207     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001207     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001208     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001208     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001208     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001208     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001209     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001209     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001209     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001209     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001210     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001210     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001210     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001212     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001213     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001213     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001213     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
EMISFACT L0001213     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001214     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001214     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
EMISFACT L0001214     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0001215     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001216     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001221     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001221     HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
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EMISFACT L0001231     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001232     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001232     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001232     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001232     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001233     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001233     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001233     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001233     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001234     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001234     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001234     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001234     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001235     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001235     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001235     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001235     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001236     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001236     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001236     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001236     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001237     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001237     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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EMISFACT L0001237     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001237     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001238     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001238     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001238     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001238     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001239     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001239     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001239     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001239     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001240     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001240     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001240     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001240     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001241     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001241     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001241     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001241     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001242     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001242     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001242     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001242     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001243     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001243     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001243     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001243     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001244     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001244     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001244     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001244     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001245     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001245     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001245     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001245     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001246     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001246     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001246     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001246     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001247     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001247     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001247     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001247     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001248     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001248     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001248     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001248     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001249     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001249     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001249     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001249     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001250     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001250     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001250     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001250     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001251     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001251     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001251     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001251     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001252     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001252     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001252     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001252     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001253     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001253     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001253     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
EMISFACT L0001253     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001254     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001254     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001254     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001254     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001255     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001255     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001255     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT L0001255     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL1         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL1         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL2         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL2         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL3         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL3         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL4         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL4         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL5         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL5         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL6         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL6         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL7         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL7         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL8         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL8         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL9         HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL9         HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL10        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL10        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL11        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL11        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL12        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL12        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL13        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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** Sunday:
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL13        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL14        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL14        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL15        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL15        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 1.0 1.0 1.0 1.0
   EMISFACT VOL16        HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Saturday:
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** Sunday:
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   EMISFACT VOL16        HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
** WeekDays:
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   EMISFACT L0000858     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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   EMISFACT L0000859     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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   EMISFACT L0000861     HRDOW 1.0 1.0 1.0 1.0 0.0 0.0
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EMISFACT L0000977     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
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   EMISFACT L0001088     HRDOW 0.0 0.0 0.0 0.0 0.0 0.0
   SRCGROUP ALL
SO FINISHED
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****************************************
** AERMOD Receptor Pathway
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**
**
RE STARTING
   INCLUDED "14848 Construction.rou"
RE FINISHED
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** AERMOD Meteorology Pathway
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**
**
ME STARTING
   SURFFILE KDAG_723815_23161\KDAG_2015_2016_2018-2020_ADJU.SFC
   PROFFILE KDAG_723815_23161\KDAG_2015_2016_2018-2020_ADJU.PFL
   SURFDATA 23161 2015 DAGGETT/FAA_AIRPORT
   UAIRDATA 3120 2015
   PROFBASE 588.3 METERS
ME FINISHED
**
************************************
** AERMOD Output Pathway
************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL "14848 CONSTRUCTION.AD\AN00GALL.PLT" 31
   SUMMFILE "14848 Construction.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    4563       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.50
 ME W187    4563       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 *********************************
 *** SETUP Finishes Successfully ***
 *********************************

FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***        11:12:53

                     PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
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 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
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     * Use Calms Processing Routine.
     * Use Missing Data Processing Routine.
     * No Exponential Decay.
     * Model Uses RURAL Dispersion Only.
     * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
     * CCVR_Sub - Meteorological data includes CCVR substitutions
     * TEMP_Sub - Meteorological data includes TEMP substitutions
     * Model Assumes No FLAGPOLE Receptor Heights.
     * The User Specified a Pollutant Type of: DPM

 **Model Calculates ANNUAL Averages Only

 **This Run Includes:    313 Source(s);       1 Source Group(s); and      39 Receptor(s)

               with:      0 POINT(s), including
                          0 POINTCAP(s) and      0 POINTHOR(s)
                and:    313 VOLUME source(s)
                and:      0 AREA type source(s)
                and:      0 LINE source(s)
                and:      0 RLINE/RLINEXT source(s)
                and:      0 OPENPIT source(s)
                and:      0 BUOYANT LINE source(s) with a total of     0 line(s)
                and:      0 SWPOINT source(s)


 **Model Set To Continue RUNning After the Setup Testing.

 **The AERMET Input Meteorological Data Version Date:  19191

 **Output Options Selected:
         Model Outputs Tables of ANNUAL Averages by Receptor
         Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
         Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

 **NOTE:  The Following Flags May Appear Following CONC Values:  c for Calm Hours
                                                                 m for Missing Hours
                                                                 b for Both Calm and Missing
                                                                 Hours

 **Misc. Inputs:  Base Elev. for Pot. Temp. Profile (m MSL) =   588.30 ;  Decay Coef. =
 0.000     ;  Rot. Angle =     0.0
                Emission Units = GRAMS/SEC                                ;  Emission Rate
                Unit Factor =   0.10000E+07
                Output Units   = MICROGRAMS/M**3

 **Approximate Storage Requirements of Model =      3.8 MB of RAM.

 **Input Runstream File:
 aermod.inp
 **Output Print File:
 aermod.out

 **Detailed Error/Message File:   14848
 Construction.err
 **File for Summary of Results:   14848
 Construction.sum
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                  ***       11:12:53

                     PAGE   2
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                *** VOLUME SOURCE DATA ***
```

SOURCE ID	NUMBER URBAN SOURCE PART. SCALAR VARY BY	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	
L0001190	0	0.60330E-05	464939.9	3809792.7	1064.1	3.49	6.51	3.25	NO HRDOW
L0001191	0	0.60330E-05	464925.9	3809792.6	1064.4	3.49	6.51	3.25	NO HRDOW
L0001192	0	0.60330E-05	464911.9	3809792.6	1064.6	3.49	6.51	3.25	NO HRDOW
L0001193	0	0.60330E-05	464897.9	3809792.6	1064.8	3.49	6.51	3.25	NO HRDOW
L0001194	0	0.60330E-05	464883.9	3809792.6	1065.0	3.49	6.51	3.25	NO HRDOW
L0001195	0	0.60330E-05	464869.9	3809792.6	1065.0	3.49	6.51	3.25	NO HRDOW
L0001196	0	0.60330E-05	464855.9	3809792.5	1065.1	3.49	6.51	3.25	NO HRDOW
L0001197	0	0.60330E-05	464841.9	3809792.5	1065.3	3.49	6.51	3.25	NO HRDOW
L0001198	0	0.60330E-05	464827.9	3809792.5	1065.5	3.49	6.51	3.25	NO HRDOW
L0001199	0	0.60330E-05	464813.9	3809792.5	1065.7	3.49	6.51	3.25	NO HRDOW
L0001200	0	0.60330E-05	464799.9	3809792.4	1066.0	3.49	6.51	3.25	NO HRDOW
L0001201	0	0.60330E-05	464785.9	3809792.4	1066.0	3.49	6.51	3.25	NO HRDOW
L0001202	0	0.60330E-05	464771.9	3809792.4	1066.0	3.49	6.51	3.25	NO HRDOW
L0001203	0	0.60330E-05	464757.9	3809792.4	1066.2	3.49	6.51	3.25	NO HRDOW
L0001204	0	0.60330E-05	464743.9	3809792.4	1066.4	3.49	6.51	3.25	NO HRDOW
L0001205	0	0.60330E-05	464736.8	3809785.5	1066.7	3.49	6.51	3.25	NO HRDOW
L0001206	0	0.60330E-05	464736.8	3809771.5	1067.0	3.49	6.51	3.25	NO HRDOW
L0001207	0	0.60330E-05	464736.8	3809757.5	1067.0	3.49	6.51	3.25	NO HRDOW
L0001208	0	0.60330E-05	464736.9	3809743.5	1067.0	3.49	6.51	3.25	NO HRDOW
L0001209	0	0.60330E-05	464736.9	3809729.5	1067.1	3.49	6.51	3.25	NO HRDOW
L0001210	0	0.60330E-05	464736.9	3809715.5	1067.1	3.49	6.51	3.25	NO HRDOW
L0001211	0	0.60330E-05	464736.9	3809701.5	1067.5	3.49	6.51	3.25	NO HRDOW
L0001212	0	0.60330E-05	464736.9	3809687.5	1068.0	3.49	6.51	3.25	NO HRDOW
L0001213	0	0.60330E-05	464737.0	3809673.5	1068.0	3.49	6.51	3.25	NO HRDOW
L0001214	0	0.60330E-05	464737.0	3809659.5	1068.0	3.49	6.51	3.25	NO HRDOW
L0001215	0	0.60330E-05	464737.0	3809645.5	1068.3	3.49	6.51	3.25	NO HRDOW
L0001216	0	0.60330E-05	464737.0	3809631.5	1068.8	3.49	6.51	3.25	NO HRDOW
L0001217	0	0.60330E-05	464737.0	3809617.5	1069.0	3.49	6.51	3.25	NO HRDOW

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 L0001218         0   0.60330E-05  464737.0 3809603.5  1069.1     3.49     6.51     3.25
 NO    HRDOW
 L0001219         0   0.60330E-05  464737.1 3809589.5  1069.3     3.49     6.51     3.25
 NO    HRDOW
 L0001220         0   0.60330E-05  464737.1 3809575.5  1069.7     3.49     6.51     3.25
 NO    HRDOW
 L0001221         0   0.60330E-05  464737.1 3809561.5  1070.0     3.49     6.51     3.25
 NO    HRDOW
 L0001222         0   0.60330E-05  464737.1 3809547.5  1070.0     3.49     6.51     3.25
 NO    HRDOW
 L0001223         0   0.60330E-05  464737.5 3809533.9  1070.0     3.49     6.51     3.25
 NO    HRDOW
 L0001224         0   0.60330E-05  464751.5 3809534.1  1070.0     3.49     6.51     3.25
 NO    HRDOW
 L0001225         0   0.60330E-05  464765.5 3809534.3  1070.0     3.49     6.51     3.25
 NO    HRDOW
 L0001226         0   0.60330E-05  464779.5 3809534.5  1070.0     3.49     6.51     3.25
 NO    HRDOW
 L0001227         0   0.60330E-05  464793.5 3809534.7  1070.0     3.49     6.51     3.25
 NO    HRDOW
 L0001228         0   0.60330E-05  464807.5 3809534.9  1069.8     3.49     6.51     3.25
 NO    HRDOW
 L0001229         0   0.60330E-05  464821.5 3809535.2  1069.3     3.49     6.51     3.25
 NO    HRDOW
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.
              URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ
  SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
    (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - -

 L0001230         0   0.60330E-05  464835.5 3809535.4  1069.0     3.49     6.51     3.25
 NO    HRDOW
 L0001231         0   0.60330E-05  464849.5 3809536.0  1069.0     3.49     6.51     3.25
 NO    HRDOW
 L0001232         0   0.60330E-05  464863.5 3809536.7  1069.0     3.49     6.51     3.25
 NO    HRDOW
 L0001233         0   0.60330E-05  464877.5 3809537.5  1069.0     3.49     6.51     3.25
 NO    HRDOW
 L0001234         0   0.60330E-05  464891.4 3809538.3  1068.9     3.49     6.51     3.25
 NO    HRDOW
 L0001235         0   0.60330E-05  464905.4 3809539.0  1068.9     3.49     6.51     3.25
 NO    HRDOW
 L0001236         0   0.60330E-05  464919.4 3809539.8  1068.9     3.49     6.51     3.25
 NO    HRDOW
 L0001237         0   0.60330E-05  464933.4 3809540.6  1068.5     3.49     6.51     3.25
 NO    HRDOW
 L0001238         0   0.60330E-05  464947.4 3809541.4  1068.1     3.49     6.51     3.25
 NO    HRDOW
 L0001239         0   0.60330E-05  464961.4 3809541.8  1068.0     3.49     6.51     3.25
 NO    HRDOW
 L0001240         0   0.60330E-05  464975.4 3809541.9  1068.0     3.49     6.51     3.25
 NO    HRDOW
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 L0001241         0   0.60330E-05  464989.4 3809542.1  1068.0     3.49     6.51     3.25
 NO    HRDOW
 L0001242         0   0.60330E-05  465003.3 3809542.2  1068.0     3.49     6.51     3.25
 NO    HRDOW
 L0001243         0   0.60330E-05  465017.3 3809542.5  1068.0     3.49     6.51     3.25
 NO    HRDOW
 L0001244         0   0.60330E-05  465031.3 3809542.8  1068.0     3.49     6.51     3.25
 NO    HRDOW
 L0001245         0   0.60330E-05  465045.3 3809543.1  1068.0     3.49     6.51     3.25
 NO    HRDOW
 L0001246         0   0.60330E-05  465059.3 3809543.4  1067.8     3.49     6.51     3.25
 NO    HRDOW
 L0001247         0   0.60330E-05  465073.3 3809543.4  1067.8     3.49     6.51     3.25
 NO    HRDOW
 L0001248         0   0.60330E-05  465087.3 3809543.0  1067.8     3.49     6.51     3.25
 NO    HRDOW
 L0001249         0   0.60330E-05  465101.3 3809542.6  1067.8     3.49     6.51     3.25
 NO    HRDOW
 L0001250         0   0.60330E-05  465115.3 3809542.2  1067.8     3.49     6.51     3.25
 NO    HRDOW
 L0001251         0   0.60330E-05  465129.3 3809541.8  1067.8     3.49     6.51     3.25
 NO    HRDOW
 L0001252         0   0.60330E-05  465143.3 3809541.4  1067.8     3.49     6.51     3.25
 NO    HRDOW
 L0001253         0   0.60330E-05  465157.3 3809540.6  1067.8     3.49     6.51     3.25
 NO    HRDOW
 L0001254         0   0.60330E-05  465171.3 3809539.8  1067.5     3.49     6.51     3.25
 NO    HRDOW
 L0001255         0   0.60330E-05  465185.2 3809539.0  1067.1     3.49     6.51     3.25
 NO    HRDOW
 VOL1             0   0.96428E-03  465065.4 3810685.3  1052.7     5.00    21.84     1.40
 NO    HRDOW
 VOL2             0   0.96428E-03  465159.2 3810684.7  1051.7     5.00    21.84     1.40
 NO    HRDOW
 VOL3             0   0.96428E-03  465253.6 3810684.4  1050.0     5.00    21.84     1.40
 NO    HRDOW
 VOL4             0   0.96428E-03  465347.9 3810684.4  1048.5     5.00    21.84     1.40
 NO    HRDOW
 VOL5             0   0.96428E-03  465441.9 3810684.7  1047.4     5.00    21.84     1.40
 NO    HRDOW
 VOL6             0   0.96428E-03  465535.5 3810685.4  1046.0     5.00    21.84     1.40
 NO    HRDOW
 VOL7             0   0.96428E-03  465629.5 3810685.4  1044.8     5.00    21.84     1.40
 NO    HRDOW
 VOL8             0   0.96428E-03  465680.0 3810685.4  1044.5     5.00    21.84     1.40
 NO    HRDOW
 VOL9             0   0.96428E-03  465610.8 3810631.8  1046.0     5.00    21.84     1.40
 NO    HRDOW
 VOL10            0   0.96428E-03  465516.5 3810591.4  1047.8     5.00    21.84     1.40
 NO    HRDOW
 VOL11            0   0.96428E-03  465422.5 3810591.4  1048.9     5.00    21.84     1.40
 NO    HRDOW
 VOL12            0   0.96428E-03  465328.9 3810591.1  1050.0     5.00    21.84     1.40
 NO    HRDOW
 VOL13            0   0.96428E-03  465234.9 3810590.4  1051.4     5.00    21.84     1.40
 NO    HRDOW
 VOL14            0   0.96428E-03  465140.6 3810591.4  1052.6     5.00    21.84     1.40
 NO    HRDOW
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE   4
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*
```

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER URBAN SOURCE PART. SCALAR CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ	VARY BY
VOL15	0	0.96428E-03	465046.6	3810591.4	1054.0	5.00	21.84	1.40	NO HRDOW
VOL16	0	0.96428E-03	464963.1	3810591.4	1055.0	5.00	21.84	1.40	NO HRDOW
L0000858	0	0.17240E-05	464952.4	3809792.3	1064.0	3.49	4.00	3.25	NO HRDOW
L0000859	0	0.17240E-05	464961.0	3809792.2	1064.0	3.49	4.00	3.25	NO HRDOW
L0000860	0	0.17240E-05	464969.6	3809792.1	1064.0	3.49	4.00	3.25	NO HRDOW
L0000861	0	0.17240E-05	464978.2	3809792.0	1064.0	3.49	4.00	3.25	NO HRDOW
L0000862	0	0.17240E-05	464986.7	3809791.9	1064.0	3.49	4.00	3.25	NO HRDOW
L0000863	0	0.17240E-05	464995.3	3809791.7	1064.0	3.49	4.00	3.25	NO HRDOW
L0000864	0	0.17240E-05	465003.9	3809791.6	1064.0	3.49	4.00	3.25	NO HRDOW
L0000865	0	0.17240E-05	465012.5	3809791.5	1064.0	3.49	4.00	3.25	NO HRDOW
L0000866	0	0.17240E-05	465021.1	3809791.4	1063.8	3.49	4.00	3.25	NO HRDOW
L0000867	0	0.17240E-05	465029.7	3809791.3	1063.7	3.49	4.00	3.25	NO HRDOW
L0000868	0	0.17240E-05	465038.3	3809791.1	1063.5	3.49	4.00	3.25	NO HRDOW
L0000869	0	0.17240E-05	465046.9	3809791.0	1063.5	3.49	4.00	3.25	NO HRDOW
L0000870	0	0.17240E-05	465055.5	3809790.9	1063.5	3.49	4.00	3.25	NO HRDOW
L0000871	0	0.17240E-05	465064.0	3809790.9	1063.5	3.49	4.00	3.25	NO HRDOW
L0000872	0	0.17240E-05	465072.6	3809791.2	1063.5	3.49	4.00	3.25	NO HRDOW
L0000873	0	0.17240E-05	465081.2	3809791.4	1063.5	3.49	4.00	3.25	NO HRDOW
L0000874	0	0.17240E-05	465089.8	3809791.9	1063.5	3.49	4.00	3.25	NO HRDOW
L0000875	0	0.17240E-05	465098.3	3809793.2	1063.4	3.49	4.00	3.25	NO HRDOW
L0000876	0	0.17240E-05	465106.8	3809794.6	1063.3	3.49	4.00	3.25	NO HRDOW
L0000877	0	0.17240E-05	465115.1	3809796.6	1063.1	3.49	4.00	3.25	NO HRDOW
L0000878	0	0.17240E-05	465123.5	3809798.5	1063.0	3.49	4.00	3.25	NO HRDOW
L0000879	0	0.17240E-05	465131.4	3809801.7	1063.0	3.49	4.00	3.25	NO HRDOW
L0000880	0	0.17240E-05	465139.4	3809805.0	1062.7	3.49	4.00	3.25	NO HRDOW
L0000881	0	0.17240E-05	465147.3	3809808.3	1062.4	3.49	4.00	3.25	NO HRDOW
L0000882	0	0.17240E-05	465155.1	3809811.9	1062.1	3.49	4.00	3.25	NO HRDOW

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 L0000883         0   0.17240E-05  465162.5 3809816.2  1062.0     3.49     4.00     3.25
 NO    HRDOW
 L0000884         0   0.17240E-05  465170.0 3809820.5  1062.0     3.49     4.00     3.25
 NO    HRDOW
 L0000885         0   0.17240E-05  465177.0 3809825.4  1062.0     3.49     4.00     3.25
 NO    HRDOW
 L0000886         0   0.17240E-05  465183.4 3809831.1  1062.0     3.49     4.00     3.25
 NO    HRDOW
 L0000887         0   0.17240E-05  465189.8 3809836.9  1062.0     3.49     4.00     3.25
 NO    HRDOW
 L0000888         0   0.17240E-05  465196.2 3809842.6  1061.8     3.49     4.00     3.25
 NO    HRDOW
 L0000889         0   0.17240E-05  465201.9 3809849.0  1061.6     3.49     4.00     3.25
 NO    HRDOW
 L0000890         0   0.17240E-05  465207.4 3809855.6  1061.3     3.49     4.00     3.25
 NO    HRDOW
 L0000891         0   0.17240E-05  465212.9 3809862.2  1061.1     3.49     4.00     3.25
 NO    HRDOW
 L0000892         0   0.17240E-05  465218.3 3809868.8  1060.9     3.49     4.00     3.25
 NO    HRDOW
 L0000893         0   0.17240E-05  465223.7 3809875.5  1060.7     3.49     4.00     3.25
 NO    HRDOW
 L0000894         0   0.17240E-05  465228.8 3809882.5  1060.6     3.49     4.00     3.25
 NO    HRDOW
 L0000895         0   0.17240E-05  465233.8 3809889.4  1060.6     3.49     4.00     3.25
 NO    HRDOW
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE   5
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                  *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.
              URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ
   SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
     (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - -

 L0000896         0   0.17240E-05  465238.8 3809896.4  1060.6     3.49     4.00     3.25
 NO    HRDOW
 L0000897         0   0.17240E-05  465243.9 3809903.3  1060.6     3.49     4.00     3.25
 NO    HRDOW
 L0000898         0   0.17240E-05  465248.9 3809910.3  1060.5     3.49     4.00     3.25
 NO    HRDOW
 L0000899         0   0.17240E-05  465254.0 3809917.2  1060.2     3.49     4.00     3.25
 NO    HRDOW
 L0000900         0   0.17240E-05  465259.0 3809924.2  1060.0     3.49     4.00     3.25
 NO    HRDOW
 L0000901         0   0.17240E-05  465264.0 3809931.2  1059.9     3.49     4.00     3.25
 NO    HRDOW
 L0000902         0   0.17240E-05  465268.8 3809938.3  1059.7     3.49     4.00     3.25
 NO    HRDOW
 L0000903         0   0.17240E-05  465273.5 3809945.5  1059.5     3.49     4.00     3.25
 NO    HRDOW
 L0000904         0   0.17240E-05  465278.3 3809952.6  1059.2     3.49     4.00     3.25
 NO    HRDOW
 L0000905         0   0.17240E-05  465283.1 3809959.7  1059.0     3.49     4.00     3.25
 NO    HRDOW
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 L0000906         0   0.17240E-05  465287.9 3809966.9  1058.9     3.49     4.00     3.25
 NO    HRDOW
 L0000907         0   0.17240E-05  465292.6 3809974.0  1058.8     3.49     4.00     3.25
 NO    HRDOW
 L0000908         0   0.17240E-05  465297.4 3809981.2  1058.5     3.49     4.00     3.25
 NO    HRDOW
 L0000909         0   0.17240E-05  465302.2 3809988.3  1058.2     3.49     4.00     3.25
 NO    HRDOW
 L0000910         0   0.17240E-05  465306.9 3809995.5  1058.1     3.49     4.00     3.25
 NO    HRDOW
 L0000911         0   0.17240E-05  465311.7 3810002.6  1058.0     3.49     4.00     3.25
 NO    HRDOW
 L0000912         0   0.17240E-05  465316.5 3810009.7  1058.0     3.49     4.00     3.25
 NO    HRDOW
 L0000913         0   0.17240E-05  465321.3 3810016.9  1058.0     3.49     4.00     3.25
 NO    HRDOW
 L0000914         0   0.17240E-05  465326.0 3810024.0  1057.9     3.49     4.00     3.25
 NO    HRDOW
 L0000915         0   0.17240E-05  465330.7 3810031.2  1057.6     3.49     4.00     3.25
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 NO    HRDOW
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 NO    HRDOW
 L0000918         0   0.17240E-05  465344.8 3810052.8  1057.0     3.49     4.00     3.25
 NO    HRDOW
 L0000919         0   0.17240E-05  465349.5 3810060.0  1057.0     3.49     4.00     3.25
 NO    HRDOW
 L0000920         0   0.17240E-05  465354.2 3810067.2  1057.0     3.49     4.00     3.25
 NO    HRDOW
 L0000921         0   0.17240E-05  465358.9 3810074.4  1057.0     3.49     4.00     3.25
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 NO    HRDOW
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 NO    HRDOW
 L0000924         0   0.17240E-05  465372.9 3810096.0  1056.3     3.49     4.00     3.25
 NO    HRDOW
 L0000925         0   0.17240E-05  465377.6 3810103.2  1056.1     3.49     4.00     3.25
 NO    HRDOW
 L0000926         0   0.17240E-05  465382.3 3810110.4  1056.0     3.49     4.00     3.25
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 NO    HRDOW
 L0000928         0   0.17240E-05  465391.7 3810124.8  1056.0     3.49     4.00     3.25
 NO    HRDOW
 L0000929         0   0.17240E-05  465396.4 3810132.0  1056.0     3.49     4.00     3.25
 NO    HRDOW
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 NO    HRDOW
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 NO    HRDOW
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 NO    HRDOW
 L0000934         0   0.17240E-05  465419.8 3810168.0  1054.9     3.49     4.00     3.25
 NO    HRDOW
 L0000935         0   0.17240E-05  465424.5 3810175.2  1054.7     3.49     4.00     3.25
 NO    HRDOW
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                    PAGE   6
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER URBAN SOURCE PART.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	SCALAR VARY BY
L0000936	0	0.17240E-05	465429.2	3810182.4	1054.5	3.49	4.00	3.25	NO HRDOW
L0000937	0	0.17240E-05	465433.8	3810189.6	1054.2	3.49	4.00	3.25	NO HRDOW
L0000938	0	0.17240E-05	465438.5	3810196.8	1054.0	3.49	4.00	3.25	NO HRDOW
L0000939	0	0.17240E-05	465443.2	3810204.0	1054.0	3.49	4.00	3.25	NO HRDOW
L0000940	0	0.17240E-05	465447.9	3810211.2	1054.0	3.49	4.00	3.25	NO HRDOW
L0000941	0	0.17240E-05	465452.5	3810218.4	1054.0	3.49	4.00	3.25	NO HRDOW
L0000942	0	0.17240E-05	465457.2	3810225.6	1054.0	3.49	4.00	3.25	NO HRDOW
L0000943	0	0.17240E-05	465461.9	3810232.8	1053.8	3.49	4.00	3.25	NO HRDOW
L0000944	0	0.17240E-05	465466.6	3810240.0	1053.5	3.49	4.00	3.25	NO HRDOW
L0000945	0	0.17240E-05	465471.2	3810247.2	1053.3	3.49	4.00	3.25	NO HRDOW
L0000946	0	0.17240E-05	465475.9	3810254.5	1053.1	3.49	4.00	3.25	NO HRDOW
L0000947	0	0.17240E-05	465480.6	3810261.7	1053.0	3.49	4.00	3.25	NO HRDOW
L0000948	0	0.17240E-05	465485.3	3810268.9	1053.0	3.49	4.00	3.25	NO HRDOW
L0000949	0	0.17240E-05	465489.9	3810276.1	1053.0	3.49	4.00	3.25	NO HRDOW
L0000950	0	0.17240E-05	465494.6	3810283.3	1052.9	3.49	4.00	3.25	NO HRDOW
L0000951	0	0.17240E-05	465499.3	3810290.5	1052.6	3.49	4.00	3.25	NO HRDOW
L0000952	0	0.17240E-05	465504.0	3810297.7	1052.3	3.49	4.00	3.25	NO HRDOW
L0000953	0	0.17240E-05	465508.6	3810304.9	1052.1	3.49	4.00	3.25	NO HRDOW
L0000954	0	0.17240E-05	465513.3	3810312.1	1052.0	3.49	4.00	3.25	NO HRDOW
L0000955	0	0.17240E-05	465518.0	3810319.3	1052.0	3.49	4.00	3.25	NO HRDOW
L0000956	0	0.17240E-05	465522.6	3810326.6	1052.0	3.49	4.00	3.25	NO HRDOW
L0000957	0	0.17240E-05	465527.2	3810333.8	1051.9	3.49	4.00	3.25	NO HRDOW
L0000958	0	0.17240E-05	465531.8	3810341.1	1051.7	3.49	4.00	3.25	NO HRDOW
L0000959	0	0.17240E-05	465536.4	3810348.3	1051.4	3.49	4.00	3.25	NO HRDOW
L0000960	0	0.17240E-05	465541.0	3810355.6	1051.0	3.49	4.00	3.25	NO HRDOW
L0000961	0	0.17240E-05	465545.6	3810362.8	1050.6	3.49	4.00	3.25	NO HRDOW

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 NO    HRDOW
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 L0000968         0   0.17240E-05  465577.9 3810413.6  1048.8     3.49     4.00     3.25
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 NO    HRDOW
 L0000975         0   0.17240E-05  465610.4 3810464.1  1048.0     3.49     4.00     3.25
 NO    HRDOW
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE   7
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.
              URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ
   SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
     (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - -

 L0000976         0   0.17240E-05  465615.2 3810471.3  1048.0     3.49     4.00     3.25
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 L0000979         0   0.17240E-05  465629.6 3810492.6  1048.0     3.49     4.00     3.25
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 L0000980         0   0.17240E-05  465634.4 3810499.8  1048.0     3.49     4.00     3.25
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 L0000989         0   0.17240E-05  465677.5 3810563.9  1046.7     3.49     4.00     3.25
 NO    HRDOW
 L0000990         0   0.17240E-05  465682.3 3810571.0  1046.5     3.49     4.00     3.25
 NO    HRDOW
 L0000991         0   0.17240E-05  465687.1 3810578.2  1046.3     3.49     4.00     3.25
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 NO    HRDOW
 L0000993         0   0.17240E-05  465696.3 3810592.7  1046.0     3.49     4.00     3.25
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 NO    HRDOW
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 NO    HRDOW
 L0001002         0   0.17240E-05  465672.7 3810616.1  1046.0     3.49     4.00     3.25
 NO    HRDOW
 L0001003         0   0.17240E-05  465665.4 3810611.6  1046.0     3.49     4.00     3.25
 NO    HRDOW
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 NO    HRDOW
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 NO    HRDOW
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 L0001008         0   0.17240E-05  465628.7 3810589.2  1046.9     3.49     4.00     3.25
 NO    HRDOW
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 NO    HRDOW
 L0001010         0   0.17240E-05  465614.0 3810580.3  1047.2     3.49     4.00     3.25
 NO    HRDOW
 L0001011         0   0.17240E-05  465606.7 3810575.8  1047.3     3.49     4.00     3.25
 NO    HRDOW
 L0001012         0   0.17240E-05  465599.3 3810571.4  1047.5     3.49     4.00     3.25
 NO    HRDOW
 L0001013         0   0.17240E-05  465591.3 3810568.3  1047.6     3.49     4.00     3.25
 NO    HRDOW
 L0001014         0   0.17240E-05  465583.2 3810565.6  1047.7     3.49     4.00     3.25
 NO    HRDOW
 L0001015         0   0.17240E-05  465575.0 3810563.0  1047.8     3.49     4.00     3.25
 NO    HRDOW
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER URBAN SOURCE PART.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ	SCALAR VARY BY
L0001016	0	0.17240E-05	465566.9	3810560.3	1047.9	3.49	4.00	3.25	NO HRDOW
L0001017	0	0.17240E-05	465558.7	3810557.6	1048.0	3.49	4.00	3.25	NO HRDOW
L0001018	0	0.17240E-05	465550.5	3810554.9	1048.0	3.49	4.00	3.25	NO HRDOW
L0001019	0	0.17240E-05	465542.4	3810552.2	1048.1	3.49	4.00	3.25	NO HRDOW
L0001020	0	0.17240E-05	465534.2	3810549.5	1048.2	3.49	4.00	3.25	NO HRDOW
L0001021	0	0.17240E-05	465526.1	3810546.8	1048.3	3.49	4.00	3.25	NO HRDOW
L0001022	0	0.17240E-05	465517.6	3810545.4	1048.4	3.49	4.00	3.25	NO HRDOW
L0001023	0	0.17240E-05	465509.1	3810544.5	1048.4	3.49	4.00	3.25	NO HRDOW
L0001024	0	0.17240E-05	465500.6	3810543.7	1048.4	3.49	4.00	3.25	NO HRDOW
L0001025	0	0.17240E-05	465492.0	3810542.7	1048.5	3.49	4.00	3.25	NO HRDOW
L0001026	0	0.17240E-05	465483.5	3810541.7	1048.5	3.49	4.00	3.25	NO HRDOW
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L0001029	0	0.17240E-05	465457.8	3810539.7	1049.0	3.49	4.00	3.25	NO HRDOW
L0001030	0	0.17240E-05	465449.2	3810539.6	1049.2	3.49	4.00	3.25	NO HRDOW
L0001031	0	0.17240E-05	465440.6	3810539.6	1049.3	3.49	4.00	3.25	NO HRDOW
L0001032	0	0.17240E-05	465432.1	3810539.6	1049.5	3.49	4.00	3.25	NO HRDOW
L0001033	0	0.17240E-05	465423.5	3810539.5	1049.6	3.49	4.00	3.25	NO HRDOW
L0001034	0	0.17240E-05	465414.9	3810539.5	1049.8	3.49	4.00	3.25	NO HRDOW
L0001035	0	0.17240E-05	465406.3	3810539.4	1049.9	3.49	4.00	3.25	NO HRDOW
L0001036	0	0.17240E-05	465397.7	3810539.4	1050.0	3.49	4.00	3.25	NO HRDOW
L0001037	0	0.17240E-05	465389.1	3810539.4	1050.2	3.49	4.00	3.25	NO HRDOW
L0001038	0	0.17240E-05	465380.5	3810539.3	1050.4	3.49	4.00	3.25	NO HRDOW
L0001039	0	0.17240E-05	465371.9	3810539.3	1050.5	3.49	4.00	3.25	NO HRDOW
L0001040	0	0.17240E-05	465363.3	3810539.2	1050.6	3.49	4.00	3.25	NO HRDOW

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 NO    HRDOW
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 NO    HRDOW
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 L0001052         0   0.17240E-05  465260.3 3810538.7  1051.8     3.49     4.00     3.25
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 NO    HRDOW
 L0001054         0   0.17240E-05  465243.1 3810538.6  1052.0     3.49     4.00     3.25
 NO    HRDOW
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 NO    HRDOW
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                  ***       11:12:53

                    PAGE   9
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.
              URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ
  SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
    (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - -

 L0001056         0   0.17240E-05  465225.9 3810538.6  1052.0     3.49     4.00     3.25
 NO    HRDOW
 L0001057         0   0.17240E-05  465217.3 3810538.5  1052.0     3.49     4.00     3.25
 NO    HRDOW
 L0001058         0   0.17240E-05  465208.7 3810538.5  1052.0     3.49     4.00     3.25
 NO    HRDOW
 L0001059         0   0.17240E-05  465200.1 3810538.4  1052.0     3.49     4.00     3.25
 NO    HRDOW
 L0001060         0   0.17240E-05  465191.5 3810538.4  1052.0     3.49     4.00     3.25
 NO    HRDOW
 L0001061         0   0.17240E-05  465183.0 3810538.4  1052.2     3.49     4.00     3.25
 NO    HRDOW
 L0001062         0   0.17240E-05  465174.4 3810538.3  1052.5     3.49     4.00     3.25
 NO    HRDOW
 L0001063         0   0.17240E-05  465165.8 3810538.3  1052.8     3.49     4.00     3.25
 NO    HRDOW
```

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 L0001064         0   0.17240E-05  465157.2 3810538.2  1053.0     3.49     4.00     3.25
 NO    HRDOW
 L0001065         0   0.17240E-05  465148.6 3810538.2  1053.0     3.49     4.00     3.25
 NO    HRDOW
 L0001066         0   0.17240E-05  465140.0 3810538.2  1053.0     3.49     4.00     3.25
 NO    HRDOW
 L0001067         0   0.17240E-05  465131.4 3810538.2  1053.0     3.49     4.00     3.25
 NO    HRDOW
 L0001068         0   0.17240E-05  465122.8 3810538.2  1053.2     3.49     4.00     3.25
 NO    HRDOW
 L0001069         0   0.17240E-05  465114.2 3810538.2  1053.5     3.49     4.00     3.25
 NO    HRDOW
 L0001070         0   0.17240E-05  465105.6 3810538.2  1053.8     3.49     4.00     3.25
 NO    HRDOW
 L0001071         0   0.17240E-05  465097.1 3810538.2  1054.0     3.49     4.00     3.25
 NO    HRDOW
 L0001072         0   0.17240E-05  465088.5 3810538.2  1054.0     3.49     4.00     3.25
 NO    HRDOW
 L0001073         0   0.17240E-05  465079.9 3810538.2  1054.0     3.49     4.00     3.25
 NO    HRDOW
 L0001074         0   0.17240E-05  465071.3 3810538.2  1054.0     3.49     4.00     3.25
 NO    HRDOW
 L0001075         0   0.17240E-05  465062.7 3810538.2  1054.0     3.49     4.00     3.25
 NO    HRDOW
 L0001076         0   0.17240E-05  465054.1 3810538.2  1054.0     3.49     4.00     3.25
 NO    HRDOW
 L0001077         0   0.17240E-05  465045.5 3810538.2  1054.0     3.49     4.00     3.25
 NO    HRDOW
 L0001078         0   0.17240E-05  465036.9 3810538.2  1054.1     3.49     4.00     3.25
 NO    HRDOW
 L0001079         0   0.17240E-05  465028.3 3810537.8  1054.4     3.49     4.00     3.25
 NO    HRDOW
 L0001080         0   0.17240E-05  465019.8 3810537.3  1054.7     3.49     4.00     3.25
 NO    HRDOW
 L0001081         0   0.17240E-05  465011.2 3810536.8  1055.0     3.49     4.00     3.25
 NO    HRDOW
 L0001082         0   0.17240E-05  465002.6 3810536.3  1055.2     3.49     4.00     3.25
 NO    HRDOW
 L0001083         0   0.17240E-05  464994.0 3810535.8  1055.4     3.49     4.00     3.25
 NO    HRDOW
 L0001084         0   0.17240E-05  464985.5 3810535.4  1055.6     3.49     4.00     3.25
 NO    HRDOW
 L0001085         0   0.17240E-05  464976.9 3810534.9  1055.7     3.49     4.00     3.25
 NO    HRDOW
 L0001086         0   0.17240E-05  464968.4 3810533.8  1055.8     3.49     4.00     3.25
 NO    HRDOW
 L0001087         0   0.17240E-05  464960.0 3810532.2  1055.9     3.49     4.00     3.25
 NO    HRDOW
 L0001088         0   0.17240E-05  464951.5 3810530.5  1056.0     3.49     4.00     3.25
 NO    HRDOW
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                  ***       11:12:53

                     PAGE  10
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
 -----------                                          ----------

  ALL        L0001190    , L0001191    , L0001192    , L0001193    , L0001194    , L0001195    ,
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 L0001196    , L0001197    ,

            L0001198    , L0001199    , L0001200    , L0001201    , L0001202    , L0001203    ,
            L0001204    , L0001205    ,

            L0001206    , L0001207    , L0001208    , L0001209    , L0001210    , L0001211    ,
            L0001212    , L0001213    ,

            L0001214    , L0001215    , L0001216    , L0001217    , L0001218    , L0001219    ,
            L0001220    , L0001221    ,

            L0001222    , L0001223    , L0001224    , L0001225    , L0001226    , L0001227    ,
            L0001228    , L0001229    ,

            L0001230    , L0001231    , L0001232    , L0001233    , L0001234    , L0001235    ,
            L0001236    , L0001237    ,

            L0001238    , L0001239    , L0001240    , L0001241    , L0001242    , L0001243    ,
            L0001244    , L0001245    ,

            L0001246    , L0001247    , L0001248    , L0001249    , L0001250    , L0001251    ,
            L0001252    , L0001253    ,

            L0001254    , L0001255    , VOL1        , VOL2        , VOL3        , VOL4        ,
            VOL5        , VOL6        ,

            VOL7        , VOL8        , VOL9        , VOL10       , VOL11       , VOL12       ,
            VOL13       , VOL14       ,

            VOL15       , VOL16       , L0000858    , L0000859    , L0000860    , L0000861    ,
            L0000862    , L0000863    ,

            L0000864    , L0000865    , L0000866    , L0000867    , L0000868    , L0000869    ,
            L0000870    , L0000871    ,

            L0000872    , L0000873    , L0000874    , L0000875    , L0000876    , L0000877    ,
            L0000878    , L0000879    ,

            L0000880    , L0000881    , L0000882    , L0000883    , L0000884    , L0000885    ,
            L0000886    , L0000887    ,

            L0000888    , L0000889    , L0000890    , L0000891    , L0000892    , L0000893    ,
            L0000894    , L0000895    ,

            L0000896    , L0000897    , L0000898    , L0000899    , L0000900    , L0000901    ,
            L0000902    , L0000903    ,

            L0000904    , L0000905    , L0000906    , L0000907    , L0000908    , L0000909    ,
            L0000910    , L0000911    ,

            L0000912    , L0000913    , L0000914    , L0000915    , L0000916    , L0000917    ,
            L0000918    , L0000919    ,

            L0000920    , L0000921    , L0000922    , L0000923    , L0000924    , L0000925    ,
            L0000926    , L0000927    ,

            L0000928    , L0000929    , L0000930    , L0000931    , L0000932    , L0000933    ,
            L0000934    , L0000935    ,
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE  11
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*
```

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs
	L0000936 , L0000937 , L0000938 , L0000939 , L0000940 , L0000941 , L0000942 , L0000943 ,
	L0000944 , L0000945 , L0000946 , L0000947 , L0000948 , L0000949 , L0000950 , L0000951 ,
	L0000952 , L0000953 , L0000954 , L0000955 , L0000956 , L0000957 , L0000958 , L0000959 ,
	L0000960 , L0000961 , L0000962 , L0000963 , L0000964 , L0000965 , L0000966 , L0000967 ,
	L0000968 , L0000969 , L0000970 , L0000971 , L0000972 , L0000973 , L0000974 , L0000975 ,
	L0000976 , L0000977 , L0000978 , L0000979 , L0000980 , L0000981 , L0000982 , L0000983 ,
	L0000984 , L0000985 , L0000986 , L0000987 , L0000988 , L0000989 , L0000990 , L0000991 ,
	L0000992 , L0000993 , L0000994 , L0000995 , L0000996 , L0000997 , L0000998 , L0000999 ,
	L0001000 , L0001001 , L0001002 , L0001003 , L0001004 , L0001005 , L0001006 , L0001007 ,
	L0001008 , L0001009 , L0001010 , L0001011 , L0001012 , L0001013 , L0001014 , L0001015 ,
	L0001016 , L0001017 , L0001018 , L0001019 , L0001020 , L0001021 , L0001022 , L0001023 ,
	L0001024 , L0001025 , L0001026 , L0001027 , L0001028 , L0001029 , L0001030 , L0001031 ,
	L0001032 , L0001033 , L0001034 , L0001035 , L0001036 , L0001037 , L0001038 , L0001039 ,
	L0001040 , L0001041 , L0001042 , L0001043 , L0001044 , L0001045 , L0001046 , L0001047 ,
	L0001048 , L0001049 , L0001050 , L0001051 , L0001052 , L0001053 , L0001054 , L0001055 ,
	L0001056 , L0001057 , L0001058 , L0001059 , L0001060 , L0001061 , L0001062 , L0001063 ,
	L0001064 , L0001065 , L0001066 , L0001067 , L0001068 , L0001069 , L0001070 , L0001071 ,
	L0001072 , L0001073 , L0001074 , L0001075 , L0001076 , L0001077 , L0001078 , L0001079 ,
	L0001080 , L0001081 , L0001082 , L0001083 , L0001084 , L0001085 , L0001086 , L0001087 ,
	L0001088 ,

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001190 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001191 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

```
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***        11:12:53

                        PAGE  14
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                     * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                     (HRDOW) *

 SOURCE ID = L0001192     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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 *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***        11:12:53

                        PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                     * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                     (HRDOW) *

 SOURCE ID = L0001193     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
```

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001194 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001195 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- -
- - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001196 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001197 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001198 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00										

17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001199 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001200 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14

```
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```



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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001201     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```



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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001202     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
```

```
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***       11:12:53

                      PAGE  25
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001203     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***       11:12:53

                      PAGE  26
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *
```

```
 SOURCE ID = L0001204     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***        11:12:53

                      PAGE  27
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001205     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
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* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001206 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001207 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6			

```
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***        11:12:53

                     PAGE  30
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001208     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***        11:12:53

                     PAGE  31
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001209     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```



```
                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001210     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```



```
                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001211     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
```

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001212 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

```
                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                    (HRDOW) *

 SOURCE ID = L0001213     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                        ***        11:12:53

                       PAGE  36
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                    (HRDOW) *

 SOURCE ID = L0001214     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001215 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001216 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22													

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00
13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001217 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR						

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01
13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00
13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00
13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001218 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR						

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01
13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01				

DAY OF WEEK = SATURDAY

DAY OF WEEK = SUNDAY

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001219 ; SOURCE TYPE = VOLUME :

DAY OF WEEK = WEEKDAY

DAY OF WEEK = SATURDAY

DAY OF WEEK = SUNDAY

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001220 ; SOURCE TYPE = VOLUME :

SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -

DAY OF WEEK = WEEKDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001221   ; SOURCE TYPE = VOLUME   :
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -

DAY OF WEEK = WEEKDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001222 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001223 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	

```
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```


*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = L0001224     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```


*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = L0001225     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
```

```
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                      PAGE  48
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001226     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                      PAGE  49
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001227     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
```

```
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE  50
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001228     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE  51
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *
```

```
 SOURCE ID = L0001229     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                      PAGE  52
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001230     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001231   ; SOURCE TYPE = VOLUME   :
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001232   ; SOURCE TYPE = VOLUME   :
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001233 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001234 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001235 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001236 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

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 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```



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                     * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                     (HRDOW) *

 SOURCE ID = L0001237     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001238 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00								
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01								
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00
23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00								
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00								
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00
23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00								
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00								
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00
23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001239 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00								
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01								
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00
23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00								
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00								
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00
23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00								
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00								
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001240 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001241 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00

```
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE  64
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001242     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE  65
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001243     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
```

.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001244   ; SOURCE TYPE = VOLUME   :
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -

DAY OF WEEK = WEEKDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001245   ; SOURCE TYPE = VOLUME   :

```
 HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
 SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***       11:12:53

                    PAGE  68
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001246     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***       11:12:53
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001247 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

FF *** AERMOD - VERSION 22112 *** *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 *** 09/19/22
*** AERMET - VERSION 19191 ***
*** *** 11:12:53

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001248 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00												

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001249 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001250 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6			

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001251 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001252 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                  (HRDOW) *

 SOURCE ID = L0001253     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
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                  (HRDOW) *

 SOURCE ID = L0001254     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                  (HRDOW) *

 SOURCE ID = L0001255     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL1 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL2 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

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  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = VOL5         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = VOL6         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```



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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                     * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                     (HRDOW) *

 SOURCE ID = VOL7         ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL8 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

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*** AERMET - VERSION 19191 *** ***

*** 11:12:53

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL9 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00										

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL10 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL11 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14

.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

FF *** AERMOD - VERSION 22112 *** *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 *** 09/19/22
*** AERMET - VERSION 19191 ***
*** *** 11:12:53

PAGE 89

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL12 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

FF *** AERMOD - VERSION 22112 *** *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 *** 09/19/22
*** AERMET - VERSION 19191 ***
*** *** 11:12:53

PAGE 90

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = VOL13 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00

```
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                      PAGE  91
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = VOL14        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                      PAGE  92
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *
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```
 SOURCE ID = VOL15        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***        11:12:53

                      PAGE  93
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = VOL16        ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
```

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000858 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000859 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6			

```
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                         ***        11:12:53

                      PAGE  96
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000860     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

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 *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                         ***        11:12:53

                      PAGE  97
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000861     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```


* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = L0000862     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```


* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = L0000863     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
```

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000864 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

SOURCE ID = L0000865 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000866 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000867 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000868 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22													

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00
13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000869 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR						

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01
13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00
13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00
13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000870 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR						

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01
13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01				

17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000871 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000872 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR

```
 SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                            DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                    (HRDOW) *

 SOURCE ID = L0000873     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                            DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                            DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000874 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000875 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	

```
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                        ***        11:12:53

                      PAGE 112
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000876     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                        ***        11:12:53

                      PAGE 113
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000877     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
```

```
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 114
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000878     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 115
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000879     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
```

```
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = L0000880     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = L0000881     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                      PAGE 118
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000882     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000883 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000884 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***        11:12:53

                        PAGE 121
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                     * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                     (HRDOW) *

 SOURCE ID = L0000885     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***        11:12:53

                        PAGE 122
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                     * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                     (HRDOW) *

 SOURCE ID = L0000886     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000887 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000888 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

```
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```


* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = L0000889     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000890 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000891 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000892 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000893 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00

17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

FF *** AERMOD - VERSION 22112 *** *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 *** 09/19/22
*** AERMET - VERSION 19191 ***
*** *** 11:12:53

PAGE 130

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000894 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

FF *** AERMOD - VERSION 22112 *** *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 *** 09/19/22
*** AERMET - VERSION 19191 ***
*** *** 11:12:53

PAGE 131

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000895 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14

.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000896   ; SOURCE TYPE = VOLUME   :

HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
SCALAR   HOUR   SCALAR   HOUR   SCALAR

- -

DAY OF WEEK = WEEKDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000897   ; SOURCE TYPE = VOLUME   :

```
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```


* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = L0000898     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000899 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

FF *** AERMOD - VERSION 22112 *** *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 *** 09/19/22
*** AERMET - VERSION 19191 ***
*** *** 11:12:53

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000900 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00												

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000901 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000902 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6

```
 .0000E+00    7  .0000E+00    8  .0000E+00
 9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
 .0000E+00   15  .0000E+00   16  .0000E+00
17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
.0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
 1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
 .0000E+00    7  .0000E+00    8  .0000E+00
 9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
 .0000E+00   15  .0000E+00   16  .0000E+00
17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
.0000E+00   23  .0000E+00   24  .0000E+00
```


* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
SOURCE ID = L0000903     ; SOURCE TYPE = VOLUME   :
 HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
 SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
 1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
 .0000E+00    7  .0000E+00    8  .0000E+00
 9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
 .1000E+01   15  .1000E+01   16  .1000E+01
17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
.0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SATURDAY
 1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
 .0000E+00    7  .0000E+00    8  .0000E+00
 9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
 .0000E+00   15  .0000E+00   16  .0000E+00
17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
.0000E+00   23  .0000E+00   24  .0000E+00
                                             DAY OF WEEK = SUNDAY
 1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
 .0000E+00    7  .0000E+00    8  .0000E+00
 9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
 .0000E+00   15  .0000E+00   16  .0000E+00
17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
.0000E+00   23  .0000E+00   24  .0000E+00
```


* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
SOURCE ID = L0000904     ; SOURCE TYPE = VOLUME   :
 HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
 SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - -
                                             DAY OF WEEK = WEEKDAY
```

```
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = L0000905     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK

(HRDOW) *

SOURCE ID = L0000906 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
(HRDOW) *

SOURCE ID = L0000907 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000908 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000909 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000910 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000911 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000912 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000913 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- -
- - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000914 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000915 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000916 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00										

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000917   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -
- - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
    .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
   .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
    .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
   .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
    .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
   .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000918   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -
- - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
    .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
   .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14

```
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 155
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000919     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 156
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000920     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
```

```
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***       11:12:53

                      PAGE 157
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000921     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***       11:12:53

                      PAGE 158
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *
```

```
 SOURCE ID = L0000922     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***        11:12:53

                      PAGE 159
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000923     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
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* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000924 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000925 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6			

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000926 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000927 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000928 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000929 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000930 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000931 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = WEEKDAY

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000932 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = WEEKDAY

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000933 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000934 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22													

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00
13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000935 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01
13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00
13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00
13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000936 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01
13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01				

17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000937 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000938 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR

SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000939 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000940 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000941 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	

```
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                       ***        11:12:53

                      PAGE 178
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000942     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
 *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                       ***        11:12:53

                      PAGE 179
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000943     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
```

9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000944 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000945 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6

```
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 182
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000946     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 183
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *
```

SOURCE ID = L0000947 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000948 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

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 *** AERMET - VERSION  19191 ***
 ***                                                                            ***        11:12:53

                     PAGE 185
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                  (HRDOW) *

 SOURCE ID = L0000949     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                            ***        11:12:53

                     PAGE 186
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                  * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                  (HRDOW) *

 SOURCE ID = L0000950     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
```

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000951 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000952 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

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                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000953     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```



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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000954     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

- - - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000955 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000956 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000957 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000958 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000959 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00										

```
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
```



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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                    (HRDOW) *

 SOURCE ID = L0000960     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                    (HRDOW) *

 SOURCE ID = L0000961     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
```

DAY OF WEEK = SATURDAY

DAY OF WEEK = SUNDAY

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000962 ; SOURCE TYPE = VOLUME :

DAY OF WEEK = WEEKDAY

DAY OF WEEK = SATURDAY

DAY OF WEEK = SUNDAY

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000963 ; SOURCE TYPE = VOLUME :

```
 HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
 SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***       11:12:53

                    PAGE 200
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000964     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
  .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                          ***       11:12:53
```

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000965 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

FF *** AERMOD - VERSION 22112 *** *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 *** 09/19/22
*** AERMET - VERSION 19191 ***
*** *** 11:12:53

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000966 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00												

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000967 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000968 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6

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    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = L0000969     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = L0000970     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
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    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

```
 SOURCE ID = L0000971     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK

(HRDOW) *

SOURCE ID = L0000972 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - - -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
(HRDOW) *

SOURCE ID = L0000973 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - - -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000974 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000975 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000976 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000977 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22

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   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                     * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                     (HRDOW) *

 SOURCE ID = L0000978     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

```
                     * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                     (HRDOW) *

 SOURCE ID = L0000979     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
```

- -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000980 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000981 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000982 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00										

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000983   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -
- - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
    .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
   .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
    .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
   .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
    .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
   .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000984   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -
- - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
    .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
   .0000E+00   23 .0000E+00   24 .0000E+00
                                              DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14

DAY OF WEEK = SUNDAY

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000985 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

DAY OF WEEK = SATURDAY

DAY OF WEEK = SUNDAY

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000986 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

```
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***        11:12:53

                      PAGE 223
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000987     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***        11:12:53

                      PAGE 224
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *
```

```
 SOURCE ID = L0000988     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***        11:12:53

                      PAGE 225
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000989     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
```

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000990 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000991 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6			

.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000992   ; SOURCE TYPE = VOLUME   :
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000993   ; SOURCE TYPE = VOLUME   :
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

```
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 230
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000994     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 231
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0000995     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
```

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000996 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000997 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000998 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0000999 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001000 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22													

```
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                            ***        11:12:53

                      PAGE 237
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001001     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                            ***        11:12:53

                      PAGE 238
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001002     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
```

17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00

9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00

17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00

9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00

17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001003 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- -

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00

9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01

17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00

9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00

17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00

9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00

17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001004 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR

SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001005 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001006 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001007 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	

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    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001008     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001009     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
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    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 246
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001010     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 247
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001011     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
```

```
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 248
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001012     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 249
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *
```

SOURCE ID = L0001013 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001014 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

*** AERMET - VERSION 19191 ***
*** *** 11:12:53

PAGE 251
*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001015 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

FF *** AERMOD - VERSION 22112 *** *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 *** 09/19/22
*** AERMET - VERSION 19191 ***
*** *** 11:12:53

PAGE 252
*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001016 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001017 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001018 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001019 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001020 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -

- - - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001021 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

SOURCE ID = L0001022 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

SOURCE ID = L0001023 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00												

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001024 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SUNDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001025 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00
DAY OF WEEK = SATURDAY															
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00

17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

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*** *** 11:12:53

PAGE 262

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001026 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

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*** AERMET - VERSION 19191 ***
*** *** 11:12:53

PAGE 263

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001027 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14

.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001028   ; SOURCE TYPE = VOLUME   :
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -
DAY OF WEEK = WEEKDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001029   ; SOURCE TYPE = VOLUME   :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001030 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001031 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

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*** AERMET - VERSION 19191 ***
*** *** 11:12:53

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001032 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001033 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001034 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6			

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    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001035     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```



```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001036     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
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    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001037     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
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                    (HRDOW) *

 SOURCE ID = L0001038      ; SOURCE TYPE = VOLUME    :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                    (HRDOW) *

 SOURCE ID = L0001039      ; SOURCE TYPE = VOLUME    :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001040 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001041 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001042 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001043 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001044 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001045 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

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 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                    * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                    (HRDOW) *

 SOURCE ID = L0001046     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001047 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001048 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00										

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001049   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -
- - - - - - - - - - - - - - - - - -

                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
    .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
   .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
    .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
   .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SUNDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
    .0000E+00   15 .0000E+00   16 .0000E+00
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
   .0000E+00   23 .0000E+00   24 .0000E+00

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001050   ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -
- - - - - - - - - - - - - - - - - -

                                                DAY OF WEEK = WEEKDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
    .1000E+01   15 .1000E+01   16 .1000E+01
   17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
   .0000E+00   23 .0000E+00   24 .0000E+00
                                                DAY OF WEEK = SATURDAY
    1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
    .0000E+00   7 .0000E+00   8 .0000E+00
    9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14

DAY OF WEEK = SUNDAY

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001051 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

DAY OF WEEK = SATURDAY

DAY OF WEEK = SUNDAY

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001052 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

```
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 289
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001053     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 290
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *
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 SOURCE ID = L0001054     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***        11:12:53

                      PAGE 291
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001055     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - - -
                                                DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                                DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
```

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001056 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001057 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6			

```
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                      PAGE 294
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001058     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                      PAGE 295
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001059     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
```

```
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 296
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001060     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
                                          DAY OF WEEK = WEEKDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
   .1000E+01   15  .1000E+01   16  .1000E+01
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SATURDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                          DAY OF WEEK = SUNDAY
   1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
   .0000E+00    7  .0000E+00    8  .0000E+00
   9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
   .0000E+00   15  .0000E+00   16  .0000E+00
  17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       11:12:53

                     PAGE 297
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001061     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
- - - - - - - - - - - - - - - - - -
```

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001062 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00	8	.0000E+00
9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00
17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001063 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001064 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001065 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SUNDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001066 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
DAY OF WEEK = WEEKDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								
DAY OF WEEK = SATURDAY													
1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22													

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00
13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001067 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR						

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01
13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00
13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00
13	.0000E+00	14	.0000E+00	15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00
19	.0000E+00	20	.0000E+00	21	.0000E+00	22	.0000E+00	23	.0000E+00	24	.0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001068 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR
HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR						

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00
7	.0000E+00	8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01
13	.1000E+01	14	.1000E+01	15	.1000E+01	16	.1000E+01				

17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001069 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001070 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR

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 SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001071     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                              DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                              DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001072 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001073 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	

.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001074   ; SOURCE TYPE = VOLUME   :

HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

- -

DAY OF WEEK = WEEKDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14 .1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14 .0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001075   ; SOURCE TYPE = VOLUME   :

HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR

- -

DAY OF WEEK = WEEKDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14 .1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22 .0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6 .0000E+00   7 .0000E+00   8 .0000E+00

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    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001076     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
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                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001077     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
```

```
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```


```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *

 SOURCE ID = L0001078     ; SOURCE TYPE = VOLUME   :
  HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
  SCALAR   HOUR   SCALAR   HOUR   SCALAR
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -
                                               DAY OF WEEK = WEEKDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .1000E+01   10  .1000E+01   11  .1000E+01   12  .1000E+01   13  .1000E+01   14
    .1000E+01   15  .1000E+01   16  .1000E+01
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SATURDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
                                               DAY OF WEEK = SUNDAY
    1  .0000E+00    2  .0000E+00    3  .0000E+00    4  .0000E+00    5  .0000E+00    6
    .0000E+00    7  .0000E+00    8  .0000E+00
    9  .0000E+00   10  .0000E+00   11  .0000E+00   12  .0000E+00   13  .0000E+00   14
    .0000E+00   15  .0000E+00   16  .0000E+00
   17  .0000E+00   18  .0000E+00   19  .0000E+00   20  .0000E+00   21  .0000E+00   22
   .0000E+00   23  .0000E+00   24  .0000E+00
```


```
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                   * SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
                   (HRDOW) *
```

SOURCE ID = L0001079 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK
(HRDOW) *

SOURCE ID = L0001080 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR
SCALAR HOUR SCALAR HOUR SCALAR
- -
- - - - - - - - - - - - - - - - -
DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00
DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001081   ; SOURCE TYPE = VOLUME   :
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001082   ; SOURCE TYPE = VOLUME   :
HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR   SCALAR   HOUR
SCALAR   HOUR   SCALAR   HOUR   SCALAR
- -

DAY OF WEEK = WEEKDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .1000E+01   10 .1000E+01   11 .1000E+01   12 .1000E+01   13 .1000E+01   14
.1000E+01   15 .1000E+01   16 .1000E+01
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00   2 .0000E+00   3 .0000E+00   4 .0000E+00   5 .0000E+00   6
.0000E+00   7 .0000E+00   8 .0000E+00
9 .0000E+00   10 .0000E+00   11 .0000E+00   12 .0000E+00   13 .0000E+00   14
.0000E+00   15 .0000E+00   16 .0000E+00
17 .0000E+00   18 .0000E+00   19 .0000E+00   20 .0000E+00   21 .0000E+00   22
.0000E+00   23 .0000E+00   24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001083 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14
.0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001084 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY
1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6
.0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14
.1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22
.0000E+00 23 .0000E+00 24 .0000E+00

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001085 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001086 ; SOURCE TYPE = VOLUME :
HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001087 ; SOURCE TYPE = VOLUME :

HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR HOUR SCALAR

- - - - - - - - - - - - - - - - - -

DAY OF WEEK = WEEKDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .1000E+01 10 .1000E+01 11 .1000E+01 12 .1000E+01 13 .1000E+01 14 .1000E+01 15 .1000E+01 16 .1000E+01
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SATURDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

DAY OF WEEK = SUNDAY

1 .0000E+00 2 .0000E+00 3 .0000E+00 4 .0000E+00 5 .0000E+00 6 .0000E+00 7 .0000E+00 8 .0000E+00
9 .0000E+00 10 .0000E+00 11 .0000E+00 12 .0000E+00 13 .0000E+00 14 .0000E+00 15 .0000E+00 16 .0000E+00
17 .0000E+00 18 .0000E+00 19 .0000E+00 20 .0000E+00 21 .0000E+00 22 .0000E+00 23 .0000E+00 24 .0000E+00

* SOURCE EMISSION RATE SCALARS WHICH VARY DIURNALLY AND BY DAY OF WEEK (HRDOW) *

SOURCE ID = L0001088 ; SOURCE TYPE = VOLUME :

HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR	HOUR	SCALAR

DAY OF WEEK = WEEKDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.1000E+01	10	.1000E+01	11	.1000E+01	12	.1000E+01	13	.1000E+01	14	.1000E+01
15	.1000E+01	16	.1000E+01	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SATURDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

DAY OF WEEK = SUNDAY

1	.0000E+00	2	.0000E+00	3	.0000E+00	4	.0000E+00	5	.0000E+00	6	.0000E+00	7	.0000E+00
8	.0000E+00	9	.0000E+00	10	.0000E+00	11	.0000E+00	12	.0000E+00	13	.0000E+00	14	.0000E+00
15	.0000E+00	16	.0000E+00	17	.0000E+00	18	.0000E+00	19	.0000E+00	20	.0000E+00	21	.0000E+00
22	.0000E+00	23	.0000E+00	24	.0000E+00								

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(464506.9, 3810141.6, 1063.0, 1063.0, 0.0); (465481.2, 3810503.5, 1049.8, 1049.8, 0.0);
(465406.4, 3810503.0, 1050.6, 1050.6, 0.0); (465212.7, 3810456.2, 1053.0, 1053.0, 0.0);
(464952.4, 3810455.7, 1056.0, 1056.0, 0.0); (465964.7, 3810432.9, 1048.0, 1048.0, 0.0);
(465963.2, 3810384.6, 1048.2, 1048.2, 0.0); (465974.5, 3810476.1, 1047.0, 1047.0, 0.0);
(466001.9, 3810516.5, 1046.0, 1046.0, 0.0); (466028.4, 3810558.2, 1044.9, 1044.9, 0.0);
(466054.6, 3810598.8, 1044.0, 1044.0, 0.0); (466136.4, 3810670.0, 1042.0, 1042.0, 0.0);
(466136.4, 3810635.9, 1042.1, 1042.1, 0.0); (466074.3, 3810786.8, 1040.2, 1040.2, 0.0);
(465468.5, 3810751.9, 1045.5, 1045.5, 0.0); (465266.0, 3810753.5, 1049.2, 1049.2, 0.0);
(465112.4, 3810808.1, 1050.6, 1050.6, 0.0); (465314.5, 3810854.3, 1047.0, 1047.0, 0.0);
(465221.8, 3810854.6, 1048.9, 1048.9, 0.0); (463382.5, 3811176.2, 1061.1, 1061.1, 0.0);
(463250.8, 3811177.8, 1062.2, 1062.2, 0.0); (463278.3, 3810876.7, 1065.2, 1065.2, 0.0);
(465601.6, 3810943.3, 1041.0, 1041.0, 0.0); (464507.2, 3809995.0, 1066.5, 1066.5, 0.0);

```
    ( 464508.1, 3809810.8,    1068.8,    1068.8,       0.0);         ( 464509.8, 3809672.1,
    1070.3,    1070.3,       0.0);
    ( 464700.5, 3809701.5,    1068.0,    1068.0,       0.0);         ( 464701.3, 3809618.0,
    1069.3,    1069.3,       0.0);
    ( 464755.4, 3809565.3,    1069.5,    1069.5,       0.0);         ( 465246.9, 3809566.2,
    1067.0,    1067.0,       0.0);
    ( 464785.6, 3809489.1,    1070.3,    1070.3,       0.0);         ( 464694.0, 3809505.2,
    1071.0,    1071.0,       0.0);
    ( 464989.3, 3810696.8,    1054.0,    1054.0,       0.0);         ( 467840.7, 3810027.9,
    1029.9,    1029.9,       0.0);
    ( 467774.0, 3809972.0,    1031.9,    1031.9,       0.0);         ( 467765.1, 3810268.7,
    1027.6,    1027.6,       0.0);
    ( 467360.5, 3810321.9,    1033.9,    1033.9,       0.0);         ( 467361.2, 3810282.3,
    1034.7,    1034.7,       0.0);
    ( 467962.7, 3811258.2,    1013.3,    1013.3,
    0.0);
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***        11:12:53

                     PAGE 326
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                        *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                    (1=YES; 0=NO)

          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

              NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS
              INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES
                                  ***
                                                    (METERS/SEC)

                                                1.54,   3.09,   5.14,   8.23,  10.80,
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***        11:12:53

                     PAGE 327
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:
   KDAG_723815_23161\KDAG_2015_2016_2018-2020_ADJU.SFC                              Met
   Version:  19191
```

Profile file:
KDAG_723815_23161\KDAG_2015_2016_2018-2020_ADJU.PFL
Surface format:
FREE

Profile format:
FREE

Surface station no.: 23161 Upper air station no.: 3120
Name: DAGGETT/FAA_AIRPORT Name:
UNKNOWN
Year: 2015 Year: 2015

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
15	01	01	1	01	-24.9	0.256	-9.000	-9.000	-999.	311.	72.1	0.02	4.18	1.00	4.27	251.	10.0	272.5	2.0
15	01	01	1	02	-24.3	0.250	-9.000	-9.000	-999.	300.	68.6	0.02	4.18	1.00	4.17	240.	10.0	272.5	2.0
15	01	01	1	03	-28.4	0.292	-9.000	-9.000	-999.	379.	94.0	0.02	4.18	1.00	4.85	255.	10.0	273.1	2.0
15	01	01	1	04	-26.1	0.266	-9.000	-9.000	-999.	329.	77.8	0.02	4.18	1.00	4.51	274.	10.0	270.4	2.0
15	01	01	1	05	-32.2	0.328	-9.000	-9.000	-999.	450.	118.0	0.02	4.18	1.00	5.51	275.	10.0	270.4	2.0
15	01	01	1	06	-34.9	0.355	-9.000	-9.000	-999.	507.	138.4	0.02	4.18	1.00	5.84	252.	10.0	270.4	2.0
15	01	01	1	07	-34.8	0.355	-9.000	-9.000	-999.	508.	138.9	0.02	4.18	1.00	5.85	251.	10.0	271.4	2.0
15	01	01	1	08	-19.3	0.250	-9.000	-9.000	-999.	306.	68.6	0.02	4.18	0.57	4.15	266.	10.0	270.9	2.0
15	01	01	1	09	31.4	0.236	0.499	0.005	134.	276.	-35.7	0.02	4.18	0.36	3.40	255.	10.0	273.1	2.0
15	01	01	1	10	103.0	0.183	1.101	0.005	441.	188.	-5.0	0.02	4.18	0.29	2.15	300.	10.0	277.0	2.0
15	01	01	1	11	152.0	0.131	1.445	0.005	675.	114.	-1.3	0.04	4.18	0.26	1.08	230.	10.0	278.8	2.0
15	01	01	1	12	175.1	0.131	2.058	0.006	1692.	114.	-1.1	0.02	4.18	0.25	1.31	109.	10.0	280.4	2.0
15	01	01	1	13	171.2	0.143	2.108	0.011	1860.	130.	-1.4	0.01	4.18	0.26	1.55	35.	10.0	281.4	2.0
15	01	01	1	14	140.5	0.177	1.982	0.011	1882.	179.	-3.4	0.01	4.18	0.27	2.16	55.	10.0	282.0	2.0
15	01	01	1	15	84.4	0.150	1.677	0.011	1895.	139.	-3.4	0.02	4.18	0.30	1.77	64.	10.0	282.5	2.0
15	01	01	1	16	8.8	0.148	0.789	0.010	1896.	136.	-31.1	0.02	4.18	0.40	2.15	70.	10.0	282.5	2.0
15	01	01	1	17	-7.9	0.117	-9.000	-9.000	-999.	96.	17.3	0.02	4.18	0.70	2.08	75.	10.0	279.9	2.0
15	01	01	1	18	-3.9	0.085	-9.000	-9.000	-999.	60.	13.5	0.05	4.18	1.00	1.24	196.	10.0	277.0	2.0
15	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.03	4.18	1.00	0.00	0.	10.0	274.9	2.0
15	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.03	4.18	1.00	0.00	0.	10.0	274.9	2.0
15	01	01	1	21	-10.8	0.137	-9.000	-9.000	-999.	121.	20.5	0.02	4.18	1.00	2.36	260.	10.0	274.2	2.0
15	01	01	1	22	-19.5	0.199	-9.000	-9.000	-999.	214.	43.7	0.02	4.18	1.00	3.36	262.	10.0	272.0	2.0
15	01	01	1	23	-18.8	0.192	-9.000	-9.000	-999.	202.	40.5	0.04	4.18	1.00	2.86	230.	10.0	272.0	2.0
15	01	01	1	24	-28.1	0.287	-9.000	-9.000	-999.	370.	90.9	0.02	4.18	1.00	4.86	270.	10.0	272.0	2.0

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***

INCLUDING SOURCE(S): L0001190 , L0001191 , L0001192 , L0001193 , L0001194 , L0001195 , L0001196 , L0001197 , L0001198 , L0001199 , L0001200 , L0001201 , L0001202 , L0001203 , L0001204 , L0001205 , L0001206 , L0001207 , L0001208 , L0001209 , L0001210 , L0001211 , L0001212 , L0001213 , L0001214 , L0001215 , L0001216 , L0001217 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
464506.90	3810141.57	0.00106	465481.17	3810503.53	0.02976
465406.43	3810503.02	0.03114	465212.73	3810456.25	0.01575
464952.43	3810455.74	0.01012	465964.71	3810432.92	0.00509
465963.18	3810384.60	0.00415	465974.54	3810476.13	0.00591
466001.90	3810516.53	0.00620	466028.40	3810558.19	0.00615
466054.63	3810598.78	0.00569	466136.44	3810669.97	0.00381
466136.44	3810635.94	0.00406	466074.30	3810786.75	0.00314
465468.45	3810751.95	0.02343	465265.95	3810753.49	0.02128
465112.36	3810808.15	0.00718	465314.53	3810854.32	0.00550
465221.79	3810854.63	0.00505	463382.51	3811176.23	0.00015
463250.80	3811177.76	0.00014	463278.26	3810876.71	0.00017
465601.63	3810943.28	0.00264	464507.22	3809995.00	0.00077
464508.08	3809810.84	0.00062	464509.81	3809672.08	0.00060
464700.45	3809701.47	0.00236	464701.32	3809618.04	0.00229
464755.36	3809565.30	0.00415	465246.88	3809566.17	0.00112
464785.59	3809489.06	0.00193	464694.05		

3809505.22 0.00149
464989.27 3810696.82 0.02212 467840.66
3810027.92 0.00034
467774.00 3809972.05 0.00034 467765.08
3810268.74 0.00036
467360.52 3810321.90 0.00052 467361.23
3810282.35 0.00052
467962.68 3811258.22
0.00016

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*** AERMET - VERSION 19191 ***
*** *** 11:12:53

PAGE 329
*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID	NETWORK	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	0.03114	(465406.43, 3810503.02, 1050.60, 1050.60, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.02976	(465481.17, 3810503.53, 1049.76, 1049.76, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.02343	(465468.45, 3810751.95, 1045.47, 1045.47, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.02212	(464989.27, 3810696.82, 1054.00, 1054.00, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.02128	(465265.95, 3810753.49, 1049.19, 1049.19, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.01575	(465212.73, 3810456.25, 1053.00, 1053.00, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.01012	(464952.43, 3810455.74, 1056.00, 1056.00, 0.00)	DC	
	8TH HIGHEST VALUE IS	0.00718	(465112.36, 3810808.15, 1050.59, 1050.59, 0.00)	DC	
	9TH HIGHEST VALUE IS	0.00620	(466001.90, 3810516.53, 1045.95, 1045.95, 0.00)	DC	
	10TH HIGHEST VALUE IS	0.00615	(466028.40, 3810558.19, 1044.94, 1044.94, 0.00)	DC	

*** RECEPTOR TYPES: GC = GRIDCART
GP = GRIDPOLR
DC = DISCCART
DP = DISCPOLR

FF *** AERMOD - VERSION 22112 *** *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 *** 09/19/22
*** AERMET - VERSION 19191 ***
*** *** 11:12:53

PAGE 330
*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 4 Warning Message(s)
A Total of 637 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 191 Calm Hours Identified

A Total of 446 Missing Hours Identified (1.02 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********

ME W186	4563	MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used	0.50
ME W187	4563	MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET	
MX W450	17545	CHKDAT: Record Out of Sequence in Meteorological File at:	18010101
MX W450	17545	CHKDAT: Record Out of Sequence in Meteorological File at:	1 year gap

****
*** AERMOD Finishes Successfully ***
****

```
**
**************************************
**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.0.0
** Lakes Environmental Software Inc.
** Date: 9/19/2022
** File: C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 Ops\14848 Ops.ADI
**
**************************************
**
**
**************************************
** AERMOD Control Pathway
**************************************
**
**
CO STARTING
   TITLEONE C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848
   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "14848 Ops.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
**************************************
**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
** ------------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Idle
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.00001462
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 465137.392, 3810605.322, 1052.85, 3.49, 4.00
** 465480.977, 3810605.322, 1047.94, 3.49, 4.00
** ------------------------------------------------------------------------
   LOCATION L0000521     VOLUME   465141.687 3810605.322 1052.61
   LOCATION L0000522     VOLUME   465150.277 3810605.322 1052.32
   LOCATION L0000523     VOLUME   465158.867 3810605.322 1052.04
   LOCATION L0000524     VOLUME   465167.457 3810605.322 1052.00
   LOCATION L0000525     VOLUME   465176.047 3810605.322 1052.00
   LOCATION L0000526     VOLUME   465184.637 3810605.322 1052.00
   LOCATION L0000527     VOLUME   465193.227 3810605.322 1051.93
   LOCATION L0000528     VOLUME   465201.817 3810605.322 1051.75
   LOCATION L0000529     VOLUME   465210.407 3810605.322 1051.56
   LOCATION L0000530     VOLUME   465218.997 3810605.322 1051.38
   LOCATION L0000531     VOLUME   465227.587 3810605.322 1051.26
   LOCATION L0000532     VOLUME   465236.177 3810605.322 1051.16
   LOCATION L0000533     VOLUME   465244.767 3810605.322 1051.06
   LOCATION L0000534     VOLUME   465253.357 3810605.322 1050.93
   LOCATION L0000535     VOLUME   465261.947 3810605.322 1050.74
   LOCATION L0000536     VOLUME   465270.537 3810605.322 1050.56
   LOCATION L0000537     VOLUME   465279.127 3810605.322 1050.37
   LOCATION L0000538     VOLUME   465287.717 3810605.322 1050.26
```

```
   LOCATION L0000539     VOLUME   465296.307 3810605.322 1050.16
   LOCATION L0000540     VOLUME   465304.897 3810605.322 1050.06
   LOCATION L0000541     VOLUME   465313.487 3810605.322 1050.00
   LOCATION L0000542     VOLUME   465322.077 3810605.322 1050.00
   LOCATION L0000543     VOLUME   465330.667 3810605.322 1050.00
   LOCATION L0000544     VOLUME   465339.257 3810605.322 1050.00
   LOCATION L0000545     VOLUME   465347.847 3810605.322 1049.83
   LOCATION L0000546     VOLUME   465356.437 3810605.322 1049.65
   LOCATION L0000547     VOLUME   465365.027 3810605.322 1049.46
   LOCATION L0000548     VOLUME   465373.617 3810605.322 1049.31
   LOCATION L0000549     VOLUME   465382.207 3810605.322 1049.21
   LOCATION L0000550     VOLUME   465390.797 3810605.322 1049.11
   LOCATION L0000551     VOLUME   465399.387 3810605.322 1049.01
   LOCATION L0000552     VOLUME   465407.977 3810605.322 1048.83
   LOCATION L0000553     VOLUME   465416.567 3810605.322 1048.64
   LOCATION L0000554     VOLUME   465425.157 3810605.322 1048.46
   LOCATION L0000555     VOLUME   465433.747 3810605.322 1048.31
   LOCATION L0000556     VOLUME   465442.337 3810605.322 1048.21
   LOCATION L0000557     VOLUME   465450.927 3810605.322 1048.11
   LOCATION L0000558     VOLUME   465459.517 3810605.322 1048.01
   LOCATION L0000559     VOLUME   465468.107 3810605.322 1048.00
   LOCATION L0000560     VOLUME   465476.697 3810605.322 1048.00
** End of LINE VOLUME Source ID = SLINE1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC Palmetto 5%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 5.032E-08
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 3
** 464947.412, 3810532.648, 1056.00, 3.49, 4.00
** 465005.361, 3810539.256, 1055.06, 3.49, 4.00
** 465073.985, 3810540.781, 1054.00, 3.49, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000561     VOLUME   464951.679 3810533.135 1055.99
   LOCATION L0000562     VOLUME   464960.214 3810534.108 1055.91
   LOCATION L0000563     VOLUME   464968.749 3810535.081 1055.81
   LOCATION L0000564     VOLUME   464977.283 3810536.054 1055.69
   LOCATION L0000565     VOLUME   464985.818 3810537.028 1055.51
   LOCATION L0000566     VOLUME   464994.353 3810538.001 1055.31
   LOCATION L0000567     VOLUME   465002.888 3810538.974 1055.13
   LOCATION L0000568     VOLUME   465011.460 3810539.392 1054.95
   LOCATION L0000569     VOLUME   465020.048 3810539.583 1054.66
   LOCATION L0000570     VOLUME   465028.636 3810539.773 1054.38
   LOCATION L0000571     VOLUME   465037.224 3810539.964 1054.09
   LOCATION L0000572     VOLUME   465045.812 3810540.155 1054.00
   LOCATION L0000573     VOLUME   465054.399 3810540.346 1054.00
   LOCATION L0000574     VOLUME   465062.987 3810540.537 1054.00
   LOCATION L0000575     VOLUME   465071.575 3810540.728 1054.00
** End of LINE VOLUME Source ID = SLINE3
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Palmetto 25%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 1.179E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 7
** 465074.273, 3810540.960, 1054.00, 3.49, 4.00
```

```
** 465393.632, 3810538.463, 1050.25, 3.49, 4.00
** 465476.048, 3810539.087, 1049.15, 3.49, 4.00
** 465526.621, 3810547.516, 1048.15, 3.49, 4.00
** 465584.062, 3810564.374, 1048.05, 3.49, 4.00
** 465625.582, 3810584.665, 1047.09, 3.49, 4.00
** 465655.863, 3810603.708, 1046.23, 3.49, 4.00
** ------------------------------------------------------------------
   LOCATION L0000576     VOLUME   465078.568 3810540.927 1054.00
   LOCATION L0000577     VOLUME   465087.157 3810540.859 1054.00
   LOCATION L0000578     VOLUME   465095.747 3810540.792 1054.00
   LOCATION L0000579     VOLUME   465104.337 3810540.725 1053.85
   LOCATION L0000580     VOLUME   465112.927 3810540.658 1053.57
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** DESCRSRC Amargosa 100%
** PREFIX
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** Configuration = Adjacent
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** DESCRSRC Main 100%
** PREFIX
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   LOCATION L0000852     VOLUME   465115.317 3809542.177 1067.79
   LOCATION L0000853     VOLUME   465129.311 3809541.782 1067.81
   LOCATION L0000854     VOLUME   465143.306 3809541.387 1067.82
   LOCATION L0000855     VOLUME   465157.284 3809540.624 1067.84
   LOCATION L0000856     VOLUME   465171.262 3809539.836 1067.54
   LOCATION L0000857     VOLUME   465185.240 3809539.049 1067.14
** End of LINE VOLUME Source ID = SLINE6
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC Onsite 75%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 2.655E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 7
** 465645.972, 3810615.762, 1046.04, 3.49, 4.00
** 465624.799, 3810640.392, 1046.00, 3.49, 4.00
** 465588.071, 3810613.170, 1046.88, 3.49, 4.00
** 465554.367, 3810591.133, 1047.94, 3.49, 4.00
** 465540.972, 3810585.516, 1047.96, 3.49, 4.00
** 465521.528, 3810584.652, 1048.00, 3.49, 4.00
** 465480.911, 3810584.652, 1048.00, 3.49, 4.00
** ----------------------------------------------------------------
   LOCATION L0000858     VOLUME   465643.172 3810619.019 1045.99
   LOCATION L0000859     VOLUME   465637.572 3810625.533 1046.00
   LOCATION L0000860     VOLUME   465631.972 3810632.047 1046.00
   LOCATION L0000861     VOLUME   465626.373 3810638.561 1046.00
   LOCATION L0000862     VOLUME   465619.837 3810636.714 1046.00
   LOCATION L0000863     VOLUME   465612.936 3810631.599 1046.00
   LOCATION L0000864     VOLUME   465606.035 3810626.485 1046.08
   LOCATION L0000865     VOLUME   465599.134 3810621.370 1046.29
   LOCATION L0000866     VOLUME   465592.233 3810616.255 1046.59
   LOCATION L0000867     VOLUME   465585.217 3810611.304 1046.85
   LOCATION L0000868     VOLUME   465578.028 3810606.603 1047.02
   LOCATION L0000869     VOLUME   465570.838 3810601.902 1047.14
   LOCATION L0000870     VOLUME   465563.649 3810597.201 1047.34
   LOCATION L0000871     VOLUME   465556.459 3810592.501 1047.61
   LOCATION L0000872     VOLUME   465548.750 3810588.777 1047.91
   LOCATION L0000873     VOLUME   465540.817 3810585.509 1048.00
   LOCATION L0000874     VOLUME   465532.235 3810585.127 1048.00
   LOCATION L0000875     VOLUME   465523.654 3810584.746 1048.00
   LOCATION L0000876     VOLUME   465515.066 3810584.652 1048.00
   LOCATION L0000877     VOLUME   465506.476 3810584.652 1048.00
   LOCATION L0000878     VOLUME   465497.886 3810584.652 1048.00
   LOCATION L0000879     VOLUME   465489.296 3810584.652 1048.00
** End of LINE VOLUME Source ID = SLINE7
** ----------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC Onsite 100%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 6.369E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 465136.099, 3810585.516, 1052.94, 3.49, 4.00
** 465483.504, 3810584.652, 1048.00, 3.49, 4.00
** ----------------------------------------------------------------
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   LOCATION L0000880     VOLUME   465140.394 3810585.505 1052.66
   LOCATION L0000881     VOLUME   465148.984 3810585.484 1052.38
   LOCATION L0000882     VOLUME   465157.574 3810585.462 1052.09
   LOCATION L0000883     VOLUME   465166.164 3810585.441 1052.01
   LOCATION L0000884     VOLUME   465174.754 3810585.420 1052.01
   LOCATION L0000885     VOLUME   465183.344 3810585.398 1052.00
   LOCATION L0000886     VOLUME   465191.934 3810585.377 1052.00
   LOCATION L0000887     VOLUME   465200.524 3810585.355 1052.00
   LOCATION L0000888     VOLUME   465209.114 3810585.334 1052.00
   LOCATION L0000889     VOLUME   465217.704 3810585.313 1052.00
   LOCATION L0000890     VOLUME   465226.294 3810585.291 1051.79
   LOCATION L0000891     VOLUME   465234.884 3810585.270 1051.51
   LOCATION L0000892     VOLUME   465243.474 3810585.249 1051.24
   LOCATION L0000893     VOLUME   465252.064 3810585.227 1051.02
   LOCATION L0000894     VOLUME   465260.653 3810585.206 1051.02
   LOCATION L0000895     VOLUME   465269.243 3810585.185 1051.01
   LOCATION L0000896     VOLUME   465277.833 3810585.163 1051.00
   LOCATION L0000897     VOLUME   465286.423 3810585.142 1050.79
   LOCATION L0000898     VOLUME   465295.013 3810585.120 1050.51
   LOCATION L0000899     VOLUME   465303.603 3810585.099 1050.23
   LOCATION L0000900     VOLUME   465312.193 3810585.078 1050.03
   LOCATION L0000901     VOLUME   465320.783 3810585.056 1050.02
   LOCATION L0000902     VOLUME   465329.373 3810585.035 1050.01
   LOCATION L0000903     VOLUME   465337.963 3810585.014 1050.00
   LOCATION L0000904     VOLUME   465346.553 3810584.992 1050.00
   LOCATION L0000905     VOLUME   465355.143 3810584.971 1050.00
   LOCATION L0000906     VOLUME   465363.733 3810584.949 1050.00
   LOCATION L0000907     VOLUME   465372.323 3810584.928 1049.92
   LOCATION L0000908     VOLUME   465380.913 3810584.907 1049.65
   LOCATION L0000909     VOLUME   465389.503 3810584.885 1049.37
   LOCATION L0000910     VOLUME   465398.093 3810584.864 1049.10
   LOCATION L0000911     VOLUME   465406.683 3810584.843 1049.03
   LOCATION L0000912     VOLUME   465415.273 3810584.821 1049.02
   LOCATION L0000913     VOLUME   465423.863 3810584.800 1049.01
   LOCATION L0000914     VOLUME   465432.453 3810584.779 1048.92
   LOCATION L0000915     VOLUME   465441.043 3810584.757 1048.65
   LOCATION L0000916     VOLUME   465449.633 3810584.736 1048.37
   LOCATION L0000917     VOLUME   465458.223 3810584.714 1048.10
   LOCATION L0000918     VOLUME   465466.813 3810584.693 1048.00
   LOCATION L0000919     VOLUME   465475.403 3810584.672 1048.00
** End of LINE VOLUME Source ID = SLINE8
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC Onsite 5%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 2.168E-07
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 4
** 465135.235, 3810585.516, 1052.96, 3.49, 4.00
** 464941.656, 3810586.812, 1055.17, 3.49, 4.00
** 464942.520, 3810557.862, 1055.97, 3.49, 4.00
** 464946.409, 3810544.467, 1055.93, 3.49, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000920     VOLUME   465130.940 3810585.544 1052.97
   LOCATION L0000921     VOLUME   465122.350 3810585.602 1053.00
   LOCATION L0000922     VOLUME   465113.760 3810585.660 1053.01
   LOCATION L0000923     VOLUME   465105.170 3810585.717 1053.01
   LOCATION L0000924     VOLUME   465096.581 3810585.775 1053.12
   LOCATION L0000925     VOLUME   465087.991 3810585.832 1053.40
   LOCATION L0000926     VOLUME   465079.401 3810585.890 1053.69
   LOCATION L0000927     VOLUME   465070.811 3810585.947 1053.97
   LOCATION L0000928     VOLUME   465062.221 3810586.005 1054.00
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   LOCATION L0000929     VOLUME   465053.632 3810586.062 1054.00
   LOCATION L0000930     VOLUME   465045.042 3810586.120 1054.00
   LOCATION L0000931     VOLUME   465036.452 3810586.177 1054.12
   LOCATION L0000932     VOLUME   465027.862 3810586.235 1054.40
   LOCATION L0000933     VOLUME   465019.272 3810586.292 1054.68
   LOCATION L0000934     VOLUME   465010.682 3810586.350 1054.96
   LOCATION L0000935     VOLUME   465002.093 3810586.407 1054.99
   LOCATION L0000936     VOLUME   464993.503 3810586.465 1054.99
   LOCATION L0000937     VOLUME   464984.913 3810586.522 1055.00
   LOCATION L0000938     VOLUME   464976.323 3810586.580 1055.00
   LOCATION L0000939     VOLUME   464967.733 3810586.637 1055.00
   LOCATION L0000940     VOLUME   464959.144 3810586.695 1055.00
   LOCATION L0000941     VOLUME   464950.554 3810586.752 1055.00
   LOCATION L0000942     VOLUME   464941.964 3810586.810 1055.26
   LOCATION L0000943     VOLUME   464941.903 3810578.534 1055.45
   LOCATION L0000944     VOLUME   464942.159 3810569.948 1055.65
   LOCATION L0000945     VOLUME   464942.416 3810561.362 1055.86
   LOCATION L0000946     VOLUME   464943.939 3810552.975 1056.00
   LOCATION L0000947     VOLUME   464946.334 3810544.725 1056.00
** End of LINE VOLUME Source ID = SLINE9
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC Onsite 20%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 3.439E-07
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 3
** 465073.877, 3810553.973, 1054.00, 3.49, 4.00
** 465073.445, 3810585.948, 1053.98, 3.49, 4.00
** 465135.235, 3810585.516, 1052.96, 3.49, 4.00
** ----------------------------------------------------------------------
   LOCATION L0000948     VOLUME   465073.819 3810558.267 1053.99
   LOCATION L0000949     VOLUME   465073.703 3810566.857 1053.95
   LOCATION L0000950     VOLUME   465073.587 3810575.446 1053.92
   LOCATION L0000951     VOLUME   465073.471 3810584.035 1053.89
   LOCATION L0000952     VOLUME   465080.122 3810585.901 1053.66
   LOCATION L0000953     VOLUME   465088.712 3810585.841 1053.38
   LOCATION L0000954     VOLUME   465097.301 3810585.781 1053.09
   LOCATION L0000955     VOLUME   465105.891 3810585.721 1053.01
   LOCATION L0000956     VOLUME   465114.481 3810585.661 1053.00
   LOCATION L0000957     VOLUME   465123.071 3810585.601 1053.00
   LOCATION L0000958     VOLUME   465131.661 3810585.541 1052.94
** End of LINE VOLUME Source ID = SLINE10
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0000521     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000522     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000523     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000524     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000525     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000526     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000527     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000528     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000529     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000530     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000531     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000532     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000533     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000534     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000535     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000536     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000537     0.0000003655      3.49      4.00      3.25
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   SRCPARAM L0000538     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000539     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000540     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000541     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000542     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000543     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000544     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000545     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000546     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000547     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000548     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000549     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000550     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000551     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000552     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000553     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000554     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000555     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000556     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000557     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000558     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000559     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000560     0.0000003655      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0000561     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000562     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000563     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000564     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000565     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000566     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000567     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000568     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000569     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000570     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000571     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000572     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000573     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000574     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000575     0.000000003355      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0000576     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000577     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000578     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000579     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000580     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000581     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000582     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000583     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000584     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000585     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000586     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000587     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000588     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000589     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000590     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000591     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000592     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000593     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000594     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000595     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000596     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000597     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000598     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000599     0.00000001709      3.49      4.00      3.25
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   SRCPARAM L0000600     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000601     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000602     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000603     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000604     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000605     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000606     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000607     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000608     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000609     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000610     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000611     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000612     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000613     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000614     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000615     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000616     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000617     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000618     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000619     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000620     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000621     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000622     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000623     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000624     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000625     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000626     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000627     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000628     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000629     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000630     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000631     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000632     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000633     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000634     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000635     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000636     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000637     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000638     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000639     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000640     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000641     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000642     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000643     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000644     0.00000001709      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0000645     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000646     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000647     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000648     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000649     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000650     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000651     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000652     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000653     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000654     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000655     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000656     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000657     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000658     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000659     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000660     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000661     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000662     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000663     0.00000006788      3.49      4.00      3.25
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SRCPARAM L0000664     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000665     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000666     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000667     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000668     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000669     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000670     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000671     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000672     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000673     0.00000006788      3.49      4.00      3.25
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SRCPARAM L0000675     0.00000006788      3.49      4.00      3.25
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SRCPARAM L0000677     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000678     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000679     0.00000006788      3.49      4.00      3.25
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SRCPARAM L0000684     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000685     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000686     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000687     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000688     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000689     0.00000006788      3.49      4.00      3.25
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SRCPARAM L0000691     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000692     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000693     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000694     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000695     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000696     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000697     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000698     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000699     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000700     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000701     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000702     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000703     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000704     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000705     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000706     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000707     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000708     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000709     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000710     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000711     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000712     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000713     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000714     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000715     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000716     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000717     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000718     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000719     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000720     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000721     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000722     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000723     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000724     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000725     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000726     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000727     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000728     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000729     0.00000006788      3.49      4.00      3.25
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   SRCPARAM L0000730     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000731     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000732     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000733     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000734     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000735     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000736     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000737     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000738     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000739     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000740     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000741     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000742     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000743     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000744     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000745     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000746     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000747     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000748     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000749     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000750     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000751     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000752     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000753     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000754     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000755     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000756     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000757     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000758     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000759     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000760     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000761     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000762     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000763     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000764     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000765     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000766     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000767     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000768     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000769     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000770     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000771     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000772     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000773     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000774     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000775     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000776     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000777     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000778     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000779     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000780     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000781     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000782     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000783     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000784     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000785     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000786     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000787     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000788     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000789     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000790     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000791     0.00000006788      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0000792     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000793     0.0000001114      3.49      6.51      3.25
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   SRCPARAM L0000794     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000795     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000796     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000797     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000798     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000799     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000800     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000801     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000802     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000803     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000804     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000805     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000806     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000807     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000808     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000809     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000810     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000811     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000812     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000813     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000814     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000815     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000816     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000817     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000818     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000819     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000820     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000821     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000822     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000823     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000824     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000825     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000826     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000827     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000828     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000829     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000830     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000831     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000832     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000833     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000834     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000835     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000836     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000837     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000838     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000839     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000840     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000841     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000842     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000843     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000844     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000845     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000846     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000847     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000848     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000849     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000850     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000851     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000852     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000853     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000854     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000855     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000856     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000857     0.0000001114      3.49      6.51      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE7
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   SRCPARAM L0000858     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000859     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000860     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000861     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000862     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000863     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000864     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000865     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000866     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000867     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000868     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000869     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000870     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000871     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000872     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000873     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000874     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000875     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000876     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000877     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000878     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000879     0.0000001207      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0000880     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000881     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000882     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000883     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000884     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000885     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000886     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000887     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000888     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000889     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000890     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000891     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000892     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000893     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000894     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000895     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000896     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000897     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000898     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000899     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000900     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000901     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000902     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000903     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000904     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000905     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000906     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000907     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000908     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000909     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000910     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000911     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000912     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000913     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000914     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000915     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000916     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000917     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000918     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000919     0.0000001592      3.49      4.00      3.25
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** LINE VOLUME Source ID = SLINE9
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   SRCPARAM L0000920     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000921     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000922     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000923     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000924     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000925     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000926     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000927     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000928     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000929     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000930     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000931     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000932     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000933     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000934     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000935     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000936     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000937     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000938     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000939     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000940     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000941     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000942     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000943     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000944     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000945     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000946     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000947     0.000000007743      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0000948     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000949     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000950     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000951     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000952     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000953     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000954     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000955     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000956     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000957     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000958     0.00000003126      3.49      4.00      3.25
** ------------------------------------------------------------------
   SRCGROUP ALL
SO FINISHED
**
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** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "14848 Ops.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
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ME STARTING
   SURFFILE KDAG_723815_23161\KDAG_2015_2016_2018-2020_ADJU.SFC
   PROFFILE KDAG_723815_23161\KDAG_2015_2016_2018-2020_ADJU.PFL
   SURFDATA 23161 2015 DAGGETT/FAA_AIRPORT
   UAIRDATA 3120 2015
   PROFBASE 588.3 METERS
ME FINISHED
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** AERMOD Output Pathway
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** Auto-Generated Plotfiles
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   SUMMFILE "14848 Ops.sum"
OU FINISHED
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** Project Parameters
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** PROJCTN  CoordinateSystemUTM
** DESCPTN  UTM: Universal Transverse Mercator
** DATUM    North American Datum 1983
** DTMRGN   CONUS
** UNITS    m
** ZONE     11
** ZONEINX  0
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** Lakes Environmental AERMOD MPI
**
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**
** AERMOD Input Produced by:
** AERMOD View Ver. 11.0.0
** Lakes Environmental Software Inc.
** Date: 9/19/2022
** File: C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto Industrial\14848 Ops\14848 Ops.ADI
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**
**
**************************************
** AERMOD Control Pathway
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CO STARTING
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   MODELOPT DFAULT CONC
   AVERTIME ANNUAL
   POLLUTID DPM
   RUNORNOT RUN
   ERRORFIL "14848 Ops.err"
CO FINISHED
**
**************************************
** AERMOD Source Pathway
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**
**
SO STARTING
** Source Location **
** Source ID - Type - X Coord. - Y Coord. **
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE1
** DESCRSRC Idle
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 0.00001462
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 465137.392, 3810605.322, 1052.85, 3.49, 4.00
** 465480.977, 3810605.322, 1047.94, 3.49, 4.00
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   LOCATION L0000523     VOLUME   465158.867 3810605.322 1052.04
   LOCATION L0000524     VOLUME   465167.457 3810605.322 1052.00
   LOCATION L0000525     VOLUME   465176.047 3810605.322 1052.00
   LOCATION L0000526     VOLUME   465184.637 3810605.322 1052.00
   LOCATION L0000527     VOLUME   465193.227 3810605.322 1051.93
   LOCATION L0000528     VOLUME   465201.817 3810605.322 1051.75
   LOCATION L0000529     VOLUME   465210.407 3810605.322 1051.56
   LOCATION L0000530     VOLUME   465218.997 3810605.322 1051.38
   LOCATION L0000531     VOLUME   465227.587 3810605.322 1051.26
   LOCATION L0000532     VOLUME   465236.177 3810605.322 1051.16
   LOCATION L0000533     VOLUME   465244.767 3810605.322 1051.06
   LOCATION L0000534     VOLUME   465253.357 3810605.322 1050.93
   LOCATION L0000535     VOLUME   465261.947 3810605.322 1050.74
   LOCATION L0000536     VOLUME   465270.537 3810605.322 1050.56
   LOCATION L0000537     VOLUME   465279.127 3810605.322 1050.37
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   LOCATION L0000538     VOLUME   465287.717 3810605.322 1050.26
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   LOCATION L0000540     VOLUME   465304.897 3810605.322 1050.06
   LOCATION L0000541     VOLUME   465313.487 3810605.322 1050.00
   LOCATION L0000542     VOLUME   465322.077 3810605.322 1050.00
   LOCATION L0000543     VOLUME   465330.667 3810605.322 1050.00
   LOCATION L0000544     VOLUME   465339.257 3810605.322 1050.00
   LOCATION L0000545     VOLUME   465347.847 3810605.322 1049.83
   LOCATION L0000546     VOLUME   465356.437 3810605.322 1049.65
   LOCATION L0000547     VOLUME   465365.027 3810605.322 1049.46
   LOCATION L0000548     VOLUME   465373.617 3810605.322 1049.31
   LOCATION L0000549     VOLUME   465382.207 3810605.322 1049.21
   LOCATION L0000550     VOLUME   465390.797 3810605.322 1049.11
   LOCATION L0000551     VOLUME   465399.387 3810605.322 1049.01
   LOCATION L0000552     VOLUME   465407.977 3810605.322 1048.83
   LOCATION L0000553     VOLUME   465416.567 3810605.322 1048.64
   LOCATION L0000554     VOLUME   465425.157 3810605.322 1048.46
   LOCATION L0000555     VOLUME   465433.747 3810605.322 1048.31
   LOCATION L0000556     VOLUME   465442.337 3810605.322 1048.21
   LOCATION L0000557     VOLUME   465450.927 3810605.322 1048.11
   LOCATION L0000558     VOLUME   465459.517 3810605.322 1048.01
   LOCATION L0000559     VOLUME   465468.107 3810605.322 1048.00
   LOCATION L0000560     VOLUME   465476.697 3810605.322 1048.00
** End of LINE VOLUME Source ID = SLINE1
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE3
** DESCRSRC Palmetto 5%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 5.032E-08
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 3
** 464947.412, 3810532.648, 1056.00, 3.49, 4.00
** 465005.361, 3810539.256, 1055.06, 3.49, 4.00
** 465073.985, 3810540.781, 1054.00, 3.49, 4.00
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   LOCATION L0000562     VOLUME   464960.214 3810534.108 1055.91
   LOCATION L0000563     VOLUME   464968.749 3810535.081 1055.81
   LOCATION L0000564     VOLUME   464977.283 3810536.054 1055.69
   LOCATION L0000565     VOLUME   464985.818 3810537.028 1055.51
   LOCATION L0000566     VOLUME   464994.353 3810538.001 1055.31
   LOCATION L0000567     VOLUME   465002.888 3810538.974 1055.13
   LOCATION L0000568     VOLUME   465011.460 3810539.392 1054.95
   LOCATION L0000569     VOLUME   465020.048 3810539.583 1054.66
   LOCATION L0000570     VOLUME   465028.636 3810539.773 1054.38
   LOCATION L0000571     VOLUME   465037.224 3810539.964 1054.09
   LOCATION L0000572     VOLUME   465045.812 3810540.155 1054.00
   LOCATION L0000573     VOLUME   465054.399 3810540.346 1054.00
   LOCATION L0000574     VOLUME   465062.987 3810540.537 1054.00
   LOCATION L0000575     VOLUME   465071.575 3810540.728 1054.00
** End of LINE VOLUME Source ID = SLINE3
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE4
** DESCRSRC Palmetto 25%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 1.179E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 7
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** 465074.273, 3810540.960, 1054.00, 3.49, 4.00
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** 465476.048, 3810539.087, 1049.15, 3.49, 4.00
** 465526.621, 3810547.516, 1048.15, 3.49, 4.00
** 465584.062, 3810564.374, 1048.05, 3.49, 4.00
** 465625.582, 3810584.665, 1047.09, 3.49, 4.00
** 465655.863, 3810603.708, 1046.23, 3.49, 4.00
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   LOCATION L0000578     VOLUME   465095.747 3810540.792 1054.00
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   LOCATION L0000580     VOLUME   465112.927 3810540.658 1053.57
   LOCATION L0000581     VOLUME   465121.516 3810540.591 1053.28
   LOCATION L0000582     VOLUME   465130.106 3810540.524 1053.00
   LOCATION L0000583     VOLUME   465138.696 3810540.456 1053.00
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   LOCATION L0000585     VOLUME   465155.875 3810540.322 1053.00
   LOCATION L0000586     VOLUME   465164.465 3810540.255 1052.85
   LOCATION L0000587     VOLUME   465173.055 3810540.188 1052.56
   LOCATION L0000588     VOLUME   465181.645 3810540.121 1052.28
   LOCATION L0000589     VOLUME   465190.234 3810540.053 1052.00
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   LOCATION L0000591     VOLUME   465207.414 3810539.919 1052.00
   LOCATION L0000592     VOLUME   465216.003 3810539.852 1052.00
   LOCATION L0000593     VOLUME   465224.593 3810539.785 1052.00
   LOCATION L0000594     VOLUME   465233.183 3810539.717 1052.00
   LOCATION L0000595     VOLUME   465241.773 3810539.650 1052.00
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   LOCATION L0000597     VOLUME   465258.952 3810539.516 1051.86
   LOCATION L0000598     VOLUME   465267.542 3810539.449 1051.74
   LOCATION L0000599     VOLUME   465276.132 3810539.382 1051.61
   LOCATION L0000600     VOLUME   465284.721 3810539.314 1051.47
   LOCATION L0000601     VOLUME   465293.311 3810539.247 1051.31
   LOCATION L0000602     VOLUME   465301.901 3810539.180 1051.15
   LOCATION L0000603     VOLUME   465310.491 3810539.113 1050.99
   LOCATION L0000604     VOLUME   465319.080 3810539.046 1050.87
   LOCATION L0000605     VOLUME   465327.670 3810538.979 1050.74
   LOCATION L0000606     VOLUME   465336.260 3810538.911 1050.62
   LOCATION L0000607     VOLUME   465344.850 3810538.844 1050.57
   LOCATION L0000608     VOLUME   465353.439 3810538.777 1050.57
   LOCATION L0000609     VOLUME   465362.029 3810538.710 1050.57
   LOCATION L0000610     VOLUME   465370.619 3810538.643 1050.56
   LOCATION L0000611     VOLUME   465379.208 3810538.576 1050.40
   LOCATION L0000612     VOLUME   465387.798 3810538.508 1050.24
   LOCATION L0000613     VOLUME   465396.388 3810538.484 1050.07
   LOCATION L0000614     VOLUME   465404.978 3810538.549 1049.93
   LOCATION L0000615     VOLUME   465413.567 3810538.614 1049.81
   LOCATION L0000616     VOLUME   465422.157 3810538.679 1049.69
   LOCATION L0000617     VOLUME   465430.747 3810538.744 1049.56
   LOCATION L0000618     VOLUME   465439.337 3810538.809 1049.39
   LOCATION L0000619     VOLUME   465447.926 3810538.874 1049.23
   LOCATION L0000620     VOLUME   465456.516 3810538.939 1049.07
   LOCATION L0000621     VOLUME   465465.106 3810539.004 1049.00
   LOCATION L0000622     VOLUME   465473.696 3810539.069 1048.57
   LOCATION L0000623     VOLUME   465482.201 3810540.113 1048.54
   LOCATION L0000624     VOLUME   465490.674 3810541.525 1048.49
   LOCATION L0000625     VOLUME   465499.147 3810542.937 1048.44
   LOCATION L0000626     VOLUME   465507.620 3810544.349 1048.39
   LOCATION L0000627     VOLUME   465516.093 3810545.761 1048.35
   LOCATION L0000628     VOLUME   465524.566 3810547.174 1048.30
   LOCATION L0000629     VOLUME   465532.865 3810549.348 1048.23
   LOCATION L0000630     VOLUME   465541.107 3810551.767 1048.15
   LOCATION L0000631     VOLUME   465549.350 3810554.186 1048.07
   LOCATION L0000632     VOLUME   465557.592 3810556.605 1048.00
   LOCATION L0000633     VOLUME   465565.834 3810559.024 1047.95
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   LOCATION L0000636     VOLUME   465590.148 3810567.348 1047.63
   LOCATION L0000637     VOLUME   465597.865 3810571.120 1047.50
   LOCATION L0000638     VOLUME   465605.583 3810574.891 1047.38
   LOCATION L0000639     VOLUME   465613.300 3810578.663 1047.22
   LOCATION L0000640     VOLUME   465621.018 3810582.435 1047.08
   LOCATION L0000641     VOLUME   465628.554 3810586.534 1046.99
   LOCATION L0000642     VOLUME   465635.825 3810591.107 1046.84
   LOCATION L0000643     VOLUME   465643.097 3810595.680 1046.61
   LOCATION L0000644     VOLUME   465650.368 3810600.253 1046.34
** End of LINE VOLUME Source ID = SLINE4
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE5
** DESCRSRC Amargosa 100%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 9.979E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 15
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** 465695.510, 3810626.497, 1045.93, 3.49, 4.00
** 465710.807, 3810615.883, 1045.78, 3.49, 4.00
** 465636.508, 3810500.377, 1048.00, 3.49, 4.00
** 465492.906, 3810279.978, 1052.95, 3.49, 4.00
** 465332.757, 3810033.356, 1057.45, 3.49, 4.00
** 465230.050, 3809881.013, 1060.63, 3.49, 4.00
** 465189.155, 3809833.561, 1062.00, 3.49, 4.00
** 465169.175, 3809818.889, 1062.16, 3.49, 4.00
** 465142.016, 3809805.465, 1062.73, 3.49, 4.00
** 465116.729, 3809795.475, 1063.19, 3.49, 4.00
** 465093.004, 3809790.793, 1063.41, 3.49, 4.00
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   LOCATION L0000663     VOLUME   465660.408 3810537.533 1047.20
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   LOCATION L0000666     VOLUME   465646.467 3810515.859 1047.85
   LOCATION L0000667     VOLUME   465641.820 3810508.635 1047.97
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LOCATION L0000725 VOLUME 465370.178 3810090.982 1056.50
LOCATION L0000726 VOLUME 465365.500 3810083.778 1056.74
LOCATION L0000727 VOLUME 465360.822 3810076.574 1056.98
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LOCATION L0000731 VOLUME 465342.109 3810047.757 1057.00
LOCATION L0000732 VOLUME 465337.430 3810040.552 1057.25
LOCATION L0000733 VOLUME 465332.752 3810033.348 1057.56
LOCATION L0000734 VOLUME 465327.950 3810026.225 1057.79
LOCATION L0000735 VOLUME 465323.148 3810019.103 1057.95
LOCATION L0000736 VOLUME 465318.346 3810011.980 1058.00
LOCATION L0000737 VOLUME 465313.544 3810004.858 1058.00

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   LOCATION L0000739     VOLUME   465303.941 3809990.613 1058.17
   LOCATION L0000740     VOLUME   465299.139 3809983.490 1058.41
   LOCATION L0000741     VOLUME   465294.337 3809976.368 1058.67
   LOCATION L0000742     VOLUME   465289.535 3809969.245 1058.86
   LOCATION L0000743     VOLUME   465284.733 3809962.123 1058.97
   LOCATION L0000744     VOLUME   465279.931 3809955.000 1059.03
   LOCATION L0000745     VOLUME   465275.130 3809947.878 1059.39
   LOCATION L0000746     VOLUME   465270.328 3809940.755 1059.67
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   LOCATION L0000749     VOLUME   465255.922 3809919.388 1060.18
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   LOCATION L0000751     VOLUME   465246.318 3809905.143 1060.61
   LOCATION L0000752     VOLUME   465241.517 3809898.020 1060.67
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   LOCATION L0000754     VOLUME   465231.913 3809883.775 1060.64
   LOCATION L0000755     VOLUME   465226.618 3809877.029 1060.71
   LOCATION L0000756     VOLUME   465221.010 3809870.523 1060.85
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   LOCATION L0000758     VOLUME   465209.794 3809857.509 1061.28
   LOCATION L0000759     VOLUME   465204.186 3809851.002 1061.50
   LOCATION L0000760     VOLUME   465198.578 3809844.495 1061.72
   LOCATION L0000761     VOLUME   465192.970 3809837.988 1061.93
   LOCATION L0000762     VOLUME   465186.942 3809831.936 1062.00
   LOCATION L0000763     VOLUME   465180.018 3809826.852 1062.00
   LOCATION L0000764     VOLUME   465173.095 3809821.767 1062.00
   LOCATION L0000765     VOLUME   465165.834 3809817.237 1062.00
   LOCATION L0000766     VOLUME   465158.133 3809813.431 1062.05
   LOCATION L0000767     VOLUME   465150.432 3809809.625 1062.28
   LOCATION L0000768     VOLUME   465142.731 3809805.819 1062.58
   LOCATION L0000769     VOLUME   465134.769 3809802.602 1062.86
   LOCATION L0000770     VOLUME   465126.780 3809799.446 1063.02
   LOCATION L0000771     VOLUME   465118.791 3809796.290 1063.12
   LOCATION L0000772     VOLUME   465110.476 3809794.241 1063.25
   LOCATION L0000773     VOLUME   465102.049 3809792.578 1063.41
   LOCATION L0000774     VOLUME   465093.622 3809790.915 1063.50
   LOCATION L0000775     VOLUME   465085.044 3809790.686 1063.51
   LOCATION L0000776     VOLUME   465076.455 3809790.571 1063.51
   LOCATION L0000777     VOLUME   465067.866 3809790.456 1063.52
   LOCATION L0000778     VOLUME   465059.277 3809790.341 1063.52
   LOCATION L0000779     VOLUME   465050.687 3809790.226 1063.52
   LOCATION L0000780     VOLUME   465042.098 3809790.111 1063.53
   LOCATION L0000781     VOLUME   465033.509 3809789.996 1063.63
   LOCATION L0000782     VOLUME   465024.920 3809789.881 1063.77
   LOCATION L0000783     VOLUME   465016.333 3809790.077 1063.90
   LOCATION L0000784     VOLUME   465007.748 3809790.359 1064.00
   LOCATION L0000785     VOLUME   464999.163 3809790.640 1064.00
   LOCATION L0000786     VOLUME   464990.577 3809790.922 1064.00
   LOCATION L0000787     VOLUME   464981.992 3809791.203 1064.00
   LOCATION L0000788     VOLUME   464973.407 3809791.485 1064.00
   LOCATION L0000789     VOLUME   464964.821 3809791.766 1064.00
   LOCATION L0000790     VOLUME   464956.236 3809792.048 1064.00
   LOCATION L0000791     VOLUME   464947.650 3809792.329 1064.04
** End of LINE VOLUME Source ID = SLINE5
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE6
** DESCRSRC Main 100%
** PREFIX
** Length of Side = 14.00
** Configuration = Adjacent
** Emission Rate = 7.354E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 9
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** 464946.904, 3809792.666, 1064.00, 3.49, 6.51
** 464736.807, 3809792.354, 1066.45, 3.49, 6.51
** 464737.119, 3809533.869, 1070.00, 3.49, 6.51
** 464839.826, 3809535.430, 1069.12, 3.49, 6.51
** 464953.147, 3809541.673, 1068.06, 3.49, 6.51
** 465010.276, 3809542.298, 1068.03, 3.49, 6.51
** 465066.781, 3809543.547, 1068.00, 3.49, 6.51
** 465144.201, 3809541.361, 1068.00, 3.49, 6.51
** 465196.224, 3809538.430, 1067.07, 3.49, 6.51
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   LOCATION L0000792     VOLUME   464939.904 3809792.655 1064.15
   LOCATION L0000793     VOLUME   464925.904 3809792.635 1064.36
   LOCATION L0000794     VOLUME   464911.904 3809792.614 1064.59
   LOCATION L0000795     VOLUME   464897.904 3809792.593 1064.85
   LOCATION L0000796     VOLUME   464883.904 3809792.572 1065.00
   LOCATION L0000797     VOLUME   464869.904 3809792.551 1065.00
   LOCATION L0000798     VOLUME   464855.904 3809792.531 1065.06
   LOCATION L0000799     VOLUME   464841.904 3809792.510 1065.27
   LOCATION L0000800     VOLUME   464827.904 3809792.489 1065.49
   LOCATION L0000801     VOLUME   464813.904 3809792.468 1065.74
   LOCATION L0000802     VOLUME   464799.904 3809792.447 1066.00
   LOCATION L0000803     VOLUME   464785.904 3809792.427 1066.00
   LOCATION L0000804     VOLUME   464771.904 3809792.406 1066.00
   LOCATION L0000805     VOLUME   464757.904 3809792.385 1066.18
   LOCATION L0000806     VOLUME   464743.904 3809792.364 1066.39
   LOCATION L0000807     VOLUME   464736.815 3809785.451 1066.72
   LOCATION L0000808     VOLUME   464736.832 3809771.451 1067.00
   LOCATION L0000809     VOLUME   464736.849 3809757.451 1067.00
   LOCATION L0000810     VOLUME   464736.866 3809743.451 1067.01
   LOCATION L0000811     VOLUME   464736.883 3809729.451 1067.06
   LOCATION L0000812     VOLUME   464736.900 3809715.451 1067.12
   LOCATION L0000813     VOLUME   464736.916 3809701.451 1067.54
   LOCATION L0000814     VOLUME   464736.933 3809687.451 1067.95
   LOCATION L0000815     VOLUME   464736.950 3809673.451 1068.00
   LOCATION L0000816     VOLUME   464736.967 3809659.451 1068.00
   LOCATION L0000817     VOLUME   464736.984 3809645.451 1068.35
   LOCATION L0000818     VOLUME   464737.001 3809631.451 1068.82
   LOCATION L0000819     VOLUME   464737.018 3809617.451 1069.03
   LOCATION L0000820     VOLUME   464737.035 3809603.451 1069.07
   LOCATION L0000821     VOLUME   464737.052 3809589.451 1069.29
   LOCATION L0000822     VOLUME   464737.069 3809575.451 1069.71
   LOCATION L0000823     VOLUME   464737.086 3809561.451 1070.00
   LOCATION L0000824     VOLUME   464737.102 3809547.451 1070.00
   LOCATION L0000825     VOLUME   464737.537 3809533.875 1070.01
   LOCATION L0000826     VOLUME   464751.535 3809534.088 1070.00
   LOCATION L0000827     VOLUME   464765.534 3809534.301 1070.00
   LOCATION L0000828     VOLUME   464779.532 3809534.514 1070.00
   LOCATION L0000829     VOLUME   464793.530 3809534.726 1070.00
   LOCATION L0000830     VOLUME   464807.529 3809534.939 1069.76
   LOCATION L0000831     VOLUME   464821.527 3809535.152 1069.30
   LOCATION L0000832     VOLUME   464835.526 3809535.364 1069.02
   LOCATION L0000833     VOLUME   464849.510 3809535.963 1069.00
   LOCATION L0000834     VOLUME   464863.489 3809536.734 1068.97
   LOCATION L0000835     VOLUME   464877.468 3809537.504 1068.95
   LOCATION L0000836     VOLUME   464891.447 3809538.274 1068.92
   LOCATION L0000837     VOLUME   464905.426 3809539.044 1068.90
   LOCATION L0000838     VOLUME   464919.404 3809539.814 1068.87
   LOCATION L0000839     VOLUME   464933.383 3809540.585 1068.47
   LOCATION L0000840     VOLUME   464947.362 3809541.355 1068.07
   LOCATION L0000841     VOLUME   464961.353 3809541.763 1068.00
   LOCATION L0000842     VOLUME   464975.352 3809541.916 1068.00
   LOCATION L0000843     VOLUME   464989.351 3809542.069 1068.00
   LOCATION L0000844     VOLUME   465003.350 3809542.222 1068.00
   LOCATION L0000845     VOLUME   465017.348 3809542.454 1068.00
   LOCATION L0000846     VOLUME   465031.345 3809542.763 1068.00
   LOCATION L0000847     VOLUME   465045.341 3809543.073 1067.96
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   LOCATION L0000848     VOLUME   465059.338 3809543.382 1067.84
   LOCATION L0000849     VOLUME   465073.333 3809543.362 1067.75
   LOCATION L0000850     VOLUME   465087.328 3809542.967 1067.77
   LOCATION L0000851     VOLUME   465101.322 3809542.572 1067.78
   LOCATION L0000852     VOLUME   465115.317 3809542.177 1067.79
   LOCATION L0000853     VOLUME   465129.311 3809541.782 1067.81
   LOCATION L0000854     VOLUME   465143.306 3809541.387 1067.82
   LOCATION L0000855     VOLUME   465157.284 3809540.624 1067.84
   LOCATION L0000856     VOLUME   465171.262 3809539.836 1067.54
   LOCATION L0000857     VOLUME   465185.240 3809539.049 1067.14
** End of LINE VOLUME Source ID = SLINE6
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE7
** DESCRSRC Onsite 75%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 2.655E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 7
** 465645.972, 3810615.762, 1046.04, 3.49, 4.00
** 465624.799, 3810640.392, 1046.00, 3.49, 4.00
** 465588.071, 3810613.170, 1046.88, 3.49, 4.00
** 465554.367, 3810591.133, 1047.94, 3.49, 4.00
** 465540.972, 3810585.516, 1047.96, 3.49, 4.00
** 465521.528, 3810584.652, 1048.00, 3.49, 4.00
** 465480.911, 3810584.652, 1048.00, 3.49, 4.00
** ----------------------------------------------------------------
   LOCATION L0000858     VOLUME   465643.172 3810619.019 1045.99
   LOCATION L0000859     VOLUME   465637.572 3810625.533 1046.00
   LOCATION L0000860     VOLUME   465631.972 3810632.047 1046.00
   LOCATION L0000861     VOLUME   465626.373 3810638.561 1046.00
   LOCATION L0000862     VOLUME   465619.837 3810636.714 1046.00
   LOCATION L0000863     VOLUME   465612.936 3810631.599 1046.00
   LOCATION L0000864     VOLUME   465606.035 3810626.485 1046.08
   LOCATION L0000865     VOLUME   465599.134 3810621.370 1046.29
   LOCATION L0000866     VOLUME   465592.233 3810616.255 1046.59
   LOCATION L0000867     VOLUME   465585.217 3810611.304 1046.85
   LOCATION L0000868     VOLUME   465578.028 3810606.603 1047.02
   LOCATION L0000869     VOLUME   465570.838 3810601.902 1047.14
   LOCATION L0000870     VOLUME   465563.649 3810597.201 1047.34
   LOCATION L0000871     VOLUME   465556.459 3810592.501 1047.61
   LOCATION L0000872     VOLUME   465548.750 3810588.777 1047.91
   LOCATION L0000873     VOLUME   465540.817 3810585.509 1048.00
   LOCATION L0000874     VOLUME   465532.235 3810585.127 1048.00
   LOCATION L0000875     VOLUME   465523.654 3810584.746 1048.00
   LOCATION L0000876     VOLUME   465515.066 3810584.652 1048.00
   LOCATION L0000877     VOLUME   465506.476 3810584.652 1048.00
   LOCATION L0000878     VOLUME   465497.886 3810584.652 1048.00
   LOCATION L0000879     VOLUME   465489.296 3810584.652 1048.00
** End of LINE VOLUME Source ID = SLINE7
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** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE8
** DESCRSRC Onsite 100%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 6.369E-06
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 2
** 465136.099, 3810585.516, 1052.94, 3.49, 4.00
** 465483.504, 3810584.652, 1048.00, 3.49, 4.00
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   LOCATION L0000880     VOLUME   465140.394 3810585.505 1052.66
   LOCATION L0000881     VOLUME   465148.984 3810585.484 1052.38
   LOCATION L0000882     VOLUME   465157.574 3810585.462 1052.09
   LOCATION L0000883     VOLUME   465166.164 3810585.441 1052.01
   LOCATION L0000884     VOLUME   465174.754 3810585.420 1052.01
   LOCATION L0000885     VOLUME   465183.344 3810585.398 1052.00
   LOCATION L0000886     VOLUME   465191.934 3810585.377 1052.00
   LOCATION L0000887     VOLUME   465200.524 3810585.355 1052.00
   LOCATION L0000888     VOLUME   465209.114 3810585.334 1052.00
   LOCATION L0000889     VOLUME   465217.704 3810585.313 1052.00
   LOCATION L0000890     VOLUME   465226.294 3810585.291 1051.79
   LOCATION L0000891     VOLUME   465234.884 3810585.270 1051.51
   LOCATION L0000892     VOLUME   465243.474 3810585.249 1051.24
   LOCATION L0000893     VOLUME   465252.064 3810585.227 1051.02
   LOCATION L0000894     VOLUME   465260.653 3810585.206 1051.02
   LOCATION L0000895     VOLUME   465269.243 3810585.185 1051.01
   LOCATION L0000896     VOLUME   465277.833 3810585.163 1051.00
   LOCATION L0000897     VOLUME   465286.423 3810585.142 1050.79
   LOCATION L0000898     VOLUME   465295.013 3810585.120 1050.51
   LOCATION L0000899     VOLUME   465303.603 3810585.099 1050.23
   LOCATION L0000900     VOLUME   465312.193 3810585.078 1050.03
   LOCATION L0000901     VOLUME   465320.783 3810585.056 1050.02
   LOCATION L0000902     VOLUME   465329.373 3810585.035 1050.01
   LOCATION L0000903     VOLUME   465337.963 3810585.014 1050.00
   LOCATION L0000904     VOLUME   465346.553 3810584.992 1050.00
   LOCATION L0000905     VOLUME   465355.143 3810584.971 1050.00
   LOCATION L0000906     VOLUME   465363.733 3810584.949 1050.00
   LOCATION L0000907     VOLUME   465372.323 3810584.928 1049.92
   LOCATION L0000908     VOLUME   465380.913 3810584.907 1049.65
   LOCATION L0000909     VOLUME   465389.503 3810584.885 1049.37
   LOCATION L0000910     VOLUME   465398.093 3810584.864 1049.10
   LOCATION L0000911     VOLUME   465406.683 3810584.843 1049.03
   LOCATION L0000912     VOLUME   465415.273 3810584.821 1049.02
   LOCATION L0000913     VOLUME   465423.863 3810584.800 1049.01
   LOCATION L0000914     VOLUME   465432.453 3810584.779 1048.92
   LOCATION L0000915     VOLUME   465441.043 3810584.757 1048.65
   LOCATION L0000916     VOLUME   465449.633 3810584.736 1048.37
   LOCATION L0000917     VOLUME   465458.223 3810584.714 1048.10
   LOCATION L0000918     VOLUME   465466.813 3810584.693 1048.00
   LOCATION L0000919     VOLUME   465475.403 3810584.672 1048.00
** End of LINE VOLUME Source ID = SLINE8
** ----------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE9
** DESCRSRC Onsite 5%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 2.168E-07
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 4
** 465135.235, 3810585.516, 1052.96, 3.49, 4.00
** 464941.656, 3810586.812, 1055.17, 3.49, 4.00
** 464942.520, 3810557.862, 1055.97, 3.49, 4.00
** 464946.409, 3810544.467, 1055.93, 3.49, 4.00
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   LOCATION L0000920     VOLUME   465130.940 3810585.544 1052.97
   LOCATION L0000921     VOLUME   465122.350 3810585.602 1053.00
   LOCATION L0000922     VOLUME   465113.760 3810585.660 1053.01
   LOCATION L0000923     VOLUME   465105.170 3810585.717 1053.01
   LOCATION L0000924     VOLUME   465096.581 3810585.775 1053.12
   LOCATION L0000925     VOLUME   465087.991 3810585.832 1053.40
   LOCATION L0000926     VOLUME   465079.401 3810585.890 1053.69
   LOCATION L0000927     VOLUME   465070.811 3810585.947 1053.97
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   LOCATION L0000928     VOLUME   465062.221 3810586.005 1054.00
   LOCATION L0000929     VOLUME   465053.632 3810586.062 1054.00
   LOCATION L0000930     VOLUME   465045.042 3810586.120 1054.00
   LOCATION L0000931     VOLUME   465036.452 3810586.177 1054.12
   LOCATION L0000932     VOLUME   465027.862 3810586.235 1054.40
   LOCATION L0000933     VOLUME   465019.272 3810586.292 1054.68
   LOCATION L0000934     VOLUME   465010.682 3810586.350 1054.96
   LOCATION L0000935     VOLUME   465002.093 3810586.407 1054.99
   LOCATION L0000936     VOLUME   464993.503 3810586.465 1054.99
   LOCATION L0000937     VOLUME   464984.913 3810586.522 1055.00
   LOCATION L0000938     VOLUME   464976.323 3810586.580 1055.00
   LOCATION L0000939     VOLUME   464967.733 3810586.637 1055.00
   LOCATION L0000940     VOLUME   464959.144 3810586.695 1055.00
   LOCATION L0000941     VOLUME   464950.554 3810586.752 1055.00
   LOCATION L0000942     VOLUME   464941.964 3810586.810 1055.26
   LOCATION L0000943     VOLUME   464941.903 3810578.534 1055.45
   LOCATION L0000944     VOLUME   464942.159 3810569.948 1055.65
   LOCATION L0000945     VOLUME   464942.416 3810561.362 1055.86
   LOCATION L0000946     VOLUME   464943.939 3810552.975 1056.00
   LOCATION L0000947     VOLUME   464946.334 3810544.725 1056.00
** End of LINE VOLUME Source ID = SLINE9
** ------------------------------------------------------------------
** Line Source Represented by Adjacent Volume Sources
** LINE VOLUME Source ID = SLINE10
** DESCRSRC Onsite 20%
** PREFIX
** Length of Side = 8.59
** Configuration = Adjacent
** Emission Rate = 3.439E-07
** Vertical Dimension = 6.99
** SZINIT = 3.25
** Nodes = 3
** 465073.877, 3810553.973, 1054.00, 3.49, 4.00
** 465073.445, 3810585.948, 1053.98, 3.49, 4.00
** 465135.235, 3810585.516, 1052.96, 3.49, 4.00
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   LOCATION L0000948     VOLUME   465073.819 3810558.267 1053.99
   LOCATION L0000949     VOLUME   465073.703 3810566.857 1053.95
   LOCATION L0000950     VOLUME   465073.587 3810575.446 1053.92
   LOCATION L0000951     VOLUME   465073.471 3810584.035 1053.89
   LOCATION L0000952     VOLUME   465080.122 3810585.901 1053.66
   LOCATION L0000953     VOLUME   465088.712 3810585.841 1053.38
   LOCATION L0000954     VOLUME   465097.301 3810585.781 1053.09
   LOCATION L0000955     VOLUME   465105.891 3810585.721 1053.01
   LOCATION L0000956     VOLUME   465114.481 3810585.661 1053.00
   LOCATION L0000957     VOLUME   465123.071 3810585.601 1053.00
   LOCATION L0000958     VOLUME   465131.661 3810585.541 1052.94
** End of LINE VOLUME Source ID = SLINE10
** Source Parameters **
** LINE VOLUME Source ID = SLINE1
   SRCPARAM L0000521     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000522     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000523     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000524     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000525     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000526     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000527     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000528     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000529     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000530     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000531     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000532     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000533     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000534     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000535     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000536     0.0000003655      3.49      4.00      3.25
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   SRCPARAM L0000537     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000538     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000539     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000540     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000541     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000542     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000543     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000544     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000545     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000546     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000547     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000548     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000549     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000550     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000551     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000552     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000553     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000554     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000555     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000556     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000557     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000558     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000559     0.0000003655      3.49      4.00      3.25
   SRCPARAM L0000560     0.0000003655      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE3
   SRCPARAM L0000561     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000562     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000563     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000564     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000565     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000566     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000567     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000568     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000569     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000570     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000571     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000572     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000573     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000574     0.000000003355      3.49      4.00      3.25
   SRCPARAM L0000575     0.000000003355      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE4
   SRCPARAM L0000576     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000577     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000578     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000579     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000580     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000581     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000582     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000583     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000584     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000585     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000586     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000587     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000588     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000589     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000590     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000591     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000592     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000593     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000594     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000595     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000596     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000597     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000598     0.00000001709      3.49      4.00      3.25
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   SRCPARAM L0000599     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000600     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000601     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000602     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000603     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000604     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000605     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000606     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000607     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000608     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000609     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000610     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000611     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000612     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000613     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000614     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000615     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000616     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000617     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000618     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000619     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000620     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000621     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000622     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000623     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000624     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000625     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000626     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000627     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000628     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000629     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000630     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000631     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000632     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000633     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000634     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000635     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000636     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000637     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000638     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000639     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000640     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000641     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000642     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000643     0.00000001709      3.49      4.00      3.25
   SRCPARAM L0000644     0.00000001709      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE5
   SRCPARAM L0000645     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000646     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000647     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000648     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000649     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000650     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000651     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000652     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000653     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000654     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000655     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000656     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000657     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000658     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000659     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000660     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000661     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000662     0.00000006788      3.49      4.00      3.25
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SRCPARAM L0000663     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000664     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000665     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000666     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000667     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000668     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000669     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000670     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000671     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000672     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000673     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000674     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000675     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000676     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000677     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000678     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000679     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000680     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000681     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000682     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000683     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000684     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000685     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000686     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000687     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000688     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000689     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000690     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000691     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000692     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000693     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000694     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000695     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000696     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000697     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000698     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000699     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000700     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000701     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000702     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000703     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000704     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000705     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000706     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000707     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000708     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000709     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000710     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000711     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000712     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000713     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000714     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000715     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000716     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000717     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000718     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000719     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000720     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000721     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000722     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000723     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000724     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000725     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000726     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000727     0.00000006788      3.49      4.00      3.25
SRCPARAM L0000728     0.00000006788      3.49      4.00      3.25
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   SRCPARAM L0000729     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000730     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000731     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000732     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000733     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000734     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000735     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000736     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000737     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000738     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000739     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000740     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000741     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000742     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000743     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000744     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000745     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000746     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000747     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000748     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000749     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000750     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000751     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000752     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000753     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000754     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000755     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000756     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000757     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000758     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000759     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000760     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000761     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000762     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000763     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000764     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000765     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000766     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000767     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000768     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000769     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000770     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000771     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000772     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000773     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000774     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000775     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000776     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000777     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000778     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000779     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000780     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000781     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000782     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000783     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000784     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000785     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000786     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000787     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000788     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000789     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000790     0.00000006788      3.49      4.00      3.25
   SRCPARAM L0000791     0.00000006788      3.49      4.00      3.25
** ------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE6
   SRCPARAM L0000792     0.00000001114      3.49      6.51      3.25
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   SRCPARAM L0000793     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000794     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000795     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000796     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000797     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000798     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000799     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000800     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000801     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000802     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000803     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000804     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000805     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000806     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000807     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000808     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000809     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000810     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000811     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000812     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000813     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000814     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000815     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000816     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000817     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000818     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000819     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000820     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000821     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000822     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000823     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000824     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000825     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000826     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000827     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000828     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000829     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000830     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000831     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000832     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000833     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000834     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000835     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000836     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000837     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000838     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000839     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000840     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000841     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000842     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000843     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000844     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000845     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000846     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000847     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000848     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000849     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000850     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000851     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000852     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000853     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000854     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000855     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000856     0.0000001114      3.49      6.51      3.25
   SRCPARAM L0000857     0.0000001114      3.49      6.51      3.25
** ------------------------------------------------------------------
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```
** LINE VOLUME Source ID = SLINE7
   SRCPARAM L0000858     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000859     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000860     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000861     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000862     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000863     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000864     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000865     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000866     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000867     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000868     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000869     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000870     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000871     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000872     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000873     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000874     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000875     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000876     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000877     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000878     0.0000001207      3.49      4.00      3.25
   SRCPARAM L0000879     0.0000001207      3.49      4.00      3.25
** ----------------------------------------------------------------
** LINE VOLUME Source ID = SLINE8
   SRCPARAM L0000880     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000881     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000882     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000883     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000884     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000885     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000886     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000887     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000888     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000889     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000890     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000891     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000892     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000893     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000894     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000895     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000896     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000897     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000898     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000899     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000900     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000901     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000902     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000903     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000904     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000905     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000906     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000907     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000908     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000909     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000910     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000911     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000912     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000913     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000914     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000915     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000916     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000917     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000918     0.0000001592      3.49      4.00      3.25
   SRCPARAM L0000919     0.0000001592      3.49      4.00      3.25
** ----------------------------------------------------------------
```

```
** LINE VOLUME Source ID = SLINE9
   SRCPARAM L0000920     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000921     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000922     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000923     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000924     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000925     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000926     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000927     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000928     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000929     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000930     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000931     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000932     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000933     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000934     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000935     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000936     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000937     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000938     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000939     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000940     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000941     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000942     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000943     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000944     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000945     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000946     0.000000007743      3.49      4.00      3.25
   SRCPARAM L0000947     0.000000007743      3.49      4.00      3.25
** ----------------------------------------------------------------------
** LINE VOLUME Source ID = SLINE10
   SRCPARAM L0000948     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000949     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000950     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000951     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000952     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000953     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000954     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000955     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000956     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000957     0.00000003126      3.49      4.00      3.25
   SRCPARAM L0000958     0.00000003126      3.49      4.00      3.25
** ----------------------------------------------------------------------
   SRCGROUP ALL
SO FINISHED
**
**************************************
** AERMOD Receptor Pathway
**************************************
**
**
RE STARTING
   INCLUDED "14848 Ops.rou"
RE FINISHED
**
**************************************
** AERMOD Meteorology Pathway
**************************************
**
**
ME STARTING
   SURFFILE KDAG_723815_23161\KDAG_2015_2016_2018-2020_ADJU.SFC
   PROFFILE KDAG_723815_23161\KDAG_2015_2016_2018-2020_ADJU.PFL
   SURFDATA 23161 2015 DAGGETT/FAA_AIRPORT
   UAIRDATA 3120 2015
   PROFBASE 588.3 METERS
```

```
ME FINISHED
**
**************************************
** AERMOD Output Pathway
**************************************
**
**
OU STARTING
** Auto-Generated Plotfiles
   PLOTFILE ANNUAL ALL "14848 Ops.AD\AN00GALL.PLT" 31
   SUMMFILE "14848 Ops.sum"
OU FINISHED


  *** Message Summary For AERMOD Model Setup ***

  --------- Summary of Total Messages --------

 A Total of            0 Fatal Error Message(s)
 A Total of            2 Warning Message(s)
 A Total of            0 Informational Message(s)


    ******** FATAL ERROR MESSAGES ********
               ***  NONE  ***


    ********   WARNING MESSAGES   ********
 ME W186    1122       MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used          0.50
 ME W187    1122       MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET

 **********************************
 *** SETUP Finishes Successfully ***
 **********************************

FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***        12:16:34

                      PAGE   1
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                          ***     MODEL SETUP OPTIONS SUMMARY       ***
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - - - - - -

 ** Model Options Selected:
      * Model Uses Regulatory DEFAULT Options
      * Model Is Setup For Calculation of Average CONCentration Values.
      * NO GAS DEPOSITION Data Provided.
      * NO PARTICLE DEPOSITION Data Provided.
      * Model Uses NO DRY DEPLETION. DDPLETE  =  F
      * Model Uses NO WET DEPLETION. WETDPLT  =  F
      * Stack-tip Downwash.
      * Model Accounts for ELEVated Terrain Effects.
      * Use Calms Processing Routine.
      * Use Missing Data Processing Routine.
      * No Exponential Decay.
      * Model Uses RURAL Dispersion Only.
      * ADJ_U*   - Use ADJ_U* option for SBL in AERMET
      * CCVR_Sub - Meteorological data includes CCVR substitutions
      * TEMP_Sub - Meteorological data includes TEMP substitutions
      * Model Assumes No FLAGPOLE Receptor Heights.
      * The User Specified a Pollutant Type of: DPM
```

**Model Calculates ANNUAL Averages Only

**This Run Includes: 438 Source(s); 1 Source Group(s); and 39 Receptor(s)

with: 0 POINT(s), including
0 POINTCAP(s) and 0 POINTHOR(s)
and: 438 VOLUME source(s)
and: 0 AREA type source(s)
and: 0 LINE source(s)
and: 0 RLINE/RLINEXT source(s)
and: 0 OPENPIT source(s)
and: 0 BUOYANT LINE source(s) with a total of 0 line(s)
and: 0 SWPOINT source(s)

**Model Set To Continue RUNning After the Setup Testing.

**The AERMET Input Meteorological Data Version Date: 19191

**Output Options Selected:
Model Outputs Tables of ANNUAL Averages by Receptor
Model Outputs External File(s) of High Values for Plotting (PLOTFILE Keyword)
Model Outputs Separate Summary File of High Ranked Values (SUMMFILE Keyword)

**NOTE: The Following Flags May Appear Following CONC Values: c for Calm Hours
m for Missing Hours
b for Both Calm and Missing Hours

**Misc. Inputs: Base Elev. for Pot. Temp. Profile (m MSL) = 588.30 ; Decay Coef. =
0.000 ; Rot. Angle = 0.0
Emission Units = GRAMS/SEC ; Emission Rate
Unit Factor = 0.10000E+07
Output Units = MICROGRAMS/M**3

**Approximate Storage Requirements of Model = 3.7 MB of RAM.

**Input Runstream File:
aermod.inp
**Output Print File:
aermod.out

**Detailed Error/Message File: 14848
Ops.err
**File for Summary of Results: 14848
Ops.sum

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER URBAN SOURCE PART.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	EMISSION RATE SCALAR VARY BY

```
L0000521         0   0.36550E-06  465141.7 3810605.3  1052.6     3.49     4.00     3.25
NO
L0000522         0   0.36550E-06  465150.3 3810605.3  1052.3     3.49     4.00     3.25
NO
L0000523         0   0.36550E-06  465158.9 3810605.3  1052.0     3.49     4.00     3.25
NO
L0000524         0   0.36550E-06  465167.5 3810605.3  1052.0     3.49     4.00     3.25
NO
L0000525         0   0.36550E-06  465176.0 3810605.3  1052.0     3.49     4.00     3.25
NO
L0000526         0   0.36550E-06  465184.6 3810605.3  1052.0     3.49     4.00     3.25
NO
L0000527         0   0.36550E-06  465193.2 3810605.3  1051.9     3.49     4.00     3.25
NO
L0000528         0   0.36550E-06  465201.8 3810605.3  1051.8     3.49     4.00     3.25
NO
L0000529         0   0.36550E-06  465210.4 3810605.3  1051.6     3.49     4.00     3.25
NO
L0000530         0   0.36550E-06  465219.0 3810605.3  1051.4     3.49     4.00     3.25
NO
L0000531         0   0.36550E-06  465227.6 3810605.3  1051.3     3.49     4.00     3.25
NO
L0000532         0   0.36550E-06  465236.2 3810605.3  1051.2     3.49     4.00     3.25
NO
L0000533         0   0.36550E-06  465244.8 3810605.3  1051.1     3.49     4.00     3.25
NO
L0000534         0   0.36550E-06  465253.4 3810605.3  1050.9     3.49     4.00     3.25
NO
L0000535         0   0.36550E-06  465261.9 3810605.3  1050.7     3.49     4.00     3.25
NO
L0000536         0   0.36550E-06  465270.5 3810605.3  1050.6     3.49     4.00     3.25
NO
L0000537         0   0.36550E-06  465279.1 3810605.3  1050.4     3.49     4.00     3.25
NO
L0000538         0   0.36550E-06  465287.7 3810605.3  1050.3     3.49     4.00     3.25
NO
L0000539         0   0.36550E-06  465296.3 3810605.3  1050.2     3.49     4.00     3.25
NO
L0000540         0   0.36550E-06  465304.9 3810605.3  1050.1     3.49     4.00     3.25
NO
L0000541         0   0.36550E-06  465313.5 3810605.3  1050.0     3.49     4.00     3.25
NO
L0000542         0   0.36550E-06  465322.1 3810605.3  1050.0     3.49     4.00     3.25
NO
L0000543         0   0.36550E-06  465330.7 3810605.3  1050.0     3.49     4.00     3.25
NO
L0000544         0   0.36550E-06  465339.3 3810605.3  1050.0     3.49     4.00     3.25
NO
L0000545         0   0.36550E-06  465347.8 3810605.3  1049.8     3.49     4.00     3.25
NO
L0000546         0   0.36550E-06  465356.4 3810605.3  1049.6     3.49     4.00     3.25
NO
L0000547         0   0.36550E-06  465365.0 3810605.3  1049.5     3.49     4.00     3.25
NO
L0000548         0   0.36550E-06  465373.6 3810605.3  1049.3     3.49     4.00     3.25
NO
L0000549         0   0.36550E-06  465382.2 3810605.3  1049.2     3.49     4.00     3.25
NO
L0000550         0   0.36550E-06  465390.8 3810605.3  1049.1     3.49     4.00     3.25
NO
L0000551         0   0.36550E-06  465399.4 3810605.3  1049.0     3.49     4.00     3.25
NO
L0000552         0   0.36550E-06  465408.0 3810605.3  1048.8     3.49     4.00     3.25
NO
L0000553         0   0.36550E-06  465416.6 3810605.3  1048.6     3.49     4.00     3.25
NO
```

```
 L0000554         0   0.36550E-06  465425.2 3810605.3  1048.5     3.49     4.00     3.25
 NO
 L0000555         0   0.36550E-06  465433.7 3810605.3  1048.3     3.49     4.00     3.25
 NO
 L0000556         0   0.36550E-06  465442.3 3810605.3  1048.2     3.49     4.00     3.25
 NO
 L0000557         0   0.36550E-06  465450.9 3810605.3  1048.1     3.49     4.00     3.25
 NO
 L0000558         0   0.36550E-06  465459.5 3810605.3  1048.0     3.49     4.00     3.25
 NO
 L0000559         0   0.36550E-06  465468.1 3810605.3  1048.0     3.49     4.00     3.25
 NO
 L0000560         0   0.36550E-06  465476.7 3810605.3  1048.0     3.49     4.00     3.25
 NO
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                  ***       12:16:34

                     PAGE   3
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.
              URBAN  EMISSION RATE
   SOURCE      PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ
   SOURCE  SCALAR VARY
     ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
     (METERS)             BY
 - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - -

 L0000561         0   0.33550E-08  464951.7 3810533.1  1056.0     3.49     4.00     3.25
 NO
 L0000562         0   0.33550E-08  464960.2 3810534.1  1055.9     3.49     4.00     3.25
 NO
 L0000563         0   0.33550E-08  464968.7 3810535.1  1055.8     3.49     4.00     3.25
 NO
 L0000564         0   0.33550E-08  464977.3 3810536.1  1055.7     3.49     4.00     3.25
 NO
 L0000565         0   0.33550E-08  464985.8 3810537.0  1055.5     3.49     4.00     3.25
 NO
 L0000566         0   0.33550E-08  464994.4 3810538.0  1055.3     3.49     4.00     3.25
 NO
 L0000567         0   0.33550E-08  465002.9 3810539.0  1055.1     3.49     4.00     3.25
 NO
 L0000568         0   0.33550E-08  465011.5 3810539.4  1055.0     3.49     4.00     3.25
 NO
 L0000569         0   0.33550E-08  465020.0 3810539.6  1054.7     3.49     4.00     3.25
 NO
 L0000570         0   0.33550E-08  465028.6 3810539.8  1054.4     3.49     4.00     3.25
 NO
 L0000571         0   0.33550E-08  465037.2 3810540.0  1054.1     3.49     4.00     3.25
 NO
 L0000572         0   0.33550E-08  465045.8 3810540.2  1054.0     3.49     4.00     3.25
 NO
 L0000573         0   0.33550E-08  465054.4 3810540.3  1054.0     3.49     4.00     3.25
 NO
 L0000574         0   0.33550E-08  465063.0 3810540.5  1054.0     3.49     4.00     3.25
 NO
 L0000575         0   0.33550E-08  465071.6 3810540.7  1054.0     3.49     4.00     3.25
 NO
 L0000576         0   0.17090E-07  465078.6 3810540.9  1054.0     3.49     4.00     3.25
 NO
```

L0000577	0	0.17090E-07	465087.2	3810540.9	1054.0	3.49	4.00	3.25	NO
L0000578	0	0.17090E-07	465095.7	3810540.8	1054.0	3.49	4.00	3.25	NO
L0000579	0	0.17090E-07	465104.3	3810540.7	1053.8	3.49	4.00	3.25	NO
L0000580	0	0.17090E-07	465112.9	3810540.7	1053.6	3.49	4.00	3.25	NO
L0000581	0	0.17090E-07	465121.5	3810540.6	1053.3	3.49	4.00	3.25	NO
L0000582	0	0.17090E-07	465130.1	3810540.5	1053.0	3.49	4.00	3.25	NO
L0000583	0	0.17090E-07	465138.7	3810540.5	1053.0	3.49	4.00	3.25	NO
L0000584	0	0.17090E-07	465147.3	3810540.4	1053.0	3.49	4.00	3.25	NO
L0000585	0	0.17090E-07	465155.9	3810540.3	1053.0	3.49	4.00	3.25	NO
L0000586	0	0.17090E-07	465164.5	3810540.3	1052.8	3.49	4.00	3.25	NO
L0000587	0	0.17090E-07	465173.1	3810540.2	1052.6	3.49	4.00	3.25	NO
L0000588	0	0.17090E-07	465181.6	3810540.1	1052.3	3.49	4.00	3.25	NO
L0000589	0	0.17090E-07	465190.2	3810540.1	1052.0	3.49	4.00	3.25	NO
L0000590	0	0.17090E-07	465198.8	3810540.0	1052.0	3.49	4.00	3.25	NO
L0000591	0	0.17090E-07	465207.4	3810539.9	1052.0	3.49	4.00	3.25	NO
L0000592	0	0.17090E-07	465216.0	3810539.9	1052.0	3.49	4.00	3.25	NO
L0000593	0	0.17090E-07	465224.6	3810539.8	1052.0	3.49	4.00	3.25	NO
L0000594	0	0.17090E-07	465233.2	3810539.7	1052.0	3.49	4.00	3.25	NO
L0000595	0	0.17090E-07	465241.8	3810539.6	1052.0	3.49	4.00	3.25	NO
L0000596	0	0.17090E-07	465250.4	3810539.6	1052.0	3.49	4.00	3.25	NO
L0000597	0	0.17090E-07	465259.0	3810539.5	1051.9	3.49	4.00	3.25	NO
L0000598	0	0.17090E-07	465267.5	3810539.4	1051.7	3.49	4.00	3.25	NO
L0000599	0	0.17090E-07	465276.1	3810539.4	1051.6	3.49	4.00	3.25	NO
L0000600	0	0.17090E-07	465284.7	3810539.3	1051.5	3.49	4.00	3.25	NO

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY

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- - - - - - - - - - - - -

L0000601	0	0.17090E-07	465293.3	3810539.2	1051.3	3.49	4.00	3.25
NO								
L0000602	0	0.17090E-07	465301.9	3810539.2	1051.1	3.49	4.00	3.25
NO								
L0000603	0	0.17090E-07	465310.5	3810539.1	1051.0	3.49	4.00	3.25
NO								
L0000604	0	0.17090E-07	465319.1	3810539.0	1050.9	3.49	4.00	3.25
NO								
L0000605	0	0.17090E-07	465327.7	3810539.0	1050.7	3.49	4.00	3.25
NO								
L0000606	0	0.17090E-07	465336.3	3810538.9	1050.6	3.49	4.00	3.25
NO								
L0000607	0	0.17090E-07	465344.8	3810538.8	1050.6	3.49	4.00	3.25
NO								
L0000608	0	0.17090E-07	465353.4	3810538.8	1050.6	3.49	4.00	3.25
NO								
L0000609	0	0.17090E-07	465362.0	3810538.7	1050.6	3.49	4.00	3.25
NO								
L0000610	0	0.17090E-07	465370.6	3810538.6	1050.6	3.49	4.00	3.25
NO								
L0000611	0	0.17090E-07	465379.2	3810538.6	1050.4	3.49	4.00	3.25
NO								
L0000612	0	0.17090E-07	465387.8	3810538.5	1050.2	3.49	4.00	3.25
NO								
L0000613	0	0.17090E-07	465396.4	3810538.5	1050.1	3.49	4.00	3.25
NO								
L0000614	0	0.17090E-07	465405.0	3810538.5	1049.9	3.49	4.00	3.25
NO								
L0000615	0	0.17090E-07	465413.6	3810538.6	1049.8	3.49	4.00	3.25
NO								
L0000616	0	0.17090E-07	465422.2	3810538.7	1049.7	3.49	4.00	3.25
NO								
L0000617	0	0.17090E-07	465430.7	3810538.7	1049.6	3.49	4.00	3.25
NO								
L0000618	0	0.17090E-07	465439.3	3810538.8	1049.4	3.49	4.00	3.25
NO								
L0000619	0	0.17090E-07	465447.9	3810538.9	1049.2	3.49	4.00	3.25
NO								
L0000620	0	0.17090E-07	465456.5	3810538.9	1049.1	3.49	4.00	3.25
NO								
L0000621	0	0.17090E-07	465465.1	3810539.0	1049.0	3.49	4.00	3.25
NO								
L0000622	0	0.17090E-07	465473.7	3810539.1	1048.6	3.49	4.00	3.25
NO								
L0000623	0	0.17090E-07	465482.2	3810540.1	1048.5	3.49	4.00	3.25
NO								
L0000624	0	0.17090E-07	465490.7	3810541.5	1048.5	3.49	4.00	3.25
NO								
L0000625	0	0.17090E-07	465499.1	3810542.9	1048.4	3.49	4.00	3.25
NO								
L0000626	0	0.17090E-07	465507.6	3810544.3	1048.4	3.49	4.00	3.25
NO								
L0000627	0	0.17090E-07	465516.1	3810545.8	1048.3	3.49	4.00	3.25
NO								
L0000628	0	0.17090E-07	465524.6	3810547.2	1048.3	3.49	4.00	3.25
NO								
L0000629	0	0.17090E-07	465532.9	3810549.3	1048.2	3.49	4.00	3.25
NO								
L0000630	0	0.17090E-07	465541.1	3810551.8	1048.1	3.49	4.00	3.25
NO								
L0000631	0	0.17090E-07	465549.3	3810554.2	1048.1	3.49	4.00	3.25
NO								
L0000632	0	0.17090E-07	465557.6	3810556.6	1048.0	3.49	4.00	3.25
NO								

L0000633	0	0.17090E-07	465565.8	3810559.0	1048.0	3.49	4.00	3.25
NO								
L0000634	0	0.17090E-07	465574.1	3810561.4	1047.9	3.49	4.00	3.25
NO								
L0000635	0	0.17090E-07	465582.3	3810563.9	1047.7	3.49	4.00	3.25
NO								
L0000636	0	0.17090E-07	465590.1	3810567.3	1047.6	3.49	4.00	3.25
NO								
L0000637	0	0.17090E-07	465597.9	3810571.1	1047.5	3.49	4.00	3.25
NO								
L0000638	0	0.17090E-07	465605.6	3810574.9	1047.4	3.49	4.00	3.25
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L0000639	0	0.17090E-07	465613.3	3810578.7	1047.2	3.49	4.00	3.25
NO								
L0000640	0	0.17090E-07	465621.0	3810582.4	1047.1	3.49	4.00	3.25
NO								

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER URBAN SOURCE PART. SCALAR VARY BY	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ
L0000641	0	0.17090E-07	465628.6	3810586.5	1047.0	3.49	4.00	3.25
NO								
L0000642	0	0.17090E-07	465635.8	3810591.1	1046.8	3.49	4.00	3.25
NO								
L0000643	0	0.17090E-07	465643.1	3810595.7	1046.6	3.49	4.00	3.25
NO								
L0000644	0	0.17090E-07	465650.4	3810600.3	1046.3	3.49	4.00	3.25
NO								
L0000645	0	0.67880E-07	465659.4	3810605.9	1046.1	3.49	4.00	3.25
NO								
L0000646	0	0.67880E-07	465666.4	3810610.8	1046.0	3.49	4.00	3.25
NO								
L0000647	0	0.67880E-07	465673.5	3810615.7	1046.0	3.49	4.00	3.25
NO								
L0000648	0	0.67880E-07	465680.5	3810620.6	1045.8	3.49	4.00	3.25
NO								
L0000649	0	0.67880E-07	465687.6	3810625.5	1045.7	3.49	4.00	3.25
NO								
L0000650	0	0.67880E-07	465695.6	3810626.4	1045.7	3.49	4.00	3.25
NO								
L0000651	0	0.67880E-07	465702.7	3810621.5	1045.7	3.49	4.00	3.25
NO								
L0000652	0	0.67880E-07	465709.7	3810616.6	1045.7	3.49	4.00	3.25
NO								
L0000653	0	0.67880E-07	465706.9	3810609.8	1045.8	3.49	4.00	3.25
NO								
L0000654	0	0.67880E-07	465702.2	3810602.6	1046.0	3.49	4.00	3.25
NO								
L0000655	0	0.67880E-07	465697.6	3810595.3	1046.0	3.49	4.00	3.25
NO								

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 L0000656         0   0.67880E-07  465692.9 3810588.1  1046.0     3.49     4.00     3.25
 NO
 L0000657         0   0.67880E-07  465688.3 3810580.9  1046.2     3.49     4.00     3.25
 NO
 L0000658         0   0.67880E-07  465683.6 3810573.7  1046.4     3.49     4.00     3.25
 NO
 L0000659         0   0.67880E-07  465679.0 3810566.4  1046.7     3.49     4.00     3.25
 NO
 L0000660         0   0.67880E-07  465674.3 3810559.2  1046.9     3.49     4.00     3.25
 NO
 L0000661         0   0.67880E-07  465669.7 3810552.0  1047.0     3.49     4.00     3.25
 NO
 L0000662         0   0.67880E-07  465665.1 3810544.8  1047.1     3.49     4.00     3.25
 NO
 L0000663         0   0.67880E-07  465660.4 3810537.5  1047.2     3.49     4.00     3.25
 NO
 L0000664         0   0.67880E-07  465655.8 3810530.3  1047.4     3.49     4.00     3.25
 NO
 L0000665         0   0.67880E-07  465651.1 3810523.1  1047.7     3.49     4.00     3.25
 NO
 L0000666         0   0.67880E-07  465646.5 3810515.9  1047.8     3.49     4.00     3.25
 NO
 L0000667         0   0.67880E-07  465641.8 3810508.6  1048.0     3.49     4.00     3.25
 NO
 L0000668         0   0.67880E-07  465637.2 3810501.4  1048.0     3.49     4.00     3.25
 NO
 L0000669         0   0.67880E-07  465632.5 3810494.2  1048.0     3.49     4.00     3.25
 NO
 L0000670         0   0.67880E-07  465627.8 3810487.0  1048.0     3.49     4.00     3.25
 NO
 L0000671         0   0.67880E-07  465623.1 3810479.8  1048.0     3.49     4.00     3.25
 NO
 L0000672         0   0.67880E-07  465618.4 3810472.6  1048.0     3.49     4.00     3.25
 NO
 L0000673         0   0.67880E-07  465613.7 3810465.4  1048.0     3.49     4.00     3.25
 NO
 L0000674         0   0.67880E-07  465609.0 3810458.2  1048.0     3.49     4.00     3.25
 NO
 L0000675         0   0.67880E-07  465604.4 3810451.0  1048.1     3.49     4.00     3.25
 NO
 L0000676         0   0.67880E-07  465599.7 3810443.8  1048.1     3.49     4.00     3.25
 NO
 L0000677         0   0.67880E-07  465595.0 3810436.6  1048.0     3.49     4.00     3.25
 NO
 L0000678         0   0.67880E-07  465590.3 3810429.4  1048.1     3.49     4.00     3.25
 NO
 L0000679         0   0.67880E-07  465585.6 3810422.2  1048.4     3.49     4.00     3.25
 NO
 L0000680         0   0.67880E-07  465580.9 3810415.0  1048.7     3.49     4.00     3.25
 NO
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                  ***       12:16:34

                     PAGE   6
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.
              URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X         Y      ELEV.   HEIGHT      SY       SZ
  SOURCE  SCALAR VARY
    ID         CATS.              (METERS) (METERS) (METERS) (METERS) (METERS)
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(METERS) BY

L0000681	0	0.67880E-07	465576.2	3810407.8	1049.1	3.49	4.00	3.25
NO								
L0000682	0	0.67880E-07	465571.5	3810400.6	1049.4	3.49	4.00	3.25
NO								
L0000683	0	0.67880E-07	465566.8	3810393.4	1049.7	3.49	4.00	3.25
NO								
L0000684	0	0.67880E-07	465562.1	3810386.3	1049.9	3.49	4.00	3.25
NO								
L0000685	0	0.67880E-07	465557.5	3810379.1	1050.0	3.49	4.00	3.25
NO								
L0000686	0	0.67880E-07	465552.8	3810371.9	1050.1	3.49	4.00	3.25
NO								
L0000687	0	0.67880E-07	465548.1	3810364.7	1050.4	3.49	4.00	3.25
NO								
L0000688	0	0.67880E-07	465543.4	3810357.5	1050.8	3.49	4.00	3.25
NO								
L0000689	0	0.67880E-07	465538.7	3810350.3	1051.2	3.49	4.00	3.25
NO								
L0000690	0	0.67880E-07	465534.0	3810343.1	1051.6	3.49	4.00	3.25
NO								
L0000691	0	0.67880E-07	465529.3	3810335.9	1051.8	3.49	4.00	3.25
NO								
L0000692	0	0.67880E-07	465524.6	3810328.7	1051.9	3.49	4.00	3.25
NO								
L0000693	0	0.67880E-07	465519.9	3810321.5	1052.0	3.49	4.00	3.25
NO								
L0000694	0	0.67880E-07	465515.3	3810314.3	1052.0	3.49	4.00	3.25
NO								
L0000695	0	0.67880E-07	465510.6	3810307.1	1052.1	3.49	4.00	3.25
NO								
L0000696	0	0.67880E-07	465505.9	3810299.9	1052.2	3.49	4.00	3.25
NO								
L0000697	0	0.67880E-07	465501.2	3810292.7	1052.5	3.49	4.00	3.25
NO								
L0000698	0	0.67880E-07	465496.5	3810285.5	1052.8	3.49	4.00	3.25
NO								
L0000699	0	0.67880E-07	465491.8	3810278.3	1053.0	3.49	4.00	3.25
NO								
L0000700	0	0.67880E-07	465487.1	3810271.1	1053.0	3.49	4.00	3.25
NO								
L0000701	0	0.67880E-07	465482.5	3810263.9	1053.0	3.49	4.00	3.25
NO								
L0000702	0	0.67880E-07	465477.8	3810256.7	1053.0	3.49	4.00	3.25
NO								
L0000703	0	0.67880E-07	465473.1	3810249.5	1053.2	3.49	4.00	3.25
NO								
L0000704	0	0.67880E-07	465468.4	3810242.3	1053.5	3.49	4.00	3.25
NO								
L0000705	0	0.67880E-07	465463.7	3810235.1	1053.7	3.49	4.00	3.25
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L0000706	0	0.67880E-07	465459.1	3810227.9	1053.9	3.49	4.00	3.25
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L0000707	0	0.67880E-07	465454.4	3810220.7	1054.0	3.49	4.00	3.25
NO								
L0000708	0	0.67880E-07	465449.7	3810213.5	1054.0	3.49	4.00	3.25
NO								
L0000709	0	0.67880E-07	465445.0	3810206.3	1054.0	3.49	4.00	3.25
NO								
L0000710	0	0.67880E-07	465440.4	3810199.0	1054.0	3.49	4.00	3.25
NO								
L0000711	0	0.67880E-07	465435.7	3810191.8	1054.1	3.49	4.00	3.25
NO								

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 L0000712         0   0.67880E-07  465431.0 3810184.6  1054.4     3.49     4.00     3.25
 NO
 L0000713         0   0.67880E-07  465426.3 3810177.4  1054.6     3.49     4.00     3.25
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 L0000714         0   0.67880E-07  465421.6 3810170.2  1054.9     3.49     4.00     3.25
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 L0000715         0   0.67880E-07  465417.0 3810163.0  1055.0     3.49     4.00     3.25
 NO
 L0000716         0   0.67880E-07  465412.3 3810155.8  1055.2     3.49     4.00     3.25
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 L0000717         0   0.67880E-07  465407.6 3810148.6  1055.4     3.49     4.00     3.25
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 L0000719         0   0.67880E-07  465398.2 3810134.2  1056.0     3.49     4.00     3.25
 NO
 L0000720         0   0.67880E-07  465393.6 3810127.0  1056.0     3.49     4.00     3.25
 NO
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                  ***       12:16:34

                     PAGE   7
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.
              URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ
  SOURCE  SCALAR VARY
    ID         CATS.               (METERS) (METERS) (METERS) (METERS) (METERS)
    (METERS)             BY
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
 - - - - - - - - - - - - -

 L0000721         0   0.67880E-07  465388.9 3810119.8  1056.0     3.49     4.00     3.25
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 L0000725         0   0.67880E-07  465370.2 3810091.0  1056.5     3.49     4.00     3.25
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 L0000726         0   0.67880E-07  465365.5 3810083.8  1056.7     3.49     4.00     3.25
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 L0000727         0   0.67880E-07  465360.8 3810076.6  1057.0     3.49     4.00     3.25
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 L0000728         0   0.67880E-07  465356.1 3810069.4  1057.0     3.49     4.00     3.25
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 L0000732         0   0.67880E-07  465337.4 3810040.6  1057.2     3.49     4.00     3.25
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 L0000733         0   0.67880E-07  465332.8 3810033.3  1057.6     3.49     4.00     3.25
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 L0000737         0   0.67880E-07  465313.5 3810004.9  1058.0     3.49     4.00     3.25
 NO
 L0000738         0   0.67880E-07  465308.7 3809997.7  1058.0     3.49     4.00     3.25
 NO
 L0000739         0   0.67880E-07  465303.9 3809990.6  1058.2     3.49     4.00     3.25
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 L0000740         0   0.67880E-07  465299.1 3809983.5  1058.4     3.49     4.00     3.25
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 L0000741         0   0.67880E-07  465294.3 3809976.4  1058.7     3.49     4.00     3.25
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 L0000742         0   0.67880E-07  465289.5 3809969.2  1058.9     3.49     4.00     3.25
 NO
 L0000743         0   0.67880E-07  465284.7 3809962.1  1059.0     3.49     4.00     3.25
 NO
 L0000744         0   0.67880E-07  465279.9 3809955.0  1059.0     3.49     4.00     3.25
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 L0000745         0   0.67880E-07  465275.1 3809947.9  1059.4     3.49     4.00     3.25
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 NO
 L0000749         0   0.67880E-07  465255.9 3809919.4  1060.2     3.49     4.00     3.25
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 L0000752         0   0.67880E-07  465241.5 3809898.0  1060.7     3.49     4.00     3.25
 NO
 L0000753         0   0.67880E-07  465236.7 3809890.9  1060.6     3.49     4.00     3.25
 NO
 L0000754         0   0.67880E-07  465231.9 3809883.8  1060.6     3.49     4.00     3.25
 NO
 L0000755         0   0.67880E-07  465226.6 3809877.0  1060.7     3.49     4.00     3.25
 NO
 L0000756         0   0.67880E-07  465221.0 3809870.5  1060.8     3.49     4.00     3.25
 NO
 L0000757         0   0.67880E-07  465215.4 3809864.0  1061.1     3.49     4.00     3.25
 NO
 L0000758         0   0.67880E-07  465209.8 3809857.5  1061.3     3.49     4.00     3.25
 NO
 L0000759         0   0.67880E-07  465204.2 3809851.0  1061.5     3.49     4.00     3.25
 NO
 L0000760         0   0.67880E-07  465198.6 3809844.5  1061.7     3.49     4.00     3.25
 NO
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                  ***       12:16:34

                     PAGE   8
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                                *** VOLUME SOURCE DATA ***

              NUMBER EMISSION RATE                    BASE    RELEASE    INIT.    INIT.
              URBAN  EMISSION RATE
  SOURCE       PART.  (GRAMS/SEC)     X        Y      ELEV.   HEIGHT      SY       SZ
```

SOURCE ID	SCALAR VARY CATS.		(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	(METERS)	BY
L0000761	0	0.67880E-07	465193.0	3809838.0	1061.9	3.49	4.00	3.25	NO
L0000762	0	0.67880E-07	465186.9	3809831.9	1062.0	3.49	4.00	3.25	NO
L0000763	0	0.67880E-07	465180.0	3809826.9	1062.0	3.49	4.00	3.25	NO
L0000764	0	0.67880E-07	465173.1	3809821.8	1062.0	3.49	4.00	3.25	NO
L0000765	0	0.67880E-07	465165.8	3809817.2	1062.0	3.49	4.00	3.25	NO
L0000766	0	0.67880E-07	465158.1	3809813.4	1062.0	3.49	4.00	3.25	NO
L0000767	0	0.67880E-07	465150.4	3809809.6	1062.3	3.49	4.00	3.25	NO
L0000768	0	0.67880E-07	465142.7	3809805.8	1062.6	3.49	4.00	3.25	NO
L0000769	0	0.67880E-07	465134.8	3809802.6	1062.9	3.49	4.00	3.25	NO
L0000770	0	0.67880E-07	465126.8	3809799.4	1063.0	3.49	4.00	3.25	NO
L0000771	0	0.67880E-07	465118.8	3809796.3	1063.1	3.49	4.00	3.25	NO
L0000772	0	0.67880E-07	465110.5	3809794.2	1063.2	3.49	4.00	3.25	NO
L0000773	0	0.67880E-07	465102.0	3809792.6	1063.4	3.49	4.00	3.25	NO
L0000774	0	0.67880E-07	465093.6	3809790.9	1063.5	3.49	4.00	3.25	NO
L0000775	0	0.67880E-07	465085.0	3809790.7	1063.5	3.49	4.00	3.25	NO
L0000776	0	0.67880E-07	465076.5	3809790.6	1063.5	3.49	4.00	3.25	NO
L0000777	0	0.67880E-07	465067.9	3809790.5	1063.5	3.49	4.00	3.25	NO
L0000778	0	0.67880E-07	465059.3	3809790.3	1063.5	3.49	4.00	3.25	NO
L0000779	0	0.67880E-07	465050.7	3809790.2	1063.5	3.49	4.00	3.25	NO
L0000780	0	0.67880E-07	465042.1	3809790.1	1063.5	3.49	4.00	3.25	NO
L0000781	0	0.67880E-07	465033.5	3809790.0	1063.6	3.49	4.00	3.25	NO
L0000782	0	0.67880E-07	465024.9	3809789.9	1063.8	3.49	4.00	3.25	NO
L0000783	0	0.67880E-07	465016.3	3809790.1	1063.9	3.49	4.00	3.25	NO
L0000784	0	0.67880E-07	465007.7	3809790.4	1064.0	3.49	4.00	3.25	NO
L0000785	0	0.67880E-07	464999.2	3809790.6	1064.0	3.49	4.00	3.25	NO
L0000786	0	0.67880E-07	464990.6	3809790.9	1064.0	3.49	4.00	3.25	NO
L0000787	0	0.67880E-07	464982.0	3809791.2	1064.0	3.49	4.00	3.25	NO
L0000788	0	0.67880E-07	464973.4	3809791.5	1064.0	3.49	4.00	3.25	NO
L0000789	0	0.67880E-07	464964.8	3809791.8	1064.0	3.49	4.00	3.25	NO
L0000790	0	0.67880E-07	464956.2	3809792.0	1064.0	3.49	4.00	3.25	NO

L0000791	0	0.67880E-07	464947.6	3809792.3	1064.0	3.49	4.00	3.25	NO
L0000792	0	0.11140E-06	464939.9	3809792.7	1064.1	3.49	6.51	3.25	NO
L0000793	0	0.11140E-06	464925.9	3809792.6	1064.4	3.49	6.51	3.25	NO
L0000794	0	0.11140E-06	464911.9	3809792.6	1064.6	3.49	6.51	3.25	NO
L0000795	0	0.11140E-06	464897.9	3809792.6	1064.8	3.49	6.51	3.25	NO
L0000796	0	0.11140E-06	464883.9	3809792.6	1065.0	3.49	6.51	3.25	NO
L0000797	0	0.11140E-06	464869.9	3809792.6	1065.0	3.49	6.51	3.25	NO
L0000798	0	0.11140E-06	464855.9	3809792.5	1065.1	3.49	6.51	3.25	NO
L0000799	0	0.11140E-06	464841.9	3809792.5	1065.3	3.49	6.51	3.25	NO
L0000800	0	0.11140E-06	464827.9	3809792.5	1065.5	3.49	6.51	3.25	NO

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER PART. CATS.	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	URBAN SOURCE	EMISSION RATE SCALAR VARY BY
L0000801	0	0.11140E-06	464813.9	3809792.5	1065.7	3.49	6.51	3.25	NO	
L0000802	0	0.11140E-06	464799.9	3809792.4	1066.0	3.49	6.51	3.25	NO	
L0000803	0	0.11140E-06	464785.9	3809792.4	1066.0	3.49	6.51	3.25	NO	
L0000804	0	0.11140E-06	464771.9	3809792.4	1066.0	3.49	6.51	3.25	NO	
L0000805	0	0.11140E-06	464757.9	3809792.4	1066.2	3.49	6.51	3.25	NO	
L0000806	0	0.11140E-06	464743.9	3809792.4	1066.4	3.49	6.51	3.25	NO	
L0000807	0	0.11140E-06	464736.8	3809785.5	1066.7	3.49	6.51	3.25	NO	
L0000808	0	0.11140E-06	464736.8	3809771.5	1067.0	3.49	6.51	3.25	NO	
L0000809	0	0.11140E-06	464736.8	3809757.5	1067.0	3.49	6.51	3.25	NO	
L0000810	0	0.11140E-06	464736.9	3809743.5	1067.0	3.49	6.51	3.25	NO	
L0000811	0	0.11140E-06	464736.9	3809729.5	1067.1	3.49	6.51	3.25	NO	
L0000812	0	0.11140E-06	464736.9	3809715.5	1067.1	3.49	6.51	3.25	NO	
L0000813	0	0.11140E-06	464736.9	3809701.5	1067.5	3.49	6.51	3.25	NO	

L0000814	0	0.11140E-06	464736.9	3809687.5	1068.0	3.49	6.51	3.25	NO
L0000815	0	0.11140E-06	464737.0	3809673.5	1068.0	3.49	6.51	3.25	NO
L0000816	0	0.11140E-06	464737.0	3809659.5	1068.0	3.49	6.51	3.25	NO
L0000817	0	0.11140E-06	464737.0	3809645.5	1068.3	3.49	6.51	3.25	NO
L0000818	0	0.11140E-06	464737.0	3809631.5	1068.8	3.49	6.51	3.25	NO
L0000819	0	0.11140E-06	464737.0	3809617.5	1069.0	3.49	6.51	3.25	NO
L0000820	0	0.11140E-06	464737.0	3809603.5	1069.1	3.49	6.51	3.25	NO
L0000821	0	0.11140E-06	464737.1	3809589.5	1069.3	3.49	6.51	3.25	NO
L0000822	0	0.11140E-06	464737.1	3809575.5	1069.7	3.49	6.51	3.25	NO
L0000823	0	0.11140E-06	464737.1	3809561.5	1070.0	3.49	6.51	3.25	NO
L0000824	0	0.11140E-06	464737.1	3809547.5	1070.0	3.49	6.51	3.25	NO
L0000825	0	0.11140E-06	464737.5	3809533.9	1070.0	3.49	6.51	3.25	NO
L0000826	0	0.11140E-06	464751.5	3809534.1	1070.0	3.49	6.51	3.25	NO
L0000827	0	0.11140E-06	464765.5	3809534.3	1070.0	3.49	6.51	3.25	NO
L0000828	0	0.11140E-06	464779.5	3809534.5	1070.0	3.49	6.51	3.25	NO
L0000829	0	0.11140E-06	464793.5	3809534.7	1070.0	3.49	6.51	3.25	NO
L0000830	0	0.11140E-06	464807.5	3809534.9	1069.8	3.49	6.51	3.25	NO
L0000831	0	0.11140E-06	464821.5	3809535.2	1069.3	3.49	6.51	3.25	NO
L0000832	0	0.11140E-06	464835.5	3809535.4	1069.0	3.49	6.51	3.25	NO
L0000833	0	0.11140E-06	464849.5	3809536.0	1069.0	3.49	6.51	3.25	NO
L0000834	0	0.11140E-06	464863.5	3809536.7	1069.0	3.49	6.51	3.25	NO
L0000835	0	0.11140E-06	464877.5	3809537.5	1069.0	3.49	6.51	3.25	NO
L0000836	0	0.11140E-06	464891.4	3809538.3	1068.9	3.49	6.51	3.25	NO
L0000837	0	0.11140E-06	464905.4	3809539.0	1068.9	3.49	6.51	3.25	NO
L0000838	0	0.11140E-06	464919.4	3809539.8	1068.9	3.49	6.51	3.25	NO
L0000839	0	0.11140E-06	464933.4	3809540.6	1068.5	3.49	6.51	3.25	NO
L0000840	0	0.11140E-06	464947.4	3809541.4	1068.1	3.49	6.51	3.25	NO

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

NUMBER EMISSION RATE BASE RELEASE INIT. INIT.

SOURCE ID	URBAN SOURCE PART. SCALAR VARY BY	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	ELEV. (METERS)	HEIGHT (METERS)	SY (METERS)	SZ (METERS)	
L0000841	0	0.11140E-06	464961.4	3809541.8	1068.0	3.49	6.51	3.25	NO
L0000842	0	0.11140E-06	464975.4	3809541.9	1068.0	3.49	6.51	3.25	NO
L0000843	0	0.11140E-06	464989.4	3809542.1	1068.0	3.49	6.51	3.25	NO
L0000844	0	0.11140E-06	465003.3	3809542.2	1068.0	3.49	6.51	3.25	NO
L0000845	0	0.11140E-06	465017.3	3809542.5	1068.0	3.49	6.51	3.25	NO
L0000846	0	0.11140E-06	465031.3	3809542.8	1068.0	3.49	6.51	3.25	NO
L0000847	0	0.11140E-06	465045.3	3809543.1	1068.0	3.49	6.51	3.25	NO
L0000848	0	0.11140E-06	465059.3	3809543.4	1067.8	3.49	6.51	3.25	NO
L0000849	0	0.11140E-06	465073.3	3809543.4	1067.8	3.49	6.51	3.25	NO
L0000850	0	0.11140E-06	465087.3	3809543.0	1067.8	3.49	6.51	3.25	NO
L0000851	0	0.11140E-06	465101.3	3809542.6	1067.8	3.49	6.51	3.25	NO
L0000852	0	0.11140E-06	465115.3	3809542.2	1067.8	3.49	6.51	3.25	NO
L0000853	0	0.11140E-06	465129.3	3809541.8	1067.8	3.49	6.51	3.25	NO
L0000854	0	0.11140E-06	465143.3	3809541.4	1067.8	3.49	6.51	3.25	NO
L0000855	0	0.11140E-06	465157.3	3809540.6	1067.8	3.49	6.51	3.25	NO
L0000856	0	0.11140E-06	465171.3	3809539.8	1067.5	3.49	6.51	3.25	NO
L0000857	0	0.11140E-06	465185.2	3809539.0	1067.1	3.49	6.51	3.25	NO
L0000858	0	0.12070E-06	465643.2	3810619.0	1046.0	3.49	4.00	3.25	NO
L0000859	0	0.12070E-06	465637.6	3810625.5	1046.0	3.49	4.00	3.25	NO
L0000860	0	0.12070E-06	465632.0	3810632.0	1046.0	3.49	4.00	3.25	NO
L0000861	0	0.12070E-06	465626.4	3810638.6	1046.0	3.49	4.00	3.25	NO
L0000862	0	0.12070E-06	465619.8	3810636.7	1046.0	3.49	4.00	3.25	NO
L0000863	0	0.12070E-06	465612.9	3810631.6	1046.0	3.49	4.00	3.25	NO
L0000864	0	0.12070E-06	465606.0	3810626.5	1046.1	3.49	4.00	3.25	NO
L0000865	0	0.12070E-06	465599.1	3810621.4	1046.3	3.49	4.00	3.25	NO
L0000866	0	0.12070E-06	465592.2	3810616.3	1046.6	3.49	4.00	3.25	NO
L0000867	0	0.12070E-06	465585.2	3810611.3	1046.8	3.49	4.00	3.25	NO
L0000868	0	0.12070E-06	465578.0	3810606.6	1047.0	3.49	4.00	3.25	NO
L0000869	0	0.12070E-06	465570.8	3810601.9	1047.1	3.49	4.00	3.25	NO

L0000870 0 0.12070E-06 465563.6 3810597.2 1047.3 3.49 4.00 3.25
NO
L0000871 0 0.12070E-06 465556.5 3810592.5 1047.6 3.49 4.00 3.25
NO
L0000872 0 0.12070E-06 465548.8 3810588.8 1047.9 3.49 4.00 3.25
NO
L0000873 0 0.12070E-06 465540.8 3810585.5 1048.0 3.49 4.00 3.25
NO
L0000874 0 0.12070E-06 465532.2 3810585.1 1048.0 3.49 4.00 3.25
NO
L0000875 0 0.12070E-06 465523.7 3810584.7 1048.0 3.49 4.00 3.25
NO
L0000876 0 0.12070E-06 465515.1 3810584.7 1048.0 3.49 4.00 3.25
NO
L0000877 0 0.12070E-06 465506.5 3810584.7 1048.0 3.49 4.00 3.25
NO
L0000878 0 0.12070E-06 465497.9 3810584.7 1048.0 3.49 4.00 3.25
NO
L0000879 0 0.12070E-06 465489.3 3810584.7 1048.0 3.49 4.00 3.25
NO
L0000880 0 0.15920E-06 465140.4 3810585.5 1052.7 3.49 4.00 3.25
NO

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER URBAN SOURCE PART.	EMISSION RATE (GRAMS/SEC) SCALAR VARY BY	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ
L0000881	0	0.15920E-06	465149.0	3810585.5	1052.4	3.49	4.00	3.25
NO								
L0000882	0	0.15920E-06	465157.6	3810585.5	1052.1	3.49	4.00	3.25
NO								
L0000883	0	0.15920E-06	465166.2	3810585.4	1052.0	3.49	4.00	3.25
NO								
L0000884	0	0.15920E-06	465174.8	3810585.4	1052.0	3.49	4.00	3.25
NO								
L0000885	0	0.15920E-06	465183.3	3810585.4	1052.0	3.49	4.00	3.25
NO								
L0000886	0	0.15920E-06	465191.9	3810585.4	1052.0	3.49	4.00	3.25
NO								
L0000887	0	0.15920E-06	465200.5	3810585.4	1052.0	3.49	4.00	3.25
NO								
L0000888	0	0.15920E-06	465209.1	3810585.3	1052.0	3.49	4.00	3.25
NO								
L0000889	0	0.15920E-06	465217.7	3810585.3	1052.0	3.49	4.00	3.25
NO								
L0000890	0	0.15920E-06	465226.3	3810585.3	1051.8	3.49	4.00	3.25
NO								
L0000891	0	0.15920E-06	465234.9	3810585.3	1051.5	3.49	4.00	3.25
NO								
L0000892	0	0.15920E-06	465243.5	3810585.2	1051.2	3.49	4.00	3.25
NO								

L0000893	0	0.15920E-06	465252.1	3810585.2	1051.0	3.49	4.00	3.25
NO								
L0000894	0	0.15920E-06	465260.7	3810585.2	1051.0	3.49	4.00	3.25
NO								
L0000895	0	0.15920E-06	465269.2	3810585.2	1051.0	3.49	4.00	3.25
NO								
L0000896	0	0.15920E-06	465277.8	3810585.2	1051.0	3.49	4.00	3.25
NO								
L0000897	0	0.15920E-06	465286.4	3810585.1	1050.8	3.49	4.00	3.25
NO								
L0000898	0	0.15920E-06	465295.0	3810585.1	1050.5	3.49	4.00	3.25
NO								
L0000899	0	0.15920E-06	465303.6	3810585.1	1050.2	3.49	4.00	3.25
NO								
L0000900	0	0.15920E-06	465312.2	3810585.1	1050.0	3.49	4.00	3.25
NO								
L0000901	0	0.15920E-06	465320.8	3810585.1	1050.0	3.49	4.00	3.25
NO								
L0000902	0	0.15920E-06	465329.4	3810585.0	1050.0	3.49	4.00	3.25
NO								
L0000903	0	0.15920E-06	465338.0	3810585.0	1050.0	3.49	4.00	3.25
NO								
L0000904	0	0.15920E-06	465346.6	3810585.0	1050.0	3.49	4.00	3.25
NO								
L0000905	0	0.15920E-06	465355.1	3810585.0	1050.0	3.49	4.00	3.25
NO								
L0000906	0	0.15920E-06	465363.7	3810584.9	1050.0	3.49	4.00	3.25
NO								
L0000907	0	0.15920E-06	465372.3	3810584.9	1049.9	3.49	4.00	3.25
NO								
L0000908	0	0.15920E-06	465380.9	3810584.9	1049.6	3.49	4.00	3.25
NO								
L0000909	0	0.15920E-06	465389.5	3810584.9	1049.4	3.49	4.00	3.25
NO								
L0000910	0	0.15920E-06	465398.1	3810584.9	1049.1	3.49	4.00	3.25
NO								
L0000911	0	0.15920E-06	465406.7	3810584.8	1049.0	3.49	4.00	3.25
NO								
L0000912	0	0.15920E-06	465415.3	3810584.8	1049.0	3.49	4.00	3.25
NO								
L0000913	0	0.15920E-06	465423.9	3810584.8	1049.0	3.49	4.00	3.25
NO								
L0000914	0	0.15920E-06	465432.5	3810584.8	1048.9	3.49	4.00	3.25
NO								
L0000915	0	0.15920E-06	465441.0	3810584.8	1048.6	3.49	4.00	3.25
NO								
L0000916	0	0.15920E-06	465449.6	3810584.7	1048.4	3.49	4.00	3.25
NO								
L0000917	0	0.15920E-06	465458.2	3810584.7	1048.1	3.49	4.00	3.25
NO								
L0000918	0	0.15920E-06	465466.8	3810584.7	1048.0	3.49	4.00	3.25
NO								
L0000919	0	0.15920E-06	465475.4	3810584.7	1048.0	3.49	4.00	3.25
NO								
L0000920	0	0.77430E-08	465130.9	3810585.5	1053.0	3.49	4.00	3.25
NO								

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** VOLUME SOURCE DATA ***

SOURCE ID	NUMBER URBAN PART. SOURCE SCALAR VARY CATS. BY	EMISSION RATE (GRAMS/SEC)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	RELEASE HEIGHT (METERS)	INIT. SY (METERS)	INIT. SZ (METERS)	
L0000921	0	0.77430E-08	465122.3	3810585.6	1053.0	3.49	4.00	3.25	NO
L0000922	0	0.77430E-08	465113.8	3810585.7	1053.0	3.49	4.00	3.25	NO
L0000923	0	0.77430E-08	465105.2	3810585.7	1053.0	3.49	4.00	3.25	NO
L0000924	0	0.77430E-08	465096.6	3810585.8	1053.1	3.49	4.00	3.25	NO
L0000925	0	0.77430E-08	465088.0	3810585.8	1053.4	3.49	4.00	3.25	NO
L0000926	0	0.77430E-08	465079.4	3810585.9	1053.7	3.49	4.00	3.25	NO
L0000927	0	0.77430E-08	465070.8	3810585.9	1054.0	3.49	4.00	3.25	NO
L0000928	0	0.77430E-08	465062.2	3810586.0	1054.0	3.49	4.00	3.25	NO
L0000929	0	0.77430E-08	465053.6	3810586.1	1054.0	3.49	4.00	3.25	NO
L0000930	0	0.77430E-08	465045.0	3810586.1	1054.0	3.49	4.00	3.25	NO
L0000931	0	0.77430E-08	465036.5	3810586.2	1054.1	3.49	4.00	3.25	NO
L0000932	0	0.77430E-08	465027.9	3810586.2	1054.4	3.49	4.00	3.25	NO
L0000933	0	0.77430E-08	465019.3	3810586.3	1054.7	3.49	4.00	3.25	NO
L0000934	0	0.77430E-08	465010.7	3810586.3	1055.0	3.49	4.00	3.25	NO
L0000935	0	0.77430E-08	465002.1	3810586.4	1055.0	3.49	4.00	3.25	NO
L0000936	0	0.77430E-08	464993.5	3810586.5	1055.0	3.49	4.00	3.25	NO
L0000937	0	0.77430E-08	464984.9	3810586.5	1055.0	3.49	4.00	3.25	NO
L0000938	0	0.77430E-08	464976.3	3810586.6	1055.0	3.49	4.00	3.25	NO
L0000939	0	0.77430E-08	464967.7	3810586.6	1055.0	3.49	4.00	3.25	NO
L0000940	0	0.77430E-08	464959.1	3810586.7	1055.0	3.49	4.00	3.25	NO
L0000941	0	0.77430E-08	464950.6	3810586.8	1055.0	3.49	4.00	3.25	NO
L0000942	0	0.77430E-08	464942.0	3810586.8	1055.3	3.49	4.00	3.25	NO
L0000943	0	0.77430E-08	464941.9	3810578.5	1055.5	3.49	4.00	3.25	NO
L0000944	0	0.77430E-08	464942.2	3810569.9	1055.6	3.49	4.00	3.25	NO
L0000945	0	0.77430E-08	464942.4	3810561.4	1055.9	3.49	4.00	3.25	NO
L0000946	0	0.77430E-08	464943.9	3810553.0	1056.0	3.49	4.00	3.25	NO
L0000947	0	0.77430E-08	464946.3	3810544.7	1056.0	3.49	4.00	3.25	NO
L0000948	0	0.31260E-07	465073.8	3810558.3	1054.0	3.49	4.00	3.25	NO

```
 L0000949         0   0.31260E-07  465073.7 3810566.9  1054.0     3.49     4.00     3.25
 NO
 L0000950         0   0.31260E-07  465073.6 3810575.4  1053.9     3.49     4.00     3.25
 NO
 L0000951         0   0.31260E-07  465073.5 3810584.0  1053.9     3.49     4.00     3.25
 NO
 L0000952         0   0.31260E-07  465080.1 3810585.9  1053.7     3.49     4.00     3.25
 NO
 L0000953         0   0.31260E-07  465088.7 3810585.8  1053.4     3.49     4.00     3.25
 NO
 L0000954         0   0.31260E-07  465097.3 3810585.8  1053.1     3.49     4.00     3.25
 NO
 L0000955         0   0.31260E-07  465105.9 3810585.7  1053.0     3.49     4.00     3.25
 NO
 L0000956         0   0.31260E-07  465114.5 3810585.7  1053.0     3.49     4.00     3.25
 NO
 L0000957         0   0.31260E-07  465123.1 3810585.6  1053.0     3.49     4.00     3.25
 NO
 L0000958         0   0.31260E-07  465131.7 3810585.5  1052.9     3.49     4.00     3.25
 NO
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       12:16:34

                     PAGE  13
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                          *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
 -----------                                          ----------


  ALL        L0000521    , L0000522    , L0000523    , L0000524    , L0000525    , L0000526    ,
  L0000527    , L0000528    ,

             L0000529    , L0000530    , L0000531    , L0000532    , L0000533    , L0000534    ,
             L0000535    , L0000536    ,

             L0000537    , L0000538    , L0000539    , L0000540    , L0000541    , L0000542    ,
             L0000543    , L0000544    ,

             L0000545    , L0000546    , L0000547    , L0000548    , L0000549    , L0000550    ,
             L0000551    , L0000552    ,

             L0000553    , L0000554    , L0000555    , L0000556    , L0000557    , L0000558    ,
             L0000559    , L0000560    ,

             L0000561    , L0000562    , L0000563    , L0000564    , L0000565    , L0000566    ,
             L0000567    , L0000568    ,

             L0000569    , L0000570    , L0000571    , L0000572    , L0000573    , L0000574    ,
             L0000575    , L0000576    ,

             L0000577    , L0000578    , L0000579    , L0000580    , L0000581    , L0000582    ,
             L0000583    , L0000584    ,

             L0000585    , L0000586    , L0000587    , L0000588    , L0000589    , L0000590    ,
             L0000591    , L0000592    ,

             L0000593    , L0000594    , L0000595    , L0000596    , L0000597    , L0000598    ,
             L0000599    , L0000600    ,

             L0000601    , L0000602    , L0000603    , L0000604    , L0000605    , L0000606    ,
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L0000607 , L0000608 ,

L0000609 , L0000610 , L0000611 , L0000612 , L0000613 , L0000614 ,
L0000615 , L0000616 ,

L0000617 , L0000618 , L0000619 , L0000620 , L0000621 , L0000622 ,
L0000623 , L0000624 ,

L0000625 , L0000626 , L0000627 , L0000628 , L0000629 , L0000630 ,
L0000631 , L0000632 ,

L0000633 , L0000634 , L0000635 , L0000636 , L0000637 , L0000638 ,
L0000639 , L0000640 ,

L0000641 , L0000642 , L0000643 , L0000644 , L0000645 , L0000646 ,
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L0000655 , L0000656 ,

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L0000663 , L0000664 ,

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L0000671 , L0000672 ,

L0000673 , L0000674 , L0000675 , L0000676 , L0000677 , L0000678 ,
L0000679 , L0000680 ,

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** SOURCE IDs DEFINING SOURCE GROUPS ***

SRCGROUP ID	SOURCE IDs

L0000681 , L0000682 , L0000683 , L0000684 , L0000685 , L0000686 ,
L0000687 , L0000688 ,

L0000689 , L0000690 , L0000691 , L0000692 , L0000693 , L0000694 ,
L0000695 , L0000696 ,

L0000697 , L0000698 , L0000699 , L0000700 , L0000701 , L0000702 ,
L0000703 , L0000704 ,

L0000705 , L0000706 , L0000707 , L0000708 , L0000709 , L0000710 ,
L0000711 , L0000712 ,

L0000713 , L0000714 , L0000715 , L0000716 , L0000717 , L0000718 ,
L0000719 , L0000720 ,

L0000721 , L0000722 , L0000723 , L0000724 , L0000725 , L0000726 ,
L0000727 , L0000728 ,

L0000729 , L0000730 , L0000731 , L0000732 , L0000733 , L0000734 ,
L0000735 , L0000736 ,

L0000737 , L0000738 , L0000739 , L0000740 , L0000741 , L0000742 ,
L0000743 , L0000744 ,

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             L0000745    , L0000746    , L0000747    , L0000748    , L0000749    , L0000750    ,
             L0000751    , L0000752    ,

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             L0000767    , L0000768    ,

             L0000769    , L0000770    , L0000771    , L0000772    , L0000773    , L0000774    ,
             L0000775    , L0000776    ,

             L0000777    , L0000778    , L0000779    , L0000780    , L0000781    , L0000782    ,
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             L0000785    , L0000786    , L0000787    , L0000788    , L0000789    , L0000790    ,
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             L0000793    , L0000794    , L0000795    , L0000796    , L0000797    , L0000798    ,
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             L0000801    , L0000802    , L0000803    , L0000804    , L0000805    , L0000806    ,
             L0000807    , L0000808    ,

             L0000809    , L0000810    , L0000811    , L0000812    , L0000813    , L0000814    ,
             L0000815    , L0000816    ,

             L0000817    , L0000818    , L0000819    , L0000820    , L0000821    , L0000822    ,
             L0000823    , L0000824    ,

             L0000825    , L0000826    , L0000827    , L0000828    , L0000829    , L0000830    ,
             L0000831    , L0000832    ,

             L0000833    , L0000834    , L0000835    , L0000836    , L0000837    , L0000838    ,
             L0000839    , L0000840    ,
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                  ***       12:16:34

                     PAGE  15
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*


                                        *** SOURCE IDs DEFINING SOURCE GROUPS ***

 SRCGROUP ID                                          SOURCE IDs
 -----------                                          ----------


             L0000841    , L0000842    , L0000843    , L0000844    , L0000845    , L0000846    ,
             L0000847    , L0000848    ,

             L0000849    , L0000850    , L0000851    , L0000852    , L0000853    , L0000854    ,
             L0000855    , L0000856    ,

             L0000857    , L0000858    , L0000859    , L0000860    , L0000861    , L0000862    ,
             L0000863    , L0000864    ,

             L0000865    , L0000866    , L0000867    , L0000868    , L0000869    , L0000870    ,
             L0000871    , L0000872    ,

             L0000873    , L0000874    , L0000875    , L0000876    , L0000877    , L0000878    ,
             L0000879    , L0000880    ,
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*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** DISCRETE CARTESIAN RECEPTORS ***
(X-COORD, Y-COORD, ZELEV, ZHILL, ZFLAG)
(METERS)

(464506.9, 3810141.6, 1063.0, 1063.0, 0.0); (465481.2, 3810503.5, 1049.8, 1049.8, 0.0);
(465406.4, 3810503.0, 1050.6, 1050.6, 0.0); (465212.7, 3810456.2, 1053.0, 1053.0, 0.0);
(464952.4, 3810455.7, 1056.0, 1056.0, 0.0); (465964.7, 3810432.9, 1048.0, 1048.0, 0.0);
(465963.2, 3810384.6, 1048.2, 1048.2, 0.0); (465974.5, 3810476.1, 1047.0, 1047.0, 0.0);
(466001.9, 3810516.5, 1046.0, 1046.0, 0.0); (466028.4, 3810558.2, 1044.9, 1044.9, 0.0);
(466054.6, 3810598.8, 1044.0, 1044.0, 0.0); (466136.4, 3810670.0, 1042.0, 1042.0, 0.0);
(466136.4, 3810635.9, 1042.1, 1042.1, 0.0); (466074.3, 3810786.8, 1040.2, 1040.2, 0.0);
(465468.5, 3810751.9, 1045.5, 1045.5, 0.0); (465266.0, 3810753.5, 1049.2, 1049.2, 0.0);
(465112.4, 3810808.1, 1050.6, 1050.6, 0.0); (465314.5, 3810854.3, 1047.0, 1047.0, 0.0);
(465221.8, 3810854.6, 1048.9, 1048.9, 0.0); (463382.5, 3811176.2, 1061.1, 1061.1, 0.0);
(463250.8, 3811177.8, 1062.2, 1062.2, 0.0); (463278.3, 3810876.7, 1065.2, 1065.2, 0.0);
(465601.6, 3810943.3, 1041.0, 1041.0, 0.0); (464507.2, 3809995.0, 1066.5, 1066.5, 0.0);
(464508.1, 3809810.8, 1068.8, 1068.8, 0.0); (464509.8, 3809672.1, 1070.3, 1070.3, 0.0);

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    ( 464700.5, 3809701.5,    1068.0,    1068.0,       0.0);         ( 464701.3, 3809618.0,
    1069.3,    1069.3,       0.0);
    ( 464755.4, 3809565.3,    1069.5,    1069.5,       0.0);         ( 465246.9, 3809566.2,
    1067.0,    1067.0,       0.0);
    ( 464785.6, 3809489.1,    1070.3,    1070.3,       0.0);         ( 464694.0, 3809505.2,
    1071.0,    1071.0,       0.0);
    ( 464989.3, 3810696.8,    1054.0,    1054.0,       0.0);         ( 467840.7, 3810027.9,
    1029.9,    1029.9,       0.0);
    ( 467774.0, 3809972.0,    1031.9,    1031.9,       0.0);         ( 467765.1, 3810268.7,
    1027.6,    1027.6,       0.0);
    ( 467360.5, 3810321.9,    1033.9,    1033.9,       0.0);         ( 467361.2, 3810282.3,
    1034.7,    1034.7,       0.0);
    ( 467962.7, 3811258.2,    1013.3,    1013.3,
    0.0);
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       12:16:34

                     PAGE  17
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                        *** METEOROLOGICAL DAYS SELECTED FOR PROCESSING ***
                                                    (1=YES; 0=NO)

          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1   1 1 1 1 1 1 1 1 1 1
          1   1 1 1 1 1 1 1 1 1 1
          1 1 1 1 1 1 1 1 1 1   1 1 1 1 1

              NOTE:  METEOROLOGICAL DATA ACTUALLY PROCESSED WILL ALSO DEPEND ON WHAT IS
              INCLUDED IN THE DATA FILE.



                                  *** UPPER BOUND OF FIRST THROUGH FIFTH WIND SPEED CATEGORIES
                                  ***
                                                      (METERS/SEC)

                                                1.54,   3.09,   5.14,   8.23,  10.80,
FF *** AERMOD - VERSION 22112  ***   *** C:\Users\Michael Tirohn\Desktop\HRAs\14848 Palmetto
Industrial\14848 ***        09/19/22
 *** AERMET - VERSION  19191 ***
 ***                                                                    ***       12:16:34

                     PAGE  18
 *** MODELOPTs:    RegDFAULT  CONC  ELEV  RURAL  ADJ_U*

                                    *** UP TO THE FIRST 24 HOURS OF METEOROLOGICAL DATA ***

   Surface file:
   KDAG_723815_23161\KDAG_2015_2016_2018-2020_ADJU.SFC                          Met
   Version:  19191
   Profile file:
   KDAG_723815_23161\KDAG_2015_2016_2018-2020_ADJU.PFL
```

Surface format:
FREE

Profile format:
FREE

Surface station no.: 23161 Upper air station no.: 3120
Name: DAGGETT/FAA_AIRPORT Name:
UNKNOWN
Year: 2015 Year: 2015

First 24 hours of scalar data

YR	MO	DY	JDY	HR	H0	U*	W*	DT/DZ	ZICNV	ZIMCH	M-O LEN	Z0	BOWEN	ALBEDO	REF WS	WD	HT	REF TA	HT
15	01	01	1	01	-24.9	0.256	-9.000	-9.000	-999.	311.	72.1	0.02	4.18	1.00	4.27	251.	10.0	272.5	2.0
15	01	01	1	02	-24.3	0.250	-9.000	-9.000	-999.	300.	68.6	0.02	4.18	1.00	4.17	240.	10.0	272.5	2.0
15	01	01	1	03	-28.4	0.292	-9.000	-9.000	-999.	379.	94.0	0.02	4.18	1.00	4.85	255.	10.0	273.1	2.0
15	01	01	1	04	-26.1	0.266	-9.000	-9.000	-999.	329.	77.8	0.02	4.18	1.00	4.51	274.	10.0	270.4	2.0
15	01	01	1	05	-32.2	0.328	-9.000	-9.000	-999.	450.	118.0	0.02	4.18	1.00	5.51	275.	10.0	270.4	2.0
15	01	01	1	06	-34.9	0.355	-9.000	-9.000	-999.	507.	138.4	0.02	4.18	1.00	5.84	252.	10.0	270.4	2.0
15	01	01	1	07	-34.8	0.355	-9.000	-9.000	-999.	508.	138.9	0.02	4.18	1.00	5.85	251.	10.0	271.4	2.0
15	01	01	1	08	-19.3	0.250	-9.000	-9.000	-999.	306.	68.6	0.02	4.18	0.57	4.15	266.	10.0	270.9	2.0
15	01	01	1	09	31.4	0.236	0.499	0.005	134.	276.	-35.7	0.02	4.18	0.36	3.40	255.	10.0	273.1	2.0
15	01	01	1	10	103.0	0.183	1.101	0.005	441.	188.	-5.0	0.02	4.18	0.29	2.15	300.	10.0	277.0	2.0
15	01	01	1	11	152.0	0.131	1.445	0.005	675.	114.	-1.3	0.04	4.18	0.26	1.08	230.	10.0	278.8	2.0
15	01	01	1	12	175.1	0.131	2.058	0.006	1692.	114.	-1.1	0.02	4.18	0.25	1.31	109.	10.0	280.4	2.0
15	01	01	1	13	171.2	0.143	2.108	0.011	1860.	130.	-1.4	0.01	4.18	0.26	1.55	35.	10.0	281.4	2.0
15	01	01	1	14	140.5	0.177	1.982	0.011	1882.	179.	-3.4	0.01	4.18	0.27	2.16	55.	10.0	282.0	2.0
15	01	01	1	15	84.4	0.150	1.677	0.011	1895.	139.	-3.4	0.02	4.18	0.30	1.77	64.	10.0	282.5	2.0
15	01	01	1	16	8.8	0.148	0.789	0.010	1896.	136.	-31.1	0.02	4.18	0.40	2.15	70.	10.0	282.5	2.0
15	01	01	1	17	-7.9	0.117	-9.000	-9.000	-999.	96.	17.3	0.02	4.18	0.70	2.08	75.	10.0	279.9	2.0
15	01	01	1	18	-3.9	0.085	-9.000	-9.000	-999.	60.	13.5	0.05	4.18	1.00	1.24	196.	10.0	277.0	2.0
15	01	01	1	19	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.03	4.18	1.00	0.00	0.	10.0	274.9	2.0
15	01	01	1	20	-999.0	-9.000	-9.000	-9.000	-999.	-999.	-99999.0	0.03	4.18	1.00	0.00	0.	10.0	274.9	2.0
15	01	01	1	21	-10.8	0.137	-9.000	-9.000	-999.	121.	20.5	0.02	4.18	1.00	2.36	260.	10.0	274.2	2.0
15	01	01	1	22	-19.5	0.199	-9.000	-9.000	-999.	214.	43.7	0.02	4.18	1.00	3.36	262.	10.0	272.0	2.0
15	01	01	1	23	-18.8	0.192	-9.000	-9.000	-999.	202.	40.5	0.04	4.18	1.00	2.86	230.	10.0	272.0	2.0
15	01	01	1	24	-28.1	0.287	-9.000	-9.000	-999.	370.	90.9	0.02	4.18	1.00	4.86	270.	10.0	272.0	2.0

First hour of profile data

YR	MO	DY	HR	HEIGHT	F	WDIR	WSPD	AMB_TMP	sigmaA	sigmaW	sigmaV
15	01	01	01	10.0	1	251.	4.27	272.6	99.0	-99.00	-99.00

F indicates top of profile (=1) or below (=0)

*** MODELOPTs: RegDFAULT CONC ELEV RURAL ADJ_U*

*** THE ANNUAL AVERAGE CONCENTRATION VALUES AVERAGED OVER 5 YEARS FOR SOURCE GROUP: ALL ***
INCLUDING SOURCE(S): L0000521 , L0000522 , L0000523 , L0000524 , L0000525 , L0000526 , L0000527 , L0000528 , L0000529 , L0000530 , L0000531 , L0000532 , L0000533 , L0000534 , L0000535 , L0000536 , L0000537 , L0000538 , L0000539 , L0000540 , L0000541 , L0000542 , L0000543 , L0000544 , L0000545 , L0000546 , L0000547 , L0000548 , . . . ,

*** DISCRETE CARTESIAN RECEPTOR POINTS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

X-COORD (M)	Y-COORD (M)	CONC	X-COORD (M)	Y-COORD (M)	CONC
464506.90	3810141.57	0.00004	465481.17	3810503.53	0.00066
465406.43	3810503.02	0.00061	465212.73	3810456.25	0.00023
464952.43	3810455.74	0.00012	465964.71	3810432.92	0.00029
465963.18	3810384.60	0.00023	465974.54	3810476.13	0.00033
466001.90	3810516.53	0.00035	466028.40	3810558.19	0.00034
466054.63	3810598.78	0.00031	466136.44	3810669.97	0.00022
466136.44	3810635.94	0.00024	466074.30	3810786.75	0.00016
465468.45	3810751.95	0.00031	465265.95	3810753.49	0.00027
465112.36	3810808.15	0.00014	465314.53	3810854.32	0.00014
465221.79	3810854.63	0.00013	463382.51	3811176.23	0.00001
463250.80	3811177.76	0.00001	463278.26	3810876.71	0.00001
465601.63	3810943.28	0.00009	464507.22	3809995.00	0.00004
464508.08	3809810.84	0.00005	464509.81	3809672.08	0.00005
464700.45	3809701.47	0.00018	464701.32	3809618.04	0.00018
464755.36	3809565.30	0.00042	465246.88	3809566.17	0.00028
464785.59	3809489.06	0.00013	464694.05	3809505.22	0.00011
464989.27	3810696.82	0.00016	467840.66		

*** THE SUMMARY OF MAXIMUM ANNUAL RESULTS AVERAGED OVER 5 YEARS ***

** CONC OF DPM IN MICROGRAMS/M**3 **

GROUP ID	NETWORK	AVERAGE CONC	RECEPTOR (XR, YR, ZELEV, ZHILL, ZFLAG)	OF TYPE	GRID-ID
ALL	1ST HIGHEST VALUE IS	0.00066	AT (465481.17, 3810503.53, 1049.76, 1049.76, 0.00)	DC	
	2ND HIGHEST VALUE IS	0.00061	AT (465406.43, 3810503.02, 1050.60, 1050.60, 0.00)	DC	
	3RD HIGHEST VALUE IS	0.00042	AT (464755.36, 3809565.30, 1069.50, 1069.50, 0.00)	DC	
	4TH HIGHEST VALUE IS	0.00035	AT (466001.90, 3810516.53, 1045.95, 1045.95, 0.00)	DC	
	5TH HIGHEST VALUE IS	0.00034	AT (466028.40, 3810558.19, 1044.94, 1044.94, 0.00)	DC	
	6TH HIGHEST VALUE IS	0.00033	AT (465974.54, 3810476.13, 1046.95, 1046.95, 0.00)	DC	
	7TH HIGHEST VALUE IS	0.00031	AT (465468.45, 3810751.95, 1045.47, 1045.47, 0.00)	DC	
	8TH HIGHEST VALUE IS	0.00031	AT (466054.63, 3810598.78, 1044.00, 1044.00, 0.00)	DC	
	9TH HIGHEST VALUE IS	0.00029	AT (465964.71, 3810432.92, 1048.02, 1048.02, 0.00)	DC	
	10TH HIGHEST VALUE IS	0.00028	AT (465246.88, 3809566.17, 1066.99, 1066.99, 0.00)	DC	

*** Message Summary : AERMOD Model Execution ***

--------- Summary of Total Messages --------

A Total of 0 Fatal Error Message(s)
A Total of 4 Warning Message(s)
A Total of 637 Informational Message(s)

A Total of 43848 Hours Were Processed

A Total of 191 Calm Hours Identified

A Total of 446 Missing Hours Identified (1.02 Percent)

******** FATAL ERROR MESSAGES ********
*** NONE ***

******** WARNING MESSAGES ********

ME W186	1122	MEOPEN: THRESH_1MIN 1-min ASOS wind speed threshold used	0.50
ME W187	1122	MEOPEN: ADJ_U* Option for Stable Low Winds used in AERMET	
MX W450	17545	CHKDAT: Record Out of Sequence in Meteorological File at:	18010101
MX W450	17545	CHKDAT: Record Out of Sequence in Meteorological File at:	1 year gap

****
*** AERMOD Finishes Successfully ***
****

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APPENDIX 2.4:

RISK CALCULATIONS

Table 1
Quantification of Carcinogenic Risks and Noncarcinogenic Hazards
0-2 Age Bin Exposure Scenario - Construction Activity

Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**								
					URF	CPF	DOSE	RISK	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
	(ug/m^3)	(mg/m^3)			(ug/m^3)$^{-1}$	(mg/kg/day)$^{-1}$	(mg/kg-day)		(ug/m^3)	(mg/kg/day)								
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	0.02343	2.34E-05	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	1.7E-05	2.1E-06	5.0E+00	1.4E-03	4.7E-03							
TOTAL								2.1E-06			4.7E-03	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

2.13

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	250
exposure duration (years)	0.96
inhalation rate (L/kg-day))	1090
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	0.85
age sensitivity factor (0 to 2 years old)	10

Table 3
Quantification of Carcinogenic Risks and Noncarcinogenic Hazards
2-16 Age Bin Exposure Scenario

Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**								
					URF	CPF	DOSE	RISK	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
	(ug/m^3)	(mg/m^3)			(ug/m^3)$^{-1}$	(mg/kg/day)$^{-1}$	(mg/kg-day)		(ug/m^3)	(mg/kg/day)								
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	0.00031	3.10E-07	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	1.7E-07	7.3E-08	5.0E+00	1.4E-03	6.2E-05							
TOTAL								7.3E-08			6.2E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

0.07

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	13.23
inhalation rate (L/kg-day))	572
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	0.72
age sensitivity factor (ages 2 to 16 years	3

Table 4
Quantification of Carcinogenic Risks and Noncarcinogenic Hazards
16-30 Age Bin Exposure Scenario

Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**								
					URF	CPF	DOSE	RISK	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
	(ug/m^3)	(mg/m^3)			(ug/m^3)$^{-1}$	(mg/kg/day)$^{-1}$	(mg/kg-day)		(ug/m^3)	(mg/kg/day)								
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	0.00031	3.10E-07	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	7.8E-08	1.2E-08	5.0E+00	1.4E-03	6.2E-05							
TOTAL								1.2E-08			6.2E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00
								0.01										

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	14
inhalation rate (L/kg-day))	261
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	0.73
age sensitivity factor (ages 16 to 30 years old)	1

Total Risk for All Age Bins (per million) **2.22**

Table 1
Quantification of Carcinogenic Risks and Noncarcinogenic Hazards
-0.25 to 0 Age Bin Exposure Scenario

Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**								
					URF	CPF	DOSE	RISK	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
	(ug/m^3)	(mg/m^3)			(ug/m^3)$^{-1}$	(mg/kg/day)$^{-1}$	(mg/kg-day)		(ug/m^3)	(mg/kg/day)								
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	0.00035	3.50E-07	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	1.2E-07	3.9E-09	5.0E+00	1.4E-03	7.0E-05							
TOTAL								3.9E-09			7.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	0.25
inhalation rate (L/kg-day))	361
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	0.85
age sensitivity factor (age third trimester	10

Table 2
Quantification of Carcinogenic Risks and Noncarcinogenic Hazards
0-2 Age Bin Exposure Scenario

Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**								
					URF	CPF	DOSE	RISK	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
	(ug/m^3)	(mg/m^3)			(ug/m^3)$^{-1}$	(mg/kg/day)$^{-1}$	(mg/kg-day)		(ug/m^3)	(mg/kg/day)								
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	0.00035	3.50E-07	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	3.7E-07	9.3E-08	5.0E+00	1.4E-03	7.0E-05							
TOTAL								9.3E-08			7.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	2
inhalation rate (L/kg-day))	1090
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	0.85
age sensitivity factor (0 to 2 years old)	10

Table 3
Quantification of Carcinogenic Risks and Noncarcinogenic Hazards
2-16 Age Bin Exposure Scenario

Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**								
					URF	CPF	DOSE	RISK	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
	(ug/m^3)	(mg/m^3)			(ug/m^3)$^{-1}$	(mg/kg/day)$^{-1}$	(mg/kg-day)		(ug/m^3)	(mg/kg/day)								
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	0.00035	3.50E-07	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	1.9E-07	8.7E-08	5.0E+00	1.4E-03	7.0E-05							
TOTAL								8.7E-08			7.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	14
inhalation rate (L/kg-day))	572
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	0.72
age sensitivity factor (ages 2 to 16 years	3

Table 4
Quantification of Carcinogenic Risks and Noncarcinogenic Hazards
16-30 Age Bin Exposure Scenario

Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**								
					URF	CPF	DOSE	RISK	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
	(ug/m^3)	(mg/m^3)			(ug/m^3)$^{-1}$	(mg/kg/day)$^{-1}$	(mg/kg-day)		(ug/m^3)	(mg/kg/day)								
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
	0.00035	3.50E-07	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	8.8E-08	1.3E-08	5.0E+00	1.4E-03	7.0E-05							
TOTAL								1.3E-08			7.0E-05	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

0.01

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	350
exposure duration (years)	14
inhalation rate (L/kg-day))	261
inhalation absorption factor	1
averaging time (years)	70
fraction of time at home	0.73
age sensitivity factor (ages 16 to 30 years old)	1

Total Risk for All Age Bins (per million) **0.20**

Table 5
Quantification of Carcinogenic Risks and Noncarcinogenic Risks
25-Year Worker Exposure Scenario

	Source	Mass GLC		Weight Fraction	Contaminant	Carcinogenic Risk				Noncarcinogenic Hazards/ Toxicological Endpoints**									
						URF	CPF	DOSE	RISK	REL	RfD	RESP	CNS/PNS	CV/BL	IMMUN	KIDN	GI/LV	REPRO	EYES
		(ug/m^3)	(mg/m^3)			(ug/m^3)$^{-1}$	($mg/kg/day$)$^{-1}$	(mg/kg-day)		(ug/m^3)	(mg/kg/day)								
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)	(s)
1	Diesel Particulates	6.60E-04	6.60E-07	1.00E+00	Diesel Particulate	3.0E-04	1.1E+00	1.0E-07	3.9E-08	5.0E+00	1.4E-03	1.3E-04							
	TOTAL								3.9E-08 0.04			1.3E-04	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00

** Key to Toxicological Endpoints

RESP	Respiratory System
CNS/PNS	Central/Peripheral Nervous System
CV/BL	Cardiovascular/Blood System
IMMUN	Immune System
KIDN	Kidney
GI/LV	Gastrointestinal System/Liver
REPRO	Reproductive System (e.g. teratogenic and developmental effects)
EYES	Eye irritation and/or other effects

Note: Exposure factors used to calculate contaminant intake

exposure frequency (days/year)	250
exposure duration (years)	25
inhalation rate (L/kg-day))	230
inhalation absorption factor	1
averaging time (years)	70

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APPENDIX C
Amargosa Road & Palmetto Way Spec. Industrial Project Biological Resources Assessment Report

Amargosa Road & Palmetto Way Spec. Industrial Project
City of Hesperia, San Bernardino County, California

APN #: 0405-072-[52, 53, 55]

BIOLOGICAL RESOURCES ASSESSMENT REPORT

Prepared For:

Rachamim 5, LLC
Attention: Mr. Ramin Namvar
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October 2022

Amargosa Road & Palmetto Way Spec. Industrial Project
City of Hesperia, San Bernardino County, California

BIOLOGICAL RESOURCES ASSESSMENT REPORT

The undersigned certifies that this Report is a complete and accurate account of the findings and conclusions of a biological resources assessment for the above-referenced project.



Kimberly Boydstun
Senior Biologist/Project Manager

October 2022

Executive Summary

On behalf of Rachamim 5, LLC, CASC Engineering and Consulting (CASC) has prepared this Biological Resources Assessment Report for development of an industrial warehouse on vacant 30.52-acres in the City of Hesperia, San Bernardino County. California. The total Survey Area consisted of 45.61-acres in total [Project Site (30.52-acres) and a 500-foot buffer area]. The Project Site is undeveloped land. Project Impacts will occur on the entire 30.52-are Project Site. One (1) natural vegetation community, *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance, was observed and mapped within the boundaries of the Survey Area.

Based on the results of focused surveys and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the Project Site has a low probability to support ayenia (*Ayenia compacta*) (CRPR 2B.3), Lincoln rockcress (*Boechera lincolnensis*) (CRPR 2B.3), Latimer's woodland-gilia (*Saltugilia latimeri*) (CRPR 1B.2), alkali mariposa-lily (*Calchortus striatus*) (CRPR 1B.2),pygmy poppy (*Canbya candida*) (CRPR 4.2), white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*) (CRPR 1B.2), Booth's evening primrose (*Eremothera boothii* ssp. *boothii*) (CRPR 2B.3), short-joint beavertail (*Opuntia basilaris* var. brachyclada) (CRPR 1B.2), and Parish's brittlescale (*Atriplex parishii*) (CRPR 1B.1). Focused surveys were conducted during the appropriate blooming season for each of these species (April – July). None of these special-status species were observed during the focused surveys. These species were absent during the spring/summer focused surveys and are therefore not expected to occur on the Project Site.

Western Joshua tree (State Listed-Candidate Species) was present on the Project Site. The location of fifty-two (52) live trees and seven (7) dead trees were recorded and are presented in this report. Relocation criteria (defined by CDFW) determined that thirty-one (31) of the Western Joshua trees meet the criteria for relocation. If Western Joshua tree can be incorporated into the Project Site landscape or avoided this would help to reduce the mitigation obligation. If avoidance of the Western Joshua Trees cannot be accompdated, then an Incidental Take Permit from CDFW must be acquired for Project development. CDFW will impose appropriate mitigation for "take" or disturbance of these trees.

Western burrowing owl (*Athene cunicularia*, SSC) is a locally significant species within San Bernardino County. Habitat conditions on the Project Site are suitable for burrowing owl. During the habitat assessment several burrows were noted of appropriate size to support this species at the Project Site. Focused surveys were conducted during the breeding season for this species (April, June, July and August 2022). Burrowing owl was absent from the Survey Area at the time of the surveys. No additional scat, pellets, or other sign was observed near the burrows or anywhere within the Survey Area to indicate occupation. As suitable habitat does exist at the Project Site a 14-30 day preconstruction survey for this species is recommended. This will ensure

that burrowing owl have not occupied the site since the focused surveys were conducted during the 2022 breeding season.

The Project Site is within the southern margin of the historical range of the Mohave ground squirrel (*Xerospermophilus mohavensis,* ST). Habitat conditions on the Project Site are suitable for Mohave ground squirrel and it was determined that this species has moderate potential of occurrence. Focused surveys were conducted for this species with a total of three trapping sessions which occurred during April, May, and June 2022. Mohave ground squirrel was not captured during the protocol level sessions and is not expected to occur at the Project Site. Implementation of the Project will not result in the loss of individual Mohave ground squirrel, nor will Project development adversely affect local or regional populations of these species.

The Survey Area has a low potential to support desert tortoise (*Gopherus agassizii*, FE/SE). While suitable habitat is present in the Survey Area, it is outside of the current known range for this species. Further, desert tortoise has not been recorded near the Project Site for many years. The local desert tortoise population has undergone severe declines over time. Focused surveys for desert tortoise were performed during April 2022. During the focused surveys no sign (scat, burrows, etc.) of this species was noted and this species is not expected to occur at the Project Site. Implementation of the Project will not result in the loss of individual desert tortoise, nor will Project development adversely affect local or regional populations of these species.

Finally, there is no U.S. Fish and Wildlife Service-designated critical habitat within the Survey Area, and there are no wetland or non-wetland jurisdictional features on the Project Site.

Table of Contents

Section 1 Introduction 1
1.1 Project Location 1
1.2 Project Background and Description 1
1.3 Purpose of Document 1
Section 2 Methodology 6
2.1 Literature Review and Database Searches 6
2.2 General Biological Resources Surveys 6
2.2.1 Vegetation/Land Use Mapping and Plant Species Inventory 7
2.2.2 General Wildlife Observations 7
2.3 Other Field Studies 7
2.3.1 Special Status Plants 8
2.3.2 Special Status Wildlife 8
2.3.3 Jurisdictional Features Analysis 8
Section 3 Existing Conditions 10
3.1 Environmental Setting 10
3.1.1 Climate 10
3.2 Topography and Soils 10
3.3 Vegetation Communities and Other Land Uses 11
3.4 General Wildlife Observations 11
3.5 Regulatory Setting 14
3.5.1 Federal Regulations 14
3.5.2 State Regulations 15
3.5.3 Local Policies and Ordinances 18
Section 4 Results 19
4.1 Special-Status Species 19
4.1.1 Special-Status Plant Species 20
4.1.2 Special-Status Wildlife Species 23
4.2 Nesting Birds and Wildlife Movement 25
4.3 Special-Status Vegetation Communities 25
4.4 Regional Connectivity 26
4.5 Critical Habitat 26
4.6 Jurisdictional Features Analysis 26
Section 5 Conclusion and Recommendations 28
5.1 Special Status Plant and Vegetation Communities 28

5.1.1 Avoidance and Minimization Measures 28
5.2 Special Status Wildlife.....30
5.2.1 Avoidance and Minimization Measures.....30
5.3 Nesting Birds and Wildlife Movement 31
5.3.1 Avoidance and Minimization Measures.....32
5.4 Regional Connectivity.....32
5.5 Critical Habitat.....33
5.6 Jurisdictional Features Analysis.....33
5.7 Conclusion.....33
Section 6 References 34

Figures

Figure 1: Regional Vicinity Map.....3
Figure 2: USGS Baldy Mesa Quadrangle Map.....4
Figure 3: Photo Point Location Map.....5
Figure 4: Critical Habitat.....9
Figure 5: USDA Soils.....12
Figure 6: Joshua Tree and Potential Burrow Locations 13

Tables

Table 1: Western Joshua Tree and Cactus Inventory.....21

Appendices

Appendix A: Conceptual Plans.....36
Appendix B: Representative Site Photos.....38
Appendix C: Plant Compendia.....43
Appendix D: Wildlife Compendia.....47
Appendix E: CNDDB Summary Table.....49
Appendix F: NWI Map.....61
Appendix G: Focused Survey Reports.....63

LIST OF ACRONYMS AND ABBREVIATIONS

amsl	Above Mean Sea Level
CASC	CASC Engineering and Consulting, Inc.
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CDNPA	California Desert Native Plants Act
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
°F	Fahrenheit
FESA	Federal Endangered Species Act
ft	Feet
IPaC	Information for Planning and Consultation online system
MCV	Manual of California Vegetation
MBTA	Migratory Bird Treaty Act
NWI	National Wetlands Inventory
Project	Amargosa Road and Palmetto Way Spec. Industrial Project
SSC	Species of Special Concern
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
WL	California Department of Fish and Wildlife Watch List Species

Section 1 Introduction

On behalf of Rachamim 5, LLC, CASC Engineering and Consulting (CASC) has prepared this Biological Resources Assessment Report for development of an industrial warehouse on vacant parcels in Hesperia, California. This Report describes the biological resources, record searches and literature review, survey methodology, and results of the biological resources survey and review conducted for the Project.

1.1 PROJECT LOCATION

The Project is located on Palmetto Way, in Hesperia, San Bernardino County, California (Figure 1, Regional Vicinity). The property consists of three parcels, Accessor's Parcel Number: 0405-075-[52, 53,55] US Geological Society (USGS) 7.5-minute *Baldy Mesa SE* Quadrangle (Figure 2, USGS Quadrangle Map), Township 4 north, range 5 west, (latitude *117.3777327°W, longitude 34.4366696°N).*

1.2 PROJECT BACKGROUND AND DESCRIPTION

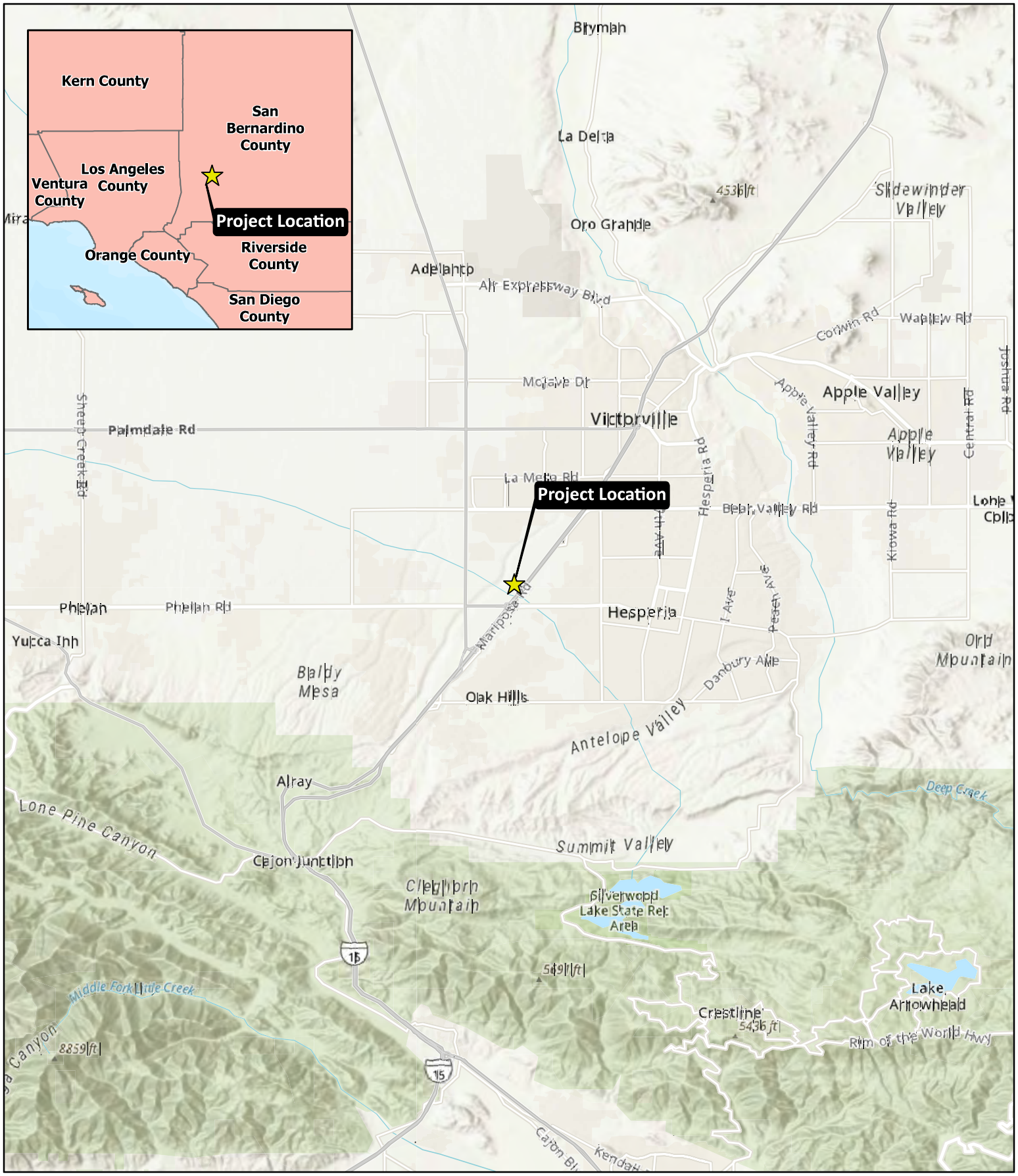
Rachamim 5, LLC proposes to construction of a 498,500 square foot Industrial Warehouse Building (Project) with up to 25,000 square feet of office space. The proposed Project will include 76 loading dock doors, 182 truck/trailer parking spaces and 281 auto parking spaces on three (3) parcels consisting of approximately 30.52 undeveloped acres within the City of Hesperia in the Regional Commercial Zone. The parcels are bounded on the north by Avenal Street, south by Palmetto Way, Amargosa Road and Interstate-15 to the east, and open space to the west. Three (3) entrances to the site are provided, one (1) on the east side from Palmetto Way, one (1) from Palmetto Way on the south side of the site, and a proposed third entrance/exit onto Palmetto Way from the truck/trailer parking area at the southwest corner of the site. The facility will be built on spec and will be designed to accommodate 500 to 600 employees; there is no tenant currently attached to the project. Project Site plans are provided in Appendix A, Conceptual Plans.

1.3 PURPOSE OF DOCUMENT

This Report documents all biological resources identified within the Survey Area during general biological resource survey conducted by CASC Biologists. The Survey Area included the Project Site plus a 500-foot buffer. The Survey Area was surveyed to determine the likelihood of State-listed and/or federally-listed rare, threatened, or endangered species, and other special-status[1] plants, animals, and natural communities (Figure 3, Photo Point Location Map). This Report includes an analysis of the potential for the Survey Area to support special-status plant and wildlife

[1] As used in this Report, "special-status" refers to plant and wildlife species that are federally-/State-listed, proposed, or candidates; plant species that have been designated a California Rare Plant Rank species by the California Native Plant Society; wildlife species that are designated by the California Department of Fish and Wildlife as Fully Protected, Species of Special Concern, or Watch List species; and State/locally rare vegetation communities.

species and special-status vegetation communities that have been previously recorded, or are known to occur within the vicinity, and that are subject to provisions of the Federal Endangered Species Act (FESA) of 1973, Migratory Bird Treaty Act (MBTA), California Endangered Species Act (CESA), California Environmental Quality Act (CEQA), California Fish and Game Code (CFGC), California Native Plant Protection Act, California Desert Native Plants Act (CDNPA), Bald and Golden Eagle Protection Act, and other local policies and ordinances protecting biological resources.



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N

0 2 4 8

1" = 3.95 miles

Figure 1
Regional Vicinity

APN: 0405-072-[52,53,55]

City of Hesperia, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, California State Parks, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, Esri, NASA, NGA, USGS, Esri, USGS

AMARGOSA ROAD & PALMETTO WAY SPEC. INDUSTRIAL PROJECT, HESPERIA, CA.

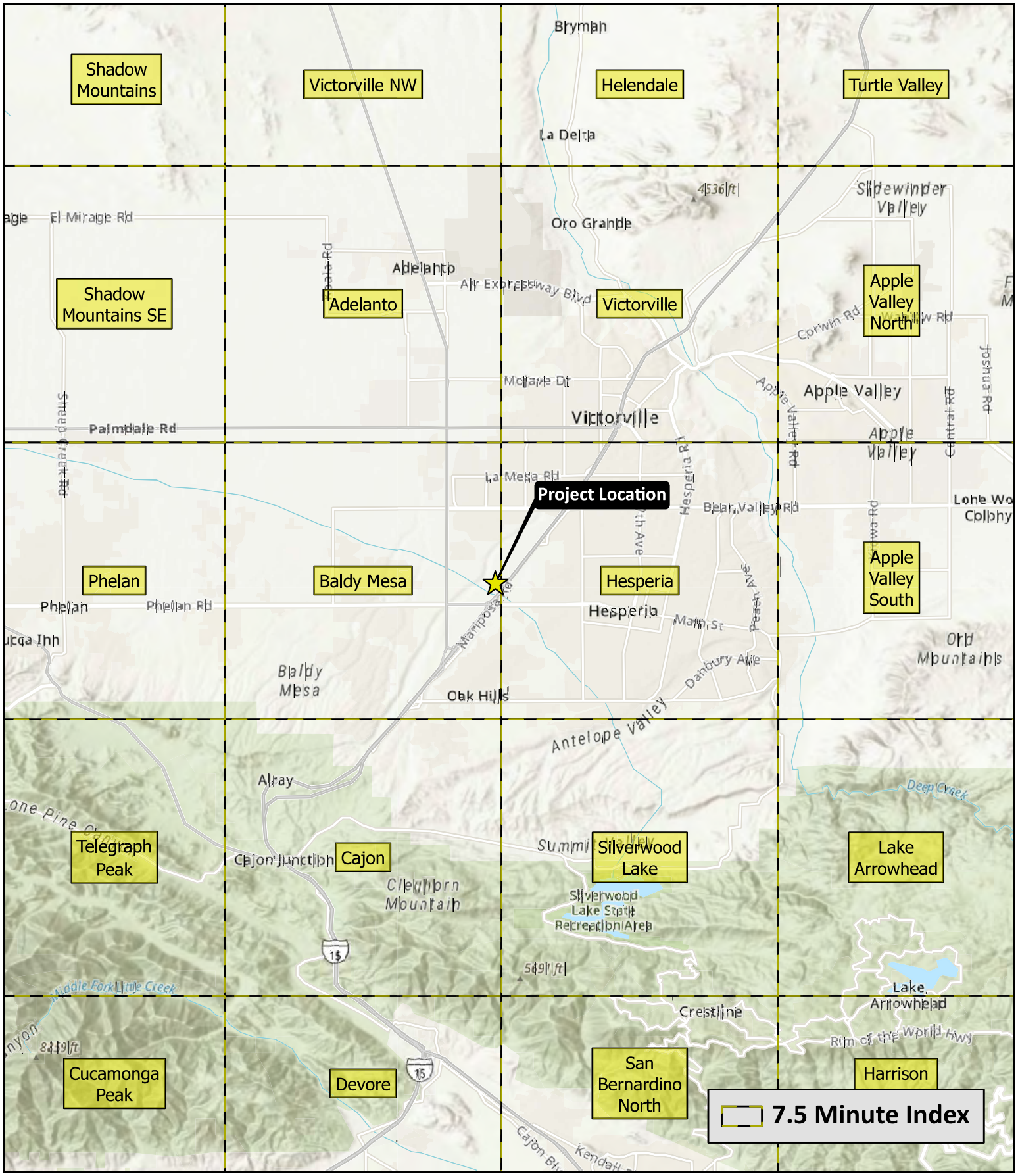


Figure 2

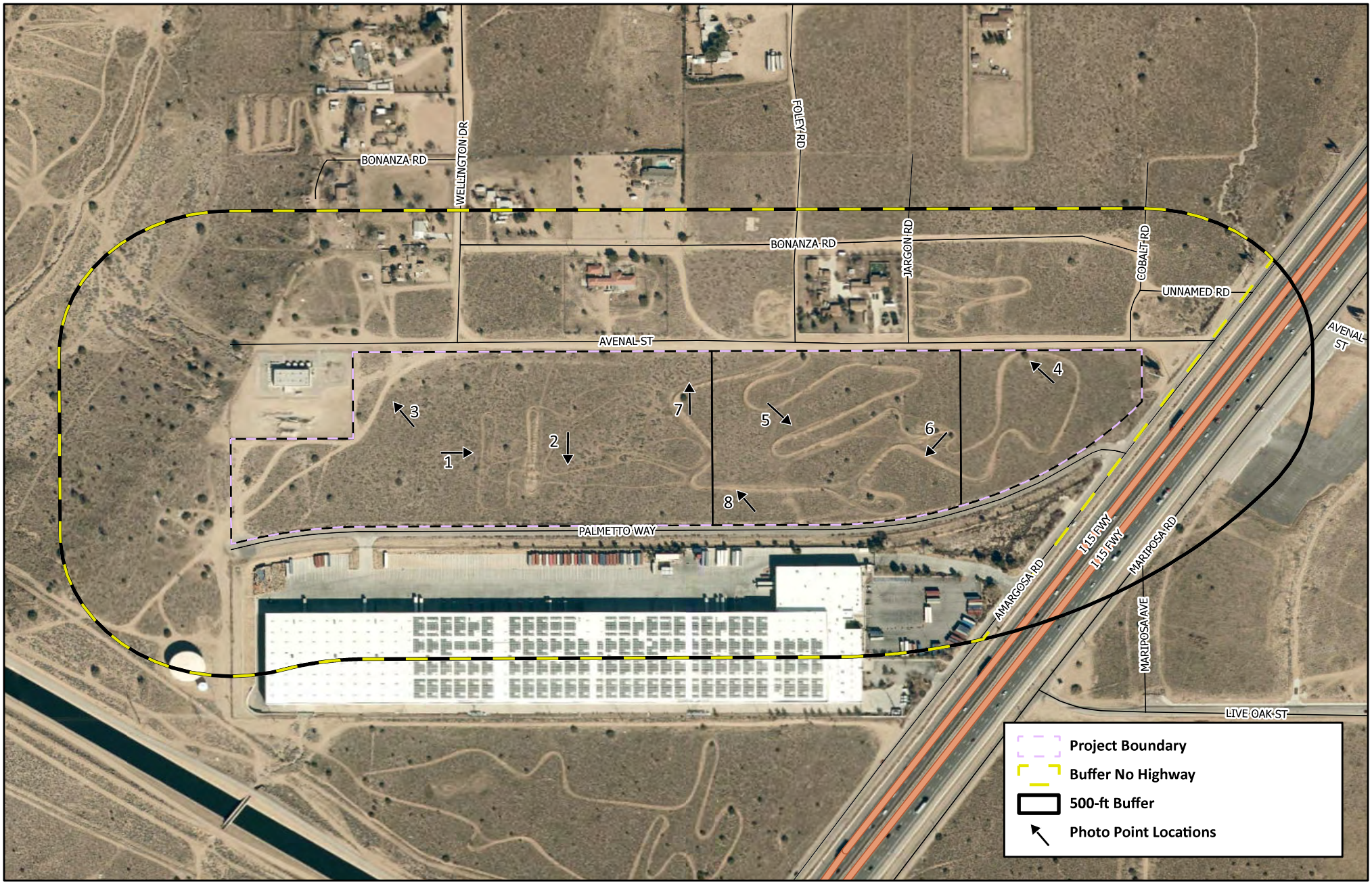
USGS

APN: 0405-072-[52,53,55]

Amargosa Road & Palmetto Way Spec. Industrial Project
Hesperia, CA.

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City of Hesperia, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, Esri, NASA, NGA, USGS



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N

0 250 500 1,000

1" = 460 Feet

San Bernardino County, Maxar

Figure 3
Photo Point Location Map

APN: 0405-072-[52,53,55]

Amargosa Road & Palmetto Way
Spec. Industrial Project

Section 2 Methodology

2.1 LITERATURE REVIEW AND DATABASE SEARCHES

Prior to conducting the field surveys, CASC conducted a thorough literature review and records search of the Survey Area encompassing a nine (9) quad search of the U.S. Geological Survey (USGS). The Survey Area is located between *Baldy Mesa* quadrangle and *Hesperia* quadrangle (north of the California Aqueduct*).* A search of the adjacent quadrangles was conducted: *Shadow Mountain SE, Adelanto, Victorville, Phelan, Telegraph Peak, Cajon, and Silverlake Lake,* California. The nine (9) quad search was used for the CDFW Biogeographic Information and Observation System (CDFW 2022a), CDFW California Natural Diversity Database (CNDDB) RareFind 5 (CDFW 2022b), and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2022). In addition, the Survey Area was used to generate a Species and Resources List from the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation online system (IPaC; USFWS 2022a). This helped to identify special-status plant and wildlife species, vegetation communities, and other biological resources that have been previously documented within, near, and/or that have the potential to occur within the Survey Area. The *Special Animals List* (CDFW 2022c, *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2022d), and CNPS California Rare Plant Ranking System (CRPR) were reviewed for the current status of rare and endangered plant and wildlife species. Other resources reviewed include the USFWS Critical Habitat for Threatened & Endangered Species Mapper (USFWS [ArcGIS Online] 2022); recent and historical aerial photography (Google Earth Pro 2022); the U.S. Department of Agriculture, Natural Resources Conservation Service (USDA) Web Soil Survey (USDA 2022a); and USFWS National Wetland Inventory (NWI) Mapper (USFWS 2022b).

2.2 GENERAL BIOLOGICAL RESOURCES SURVEY

Following the literature review, CASC's Biologists Kimberly Boydstun and Cory Peterson, conducted a general biological resources assessment of the entire Survey Area. The Survey Area is defined as the Project Site plus a 500-foot buffer where accessible and shown on Figure 3. Undeveloped property to the west of the Project Site was also inventoried. Properties to the east is Amargosa Road and Interstate 15, to the south is a Palmetto Way and an existing warehouse, to the north is private residences which were fenced. These areas to the north, south, and east were not inventoried. The first site assessment was performed on April 27, 2022, between the hours of 0815 and 1500, with weather conditions consisting of temperatures ranging from 47 to 75 degrees Fahrenheit (°F), winds approximately 2 to 3 miles per hour, and clear skies. The second site assessment was performed on May 2, 2022, between the hours of 1000 to 1330, with weather conditions consisting of temperatures ranging from 68 to 76°F, winds approximately 2-3 miles per hour, and clear skies. The surveys were conducted to document existing site conditions, obtain an inventory of plant and wildlife species, map vegetation communities/land uses, determine the potential for special-status plant and wildlife resources to occur within the

Survey Area, perform a Joshua tree (*Yucca brevifolia*) inventory, and to identify any jurisdictional aquatic features. Representative photographs of the Project Site are provided at the end of this Report in Appendix B, Project Site Photographs. Figure 3, Photo Point Location Map, shows the location and direction each photo was taken.

2.2.1 Vegetation/Land Use Mapping and Plant Species Inventory

Classification of the vegetation communities and other land uses within the Survey Area is based on the descriptions of terrestrial vegetation classification systems described in *A Manual of California Vegetation* (MCV Sawyer et al. 2009) and cross referenced with the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). The vegetation on site was classified as *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance. Plant species nomenclature and taxonomy follow *The Jepson Manual: Vascular Plants of California, second edition* (Baldwin et al. 2012). Refer to Appendix C, Plant Compendia for a complete list of plant species observed within the Survey Area.

2.2.2 General Wildlife Observations

Field guides used to assist with identification of species during the habitat assessment included *The Sibley Guide to Birds* (Sibley 2014) for birds, *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003) for herpetofauna and *A Field Guide to Mammals of North America* (Reid 2006). Although common names of wildlife species are well standardized, scientific names are provided immediately following common names of wildlife species in this Report (first reference only). To the extent possible, nomenclature of birds follows the most recent annual supplement of the American Ornithological Union's *Checklist of North American Birds* (Chesser et al. 2020), nomenclature of amphibians and reptiles follows *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding* (Crother 2012), and nomenclature for mammals follows the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014). All wildlife species observed and/or otherwise detected through sign (e.g., tracks, scat) were recorded. Other wildlife species may occupy the Survey Area but, in some cases, may be nocturnal and not easily detectable during the day without extensive survey efforts during the appropriate season. Some species are transients or migrants and may occupy the Survey Area other times of the year outside of the time that the field survey was conducted. Refer to Appendix D, Wildlife Compendia for a complete list of wildlife species observed or otherwise detected within the Survey Area.

2.3 OTHER FIELD STUDIES

A database search of the CDFW's CNDDB was used to identify and map all known ~~(~~federally and State Threatened species) locations within one (1) to five (5) miles of the Project Site as well as a comprehensive literature review of available previous biological studies and environmental documents completed for the Project and its vicinity. CASC's Biologists also reviewed USFWS

Critical Habitat documentation to determine the Project's location in relation to Critical Habitat (Figure 4, Critical Habitat) (USFWS [ArcGIS Online] 2022). There is no critical habitat on or within close proximity to the Project Site. CASC's Biologists conducted 100-percent visual coverage of the Survey Area and performed a habitat assessment and burrow search of the Project Site specifically for Western burrowing owl and desert tortoise.

2.3.1 Special-Status Plants

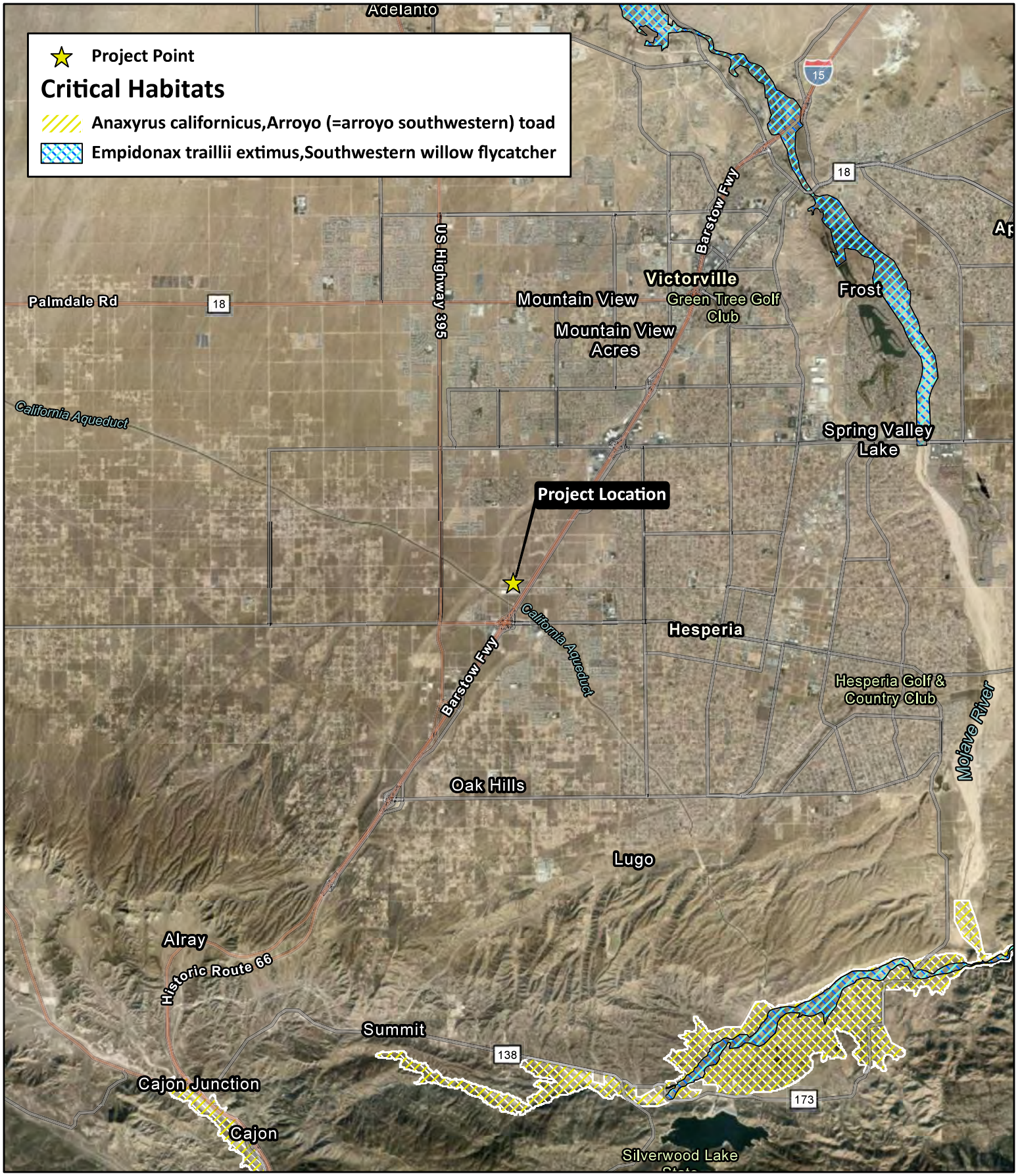
A database search of the CDFW's CNDDB and the CNPS Online Inventory of Rare and Endangered Plants was used to identify and map rare plant records from a 9-quad search within a five (5) mile radius of the Project Site. Based on the database search and literature review, it was determined that a total of nine (9) special-status plant species have the probability of occurrence in the general range of the Survey Area. Appendix E, CNDDB Summary Table from California Department of Fish and Wildlife (CDFW), California Natural Diversity Database (CNDDB) search conducted for the Project.

2.3.2 Special-Status Wildlife

A database search of the CDFW's CNDDB and RareFind/Bios Online Inventory was used to identify and map wildlife records from a 9-quad search within a five (5) mile radius of the Project Site. Based on the database search and literature review, it was determined that a total of forty-six (46) special-status wildlife species have the probability of occurrence within the general range of the Survey Area. Specific habitat requirements and a records search for each species were considered and it was determined that three (3) species had a high probability of occurrence within the local vicinity of the Project Site. Appendix E, CNDDB Summary Table search conducted for the Project.

2.3.3 Jurisdictional Features Analysis

CASC conducted a thorough literature review of relevant resources to obtain an initial understanding of the environmental setting and to preliminarily identify features that could be regulated by the jurisdictional agencies. CASC reviewed the USFWS NWI Mapper (USFWS 2022b). Appendix F shows the results of the NWI Mapper search. There are no jurisdictional features on the Project Site.



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0 1 2 4
1" = 2.17 miles

Figure 4
Critical Habitat

APN: 0405-072-[52,53,55]

AMARGOSA ROAD & PALMETTO WAY SPEC. INDUSTRIAL PROJECT, HESPERIA, CA.

San Bernardino County, Earthstar Geographics, City of Hesperia, California State Parks, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA

Section 3 Existing Conditions

The following is a summarization of the results of the database review and general biological resources survey performed by CASC. Discussions regarding the general environmental setting, vegetation communities and other land uses present, and plant and wildlife species observed are presented below. Representative photographs of the Project Site are provided in Appendix B, and a complete list of all the plant and wildlife species observed within the Survey Area during the field survey is provided in Appendix C and D, respectively.

3.1 ENVIRONMENTAL SETTING

The Project Site consists of 30.52-undeveloped acres and is located north of Palmetto Way, south of unimproved Avenal Street, and east of Amargosa Road in Hesperia, California. Access to the entire site was unobstructed and the biologists were able to perform a one hundred percent visualization of the Project Site. A large industrial building resides south of the Project Site, to the north along Avenal Street are homes with fenced yards, to the east is Amargosa Road and I-15, and to the west is a fenced utilities yard and open space.

3.1.1 Climate

The Survey Area, located in the high desert, has an arid climate characterized by cool winters and hot summers. With an average annual high temperature typically of approximately 79°F, highs in the summer average approximately 100°F and lows in the winter averaging approximately 4 °F, and low humidity throughout the year. Average annual precipitation for the Hesperia, California, area is approximately 5.06 inches (U.S. Climate Data 2021).

3.2 TOPOGRAPHY AND SOILS

The Survey Area is in a region of San Bernardino County known as the “High Desert” due to its approximate elevation of 3,600 feet above mean sea level (amsl). Much of the Survey Area is relatively flat, with surface elevations varying between approximately 3,468 feet amsl in the southwestern corner to approximately 3,443 feet amsl in the northeastern corner.

Soils within the Survey Area and in adjoining areas were reviewed prior to the field survey using the Web Soil Survey (USDA 2021a) (Figure 5, USDA Soils Map). Mapped soils within the Survey Area include the following:

- Cajon Sand, 0 to 2 Percent Slopes
- Cajon Sand, 2 to 9 Percent Slopes
- Cajon Sand, 9 to 15 Percent Slopes
- Hesperia Loamy Fine Sand, 2 to 5 Percent Slopes

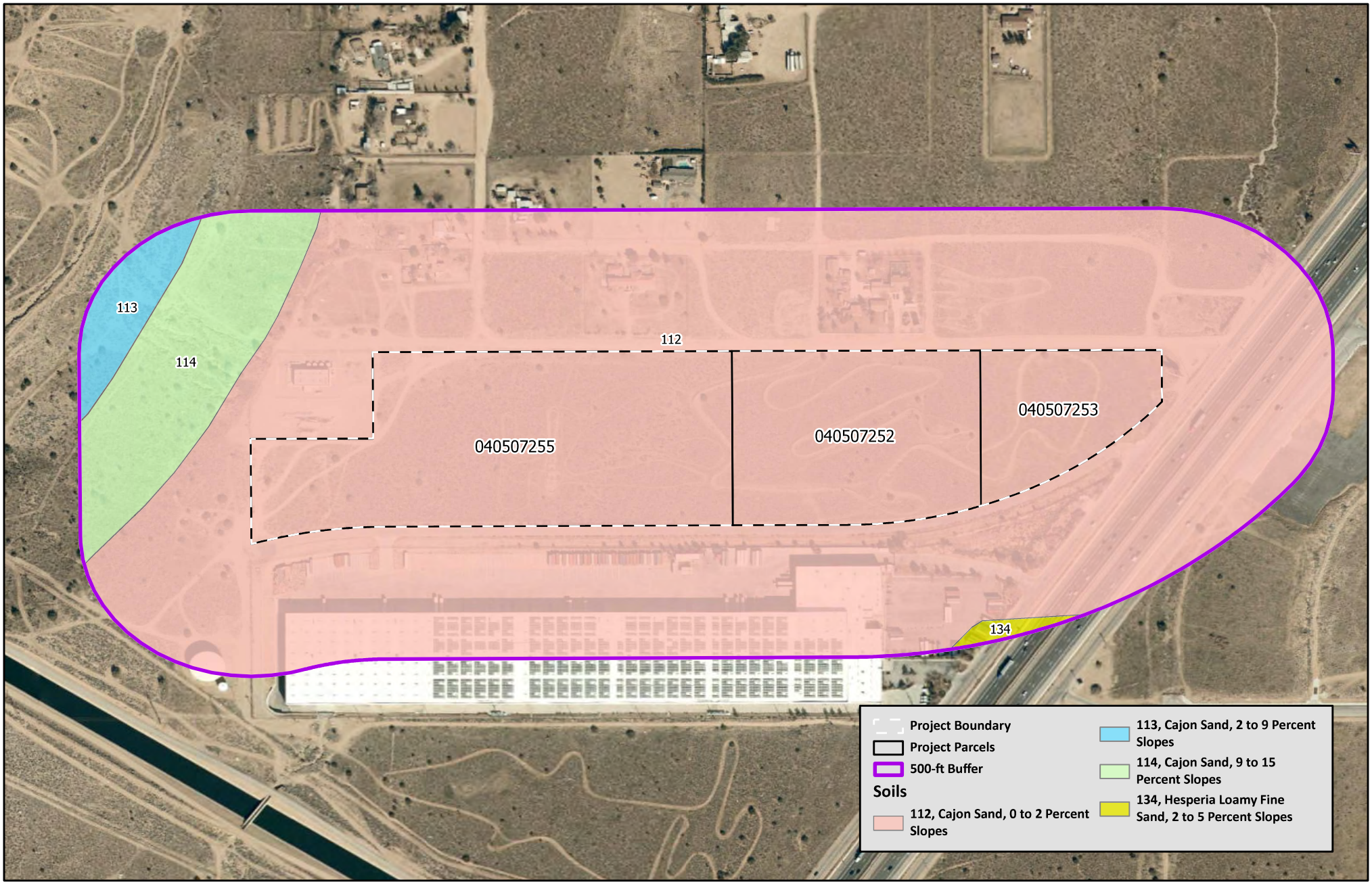
3.3 VEGETATION COMMUNITIES AND OTHER LAND USES

The Project Site is undeveloped and has been disturbed by grading which appears to have been from some time ago as the vegetation is growing back but is of small stature. Impacts will encompass the entire 30.52-acres of the Project Site. The vegetation community within the Survey Area was identified as *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance with dominant species being white bursage (*Ambrosia dumosa*), creosote bush (*Larrea tridentata*) and Mexican tea *(Ephedra trifurca).* Joshua tree (*Yucca brevifolia*) (CDFW Candidate Listed species) is present on the Project Site. A complete list of all species recorded within the Survey Area can be found in Appendices C and D.

CASC's biologists recorded a total of fifty-two (52) live Western Joshua tree within the Project boundary. Seven (7) dead Joshua trees were recorded as it is required by CDFW to record the location of dead trees. Western Joshua tree were also recorded within the Project buffer. GPS was used to record the location of all dead and viable Western Joshua trees on the Project Site (Figure 6, Joshua Tree and Potential Burrow Locations). The Project Site was visited multiple times to perform focused plant and wildlife surveys. During each visit the biologists completed a compendia of plants and wildlife observed. Appendix C and D lists all species observed during the field surveys. Field surveys occurred from April through July of 2022.

3.4 GENERAL WILDLIFE OBSERVATIONS

The Survey Area is dominated by disturbed native vegetation, ruderal species, and friable soils. Wildlife diversity during the field survey was generally low, likely due to the low diversity of the plant assemblage. The commonly observed species within the Survey Area was mourning dove (*Zenaida macroura*) and common raven (*Corvus corax*). Refer to Appendix C for a complete list of wildlife species observed during the field surveys.



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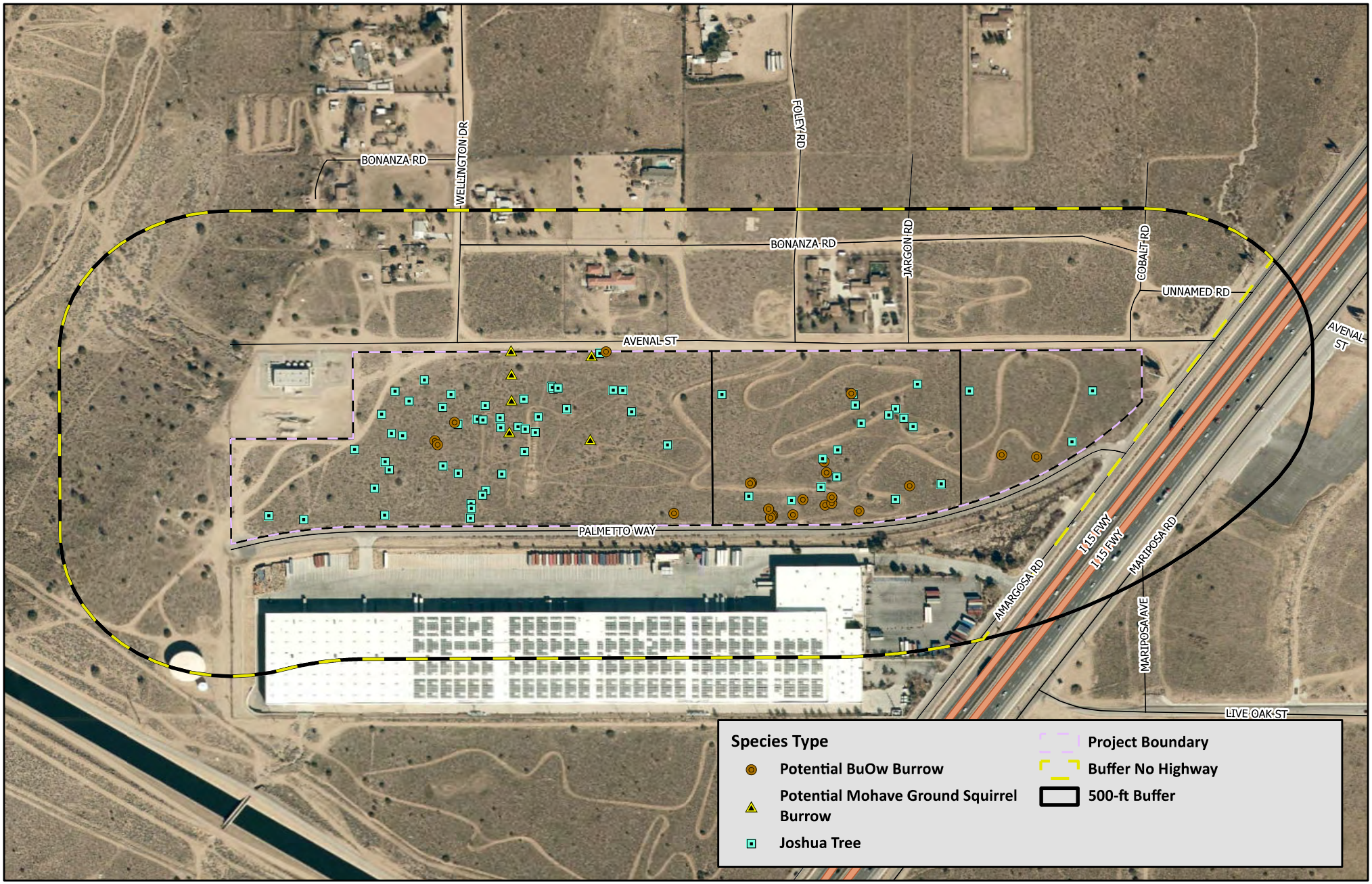
1" = 460 Feet

San Bernardino County, Maxar

Figure 5
Soils

APN: 0405-072-[52,53,55]

Amargosa Road & Palmetto Way Spec. Industrial Project
Hesperia, CA.



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0 200 400 800

1" = 460 Feet

Figure 6
Joshua Tree and Potential Burrow Locations

APN: 0405-072-[52,53,55]

San Bernardino County, Maxar

Amargosa Road & Palmetto Way Spec. Industrial Project
Hesperia, CA.

3.5 REGULATORY SETTING

3.5.1 Federal Regulations

Federal Endangered Species Act (FESA) of 1973

As defined within the FESA of 1973, an endangered species is any animal or plant listed by regulation as being in danger of extinction throughout all, or a significant portion, of its geographical range. A threatened species is any animal or plant that is likely to become endangered within the foreseeable future throughout all or a significant portion of its geographical range. Without a special permit, federal law prohibits the "take" of any individuals or habitat of federally-listed species. Under Section 9 of the FESA, "take" is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." The term "harm" has been clarified to include "any act which actually kills or injures fish or wildlife and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." Enforcement of FESA is administered by the USFWS.

Under the definition used by the FESA, "Critical Habitat" refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species and that may require special management considerations or protection, regardless of whether the species is still extant in the area.

Migratory Bird Treaty Act (MBTA)

Pursuant to the MBTA (16 U.S. Government Code [USC] 703) of 1918, as amended in 1972, federal law prohibits the taking of migratory birds or their nests or eggs (16 USC 703; 50 CFR 10, 21). The statute states:

"Unless and except as permitted by regulations made as hereinafter provided in this subchapter, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill...any migratory bird, any part, nest, or egg of any such bird...included in the terms of the [Migratory Bird] conventions…"

The Act covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered a "take." This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six (6) families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons

and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protects all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

Executive Order 13112 – Invasive Species

On February 3, 1999, President William J. Clinton signed Executive Order 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm, or harm to human health." Federal Highway Administration guidance issued August 10, 1999 directs the use of the State's invasive species list, maintained by the California Invasive Species Council to define the invasive plants that must be considered as part of the NEPA analysis for a proposed project. Under the Executive Order, federal agencies cannot authorize, fund, or carry out actions that it believes are likely to cause or promote the introduction or spread of invasive species in the United States or elsewhere unless all reasonable measures to minimize risk of harm have been analyzed and considered.

3.5.2 State Regulations

California Environmental Quality Act (CEQA)

CEQA provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines "endangered" species as those whose survival and reproduction in the wild are in immediate jeopardy, while "rare" species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the State of California has its own CESA, enforced by the CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in "take" of individuals (defined in CESA as; "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") are regulated by CDFW. Habitat degradation or modification is not included in the definition of "take" under CESA. Nonetheless, CDFW has interpreted "take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

California Fish and Game Code (CFGC)

Sections 3503, 3503.5, 3511, and 3513

The CDFW administers the CFGC. There are particular sections of the CFGC that are applicable to natural resource management. For example, Section 3503 makes it unlawful to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey), such as hawks, eagles, and owls, are protected under Section 3503.5 which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a project site. Section 3511 lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). In addition, Section 3513 makes it 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.

Section 4150

Section 4150 of the CFGC protects nongame mammals, defined as any naturally-occurring mammal in California that is not a game mammal, fully protected mammal, or fur-bearing mammal. Nongame mammals, which includes bats and bat roosts, may not be taken or possessed except as provided by the CFGC or in accordance with applicable regulations.

Section 749.11, Title 14, California Code of Regulations

The proposed addition of Section 749.11, Title 14, California Code of Regulations creates a special order allowing incidental take of western Joshua tree during CESA candidacy necessary to address this emergency.

On September 22, 2020, the Commission determined that listing may be warranted pursuant to FGC Section 2074.2. Western Joshua tree became a candidate species under CESA, effective upon publication of the notice of findings on October 9, 2020 (Office of Administrative Law notice number Z2020- 0924-01). Pursuant to FGC Section 2074.6, the Department will undertake a one-year status review. After the Commission receives the Department's status review, the

Commission will make a final decision on listing. As of October 12, 2022, the final decision by the Commission has been postponed until February 2023.

Statutory Authority

Candidate species are protected from take under CESA pursuant to FGC Section 2085 during the remainder of the CESA listing. Under FGC Section 2084, CESA provides that the Commission may adopt regulations to authorize take of candidate species, based on the best available scientific information, when the take is otherwise consistent with CESA. As with all regulations, the Commission may adopt a regulation under Section 2084 on an emergency basis when it determines that a situation exists which threatens public health and safety or general welfare.

Another means to allow take of CESA candidate species is by Incidental Take Permit (ITP) pursuant to FGC Section 2081, subdivision (b), from the Department. An ITP allows a permittee to take CESA listed or candidate species if such taking is incidental to, and for the purpose of, carrying out an otherwise lawful activity, including for research or monitoring activities of such activity.

Native Plant Protection Act

Sections 1900–1913 of the CFGC were developed to preserve, protect, and enhance Rare and Endangered plants in the State of California. The act requires all State agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Desert Native Plants Act (CDNPA)

Division 23 of the California Food and Agriculture Code consists of the CDNPA. The CDNPA was developed to protect certain species of California desert native plants from unlawful harvesting on both public and privately-owned lands. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the CDNPA prohibits the harvest, transport, sale, or possession of specific native desert plants unless a person has a valid permit or wood receipt, and the required tags and seals. The appropriate permits, tags and seals must be obtained from the sheriff or commissioner of the county where collecting will occur, and the county will charge a fee.

3.5.3 Local Policies and Ordinances

San Bernardino County Countywide Plan

The Conservation Element of the County of San Bernardino General Plan identifies measures to preserve the unique environmental features and natural resources of the desert region, including native wildlife and vegetation. One role of the Conservation Element involves the identification of a community's natural resources and the adoption of policies for their preservation, development, and wise use.

Section 4 Results

The following discusses the potential for special-status plant and wildlife species and special-status vegetation communities to occur within the Survey Area. The CNDDB and CNPS Online Inventory were queried for reported locations of special-status plant and wildlife species as well as special-status natural vegetation communities within the 9-quad search radius. All CNDDB occurrences, documentation of special-status species and vegetation communities, and USFWS-designated Critical Habitat within a five (5) mile radius of the Project Site are shown in Figure 4. An evaluation of the potential for each species identified in the database records search to occur within the Survey Area is presented in the following section.

4.1 SPECIAL-STATUS SPECIES

The field survey was conducted to assess the conditions of the habitat(s) within the boundaries of the Survey Area to determine if the existing vegetation communities, at the time of the field survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species. Additionally, the potential for special-status species to occur within the Survey Area was determined based on the reported locations in the CNDDB and CNPS Online Inventory and the following:

- **Present**: the species was observed or detected within the Survey Area during the field survey.
- **High**: Recent occurrence records indicate that the species has been known to occur on or within one (1) mile of the Survey Area and the Survey Area is within the normal or expected range of this species. Intact, suitable habitat preferred by this species occurs within the Survey Area and/or there is viable landscape connectivity to a local known extant population(s) or sighting(s).
- **Moderate**: Recent occurrence records indicate that the species has been known to occur within one (1) mile of the Survey Area and the Survey Area is within the normal expected range of this species. There is suitable habitat within the Survey Area but the site is ecologically isolated from any local known extant populations or sightings.
- **Low**: Recent occurrence records indicate that the species has been known to occur within 5 miles of the Survey Area, but the Survey Area is outside of the normal expected range of the species and/or there is poor quality or marginal habitat within the Survey Area.
- **Not Expected**: There are no occurrence records of the species occurring within 5 miles of the Survey Area, there is no suitable habitat within the Survey Area, and/or the Survey Area is outside of the normal expected range for the species.
- **Absent**: The species has been determined to conclusively be absent from the Survey Area.

The literature search identified many species having the probability of occurrence on the Project Site. Special-status plant and wildlife species were evaluated for their potential to occur within the Survey Area based on habitat requirements, availability and quality of suitable habitat, and known distributions. After these considerations, the biologists identified nine (9) special-status plant species and three (3) special-status wildlife species as having the highest probability of occurrence. A complete table of special-status species queried for this report can be found in Appendix E, as well as definitions for ranking of each category (Appendix E, page 10).

4.1.1 Special-Status Plant Species

Nine (9) special-status plant species were identified from literature search and local knowledge and familiarity as having potential to occur within the region of the Survey Area. Focused surveys were conducted on April 6, May 26, and July 7, 2022 by senior biologist Philippe Vergne of Envira. Based on the results of focused surveys and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the Project Site has a **low** probability to support these species. Additionally, these species were **absent** during the focused surveys**.** Focused surveys for the following species were performed: ayenia (*Ayenia compacta*) (CRPR 2B.3), Lincoln rockcress (*Boechera lincolnensis*) (CRPR 2B.3), Latimer's woodland-gilia (*Saltugilia latimeri*) (CRPR 1B.2), alkali mariposa-lily (*Calchortus striatus*) (CRPR 1B.2),pygmy poppy (*Canbya candida*) (CRPR 4.2), white-bracted spineflower (*Chorizanthe xanti* var. *leucotheca*) (CRPR 1B.2), Booth's evening primrose (*Eremothera boothii* ssp. *boothii*) (CRPR 2B.3), short-joint beavertail (*Opuntia basilaris* var. brachyclada) (CRPR 1B.2), and Parish's brittlescale (*Atriplex parishii*) (CRPR 1B.1). None of these special-status species were observed during the field surveys performed nor are they expected to occur at the Project Site. The focused plant survey report completed by Envira can be reviewed in Appendix G. It details the dates, weather conditions and habitat associations considered for each plant species.

CRPR: California Rare Plant Rank

1B.1	Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
1B.2	Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
2B.3	Plants rare, threatened, or endangered in California, but more common elsewhere; not very threatened in California
4.2	Plants of limited distribution; fairly threatened in California

Western Joshua Tree Inventory

CASC's biologist performed an inventory of Western Joshua trees (*Yucca brevifolia*, State Listed as Candidate Threatened) and locally sensitive cactus within the Survey Area (Project Site and the 500-foot buffer). Fifty-two (52) live Joshua trees were recorded during the April 27, 2022 site visit. Additionally, seven (7) dead Joshua trees were recorded on the Project Site. Data on Western Joshua tree within the buffer was recorded as required by CDFW but are not presented in Table 1 Western Joshua Tree Inventory. Per CDFW reporting requirements, the Western Joshua trees in Table 1 was photographed, a general health assessment performed (height, branching, clonal, etc.), and GPS location of each tree was noted (Table 1, Western Joshua Tree Inventory). *Sololocator* was used to correspond the photographs and GPS locations of the Joshua trees on the Project Site and within the buffer.

Highlighted in blue in Table 1 are those Western Joshua trees deemed appropriate for relocation according to the CDFW criteria (see below, Section 4.1.2 Criteria for Relocation). Highlighted in yellow are the largest and healthiest trees on site. Avoidance or relocation of Western Joshua trees will reduce the mitigation obligation with avoidance being the preferred strategy followed by on-site relocation of Western Joshua trees. Thirty-one (31) of the Western Joshua trees meet the criteria for relocation, the very best specimens can be selected to improve the chances of survival and overall success. If Western Joshua tree can be incorporated into the Project Site landscape or avoided this would help to reduce the mitigation obligation. Avoidance and relocation are highly valued by the California Department of Fish and Wildlife. Table 1 shows the GPS location of all Western Joshua tree on-site, their approximate height and a general health assessment.

Table 1. Western Joshua Tree Inventory

Tree Number	Approx Height inches/foot	Health/Notes	Location/GPS Coordinate	Panicle* (Bloom)
1	4-foot	Good, 2-trunks, clonal	117°38'15"W 34°43'60"N	No
2	4-foot	Good, 1-trunk	117°38'14"W 34°43'59"N	No
3	5-foot	Good; 1-trunk	117°38'11"W 34°43'58"N	No
4	5½-foot	Good; 1-trunk	117°38'03"W 34°43'59"N	No
5	1-foot	Poor, 1-trunk, laying over, yellow	117°38'03"W 34°43'63"N	No
6	3½ -foot	Good; 1-trunk	117°38'03"W 34°43'64"N	No
7	1-foot	Good; 1-trunk	117°38'06"W 34°43'65"N	No
8	Flat on ground	Poor, 1-trunk, yellow	117°38'04"W 34°43'61"N	No
9	2-foot	Poor, 1-trunk, on ground, yellow	117°38'02"W 34°43'67"N	No
10	3½ -foot	Good; 1-trunk	117°38'01"W 34°43'67"N	No
11	5-foot	Good, 1-trunk	117°38'03"W 34°43'69"N	No

12	5-foot and 4½ foot	Good, 2-trunks, clonal	117°38'02"W 34°43'71"N	No
13	4-foot	Good, 1-trunk	117°38'01"W 34°43'70"N	No
14	20-foot	Good, single trunk	117°37'99"W 34°43'72"N	Yes
15	3½-foot 1-foot	Good, 2-trunks; clonal	117°37'97"W 34°43'71"N	No
16	3½-foot 1-foot	Good, 2-trunks, clonal	117°37'98"W 34°43'69"N	No
17	4-foot	Good, 1-trunk	117°37'96"W 34°43'68"N	No
18	3½-foot	Good; 1-trunk	117°37'98"W 34°43'64"N	No
19	5-foot	Good, 1-trunk	117°37'98"W 34°43'63"N	No
20	2-foot 4½-foot	Good, 2-trunks, clonal	117°37'95"W 34°43'60"N	No
21	4½-foot	Good, 1-trunk	117°37'95"W 34°43'59"N	No
22	3-foot	Good, 1-trunk	117°37'95"W 34°43'59"N	No
23	3-foot	Good, 1-trunk	117°37'93"W 34°43'61"N	No
24	6-foot	Good, 1-trunk	117°37'94"W 34°43'61"N	No
25	4-foot	Good, 1-trunk	117°37'92"W 34°43'63"N	No
26	6½-foot	Good, 1-trunk	117°37'94"W 34°43'68"N	No
27	4-foot	Good, 1-trunk	117°37'94"W 34°43'68"N	No
28	3½-foot	Good, 1-trunk	117°37'93"W 34°43'69"N	No
29	2-foot	Good, 1-trunk	117°24'8"W 34°24'48"N	No
30	2-foot	Good, 1-trunk	117°37'92"W 34°43'67"N	No
31	2-foot	Good, 1-trunk	117°37'90"W 34°43'67"N	No
32	3-foot	Good; 1-trunk	117°37'90"W 34°43'65"N	No
33	3½-foot	Good, 1-trunk	117°37'87"W 34°43'71"N	No
34	3½-foot	Good, 1-trunk	117°37'87"W 34°43'71"N	No
35	25-foot	Good, 1-trunk	117°37'82"W 34°43'74"N	Yes
36	2-foot	Good, 1-trunk	117°37'81"W 34°43'71"N	No
37	3-foot	Good, 1-trunk	117°37'80"W 34°43'71"N	No
38	Dead, 15-foot	Dead, laying on ground	117°24'6"W 34°24'49"N	No
39	Dead, 8-foot	Dead, laying on ground	117°37'76"W 34°43'66"N	No
40	Dead, 6-foot	Dead, laying on ground	117°37'70"W 34°43'71"N	No
41	Dead, 10-foot	Dead, laying on ground	117°37'68"W 34°43'61"N	No
42	Dead	Dead	117°37'64"W 34°43'60"N	No
43	15-foot	Good, 1-trunk	117°37'61"W 34°43'62"N	Yes
44	18-foot	Good, 1-trunk	117°37'59"W 34°43'63"N	Yes
45	Dead	Dead	117°37'61"W 34°43'64"N	No
46	12-foot	Good, 1-trunk	117°37'59"W 34°43'65"N	No
47	20-foot	Poor, 1-trunk, dying	117°37'57"W 34°43'68"N	Yes
48	7-foot	Good, 1-trunk	117°37'58"W 34°43'69"N	No
49	1-foot	Good, 1-trunk	117°37'58"W 34°43'70"N	No
50	18-foot	Good, 1-trunk	117°37'54"W 34°43'69"N	Yes

51	8-foot	Good, 1-trunk	117°37’54”W 34°43’69”N	No
52	20-foot	Good, 1-trunk	117°37’52”W 34°43’67”N	Yes
53	4-foot	Good, 1-trunk, leaning	117°37’53”W 34°43’68”N	No
54	4-foot	Poor, 1-trunk, broken crown, yellow	117°37’51”W 34°43’72”N	No
55	4-foot	Good, 1-trunk	117°24’60”W 34°24’46”N	No
56	Dead	Dead	117°37’37”W 34°43’66”N	No
57	1, 2, and 3-foot	Good, 3-trunks, clonal	117°37’35”W 34°43’71”N	No
58	18-foot	Moderate, 1-trunk	117°37’49”W 34°43’62”N	No
59	15-foot	Moderate, 1-trunk, crown broken	117°37’54”W 34°43’60”N	Yes

Blue Highlight: Suitable for relocation according to CDFW parameters.

Yellow Highlight: Largest trees, if possible, preserve in place to reduce mitigation obligation.

****Panicle:*** A panicle (bloom/cluster of flowers) is a compound inflorescence , formed by a cluster of racemes on a single axis.

Criteria for Relocation

Each Western Joshua tree was evaluated for suitability of potential relocation and transplanting based on the following criteria which is provided on research completed by California Department of Fish and Wildlife:

- Trees from approximately 2-foot in height to approximately 12-foot.
- No visible sign of damage to the tree such as absence of bark due to rodents, vandalism, etc.
- Tree has minimal number of branches (between 2-3 branches).
- Tree is not excessively leaning.
- Tree does not have yellow or brown fronds.
- Proximity to other Western Joshua trees (i.e., clonal).
- Tree does not have exposed roots at the base.
- Presence of branches with panicles.

4.1.2 Special-Status Wildlife Species

Focused surveys were performed for the three special-status wildlife species that were determined to have the highest probability of occurrence at the Project Site. The results of each of these focused surveys is presented below. The full reports for each species can be found in Appendix G.

Western Burrowing Owl

The Survey Area is within the historic range of Western burrowing owl((*Athene cunicularia,* SSC) and has **high** potential to support this species. During the habitat assessment it was determined that focused surveys should be performed. Western burrowing owl is a locally significant species within San Bernardino County. During the habitat assessment several burrows were noted of appropriate size to support this species at the Project Site. CASC's biologist performed a habitat assessment on April 27 and May 2, 2022 and noted several burrows of appropriate size to support burrowing owl (Figure 6). The biologist walked transects and were able to visually assess 100% of the Project Site. Focused surveys were performed on June 2 and 27, July 20, and August 10, 2022. No scat, pellets, or other sign was observed within the Survey Area during any of the surveys. Refer to Appendix G for the full focused survey report for BuOw.

Mohave Ground Squirrel

The Survey Area is within the historic range of the Mohave ground squirrel (*Xerospermophilus mohavensis*, State Threatened). Its historical range encompasses an area between Antelope Valley and Lucerne Valley, in the south (Gustafson 1993). However, Mohave ground squirrel occurrences in the southern portion of its range are very unusual. The northern limits of the range are near Owens Dry Lake-bed, in the north, and through China Lake Naval Weapons Station and Fort Irwin Military Base in the east (Gustafson 1993). The eastern limit of the species range extends to Barstow and south along the Mojave River. The western limits loosely follow State Highway 14 and the foothills of the southern Sierra Nevada escarpment (Gustafson 1993). Several other common squirrels occur within their range; antelope ground squirrel (*Ammospermophilus leucurus),* round-tailed ground squirrel (*Xerospermophilus tereticaudus*) and the California ground squirrel (*Spermophilus beecheyi*).

Habitat conditions on the Project Site are suitable for Mohave ground squirrel and it was determined during the habitat assessment that this species has **moderate** potential of occurrence. Focused surveys were conducted for this species with a total of three trapping sessions which occurred during April 5-9, May 23-27, and June 14-18, 2022. Mohave ground squirrel was not captured during the protocol level sessions and is not expected to occur at the Project Site. Mohave ground squirrel were not captured in the Project Site or within any census grids during any of the three live trapping sessions. This species is considered **absent** from the Project Site. Only the antelope ground squirrel and California ground squirrel were trapped within the grid. Refer to Appendix G, focused survey report prepared by Phillipe Vergne, Senior Biologist, Envira for the full focused survey report and additional details for this species. Mr. Vergne has a Memorandum of Understanding with CDFW to trap Mohave ground squirrel (SC-002835) and is included in Appendix G.

Desert Tortoise

The desert tortoise (*Gopherus agassizii,* Federal Threatened/State Threatened) is a desert dwelling reptile that occurs throughout the Mojave and Sonoran deserts. It is found in California, Nevada and Utah, occurring in almost every type of habitat except dry lakes or playas, sand dunes and sand sheets and rocky slopes. Habitat is marginal at the Project Site for this species and it was determined that the Survey Area has **low** potential to support desert tortoise. While suitable habitat is present in the Survey Area, it is outside of the current known range for this species. Further, desert tortoise has not been recorded near the Project Site for many years. The local desert tortoise population has undergone severe declines over time. Focused surveys were performed on April 8-9, 2022 by Philippe Vergne, Senior Biologist, Envira. Desert tortoise surveys were conducted according to USFWS protocol by covering the entire project site by walking east to west transects ten meters apart, and the zone of influence. The zone of influence (ZOI) includes parallel transects of 100, 300, 600, 1,200 and 2,400-feet for tortoises. The zone of influence was completed until being bisected by the Canal, fencing, development and private property boundaries. During the focused surveys no sign (scat, burrows, etc.) of this species was noted and this species is not expected to occur at the Project Site. This species is considered **absent** from the Project Site Refer to Appendix G, focused survey report prepared by Phillipe Vergne, Senior Biologist, Envira for the full focused survey report and additional details for this species.

4.2 NESTING BIRDS AND WILDIFE MOVEMENT

Shrubs and Western Joshua tree located within the Survey Area provide nesting habitat for a number of nesting bird species. Several nests of cactus wren (*Campylorhynchus brumeicapillus)* were found during the site survey. Other avian species with potential to nest on the Project Site included mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), and house finch (*Carpodacus mexicanus*). Turkey vulture (*Cathartes aura*) was also noted during the survey and can utilize the site for foraging and thermoregulation. Black-tailed jackrabbit (*Lepus californicus*) is expected to nest and forage on site. And coyote (*Canis latrans*) was observed foraging as evidenced by the presence of sign (scat and tracks). The site is undeveloped as are the adjacent properties. It is possible that wildlife moves readily throughout the site to access adjacent habitat.

4.3 SPECIAL-STATUS VEGETATION COMMUNITIES

The vegetation community within the Survey Area was identified as *Larrea tridentata-Ambrosia dumosa* Shrubland Alliance with scattered western Joshua trees. Species identified within this community include smoke trees (*Cotinus* sp.), species in the Agavacea family, mesquite (*Prosopis* sp.), large creosote bushes (*Larrea* sp.), Western Joshua trees, and any other plants are protected by the *State Desert Native Plant Act*. As such, any impacts to these sensitive natural

communities may be considered significant under CEQA and require further mitigation to ensure compliance with the federal, State, and local regulations. These mitigation requirements are typically determined during the CEQA review and approval process. Mitigation to address any potential impacts is discussed below in Section 5.1 Special Status Plant Species/Vegetation Communities.

4.4 REGIONAL CONNECTIVITY

Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. The County identifies Wildlife Corridors and Areas of Critical Environmental Concern in their open space element of the General Plan. Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. A wildlife corridor is generally represented by a linear patch of habitat that provides a connection between two core areas of the same habitat, allowing for the large-scale movement of species within their native habitats. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provides corridors for wildlife travel. Wildlife movement corridors are important because they provide access for breeding opportunities, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations.

The Project Site is not identified within the San Bernardino County General Plan as a Wildlife Corridor or Linkage, San Bernardino County Corridor Locations. The County identifies Wildlife Corridors and Areas of Critical Environmental Concern in their open space element of the General Plan. Further, the Project Site is bound on the east by Amargosa Road and I-15, to the south by Palmetto Way and an industrial complex, to the north by Avenal Street and fenced residential housing, leaving only the western project boundary open for wildlife to access the site. Thus, not providing adequate access or cover to provide significant wildlife movement through the site.

4.5 CRITICAL HABITAT

USFWS-designated critical habitats (proposed or final) have not been mapped within the Survey Area. The closest critical habitat is northeast and southeast of Project Site Palms (Figure 4). There is no critical habitat within the near vicinity of the Project Site, therefore, no critical habitat will be impacted by Project development.

4.6 JURISDICTIONAL FEATURES ANALYSIS

Given that the Project Site is located in the arid to semi-arid desert region, the Survey Area was assessed more specifically for ephemeral features (watercourses that flow only during and shortly after precipitation events). There are no blueline drainages or other jurisdictional features were noted on the Project Site. The National Wetlands Inventory Mapper did not identify any non-

wetlands, wetlands, or other jurisdictional features within the Survey Area. Oro Grande Wash is to the west of the Project Site and the California Aqueduct is to the south. Both of these features are well outside of the 500-foot buffer area. Further, CASC biologists did not note any such features on the Project Site or within the buffer area (Appendix F).

Section 5 Conclusion and Recommendations

CEQA requires Project proponents to analyze and disclose potential environmental impacts associated with Project development. Any potentially significant impact must be mitigated to the extent feasible. CEQA requires public agencies in California to analyze and disclose potential environmental impacts associated with a project that the agency will carry out, fund, or approve. Any potentially significant impact must be mitigated to the extent feasible. Impacts to special-status species designated as endangered, threatened, rare, or a candidate species would require disclosure under CEQA. Impacts to SSC species are not considered significant under CEQA and warrant no legal protection but may simply require CEQA disclosure.

The following is conclusions and recommendations are intended to provide best management practices for Project development, provide guidance for local, State, and federal guidelines and protect natural resources.

5.1 SPECIAL STATUS PLANT AND VEGETATION COMMUNITIES

Based on the results of the focused surveys and a review of specific habitat preferences, occurrence records, known distributions, focsued survey results, and elevation ranges, it was determined that the Project Site is very unlikely to support any special-status plant species other than Western Joshua Tree.

The Western Joshua tree is a candidate species in the initial stages of consideration for listing as threatened under the California Endangered Species Act (CESA) [Office of Administrative Law's Notice ID #Z2019-1112-01 and Z2020-0924-01 Petition to list Western Joshua Tree (*Yucca brevifolia*) as a Threatened Species]. CDFW regulates all “take” of listed or candidate species. In preparation for Project development, an Incidental Take Permit (ITP) application will need to be completed with supporting documentation and an application fee paid to CDFW.

5.1.1 Avoidance and Minimization Measures

The following avoidance and minimization measure is recommended to reduce potential impacts and lessen mitigation obligation for special-status Western Joshua tree woodland to a less than significant level. Mitigation can consist of avoidance, removal, on-site relocation, off-site relocation, and purchase of credits in a CDFW approved mitigation bank. In the instance of relocation of Western Joshua tree, the Project proponent will be responsible for preparation of long-term maintenance, monitoring, watering, and weeding plan to ensure the health of the transplanted tree, the placement of fencing and signage around transplanted trees, and if requested by CDFW, an endowment to maintain the relocated trees. Purchase of credits in a CDFW approved mitigation bank can be an option once bank approval is finalized.

San Bernardino County Countywide Plan Policy NR-5.6 Mitigation Banking supports the proactive assemblage of lands to protect biological resources and facilitate development through private or public mitigation banking. The County does require public and private conservation lands or mitigation banks to ensure that easement and fee title agreements provide funding methods sufficient to manage the land in perpetuity.

BIO-1: Incidental Take Permit from CDFW

An Incidental Take Permit (ITP) application and supporting documentation shall be submitted to CDFW for review and approval for removal of Western Joshua trees on the Project Site. An ITP establishes a performance standard requiring that the impacts be "minimized and fully mitigated" with "measures that are roughly proportional in extent to the impact of the authorized taking on the species." [2] Therefore, additional mitigation measures, such as the purchase of credits from an approved conservation or mitigation bank, land acquisition, or entry into a conservation easement, will be determined in consultation with CDFW to meet ITP requirements. Because the Western Joshua tree was designated as a candidate species in October 2020 and is still subject to a status review by CDFW, it is impractical to determine the specific details of mitigation, beyond compliance with the ITP.

A completed application requires a completed CEQA document to accompany the ITP application and fee. CDFW requires the CEQA document have a state clearing house number, show proof of filing fees, and that the document has been circulated. CDFW will then review the ITP and CEQA document and make a determination of mitigation.

BIO-2: Desert Native Plant Protection and Relocation Plan

A *Desert Native Plant Protection and Relocation Plan* (Plan) for the proposed Project shall be composed that will provide detailed specifications for the proposed treatment, avoidance, or relocation of all smoke trees (*Cotinus* sp.), species in the Agavacea family, mesquite (*Prosopis* sp.), large creosote bushes (*Larrea* sp.), Western Joshua trees, and any other plants protected by the State Desert Native Plant Act. Further, the Protected Desert Plant Plan will provide measures to meet the requirements of Chapter 16.24 of the City of Hesperia's (City) Municipal Code to protect, preserve, and mitigate impacts to Western Joshua tree. The City's Protected Plant Policy (HMC 16.24) states the following for commercial and industrial projects:

[2] Fish & G. Code § 2081(b); Cal. Code Regs., tit. 14, §§ 783.2-783.8

- The Plan shall be certified by an arborist or registered botanist.
- An application and fee shall be completed and paid to the City of Hesperia.
- Healthy, transplantable Western Joshua trees shall be relocated on-site or may be placed in an adoption program.

The *Desert Native Plant Protection and Relocation Plan* will address requirements of the City's Protected Plant Policy and provide details from the initial survey of the site's Western Joshua trees and other sensitive desert plant species, detailed specifications for the protection of trees to be preserved on site, and relocation/salvage requirements for those trees or bushes requiring removal and relocation. Specifically, the Plan will include site location and characteristics; relocation requirements including Western Joshua tree and other sensitive desert plant species report and removal/relocation and transplanting specifics; success criteria and associated necessary fees, protective measures prior to, during and after construction, and maintenance after construction.

5.2 SPECIAL-STATUS WILDLIFE SPECIES

Based on the results of the focused surveys and current site conditions, a review of specific habitat preferences, historical occurrence records, known distributions, and habitat associations, it was determined that Project development will not result in the loss of individual Mohave ground squirrels or desert tortoise, nor will development adversely affect local or regional populations of these species.

Burrowing owl have a high probability of occurrence at the Project Site. While no burrowing owl were observed at the time of the site visit, this species is transient and has the potential to occupy the Project Site prior to development. The followig recommendations are provided to ensure that no impacts occur to burrowing owl.

5.2.1 Avoidance and Minimization Measures

Based on the results of the field survey and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the Survey Area has a high potential to support Western burrowing owl (SSC and locally significant within the County of San Bernardino).

To ensure there are no impacts to burrrowing owl, it is recommended that a one-day site visit by a qualified biologist be performed within 14-30 days of project construction or ground breaking activities. If burrowing owl are observed at this time CDFW will be contacted to collaborate on methods to remove or discourage owls from occupying the site.

BIO-3: Pre-Construction Western Burrowing Owl Clearance Surveys

In accordance with the *Staff Report on Burrowing Owl Mitigation* (CDFW 2012), two (2) pre-construction clearance surveys should be conducted 14-30 days and 24 hours prior to any vegetation removal or ground disturbing activities. Once surveys are completed, the qualified biologist shall prepare a final report documenting surveys and findings. If no burrowing owls or occupied burrows are detected, Project construction activities may begin. If an occupied burrow is found within the Project Site during pre-construction clearance surveys, a burrowing owl exclusion and mitigation plan shall be prepared and submitted to the County, which may consult with CDFW for review, prior to initiating Project construction activities.

BIO-4: Passive and Active Relocation of Western Burrowing Owls

If Western burrowing owls are observed on the Project Site during preconstruction surveys, CDFW shall be immediately notified to determine if avoidance of the nest is appropriate until the nest is vacated or to gain concurrence from CDFW on active or passive relocation actions. All passive or relocation activities shall be in concurrence with CDFW guidelines (Staff Report on Burrowing Owl Mitigation 2012).

If burrowing owls are present and nesting on-site the following steps shall be necessary to reduce impacts to less than significant. These steps may be augmented by recommendations from CDFW:

a. Occupied burrows shall not be disturbed during the nesting season (February 1 through August 31) unless a qualified biologist approved by CDFW verifies through non-invasive methods that: (1) owls have not begun egg-laying and incubation; or (2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.
b. A qualified biologist shall exclude all owls from active burrows using one-way doors. Concurrently, all inactive burrows and other sources of secondary refuge for burrowing owls shall be collapsed and removed from the site.
c. Following and 24 to 48-hour observation period, all vacated burrows shall be collapsed.
d. A qualified biologist shall conduct a post-exclusion survey confirming the absence of burrowing owls on the Project Site. Should newly occupied burrows be discovered on the Project Site the exclusion activities shall be repeated.

5.3 NESTING BIRDS AND WILDLIFE MOVEMENT

The Survey Area is surrounded by undeveloped land to the west, and development land to the north, south, and east. Implementation of the Project will not inhibit wildlife from moving to adjacent open space which surrounds the Project Site to the west. Suitable bird nesting habitat

is present (although limited) throughout the Project Site and buffer area. It is recommended to conduct a one-day site assessment for nesting birds within 7-days of project construction or ground-breaking activities. This can be performed concurrently with the burrowing owl site assessment mentioned above.

5.3.1 Avoidance and Minimization Measures

Pursuant to the MBTA (16 U.S. Government Code [USC] 703) of 1918, as amended in 1972, federal law prohibits the taking of migratory birds or their nests or eggs (16 USC 703; 50 CFR 10, 21). The following avoidance and minimization measure is recommended to reduce potential impacts to nesting birds to a less than significant level.

Impacts to special-status species designated as endangered, threatened, rare, or a candidate species would require disclosure under CEQA. Impacts to SSC species are not considered significant under CEQA and warrant no legal protection but may simply require CEQA disclosure.

BIO-5: Nesting Bird Preconstruction Surveys

If it is not feasible to avoid the nesting bird season (typically January through July for raptors and February through August for other avian species), a qualified biologist shall conduct a pre-construction nesting bird survey for avian species to determine the presence/absence, location, and status of any active nests on or directly adjacent to the Project Site. If active nests are located, the extent of the survey buffer area surrounding the nest should be established by the qualified biologist to ensure that direct and indirect effects to nesting birds are avoided. To avoid the destruction of active nests and to protect the reproductive success of birds protected by the MBTA and the CFGC, the nesting bird survey shall occur no earlier than seven (7) days prior to the commencement of construction.

In the event that active nests are discovered, a suitable buffer (distance to be determined by the biologist) shall be established around such active nests, and no construction within the buffer allowed, until the biologist has determined that the nest(s) is no longer active (i.e., the nestlings have fledged and are no longer reliant on the nest).

5.4 REGIONAL CONNECTIVITY

The Project Site does not serve as a wildlife corridor. Therefore, no impacts to regional connectivity or wildlife corridors will occur due to Project development.

5.5 CRITICAL HABITAT

There is no USFWS-designated critical habitat mapped within the Survey Area. Therefore, no impacts to critical habitat are expected to occur as a result of the Project, and no further recommendations or avoidance and minimization measures are warranted.

5.6 JURISDICTIONAL FEATURES ANALYSIS

There are no wetland, waters, or other jurisdictional features on the Project Site. Therefore, no additional surveys or assessments will be recommended and no impacts to jurisdictional features will occur due to Project development.

5.7 CONCLUSION

To the best of our knowledge, this Report is intended to identify additional needs relating to field studies and possible constraints associated with Project development. All figures and species lists were created specifically for this Project and reflect site conditions at the time of the site assessment and focused surveys. Focused surveys for plants and wildlife were performed for this report and can be found in Appendix G.

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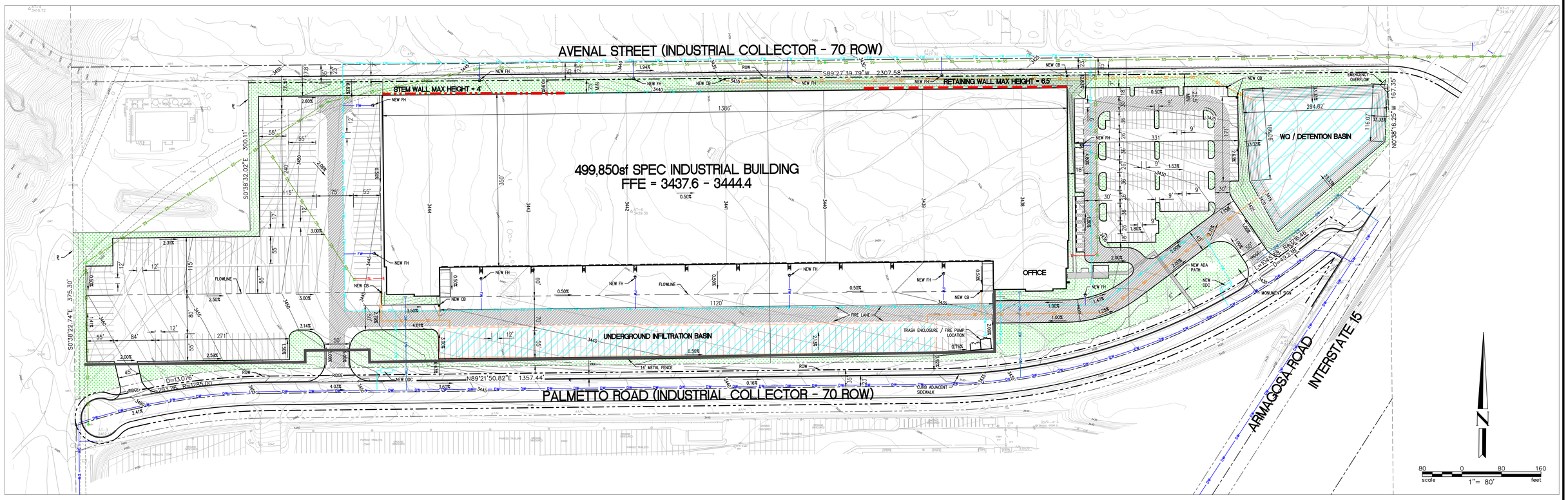
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Appendix A

Conceptual Plans

HESPERIA SPEC INDUSTRIAL
SITE PLAN EXHIBIT
COUNTY OF SAN BERNARDINO



OWNER

RACHAMIN 5, LLC
6001 EAST SLAUSSON AVENUE
COMMERCE, CA 90040
TEL: (213) 769-4222 X107

CONTACT: RAMIN NAMVAR

ARCHITECT

RGA
15231 ALTON PARKWAY, SUITE 100
IRVINE, CA 92618
(949) 341-0923

CONTACT: CHRIS SAVAGE

CIVIL ENGINEER

WESTLAND GROUP, INC.
4150 CONCOURS STREET,
SUITE 100
ONTARIO, CA 91764
(909) 403-5647

CONTACT: MATT KUNKLE

UTILITY PURVEYORS

SCE
PO BOX 6400
RANCHO CUCAMONGA, CA
91729
(760) 951-3253
ATTENTION: JERIMON ROMERO

SOUTHWEST GAS CO.
13471 MARIPOSA ROAD
VICTORVILLE, CA
(760) 951-4053
ATTENTION: DIANE REICHLE

VERIZON
16071 MOHAVE DR BLDG A
VICTORVILLE, CA 92395
(800) 483-3000
ATTENTION: CHRIS THORPE

CITY OF HESPERIA, WATER DIST.
9700 SEVENTH AVE.
HESPERIA, CA 92345
(760) 947-1417

CITY OF HESPERIA, SEWER
9700 SEVENTH AVE.,
HESPERIA, CA 92345
(760) 947-1417

CHARTER COMMUNICATIONS
9536 "C" AVE
VICTORVILLE, CA
(866) 499-8080

LEGAL DESCRIPTION

ALL THAT CERTAIN REAL PROPERTY SITUATED IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, DESCRIBED AS FOLLOWS:

PARCEL 1:
PARCELS 3 AND 4 OF PARCEL MAP 14386, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 181, PAGES 62 AND 63 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

PARCEL 2:
PARCEL 2 OF PARCEL MAP 17599, IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS PER MAP RECORDED IN BOOK 213, PAGES 54 AND 55 OF PARCEL MAPS, IN THE OFFICE OF THE COUNTY RECORDER OF SAID COUNTY.

APN 0405-072-52-0-000; 0405-072-53-0-000; 0405-072-55-0-000

PROJECT EARTHWORK DATA

2D GRADING AREA: 170,140 SQ.YD.
CUT: 95,800 CY
FILL: 96,100 CY
NET: 300 CY
NOTE: ALL QUANTITIES ARE UNADJUSTED

HYDROLOGY SUMMARY						
AREA ID	AREA (AC)	TC (MIN)	Q_{100} (CFS)	V_{120} (CF)	Retention Provided (CF)	Total V Provided (CF)
A	6.29	10	16.5	117,301	600,000	600,000 min
B	19.08	10	50.2	379,213		
C	6.22	10	15.9	81,068		
TOTAL	31.59		82.9	582,327		

BASIN SUMMARY TABLE		
BASIN ID	RETENTION VOLUME	TOTAL VOLUME
ABOVE GROUND BASIN	295,000 CF	295,000 CF min
UNDERGROUND INFILTRATION BASIN	305,000 CF	305,000 CF min
TOTAL	600,000 CF	600,000 CF min

EASEMENT NOTES

ITEM A, B & C PERTAIN TO TAX MATTERS

1. WATER RIGHTS, CLAIMS OR TITLE TO WATER, WHETHER OR NOT DISCLOSED BY THE PUBLIC RECORDS.
   BLANKET IN NATURE, CAN NOT BE PLOTTED.
2. EASEMENT(S) IN FAVOR OF THE PUBLIC OVER ANY EXISTING ROADS LYING WITHIN SAID LAND.
   BLANKET IN NATURE, CAN NOT BE PLOTTED.
3. THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE RIGHTS OF ACCESS TO OR FROM THE STREET, HIGHWAY, OR FREEWAY ABUTTING SAID LAND, SUCH RIGHTS HAVING BEEN RELINQUISHED BY THE DOCUMENT,
   RECORDING DATE: DECEMBER 31, 1948
   RECORDING NO: IN BOOK 2342, PAGE 152 OFFICIAL RECORDS
   AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
   DOES NOT AFFECT SUBJECT PROPERTY.
4. THE OWNERSHIP OF SAID LAND DOES NOT INCLUDE RIGHTS OF ACCESS TO OR FROM THE STREET, HIGHWAY, OR FREEWAY ABUTTING SAID LAND, SUCH RIGHTS HAVING BEEN RELINQUISHED BY THE DOCUMENT,
   RECORDING DATE: MAY 10, 1961
   RECORDING NO: IN BOOK 5426, PAGE 35 OFFICIAL RECORDS
   AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
   DOES NOT AFFECT SUBJECT PROPERTY.
5. WAIVER OF ANY CLAIMS FOR DAMAGES TO SAID LAND BY REASON OF THE LOCATION, CONSTRUCTION, LANDSCAPING OR MAINTENANCE OF THE STREET OR HIGHWAY ADJOINING SAID LAND, AS CONTAINED IN THE DEED TO COUNTY/CITY/STATE: STATE OF CALIFORNIA
   RECORDING DATE: MAY 10, 1961
   RECORDING NO.: IN BOOK 5426, PAGE 35 OFFICIAL RECORDS
   DOES NOT AFFECT SUBJECT PROPERTY.
6. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
   DISCLOSED BY: NOTICE OF LIS PENDENS
   CASE NO: 144429
   COURT: SUPERIOR COURT
   PURPOSE: WATER PIPELINE SYSTEM
   RECORDING DATE: MAY 17, 1971
   RECORDING NO: IN BOOK 7669, PAGE 97 OFFICIAL RECORDS
   AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
7. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
   GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
   PURPOSE: PUBLIC UTILITIES AND ACCESS
   RECORDING DATE: MARCH 13, 1987
   RECORDING NO: AS INSTRUMENT NO. 1987-081745 OFFICIAL RECORDS
   AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
   DOES NOT AFFECT SUBJECT PROPERTY.

EASEMENT NOTES (CONTINUED)

8. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
   GRANTED TO: HESPERIA WATER DISTRICT
   PURPOSE: PIPELINE(S) AND PUBLIC PURPOSES AND INGRESS AND EGRESS
   RECORDING DATE: AUGUST 11, 1992
   RECORDING NO: AS INSTRUMENT NO. 1992-333349 OFFICIAL RECORDS
   AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT
9. THE LAND DESCRIBED HEREIN IS INCLUDED WITHIN A PROJECT AREA OF THE REDEVELOPMENT AGENCY SHOWN BELOW, AND THAT PROCEEDINGS FOR THE REDEVELOPMENT OF SAID PROJECT HAVE BEEN INSTITUTED UNDER THE REDEVELOPMENT LAW (SUCH REDEVELOPMENT TO PROCEED ONLY AFTER THE ADOPTION OF THE REDEVELOPMENT PLAN) AS DISCLOSED BY A DOCUMENT.
   REDEVELOPMENT AGENCY: HESPERIA COMMUNITY REDEVELOPMENT AGENCY
   RECORDING DATE: JULY 21, 1993
   RECORDING NO: AS INSTRUMENT NO. 1993-310136 OFFICIAL RECORDS
   AND RECORDING DATE: DECEMBER 03, 2007
   AND RECORDING NO: AS INSTRUMENT NO. 2007-0676018 OFFICIAL RECORDS
   BLANKET IN NATURE, CAN NOT BE PLOTTED.
10. VARIOUS MATTERS INCLUDING, BUT NOT LIMITED TO, REQUIREMENTS FOR DEVELOPING OR IMPROVING THE LAND, PROPOSED EASEMENTS, COVENANTS, CONDITIONS, RESTRICTIONS AND PROVISIONS SET FORTH ON PARCEL MAP 14386, IN BOOK 181, PAGES 62 AND 63 OF PARCEL MAPS.
    REFER TO ITEMS 8 & 12.
11. AGREEMENT FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS
    RECORDING DATE: FEBRUARY 07, 1997
    RECORDING NO: AS INSTRUMENT NO. 19970044707 OFFICIAL RECORDS
    BLANKET IN NATURE, CAN NOT BE PLOTTED
12. EASEMENT(S) FOR THE PURPOSE(S) SHOWN BELOW AND RIGHTS INCIDENTAL THERETO, AS GRANTED IN A DOCUMENT:
    GRANTED TO: SOUTHERN CALIFORNIA EDISON COMPANY
    PURPOSE: OVERHEAD ELECTRICAL SUPPLY SYSTEMS AND COMMUNICATION SYSTEMS AND APPURTENANCES
    RECORDING DATE: NOVEMBER 01, 2006
    RECORDING NO: AS INSTRUMENT NO. 2006-0746828 OFFICIAL RECORDS
    AFFECTS: A PORTION OF SAID LAND AS MORE PARTICULARLY DESCRIBED IN SAID DOCUMENT

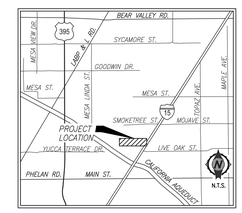
ITEM 13 THROUGH 19 PERTAIN TO TITLE MATTERS

LEGEND

- DOMESTIC WATER LINE — DW
- SANITARY SEWER — SS
- FIRE WATER LINE — FW
- STORM DRAIN LINE — SD
- FIRE HYDRANT
- STREET LIGHT
- PROPERTY LINE
- LANDSCAPE
- SEWER LATERAL
- RETAINING WALL
- STEM WALL
- INFILTRATION BASIN
- NEW SIDEWALK
- FIRE LANE

PROJECT SITE DATA

APPROX. NET INDUSTRIAL SITE AREA:	1,329,521 SF / 30.52 AC
BUILDING AREA:	499,850 SF
COVERAGE:	37.6 %
F.A.R.	0.376
AUTO PARKING REQUIRED:	
10,000 SF OFFICE @ 3.33 / 1000 SF	33 STALLS
489,720 SF WAREHOUSE: 20+0.4/1000 0/10K SF	212 STALLS
TOTAL	245 STALLS
PARKING PROVIDED:	
STANDARD STALLS	244 STALLS
ACCESSIBLE STALLS	7 STALLS
TOTAL STALLS PROVIDED	251 STALLS
DOCK LOADING POSITIONS	72 DOCKS
TRAILER PARKING STALLS	256 TRAILERS
LANDSCAPE PROVIDED	255,000 SF / 19.1 %



VICINITY MAP

N.T.S

WestLAND Group, Inc. Land Surveyors • Civil Engineers • GIS
14150 Concours Street Suite 100, Ontario, CA 91764
Phone: (909) 989-9789 Fax: (909) 989-9660

CITY OF HESPERIA
SPEC INDUSTRIAL
SITE PLAN EXHIBIT

DRAWN BY:	LG
DESIGNED BY:	MK
CHECKED BY:	MK
SCALE:	1" = 80'
DATE:	JULY 2022
SHT NO.:	1 OF 1

Drawing Name: P:\Proj_2021\2021-166 - Hesperia Industrial - RGA - Chris Savage\06 Engineering\Sheets\CONCEPTUAL\Site Plan Exhibit\01_2021-166_SP.dwg
Last Opened: Jul 14, 2022 - 9:17am by: lucas.glauser

Appendix B

Representative Site Photographs



Photograph 1. Looking East across Project Site.



Photograph 2. Looking South at existing building which is off-site.



Photograph 3. Looking Northwest at adjacent off-site utilities.



Photograph 4. Looking Northwest.



Photograph 5. Looking Southeast.



Photograph 6. Looking Southwest.



Photograph 7. Looking North.



Photograph 8. Looking Northeast. This is the largest Joshua tree on the Project Site. Avenal Street is in the background.

Appendix C

Plant Compendia

APPENDIX C

Plant Compendia

The following vascular plant species were observed by CASC at the Palmetto Way Industrial Spec Project Site in Hesperia, California during April – July 2022.

*Indicates introduced nonnative species

SPECIES/SCIENTIFIC NAME	FAMILY/COMMON NAME
ANGIOSPERMAE	***FLOWERING PLANTS***
ASTERACEAE (COMPOSITAE)	*SUNFLOWER FAMILY*
Ambrosia dumosa	common burrobrush
Ambrosia salsola	cheesebrush
Artemisia tridentata	sagebrush
Chaenactis fremontii	Fremont's pincushion
Ericamaria nauseosa	rubber rabbitbush
Eriophyllum conferitflorum	golden yarrow
Geraea canescens	desert sunflower
Gutierrezia microcephala	sticky snakeweed
Stephanomeria pauciflora	desert wirelettuce
Tetradymia axillaris	cottonthorn
BORAGINACEAE	*BORAGE FAMILY*
Amsinckia intermedia	*common fiddleneck*
Amsinckia retrorsa	*rigid fiddleneck*
BRASSICACEAE	*MUSTARD FAMILY*
*Hirschfeldia incana **	shortpod mustard
CACTACEAE	*CACTUS FAMILY*
Cylindropuntia echinocarpa	silver cholla
CHENOPODIACEAE	*GOOSEFOOT FAMILY*
Atriplex canescens	hoary saltbush
Grayia sinosa	*hop sage*
Suaeda nigra	bush seepweed
CUPRESSACEAE	*CYPRESS FAMILY*
Juniperus californica	California juniper

SPECIES/SCIENTIFIC NAME	FAMILY/COMMON NAME
EPHEDRACEAE	*EPHEDRA FAMILY*
Ephedra californica	desert tea
GERIANIACEAE	*GERANIUM FAMILY*
*Erodium cicutarium**	long-beaked filaree
LAMIACEAE (LABIATAE)	*MINT FAMILY*
Salvia dorrii	desert sage
LILIACEAE	*LILY FAMILY*
Yucca brevifolia	Joshua tree
NYCTAGINACEAE	*NIGHTSHADE FAMILY*
Mirabilis laevis	*desert wishbone bush*
ONAGRACEAE	*SUNCUP FAMILY*
Eremothera boothii	*Booth's suncup*
PLANTAGINACEAE	*PLANTAIN FAMILY*
Plantago ovata	*desert plantain*
POLYGONACEAE	*BUCKWHEAT FAMILY*
Eriogonum plumatella	flatopped buckwheat
Eriogonum fasciculatum	California buckwheat
Eriogonum wrightii	bastard sage
PRIMULACEAE	*PRIMROSE FAMILY*
Eremothera boothii ssp. *decorticans*	*desert shredding primrose*
RHAMNACEAE	*BUCKTHORN FAMILY*
Ceanothus leucodermis	chaparral whitethorn
ROSEACEAE	*ROSE FAMILY*
Purshia tridentata	antelope bitterbrush
SOLANACEAE	*NIGHTSHADE FAMILY*
Lycium cooperii	Cooper's box-thorn
ZYGOPHULLACEAE	*CALTROP FAMILY*
Larrea tridentata	creosote bush
MONOCOTYLEDONES	***MONOCOTS***
POACEAE	*GRASS FAMILY*
*Bromus rubens**	red brome
Bromus tectorum	cheat grass
*Poa secunda **	perennial bluegrass

Schismus barbatus	Mediterranean grass

Floral compendia identified during surveys were recorded in terms of relative abundance and host habitat type. Floral taxonomy used in this report follows the *Jepson Manual* (Hickman 1993) and for sensitive species, the *California Native Plant Society Rare Plant Inventory*, 5th Edition (Pavlik and Skinner 1994). Additional common plant names are taken from Munz (1974) and Sawyer and Keeler-Wolf (2009)

Appendix D

Wildlife Compendia

APPENDIX D

Wildlife Compendia

The following is a list of wildlife species recorded aby CASC at the Palmetto Way Industrial Spec Project Site in Hesperia, California April – July 2022. Presence may be noted if a species is seen or hears, or identified by the presence of tracks, scat, or other sign.

*Indicates introduced nonnative species

SPECIES/SCIENTIFIC NAME	COMMON NAME
REPTILIA	***REPTILES***
IGUANIDAE	*IGUANID LIZARDS*
Uta stansburiana	side-blotched Lizard
Aspidoscelis tigris tigris	basin whiptail
Xantusia vigilis	desert night lizard
AVES	***BIRDS***
COLUMBIDAE	*PIGEONS AND DOVES*
Zenaida macroura	mourning dove
CORVIDAE	*CROWS AND RAVENS*
Corvus brachyrhunchos	American crow
Corvus corax	common raven
TROGLODYTIDAE	*WRENS*
Campylorhynchus brumeicapillus	*cactus wren*
FRINGILLIDAE	*FINCHES*
Eremophila alpestris	horned lark
LANIIDAE	SHRIKES
Lanius ludovicianus	*loggerhead shrike*
TYTONIDAE	*OWLS*
Tyto alba	barn owl
MAMMALIA	***MAMMALS***
LEPORIDAE	*RABBITS AND HARES*
Lepus californicus	black-tailed jackrabbit
CANIDAE	*DOGS, FOXES, AND ALLIES*
Canis latrans	coyote (scat and tracks)
SCIURIDAE	SQUIRREL FAMILY
Ammospermophilus leucurus	White-tailed antelope squirrel
HETEROMYIDAE	K-RAT, K-MICE, POCKET MICE FAMILY
Dipodomys sp.	kangaroo rat

Taxonomy and nomenclature follows Beher (1998) and Laudenslayer et.al. (1991. A checklist of the amphibians, reptiles, birds, and mammals of California. California Fish and Game 77:109-141.), Sibley (2000) and the American Ornithologists' Union (1998. The A.O.U. Checklist of North American Birds, 7th Ed. American Ornithologists' Union, Washington D.C.

Appendix E

CNDDB Summary Table and BIOS

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Baldy Mesa (3411744) OR Hesperia (3411743) OR Shadow Mountains SE (3411755) OR Adelanto (3411754) OR Victorville (3411753) OR Phelan (3411745) OR Telegraph Peak (3411735) OR Cajon (3411734) OR Silverwood Lake (3411733))

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Accipiter cooperii Cooper's hawk	G5 S4	None None	CDFW_WL-Watch List IUCN_LC-Least Concern	2,860 3,361	118 S:2	0	0	0	0	0	2	2	0	2	0	0
Agelaius tricolor tricolored blackbird	G1G2 S1S2	None Threatened	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	2,665 2,665	955 S:1	0	0	0	0	0	1	0	1	1	0	0
Anaxyrus californicus arroyo toad	G2G3 S2S3	Endangered None	CDFW_SSC-Species of Special Concern IUCN_EN-Endangered	2,530 3,590	139 S:14	5	2	0	0	0	7	5	9	14	0	0
Antrozous pallidus pallid bat	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	2,820 2,820	420 S:1	0	0	0	0	0	1	0	1	1	0	0
Aquila chrysaetos golden eagle	G5 S3	None None	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC-Least Concern	2,760 2,760	325 S:1	0	0	0	0	0	1	1	0	1	0	0
Artemisiospiza belli belli Bell's sage sparrow	G5T2T3 S3	None None	CDFW_WL-Watch List	2,782 2,782	61 S:1	0	0	0	0	0	1	0	1	1	0	0
Asclepias nyctaginifolia Mojave milkweed	G4? S2	None None	Rare Plant Rank - 2B.1		67 S:1	0	0	0	0	0	1	1	0	1	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Asio otus long-eared owl	G5 S3?	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	3,220 3,880	56 S:2	0	0	0	0	0	2	2	0	2	0	0
Aspidoscelis tigris stejnegeri coastal whiptail	G5T5 S3	None None	CDFW_SSC-Species of Special Concern	2,767 2,767	148 S:1	0	0	1	0	0	0	0	1	1	0	0
Astragalus lentiginosus var. antonius San Antonio milk-vetch	G5T2 S2	None None	Rare Plant Rank - 1B.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture USFS_S-Sensitive	5,000 6,200	12 S:3	0	1	0	0	0	2	1	2	3	0	0
Athene cunicularia burrowing owl	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	100 3,700	2011 S:39	1	15	13	6	2	2	4	35	37	1	1
Batrachoseps gabrieli San Gabriel slender salamander	G2G3 S2S3	None None	IUCN_DD-Data Deficient USFS_S-Sensitive	3,600 4,200	8 S:2	0	0	0	0	0	2	2	0	2	0	0
Bombus crotchii Crotch bumble bee	G2 S1S2	None None		3,000 6,000	437 S:6	0	0	0	0	0	6	6	0	6	0	0
Botrychium ascendens upswept moonwort	G3 S2	None None	Rare Plant Rank - 2B.3 USFS_S-Sensitive	7,000 7,000	53 S:1	0	0	0	0	0	1	1	0	1	0	0
Botrychium crenulatum scalloped moonwort	G4 S3	None None	Rare Plant Rank - 2B.2 USFS_S-Sensitive	7,000 7,000	155 S:1	0	0	0	0	0	1	1	0	1	0	0
Buteo swainsoni Swainson's hawk	G5 S3	None Threatened	BLM_S-Sensitive IUCN_LC-Least Concern	880 2,700	2548 S:2	0	0	0	0	2	0	2	0	0	2	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Calochortus palmeri var. palmeri Palmer's mariposa-lily	G3T2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	3,200 3,800	111 S:4	0	0	0	0	0	4	2	2	4	0	0
Calochortus plummerae Plummer's mariposa-lily	G4 S4	None None	Rare Plant Rank - 4.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	2,780 5,900	230 S:17	0	3	3	1	0	10	6	11	17	0	0
Canbya candida white pygmy-poppy	G3G4 S3S4	None None	Rare Plant Rank - 4.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	2,700 3,900	30 S:6	0	0	0	0	0	6	6	0	6	0	0
Castilleja lasiorhyncha San Bernardino Mountains owl's-clover	G2? S2?	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	3,750 3,750	46 S:2	0	0	1	0	0	1	2	0	2	0	0
Chaetodipus fallax pallidus pallid San Diego pocket mouse	G5T3T4 S3S4	None None	CDFW_SSC-Species of Special Concern	2,700 2,700	79 S:2	0	0	0	0	0	2	2	0	2	0	0
Charina umbratica southern rubber boa	G2G3 S2S3	None Threatened	USFS_S-Sensitive	5,000 5,000	74 S:1	0	0	0	0	0	1	1	0	1	0	0
Chorizanthe xanti var. leucotheca white-bracted spineflower	G4T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture USFS_S-Sensitive	2,435 5,500	59 S:5	2	0	0	0	0	3	2	3	5	0	0

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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Claytonia peirsonii ssp. peirsonii Peirson's spring beauty	G2G3T2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	8,000 8,380	9 S:3	0	3	0	0	0	0	1	2	3	0	0
Coccyzus americanus occidentalis western yellow-billed cuckoo	G5T2T3 S1	Threatened Endangered	BLM_S-Sensitive NABCI_RWL-Red Watch List USFS_S-Sensitive	2,800 2,800	165 S:1	0	0	0	0	1	0	1	0	0	1	0
Corynorhinus townsendii Townsend's big-eared bat	G4 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	2,630 2,630	635 S:1	0	0	0	0	0	1	1	0	1	0	0
Deinandra mohavensis Mojave tarplant	G2 S3	None Endangered	Rare Plant Rank - 1B.3 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	3,100 3,189	84 S:2	0	0	0	0	0	2	0	2	2	0	0
Diadophis punctatus modestus San Bernardino ringneck snake	G5T2T3 S2?	None None	USFS_S-Sensitive	3,498 3,647	14 S:2	2	0	0	0	0	0	0	2	2	0	0
Diplacus mohavensis Mojave monkeyflower	G2 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	2,800 3,500	61 S:2	0	1	0	0	0	1	2	0	2	0	0
Empidonax traillii extimus southwestern willow flycatcher	G5T2 S1	Endangered Endangered	NABCI_RWL-Red Watch List	2,680 2,770	70 S:4	3	1	0	0	0	0	1	3	4	0	0
Emys marmorata western pond turtle	G3G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable USFS_S-Sensitive	780 3,135	1404 S:4	1	3	0	0	0	0	1	3	4	0	0
Eremothera boothii ssp. boothii Booth's evening-primrose	G5T4 S3	None None	Rare Plant Rank - 2B.3	2,600 2,880	35 S:6	0	0	1	1	0	4	4	2	6	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Euchloe hyantis andrewsi Andrew's marble butterfly	G4G5T1 S1	None None		4,800 5,000	6 S:2	0	0	0	0	0	2	2	0	2	0	0
Eumops perotis californicus western mastiff bat	G4G5T4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern WBWG_H-High Priority		296 S:1	0	0	0	0	0	1	1	0	1	0	0
Euphydryas editha quino quino checkerspot butterfly	G5T1T2 S1S2	Endangered None		5,000 5,000	186 S:1	0	0	0	0	1	0	1	0	0	0	1
Glaucomys oregonensis californicus San Bernardino flying squirrel	G5T1T2 S1S2	None None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	4,600 4,600	12 S:2	0	1	0	0	0	1	1	1	2	0	0
Gopherus agassizii desert tortoise	G3 S2S3	Threatened Threatened	IUCN_VU-Vulnerable	2,690 3,700	985 S:10	0	6	4	0	0	0	2	8	10	0	0
Haliaeetus leucocephalus bald eagle	G5 S3	Delisted Endangered	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected IUCN_LC-Least Concern USFS_S-Sensitive	3,120 5,150	332 S:3	0	1	0	0	0	2	3	0	3	0	0
Helianthus nuttallii ssp. parishii Los Angeles sunflower	G5TX SX	None None	Rare Plant Rank - 1A	5,000 5,000	7 S:1	0	0	0	0	0	1	1	0	1	0	0
Helminthoglypta mohaveana Victorville shoulderband	G1 S1	None None	IUCN_NT-Near Threatened	2,640 2,800	2 S:2	0	0	0	0	0	2	2	0	2	0	0
Helminthoglypta taylori westfork shoulderband	G1 S1	None None		3,034 3,377	6 S:6	0	0	0	0	1	5	2	4	5	0	1
Heuchera parishii Parish's alumroot	G3 S3	None None	Rare Plant Rank - 1B.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	5,100 5,100	70 S:1	0	1	0	0	0	0	0	1	1	0	0
Icaricia saepiolus aureolus San Gabriel Mountains blue butterfly	G5T1 S1	None None	USFS_S-Sensitive	6,000 6,000	2 S:1	0	0	0	0	0	1	1	0	1	0	0

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						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Icteria virens yellow-breasted chat	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	2,740 2,740	101 S:1	0	1	0	0	0	0	1	0	1	0	0
Juniperella mirabilis juniper metallic wood-boring beetle	G1 S1	None None		4,300 4,300	2 S:1	0	0	0	0	0	1	0	1	1	0	0
Lanius ludovicianus loggerhead shrike	G4 S4	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	2,719 3,424	110 S:4	0	1	3	0	0	0	0	4	4	0	0
Lasiurus cinereus hoary bat	G3G4 S4	None None	IUCN_LC-Least Concern WBWG_M-Medium Priority		238 S:1	0	0	0	0	0	1	1	0	1	0	0
Lilium parryi lemon lily	G3 S3	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	6,100 7,150	160 S:4	0	1	0	0	0	3	3	1	4	0	0
Linanthus concinnus San Gabriel linanthus	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	5,700 8,400	43 S:6	0	1	0	0	0	5	2	4	6	0	0
Loeflingia squarrosa var. artemisiarum sagebrush loeflingia	G5T3 S2	None None	Rare Plant Rank - 2B.2 BLM_S-Sensitive	3,300 3,300	26 S:1	0	0	1	0	0	0	0	1	1	0	0
Lycium parishii Parish's desert-thorn	G4 S1	None None	Rare Plant Rank - 2B.3		21 S:1	0	0	0	0	1	0	1	0	0	0	1
Microtus californicus mohavensis Mohave river vole	G5T1 S1	None None	CDFW_SSC-Species of Special Concern	2,600 2,700	6 S:3	0	0	0	0	0	3	2	1	3	0	0
Monardella australis ssp. jokerstii Jokerst's monardella	G4T1? S1?	None None	Rare Plant Rank - 1B.1 USFS_S-Sensitive	4,450 4,450	3 S:1	0	0	0	0	0	1	1	0	1	0	0
Muhlenbergia californica California muhly	G4 S4	None None	Rare Plant Rank - 4.3	7,000 7,000	5 S:1	0	0	0	0	0	1	1	0	1	0	0
Neotamias speciosus speciosus lodgepole chipmunk	G4T3T4 S2S3	None None		4,920 4,920	24 S:1	0	0	0	0	0	1	1	0	1	0	0

Summary Table Report

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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Opuntia basilaris var. brachyclada short-joint beavertail	G5T3 S3	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	2,500 6,300	199 S:72	3	10	10	1	0	48	18	54	72	0	0
Oreonana vestita woolly mountain-parsley	G3 S3	None None	Rare Plant Rank - 1B.3 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	6,400 8,960	55 S:5	1	1	0	0	0	3	4	1	5	0	0
Orobanche valida ssp. valida Rock Creek broomrape	G4T2 S2	None None	Rare Plant Rank - 1B.2 USFS_S-Sensitive	5,700 6,300	12 S:2	0	1	0	0	0	1	1	1	2	0	0
Ovis canadensis nelsoni desert bighorn sheep	G4T4 S3	None None	BLM_S-Sensitive CDFW_FP-Fully Protected USFS_S-Sensitive		46 S:1	0	0	0	0	0	1	1	0	1	0	0
Palaeoxenus dohrni Dohrn's elegant eucnemid beetle	G3? S3?	None None		4,000 4,000	3 S:1	0	0	0	0	0	1	0	1	1	0	0
Pandion haliaetus osprey	G5 S4	None None	CDF_S-Sensitive CDFW_WL-Watch List IUCN_LC-Least Concern	3,396 3,396	504 S:1	0	0	0	0	0	1	0	1	1	0	0
Pediomelum castoreum Beaver Dam breadroot	G3 S2	None None	Rare Plant Rank - 1B.2 BLM_S-Sensitive SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	2,657 3,310	26 S:3	0	0	0	1	0	2	2	1	3	0	0
Phrynosoma blainvillii coast horned lizard	G3G4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	2,600 5,290	784 S:19	0	2	1	0	1	15	17	2	18	0	1
Piranga rubra summer tanager	G5 S1	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	2,670 2,780	21 S:2	0	1	0	0	0	1	2	0	2	0	0

Summary Table Report

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Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Plebulina emigdionis San Emigdio blue butterfly	G1G2 S1S2	None None	USFS_S-Sensitive	2,450 2,702	11 S:4	0	0	2	0	0	2	2	2	4	0	0
Rana draytonii California red-legged frog	G2G3 S2S3	Threatened None	CDFW_SSC-Species of Special Concern IUCN_VU-Vulnerable	2,750 3,120	1671 S:2	0	0	0	0	0	2	2	0	2	0	0
Rana muscosa southern mountain yellow-legged frog	G1 S1	Endangered Endangered	CDFW_WL-Watch List IUCN_EN-Endangered USFS_S-Sensitive	3,200 3,500	186 S:2	0	0	0	0	2	0	2	0	0	1	1
Rhinichthys osculus ssp. 8 Santa Ana speckled dace	G5T1 S1	None None	AFS_TH-Threatened CDFW_SSC-Species of Special Concern USFS_S-Sensitive	2,500 2,500	13 S:1	0	0	1	0	0	0	1	0	1	0	0
Schoenus nigricans black bog-rush	G4 S2	None None	Rare Plant Rank - 2B.2 IUCN_LC-Least Concern USFS_S-Sensitive	3,000 5,000	13 S:5	0	0	0	0	0	5	3	2	5	0	0
Scutellaria bolanderi ssp. austromontana southern mountains skullcap	G4T3 S3	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden USFS_S-Sensitive	2,700 3,140	43 S:2	0	0	0	0	0	2	1	1	2	0	0
Setophaga petechia yellow warbler	G5 S3S4	None None	CDFW_SSC-Species of Special Concern	2,700 3,660	78 S:2	0	1	0	0	0	1	1	1	2	0	0
Siphateles bicolor mohavensis Mohave tui chub	G4T1 S1	Endangered Endangered	AFS_EN-Endangered CDFW_FP-Fully Protected	2,660 3,400	24 S:7	0	0	0	0	6	1	6	1	1	2	4
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	G4 S4	None None		3,300 3,300	230 S:1	0	0	0	0	0	1	1	0	1	0	0
Symphyotrichum defoliatum San Bernardino aster	G2 S2	None None	Rare Plant Rank - 1B.2 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden SB_CRES-San Diego Zoo CRES Native Gene Seed Bank USFS_S-Sensitive	2,730 3,400	102 S:2	0	0	0	0	0	2	2	0	2	0	0

Summary Table Report

California Department of Fish and Wildlife

California Natural Diversity Database

Name (Scientific/Common)	CNDDB Ranks	Listing Status (Fed/State)	Other Lists	Elev. Range (ft.)	Total EO's	Element Occ. Ranks						Population Status		Presence		
						A	B	C	D	X	U	Historic > 20 yr	Recent <= 20 yr	Extant	Poss. Extirp.	Extirp.
Symphyotrichum greatae Greata's aster	G2 S2	None None	Rare Plant Rank - 1B.3 SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	3,440 3,440	56 S:1	0	0	0	0	0	1	1	0	1	0	0
Taxidea taxus American badger	G5 S3	None None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	3,301 3,301	594 S:1	0	0	0	0	0	1	1	0	1	0	0
Thamnophis hammondii two-striped gartersnake	G4 S3S4	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive	2,956 3,498	184 S:4	1	2	0	0	0	1	1	3	4	0	0
Toxostoma lecontei Le Conte's thrasher	G4 S3	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern NABCI_RWL-Red Watch List USFWS_BCC-Birds of Conservation Concern	2,698 4,100	238 S:8	0	0	1	0	0	7	7	1	8	0	0
Vireo bellii pusillus least Bell's vireo	G5T2 S2	Endangered Endangered	IUCN_NT-Near Threatened NABCI_YWL-Yellow Watch List	2,590 2,760	504 S:7	0	5	1	0	0	1	1	6	7	0	0
Vireo vicinior gray vireo	G5 S2	None None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern NABCI_YWL-Yellow Watch List USFS_S-Sensitive	3,200 3,260	28 S:2	0	0	0	0	0	2	2	0	2	0	0
Xerospermophilus mohavensis Mohave ground squirrel	G2G3 S2S3	None Threatened	BLM_S-Sensitive IUCN_VU-Vulnerable	2,520 3,460	432 S:12	0	2	1	0	2	7	8	4	10	1	1

California Rare Plant Rank

The California Rare Plant Rank status applies to plants only. The California Rare Plant Ranks are a ranking system originally developed by the California Native Plant Society (CNPS) to better define and categorize rarity in California's flora. These ranks were previously known as the CNPS lists but were renamed to the California Rare Plant Ranks to better reflect the joint effort among the CNPS, the CNDDB, and a wide range of botanical experts, who work together to assign a rarity ranking. All plants tracked by the CNDDB are assigned to a California Rare Plant Rank category. These categories are:

CA Rare Plant Rank	Description
1A	Plants presumed extinct in California and rare/extinct elsewhere
1B.1	Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
1B.2	Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
1B.3	Plants rare, threatened, or endangered in California and elsewhere; not very threatened in California
2A	Plants presumed extirpated in California, but more common elsewhere
2B.1	Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
2B.2	Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California
2B.3	Plants rare, threatened, or endangered in California, but more common elsewhere; not very threatened in California
3.1	Plants about which we need more information; seriously threatened in California
3.2	Plants about which we need more information; fairly threatened in California
3.3	Plants about which we need more information; not very threatened in California
4.1	Plants of limited distribution; seriously threatened in California
4.2	Plants of limited distribution; fairly threatened in California
4.3	Plants of limited distribution; not very threatened in California

California Department of Fish and Wildlife Status

The California Department of Fish and Wildlife (CDFW) Status applies to animals only. The possible values for CDFW Status are:
T = Threatened E = Endangered

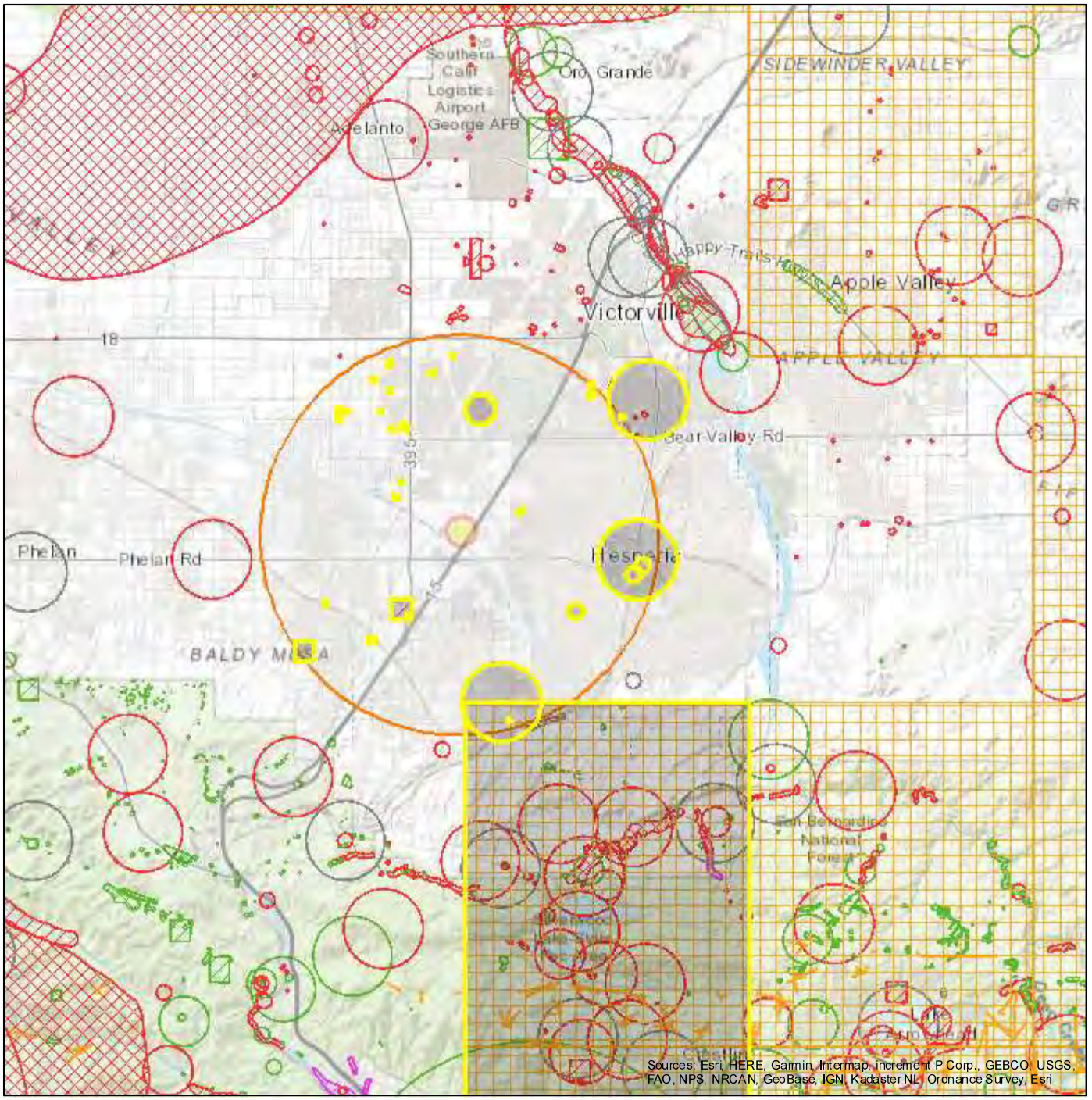
Status	Description
FP	Fully Protected: This classification was the State of California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts.
SSC	Species of Special Concern: It is the goal and responsibility of the Department of Fish and Wildlife to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as "Species of Special Concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as "Species of Special Concern" is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability.
WL	Watch List: The Department of Fish and Wildlife maintains a list consisting of taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

Map of Project Area 5-mile radius Palmetto Way

Spotted Owl Observations Spider Diagram [ds705]

California Natural Diversity Database (CNDDB) Commercial [ds85]

- Plant (80m)
- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (80m)
- Animal (specific)
- Animal (non-specific)
- Animal (circular)
- Terrestrial Comm. (80m)
- Terrestrial Comm. (specific)
- Terrestrial Comm. (non-specific)
- Terrestrial Comm. (circular)
- Aquatic Comm. (80m)
- Aquatic Comm. (specific)
- Aquatic Comm. (non-specific)
- Aquatic Comm. (circular)
- Multiple (80m)
- Multiple (specific)
- Multiple (non-specific)
- Multiple (circular)
- Sensitive EO's (Commercial only)



1:288,895

0 2.5 5 10 mi

0 4 8 16 km

N

March 28, 2022

Author: kboydstun@cascinc.com

Printed from http://bios.dfg.ca.gov

Appendix F

National Wetlands Inventory Map

U.S. Fish and Wildlife Service
National Wetlands Inventory

Palmetto Way Industrial Spec Project



September 5, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Appendix G

Focused Survey Report

BURROWING OWL FOCUSED SURVEY REPORT

Amargosa Road & Palmetto Way Spec. Industrial Project

City of Hesperia, San Bernardino County, California

APN #s: 0405-072-[52-53, 55]



Prepared for:
RACHAMIM 5, LLC
6001 E. Slauson Avenue
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Contact: Mr. Ramin Namvar
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October 2022

Cover Photo Credit: Brandon Trentler

CASC
Engineering and Consulting

October 24, 2022

RACHAMIM 5, LLC
Attn: Mr. Ramin Namvir
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Office: 213.769.4222 ext. 107
ramin@titaniumfabrics.com

SUBJECT: BURROWING OWL FOCUSED SURVEY REPORT
AMARGOSA ROAD & PALMETTO WAY SPEC INDUSTRIAL PROJECT, HESPERIA, CA.

Dear Mr. Namvir,

At the request of Rachamim 5, LLC, CASC Engineering and Consultants (CASC) has prepared this Burrowing Owl Focused Survey Report for compliance with the State of California Natural Resource Agency, Department of Fish and Game, Staff Report on Burrowing Owl Mitigation (March 7, 2012) (Staff Report) guidelines to determine presence/absence of burrowing owl within San Bernardino County.

A habitat assessment for burrowing owl (BUOW) was conducted from April 27, 2022, and focused surveys were conducted June – August 2022. While suitable burrowing owl (*Athene cunicularia)* habitat was absent on the Project Site, no burrowing owl or their sign was observed during the focused surveys. This report documents the methods and results of the literature review and field surveys and provides a summary of the BUOW's natural history, existing site conditions within the Biological Study Area (BSA) and the determination of a no presence study results.

INTRODUCTION

BUOW habitat assessment and focused surveys were conducted in accordance with the Burrowing Owl Staff Report Guidelines approved for use of determination within the County of San Bernardino. CASC conducted a literature review and BUOW Habitat Assessment of the entire Project Site and within a 150-meter (500 feet) buffer area around the Project Site. The Project Site and the buffer area defined as the biological study area (BSA) in this report. The habitat assessment determined the presence of suitable habitat potentially supporting BUOWs. CASC then conducted a focused assessment to potentially locate suitable burrows and burrowing owls. The purpose of the surveys was to determine BUOW presence or absence within the BSA. If present, the surveys would also help to determine BUOW distribution and abundance within the BSA, and breeding status.

PROJECT LOCATION

The Project Site is located on Palmetto Way, in Hesperia, San Bernardino County, California (Figure 1, Regional Vicinity). The property consists of three parcels, Accessor's Parcel Number: 0405-075- [52, 53,55] US Geological Society (USGS) 7.5-minute *Baldy Mesa* Quadrangle (Figure 2, USGS Map), Township 4 north, range 5 west, (latitude 117.3777327°W, longitude 34.4366696°N).

PROJECT DESCRIPTION

Rachamim 5, LLC (Project Proponent) proposes to construction of a 498,500 square foot Industrial Warehouse Building (Project) with up to 25,000 square feet of office space. The proposed Project will include 76 loading dock doors, 182 truck/trailer parking spaces and 281 auto parking spaces on three (3) parcels (APNs: 0405-072-52, 53, and 55) consisting of approximately 30.52 undeveloped acres within the City of Hesperia in the Regional Commercial Zone. The parcels are bounded on the north and west by Avenal Street, south by Palmetto Way, and Amargosa Road to the east. Three (3) entrances to the site are provided, one (1) on the east side from Palmetto Way, one (1) from Palmetto Way on the south side of the site, and a proposed third entrance/exit onto Palmetto Way from the truck/trailer parking area at the southwest corner of the site. The facility will be built on spec and will be designed to accommodate 500 to 600 employees; there is no tenant currently attached to the project.

BURROWING OWL NATURAL HISTORY

The BUOW is a small, crepuscular (active at dusk and dawn), ground-inhabiting owl that is found largely throughout the southern United States. Its overall length is about seven to ten inches. Coloring is sandy brown on its head, back and upper wings, with noticeable white spotting on its back and upper wings. Adults are barred on their breast, while juveniles are buffy with a white collar. The brown and white mottling helps to provide camouflage in their preferred dry habitats. BUOWs have yellow eyes, long legs, a short tail, with relatively long, narrow wings and a flat, round head. Their long legs help them to see over grasses and short vegetation and aid them in catching their prey (Sibley 2000).

Typical BUOW habitat is open, dry, flat ground or low rolling hills with sparse vegetation and available burrows (Gallagher, 1997). BUOWs spend most of their time on the ground or on low perch sites such as fence posts and dirt mounds. They are generally found in open country, where tree or shrub canopies cover less than 30% of the habitat (CBOC 1997). Typical habitats include annual and perennial grasslands, shortgrass prairies open agricultural areas (particularly rangelands), desert floors, and vacant lots in residential areas and ruderal fields. Other habitats include oak savannah; grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitat; sandy beaches and coastal dunes; and river bottom lands. The BUOW is primarily a dry grassland species, but it persists and can even thrive in some landscapes that are highly altered by human activity. They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows (Shuford et al. 2008). They are the only small owl likely to be seen perched in the open daylight (Sibley 2000).

Nest and roost burrows of the BUOW in California are most commonly excavated by California ground squirrels (*Spermophilus beecheyi*), but they may use American badger (*Taxidea taxus*), coyote (*Canis latrans*), and fox dens or holes (CDFW 2012). Where burrows are scarce, man-made structures, such as culverts, piles of concrete, rubble, or debris, pipes, asphalt, artificial nest boxes, and openings beneath cement or asphalt pavement also are used as nest sites (CDFW 2012). Both natural and artificial burrows provide protection, shelter, and nest sites.

Nest burrows are usually three to nine feet long, with a downward slope, a “J” or “U” shaped bend, and an enlarged nest chamber at the end. Usually, the immediate area about the burrow is barren and devoid of vegetation. Adults usually return to the same burrow or a nearby area each year. Adult males often use one or more “satellite” burrows near the nest burrow during the nesting period (CBOC 1997). Both sexes prepare the burrow for nesting using their feet, beaks, and wings to scrape out dirt.

BUOWs often nest in loose colonies and members can alert each other to the approach of predators and join in harassment of them. During the nesting season, adult males forage over home ranges 0.8 to 1.16 square miles (2 to 3 square kilometers) and the ranges of neighboring males may overlap considerably (Shuford et al. 2008). A small territory around the nest burrow is aggressively defended against intrusions by other BUOWs, squirrels, and predators. Nesting season for the BUOW in California (courtship and egg laying) occurs between February 1 and August 30 (CDFW 2012). Actual breeding occurs anywhere from March through August, with the peak activity in April and May. The peak of the breeding season occurs between April 15 and July 15 and is the period when most BUOWs have active nests (eggs or young) (CDFW 2012).

Suitable BUOW habitat must also support the primary prey items for BUOWs, such as insects and small mammals. BUOWs are opportunistic predators preying primarily on a broad array of arthropods (centipedes, spiders, beetles, crickets, and grasshoppers), and small rodents, but they also eat birds, amphibians, reptiles, and carrion. They may hunt from a perch, hover, hawk, run, walk, dive or hop after prey.

BURROWING OWL STATUS AND PROTECTION

Federal and State Protection

While BUOW has no federal protection status, BUOW is designated by California Department of Fish and Wildlife (CDFW) as a Species of Special Concern. This status is given a species, subspecies, or distinct population of an animal (fish, amphibian, reptile, bird and mammal) native to California that currently satisfies one or more of the following (not necessarily mutually exclusive) criteria: is extirpated from the state or, in the case of birds, in its primary seasonal or breeding role; is listed as federally, but not state-, threatened or endangered; meets the state definition of threatened or endangered, but has not formally been listed; is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for state threatened or endangered status; or has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for state threatened or endangered status. The goal of designating species as species of special concern is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability.

Burrowing owls are also protected from direct “take” (defined in this case as killing, injuring, or causing failure of an active nesting effort) by both the federal Migratory Bird Treaty Act and the California Fish and Game Code (Sections § 3503, § 3503.5, and § 3513) and Migratory Bird Treaty Act (MBTA) of 1918 (Title 16, United States Code sections 703-712).

Local Protection

Burrowing owl are considered locally significant as their populations have declined in recent years. The City of Hesperia follows the CDFG 2012 Staff Report guidelines and recommends surveys be performed on Project Sites where suitable habitat is present.

STUDY METHODS

Survey protocol followed the *Staff Report on Burrowing Owl Mitigation, State of California Natural Resources Agency, Department of Fish and Game March 7, 2012, Appendix C Habitat Assessment and Report Details, Appendix D Breeding and Non-breeding Season Surveys and Reports*.

Literature Review

To identify the biological resources that exist within the BSA and project vicinity, biologists reviewed relevant literature, databases, agency web sites, reports, management plans, Geographic Information System (GIS) data, maps, and aerial imagery. This desktop analysis was conducted prior to the field surveys and is described below.

The California Natural Diversity Database (CNDDB) was accessed on March 28, 2022 and was used to determine if and to what extent BUOWs occur on and adjacent to the Project Site. Records corresponding to the USGS 7.5-Minute Topographic Map Quadrangle were obtained.

Field Survey Methodology

The entire 30.52-acre site was surveyed along with a 500-foot buffer to the west and a portion of the buffer to the northeast of the Project Site (Figure 3, Survey Area and Transects). The buffer areas to the north of the project are several fenced residential lots, east is east is Interstate 15, and to the south is an industrial building, and west is open space. Surveys were conducted during the daytime on foot from April 27, 2022 through August 10, 2022. Surveys were not conducted during abnormal or excessive cold, heat, wind, rain, or other inclement weather. The biologists gained direct access to all areas within the project area for 100-percent visual coverage. Biologists used Global Positioning System (GPS) units and other GIS and survey-related techniques (Collector App), to collect locational data and record relevant attributes of features or species encountered. Digital color photographs were taken during the field surveys to record site conditions at the time of the field surveys. Representative Site Photos are show in Figures 4a-4d. Potential burrows and their location within the BSA were recorded using Collector and are shown in Figure 5, Potential Burrow Locations and Photo Point Locations.

BUOW HABITAT ASSESSMENT AND FOCUSED SURVEYS

Step I: Habitat Assessment.

Biologists characterized the existing land cover and searched for the presence of suitable BUOW habitat within the Project Site and within a 500-foot buffer to the Project Site where accessible (Figure 3). Buffers to west included undeveloped land, to the north residential properties, to the south an industrial building, and to the east Amargosa Road and Interstate 15. Only the buffer to the west and a small portion to the northeast of the Project Site was surveyed as the other areas were inaccessible (fenced residential properties) or developed. One hundred percent visual coverage was obtained within the entire Project Site (30.52-acres) and the buffers.

The BSA is in a region of San Bernardino County known as the “High Desert” due to its approximate elevation of 3,600 feet above mean sea level (amsl). Much of the Survey Area is relatively flat, with surface elevations varying between approximately 3,468 feet amsl in the southwestern corner to approximately 3,443 feet amsl in the northeastern corner. Identification of habitats and plant communities within the BSA were based on observed dominant species. Generally, classifications of habitat types or vegetation communities were based on Holland’s *Preliminary Descriptions of the Terrestrial Communities of California* (Holland 1986) and *A Manual of California Vegetation Second Edition* (Sawyer et al. 2009) with modifications to better represent existing site conditions.

Step II: Locating Burrows and Burrowing Owls.

Surveys were conducted from sunrise to 10:00 a.m. when weather conditions were conducive to BUOWs. Suitable BUOW habitat areas were identified during the initial habitat assessment (Step I, BUOW Habitat Assessment). Step II surveys were conducted within accessible portions of the BSA that contained BUOW

essential habitat (nesting, foraging, wintering, and dispersal habitat). Where topography and access was suitable, the biologists walked parallel straight-line belt transects spaced no more than 30 meters apart to allow 100% visual coverage of the survey area. In inaccessible areas, biologists used binoculars to gain visual coverage of any inaccessible features. Each transect was walked at a pace that allowed careful observations along the transect route and the vicinity (Figure 3).

Biologists searched for suitable BUOW burrows and examined the entrances of all potential burrows for BUOW sign (i.e. tracks, molted feathers, cast pellets,1 prey remains, eggshell fragments, BUOW whitewash, nest burrow decoration materials [e.g., paper, foil, or plastic items (CDFW 2012). Biologists also searched rock piles and man-made culverts and pipes for BUOW sign. Biologists identified, recorded, and mapped with Collector App all potential burrows, occupied burrows, and sign of BUOW (Figure 3).

SURVEY RESULTS

Vegetation on the Project Site was classified as *Larrea tridentata-Ambrosia dumosa Shrubland Alliance*. Plant species nomenclature and taxonomy followed *The Jepson Manual: Vascular Plants of California*, second edition (Baldwin et al. 2012). The Project Site is undeveloped and has been disturbed by grading which appears to have been from some time ago as the vegetation is growing back but is of small stature. Impacts will encompass the entire 30.52-acres of the Project Site. The vegetation community within the Survey Area was identified as Larrea tridentata-Ambrosia dumosa Shrubland Alliance with dominant species being white bursage (*Ambrosia dumosa*), creosote bush (*Larrea tridentata*) and Mexican tea (*Ephedra trifurca*). Joshua tree (*Yucca brevifolia*) (CDFW Candidate Listed species) is present on the Project Site. Potentially suitable burrows were recorded using Collector App within the BSA (Figure 3, Survey Area and Transects). A photo point location map is provided in Figure 4. And representative site photographs are included in Figures 5a-d. A habitat assessment was conducted on April 27, 2022 and focused surveys for BUOW were conducted beginning on June 2, 2022 through August 10, 2022. Table 1 shows the date, times and specific field conditions associated with each survey date.

Table 1. Survey Information

Survey Date (2018)	Survey Type	Survey Time	Temperature Range (°F)	Cloud Cover (%)	Wind Speed (mph)	Surveyor
04/27/2022	Habitat Assessment	0900-1630	58-83°F	clear	1-3mph	KB, CP
06/02/2022	Focused BUOW Survey #1	0615-1130	59-83°F	clear	0-2mph	KB
06/27/2022	Focused BUOW Survey #2	0630-1030	61-75°F	100% clearing to 0%	0-2mph	KB
07/20/2022	Focused BUOW Survey #3	0535-1015	66-83°F	clear	0-1mph	KB
08/10/2018	Focused BUOW Survey #4	0550-1055	68-91°F	0-10%	0-2mph	KB
KB - Kim Boydstun CP – Cory Peterson						

[1] Defined as one to two inches long brown to black regurgitated pellets consisting of non-digestible portions of the owls' diet, such as fur, bones, claws, beetle elytra, or feathers.

RECOMMENDATIONS AND FINDINGS

Burrowing owl was not observed nor was any sign detected at the Project Site or within the buffer area during the 2022 surveys. Since there is likely to be a substantial amount of time between the 2022 survey, ground-breaking activities and subsequent project development a preconstruction BuOw survey is recommended.

- *Conduct a 30-day preconstruction Burrowing Owl Survey be performed by a qualified biologist recognized by the County of San Bernardino. After the survey, a technical memorandum of findings shall be prepared and sent to the California Department of Fish and Wildlife (CDFW), Environmental Programs Department (EPD) at the County of Riverside, and the Regional Conservation Authority.*

- *If the Project Site is found positive for burrowing owl, coordination with CDFW will be mandatory and additional exclusionary and relocation efforts will be necessary.*

CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological and natural resources report, and that the facts, statements, and information presented are true and correct to the best of my knowledge.



Kimberly Boydstun
Senior Biologist/Project Manager
CASC Engineering and Consulting, Inc.
October 24, 2022

FIGURES

Figure 1: Regional Vicinity Map
Figure 2: USGS Map
Figure 3: Survey Area and Transects
Figure 4: Photo Point Location Map and Potential Burrow Locations
Figure 5a-d: Representative Site Photos

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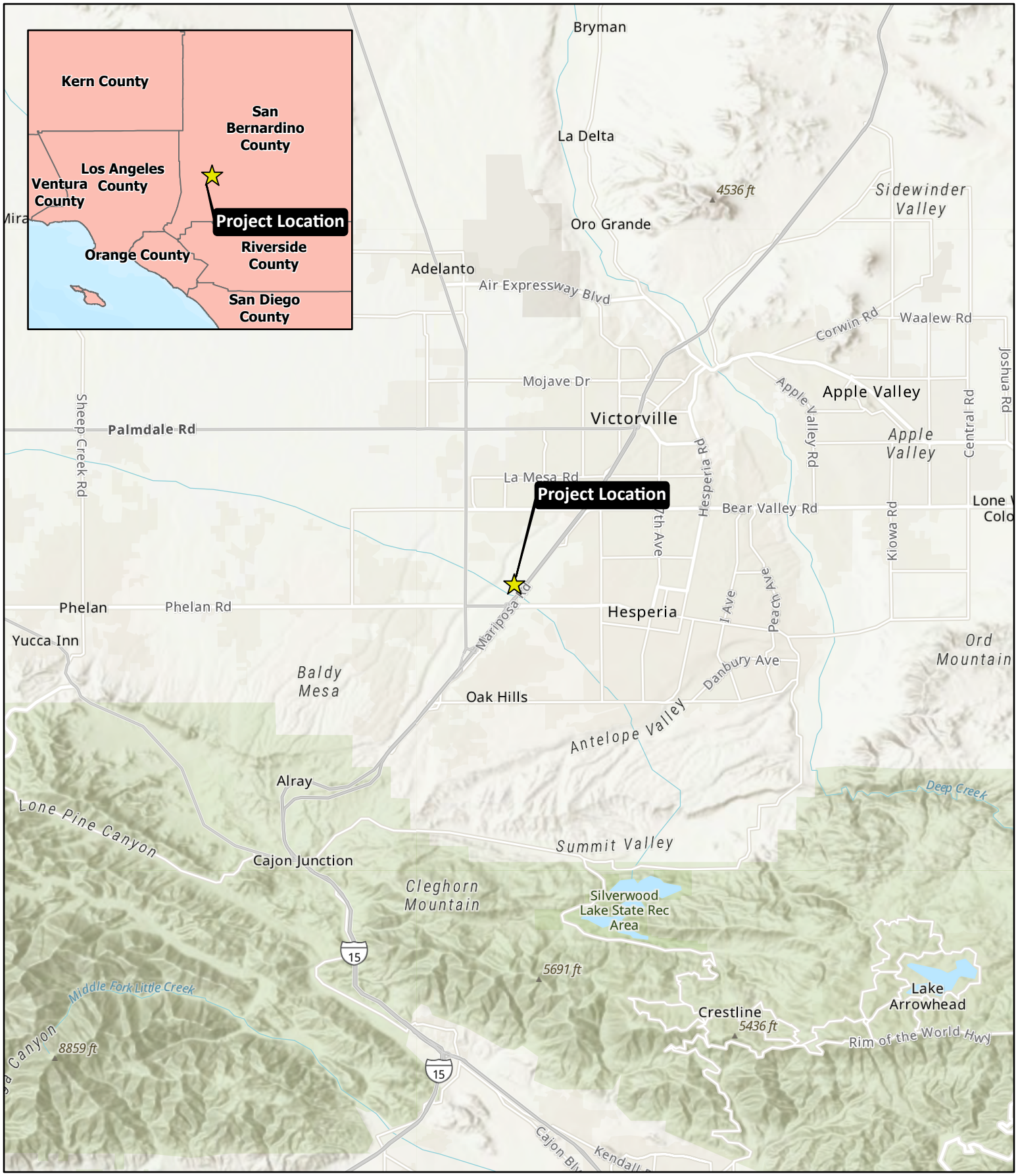
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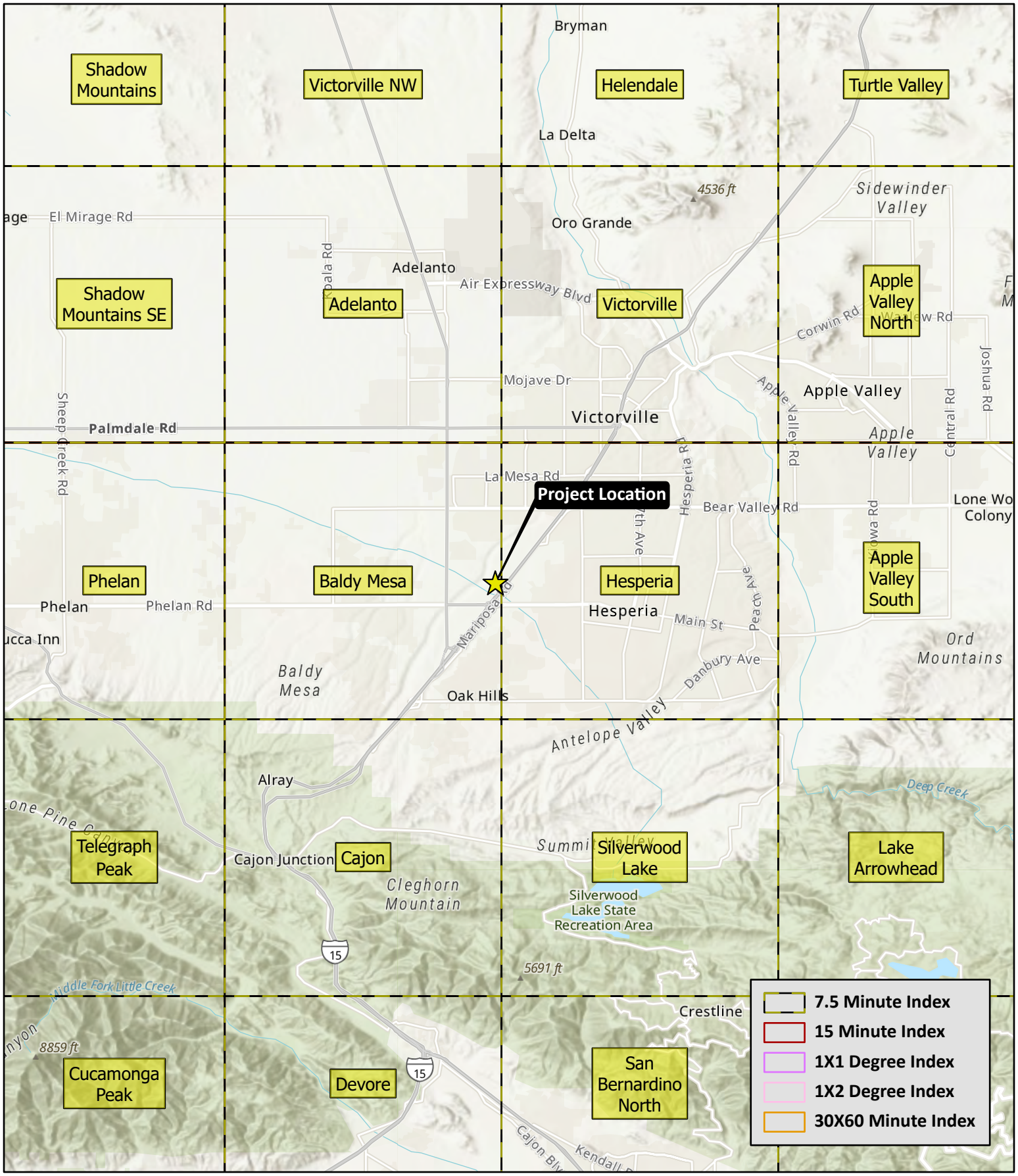
1" = 3.95 miles

Figure 1
Regional Vicinity

APN: 0405-072-[52,53,55]

City of Hesperia, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, California State Parks, Esri, HERE, Garmin, FAO, NOAA, USGS, EPA, Esri, NASA, NGA, USGS, Esri, USGS

AMARGOSA ROAD & PALMETTO WAY SPEC. INDUSTRIAL PROJECT, HESPERIA, CA.
BURROWING OWL FOCUSED SURVEY REPORT



CASC Engineering and Consulting
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N

0 2.5 5 10

1" = 3.95 miles

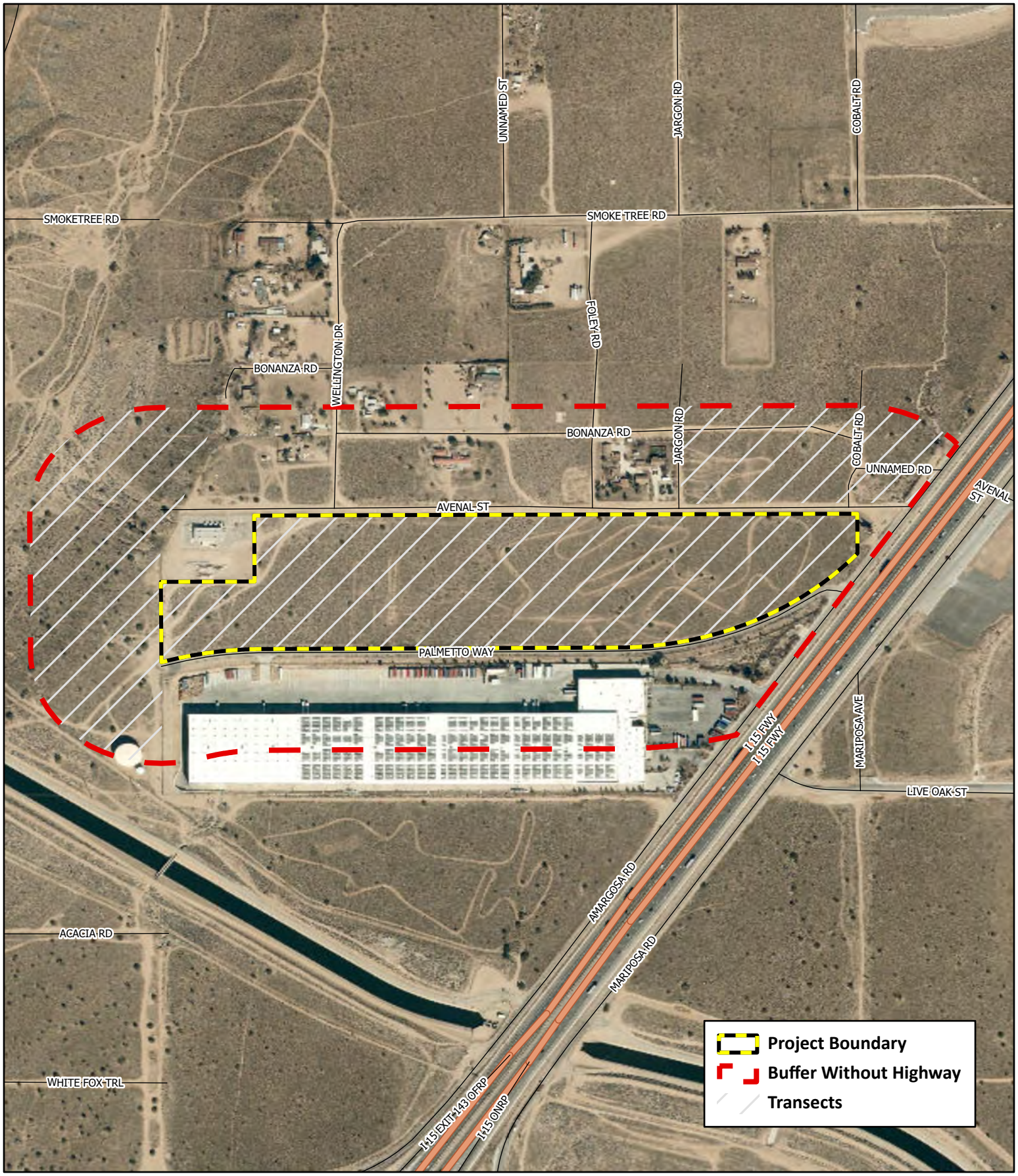
City of Hesperia, California State Parks, Esri, HERE, Garmin, SafeGraph, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, USDA, Esri, CGIAR, USGS

Figure 2

USGS

APN: 0405-072-[52,53,55]

Amargosa Road & Palmetto Way Spec. Industrial Project
Hesperia, CA.



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N

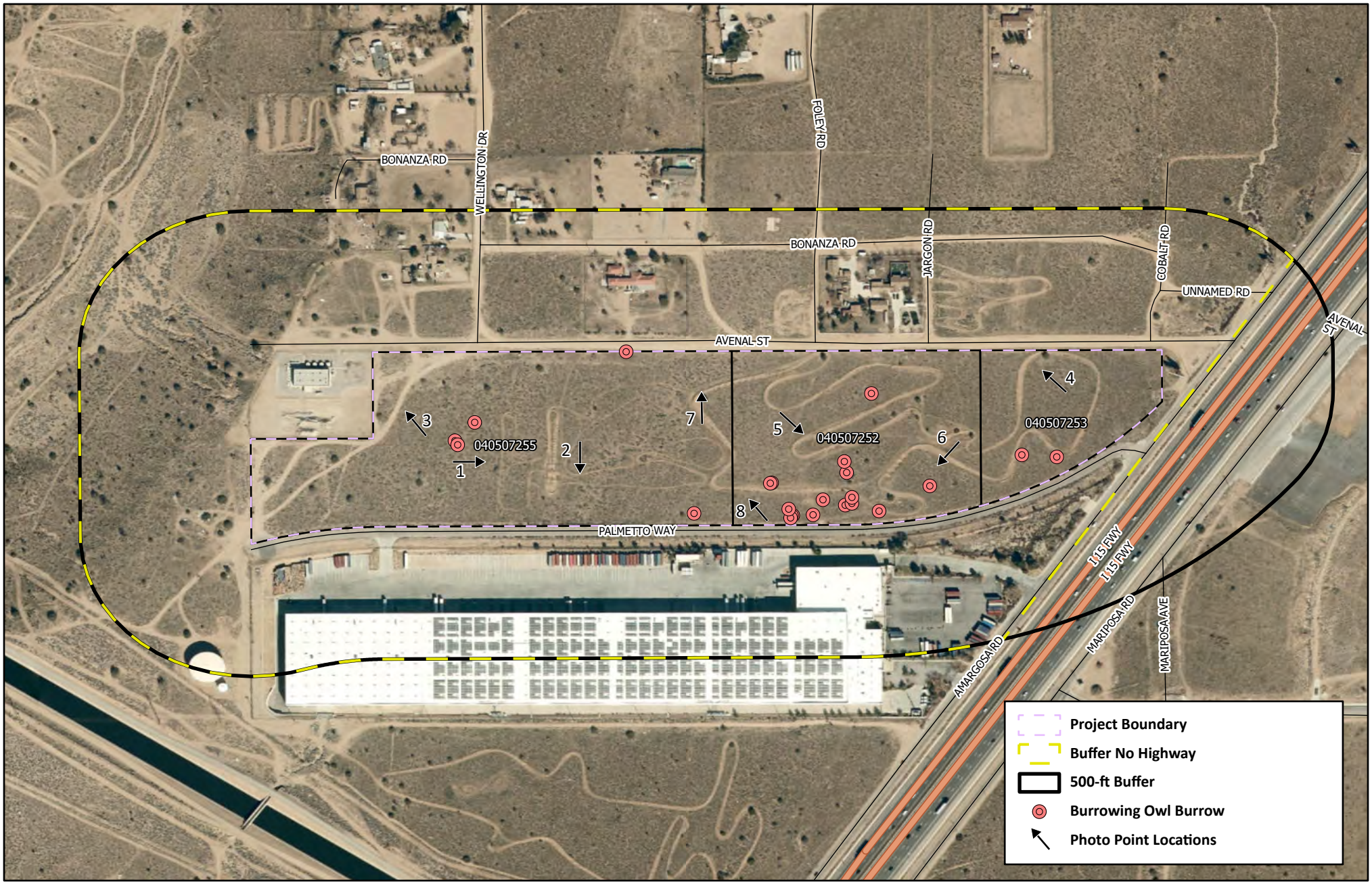
0 250 500 1,000

1" = 585 Feet

San Bernardino County, Maxar

Figure 3
Survey Area and Transects

APN: 0405-072-[52,53,55]



CASC Engineering and Consulting
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N

0 250 500 1,000

1" = 460 Feet

San Bernardino County, Maxar

Figure 3
Potential Burrow Locations and Photo Point Locations

APN: 0405-072-[52,53,55]

Amargosa Road & Palmetto Way Spec Industrial Project, Hesperia, CA



Photograph 1. Looking East across Project Site.



Photograph 2. Looking South at existing building which is off-site.

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FIGURE 5a
SITE PHOTOGRAPHS
Amargosa Road & Palmetto Way Spec. Industrial Project, Hesperia, CA.



Photograph 3. Looking Northwest at adjacent off-site utilities.



Photograph 4. Looking Northwest.

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FIGURE 5b
SITE PHOTOGRAPHS
Amargosa Road & Palmetto Way Spec. Industrial Project, Hesperia, CA.



Photograph 5. Looking Southeast.



Photograph 6. Looking Southwest.

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FIGURE 5c
SITE PHOTOGRAPHS
Amargosa Road & Palmetto Way Spec. Industrial Project, Hesperia, CA.



Photograph 7. Looking North.



Photograph 8. Looking North at a potential BuOw burrow..

CASC Engineering and Consulting
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FIGURE 5d
SITE PHOTOGRAPHS
Amargosa Road & Palmetto Way Spec. Industrial Project, Hesperia, CA.

Mohave Ground Squirrel -MGS (*Xerospermophilus mohavensis)*
Desert Tortoise -DT (*Gopherus agassizii*)
Vegetation and Rare Plant
Survey Results for
Amargosa Road and Palmetto Way Industrial Facility Project, Hesperia, Ca.



Site Acreage 30.52 Acres

APN 040507255/54/53/52

Prepared by:

ENVIRA
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E-mail: phvergne@aol.com

Trapping Surveys Conducted On:
April 5 to 9, 2022
May 23 to 27, 2022
June 14 to 18, 2022

Report Date:
August 21, 2022

Prepared For:

CASC
Engineering and Consulting

TABLE OF CONTENTS

SECTION

1.0 EXCUTIVE SUMMARY

2.0 PROJECT AND PROPERTY DESCRIPTION

3.0 REGULATORY BACKGROUND & LITERATURE REVIEW

4.0 METHODS FOCUSED SURVEYS

5.0 SURVEY RESULTS

6.0 IMPACTS AND RECOMMENDATIONS

7.0 CERTIFICATION

8.0 REFERENCES

9.0

FIGURES

1. SITE VICINITY AND PROJECT BOUNDARY

2. PROJECT SOILS MAP

3. MGS DISTRIBUTION FROM LIGHTNER 2012

4. USFWS DESERT TORTOISE CRITICAL HABITAT

5. DESERT TORTOISE DISTRIBUTION FOR MOJAVE DESERT

6. MGS TRAPPING GRID

TABLES

1. SITE VEGETATION

2. ANIMAL SPECIES OBSERVED

3. RARE PLANTS IN PROJECT VICINITY

4. TRAPPING DATES

5. MGS GRID CENSUS LOCATION

6. WEATHER SUMMARY
7. MGS LIVE TAPPING DATA SUMMARY
8. SENSITIVE ANIMALS AND HABITAT ON PALMETTO SITE

APPENDICES

Appendix A MOHAVE GROUND SQUIRREL TRAPPING SUMMARY FORM

Appendix B MOU

1.0 EXECUTIVE SUMMARY

The project site is within the historical range of the Mohave ground squirrel *Xerospermophilus mohavensis*)-MGS, a state-Threatened species; within the historical range of the federally listed Desert tortoise (*Gopherus agassizii*)-DT; and several listed plant species.

Philippe Vergne of ENVIRA was contracted by CASC Engineering to conduct focused surveys for the MGS, DT, and rare plant surveys for the Amargosa Road and Palmetto Way Industrial Facility.

The proposed project is for the construction of a warehouse facility and related improvements. The proposed project is located in Hesperia, California at the junction of Amargosa Road and Palmetto Way.

This report documents the findings of the focused surveys for the Project Site. The intended use of this document is to disclose the presence or absence of MGS, DT, and rare plants within the project limits. For the purposes of this document, the Project's study area is the area outlined in Figure 1.

The MGS was not captured on the current project site during the 2022 protocol survey as described in this report. The desert tortoise is not present within the proposed project footprint nor the zone of influence. No rare plants were documented on site. **The Project Site does not currently support MGS, desert tortoise, or rare plants.**

Implementation of the Project will not result in the loss of individual MGS, nor will it adversely affect local or regional MGS populations; it will not result in the take of DT or impacts to occupied habitat; no rare plants were documented on site and no take will occur.

2.0 PROJECT AND PROPERTY DESCRIPTION

The proposed project is for the construction of an industrial warehouse facility and related improvements. The proposed project is located in Hesperia, California to the North of Palmetto Way and to the West of Amargosa Road (Figure 1).

The project site is within the historical range of the Mohave ground squirrel (MGS, *Xerospermophilus mohavensis*), a state-Threatened species; within the historical range of the federally listed Desert tortoise (*Gopherus agassizii*); and within the range of several listed plant species. The proposed project site contains habitat considered suitable for the above mentioned species.

The project site is an undeveloped mostly flat area with a slight southwest slope.

Figure 1. Site Vicinity and Project Boundary



2.1 SITE VEGETATION

The disturbed annual grasslands which dominate the site vegetation and sparse scrub understory on site are dominated by fiddleneck, brome, and forbs. Joshua Trees are scattered throughout the site. The severely impacted scrub community shows remnants of Saltbush, California Juniper, and isolated creosote bush (Table1).



Photo 1 - Looking northwest across site.



Photo 2 - Looking northeast across site.

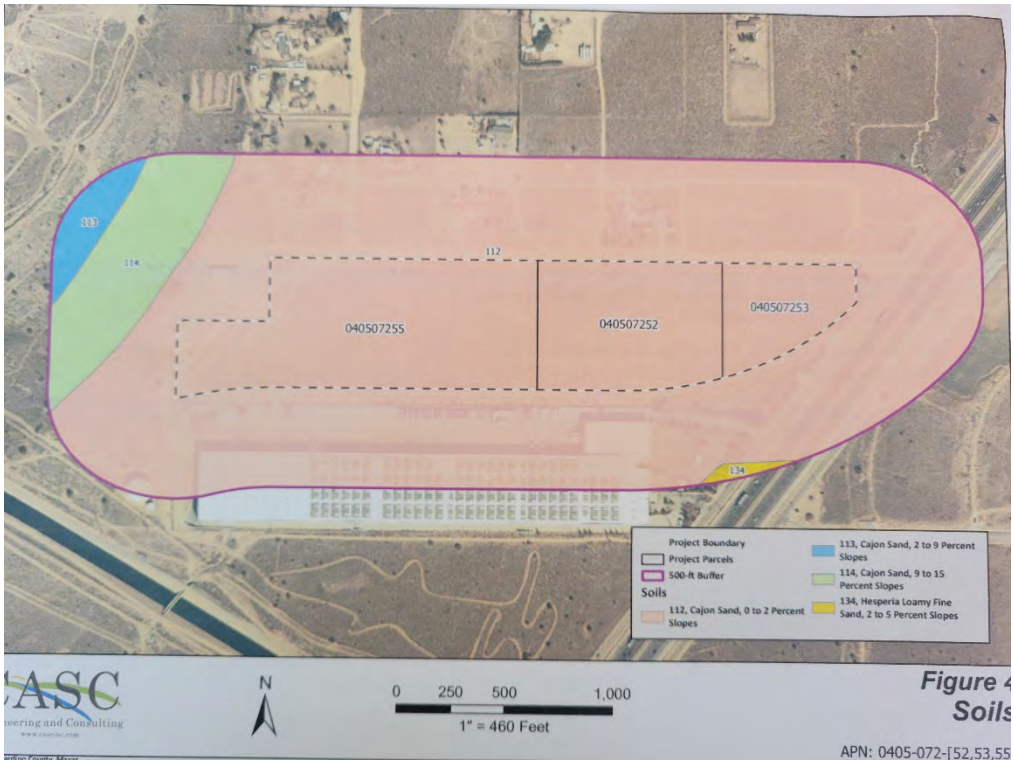
Table 1. Site Vegetation

Common Name	**Scientific Name**
California juniper	*Juniperus californica*
Burro bush or white bur sage	*Ambrosia dumosa*
Desert sunflower	*Geraea canescens*
Fremont pincushion	*Chaenactis fremontii*
Cheese bush	*Hymenoclea salsola*
Antelope bush	*Purshia tritendata*
Flat-topped buckwheat	*Eriogonum plumatella*
California buckwheat	*Eriogonum fasciculatum*
Great basin sagebrush	*Artemisia tritendata*
Coopers box-thorn	*Lycium cooperi*
Desert sage	*Salvia dorii*
Woody bottle washer	*Camissonia boothii*
Plantain	*Plantago insularis*
Cotton thorn	*Tetradymia axillaris*
Creosote bush	*Larrea tridentata*
Hop sage	*Grayia sinosa*
Snakeweed	*Gutierrezia microcephala*
Rabbit brush	*Chrysothamnus nauseosus*
Nevada ephedra	*Ephreda nevadensis*
Joshua tree	*Yucca brevifolia*
Red brome	*Bromus madritensis*
Cheat grass	*Bromus tectorum*
Perennial bluegrass	*Poa secunda*
Mediterranean grass	*Schismus barbatus*
Red stemmed filaree	*Erodium cicutarium*

2.2 SITE TOPOGRAPHY AND SOILS

The project site is an undeveloped portion north of Palmetto Way, to the West of Amargosa Road (adjacent to the 15 Freeway). The valley floor is almost flat. Elevation ranges from 3,443 to 3,468 feet. The soils on the site are Cajon sands, and Hesperia loamy fine sands (Figure 2).

Figure 2. Project Soils Map (Source: CASC Engineering)



The site occurs on the 7.5" *Baldy Mesa* quadrangle USGS Quadrangle Map (Township 4N, Range 5W) Surrounding land uses include the California Aqueduct to the east, Avenal Street to the north, Disturbed open space to the south, and Interstate Highway 15 to the west.

2.3 WILDLIFE

Observations of wildlife included scat, trails, tracks, burrows, skeletal remains, calls and visual sightings. Animal species observed are shown in Table 2.

Table 2. Animal Species Observed

Common name	Scientific Name
Reptiles	
Side-blotched lizard	*Uta stansburiana*
Basin whiptail	*Aspidoscelis tigris tigris*
Desert night lizard	*Xantusia vigilis*
Birds	
Cactus wren	*Campylorhynchus brunneicapillus*
Common raven	*Corvus corax*
Horned lark	*Eremophila alpestris*
Barn owl	*Tyto alba*
Loggerhead shrike	*Lanius ludovicianus*
Mammals	
Black-tailed jack rabbit	*Lepus californicus*
Coyote	*Canis latrans*
White-tailed Antelope squirrel	*Ammospermophilus leucurus*
Kangaroo rat	*Dipodomys sp.*

3.0 Regulatory Background, Mohave Ground Squirrel, Desert Tortoise and Rare Plants

Prior to beginning field surveys, resource specialists were consulted and available information from resource management plans and relevant documents were reviewed to determine the locations and types of biological resources that have the potential to exist within and adjacent to the study area; resources within several miles of the Project Site were evaluated.

The materials reviewed included, but were not limited to, the following:

1. U.S. Fish and Wildlife Service (USFWS) Critical Habitat Mapper and File Data (USFWS 2013a);
2. USFWS Ventura Field Office Species List for San Bernardino County (2013b);
3. California Natural Diversity Database maintained by the California Department of Fish and Wildlife (CDFW 2013);
4. California Native Plant Society (CNPS) Electronic Inventory (CNPS 2021);
5. Aerial Photographs (Microsoft Corporation 2013);
6. Previous biological reports prepared for immediately adjacent sites (Brylski 2012; Vergne 2017); and
7. Leitner Current Status of MGS.

Regulatory Framework

Federal Endangered Species Act

The USFWS administers the federal Endangered Species Act (FESA) that provides a process for listing species as either threatened or endangered, and methods of protecting listed species. The FESA defines as "endangered" any plant or animal species that is in danger of extinction throughout all or a significant portion of its range. A "threatened" species is a species that is likely to become endangered in the foreseeable future. A "proposed" species is one that has been officially proposed by USFWS for addition to the federal threatened and endangered species list.

Section 9 of the FESA prohibits "take" of threatened or endangered species. The term "take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in such conduct. The presence of any federally threatened or endangered species that are in a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the FESA, the USFWS may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

California Endangered Species Act

The CDFG administers the California Endangered Species Act (CESA). The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

Sections 3503 and 3511 of California Fish and Game Code

The CDFG administers the California Fish and Game Code. There are particular sections of the Code that are applicable to natural resource management. For example, Section 3503 of the Code states it is

unlawful to take, possesses, or needlessly destroy the nest or eggs of any bird. Section 3511 of the Code lists fully-protected bird species, where the CDFG is unable to authorize the issuance of permits or licenses to take these species.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) makes it unlawful to pursue, capture, kill, or possess or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union.

Section 404 of the Federal Clean Water Act

Section 404 of the federal Clean Water Act, which is administered by the Corps regulates the discharge of dredge and fill material into waters of the United States. The Corps has established a series of nationwide permits that authorize certain activities in waters of the United States, provided that a proposed activity can demonstrate compliance with standard conditions. Normally, the Corps requires an individual permit for an activity that will affect an area equal to or in excess of 0.3 acre of waters of the United States. Projects that result in impacts to less than 0.3 acre of waters of the United States can normally be conducted pursuant to one of the nationwide permits, if consistent with the standard permit conditions. The Corps also has discretionary authority to require an Environmental Impact Statement for projects that result in impacts to an area between 0.1 and 0.3 acre. Use of any nationwide permit is contingent on the activities having no impacts to endangered species.

Section 1600 of the California Fish and Game Code

All diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake in California are subject to the regulatory authority of the CDFG pursuant to Sections 1600 through 1603 of the Code, requiring preparation of a Streambed Alteration Agreement. Under the Code, a stream is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Included are watercourses with surface or subsurface flows that support or have supported riparian vegetation. CDFG also has jurisdiction within altered or artificial waterways based on the value of those waterways to fish and wildlife, and also has jurisdiction over dry washes that carry water ephemerally during storm events.

Section 401 of the Clean Water Act

Section 401 of the Clean Water Act requires that "any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act." Therefore, before the Corps will issue a Section 404 permit, applicants must apply for and receive a Section 401 water quality certification from the Regional Water Quality Control Board (RWQCB).

Porter Cologne Act

The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, with any region that could affect the water of the state" (water code 13260(a)), pursuant to provisions of the State Porter-Cologne Water Quality Act. "Waters of the State" are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (Water Code 13050 (e)).

Mohave Ground Squirrel

The MGS was listed as a rare species in 1971 under the authority of the California State Endangered Species Act of 1970 (CESA) and was re-designated as a state threatened species in 1985 (Gustafson 1993). The MGS is small, grayish, diurnal squirrel. The California Department of Fish and Wildlife (CDFW) is the responsible agency that provides for its protection and management.

MGS are dormant in the fall and winter months, but emerge from hibernation in February and begin pair bonding and mating during March (Gustafson 1993). If rainfall is adequate, MGS will reproduce. If rainfall levels are not sufficient to support substantial annual plant growth, then MGS will merely forage on herbaceous perennials and shrubs until they gain ample body mass for another prolonged period of dormancy (Gustafson 1993). The adult males can enter dormancy as early as late May. Juveniles will remain above-ground until August in order to acquire generous fat reserves prior to entering dormancy.

The site is within the historic range of the Mohave ground squirrel. MGS occur in the western half of the Mojave Desert (Lightner 2012) (Figure 3). Its historical range encompasses an area between Antelope Valley and Lucerne Valley, in the south (Gustafson 1993). However, MGS occurrences in the southern portion of its range are very unusual. The northern limits of the range are near Owens Dry Lake bed, in the north, and through China Lake Naval Weapons Station and Fort Irwin Military Base in the east (Gustafson 1993). The eastern limit of the species range extends to Barstow and south along the Mojave River. The western limits loosely follow State Highway 14 and the foothills of the southern Sierra Nevada escarpment (Gustafson 1993). Several other common squirrels occur within their range; antelope ground squirrel (AGS; *Ammospermophilus leucurus*), round-tailed ground squirrel (RTGS; *Xerospermophilus tereticaudus*) and the California ground squirrel (CGS; *Spermophilus beecheyi*).

Figure 3. MGS Distribution from Lightner 2012

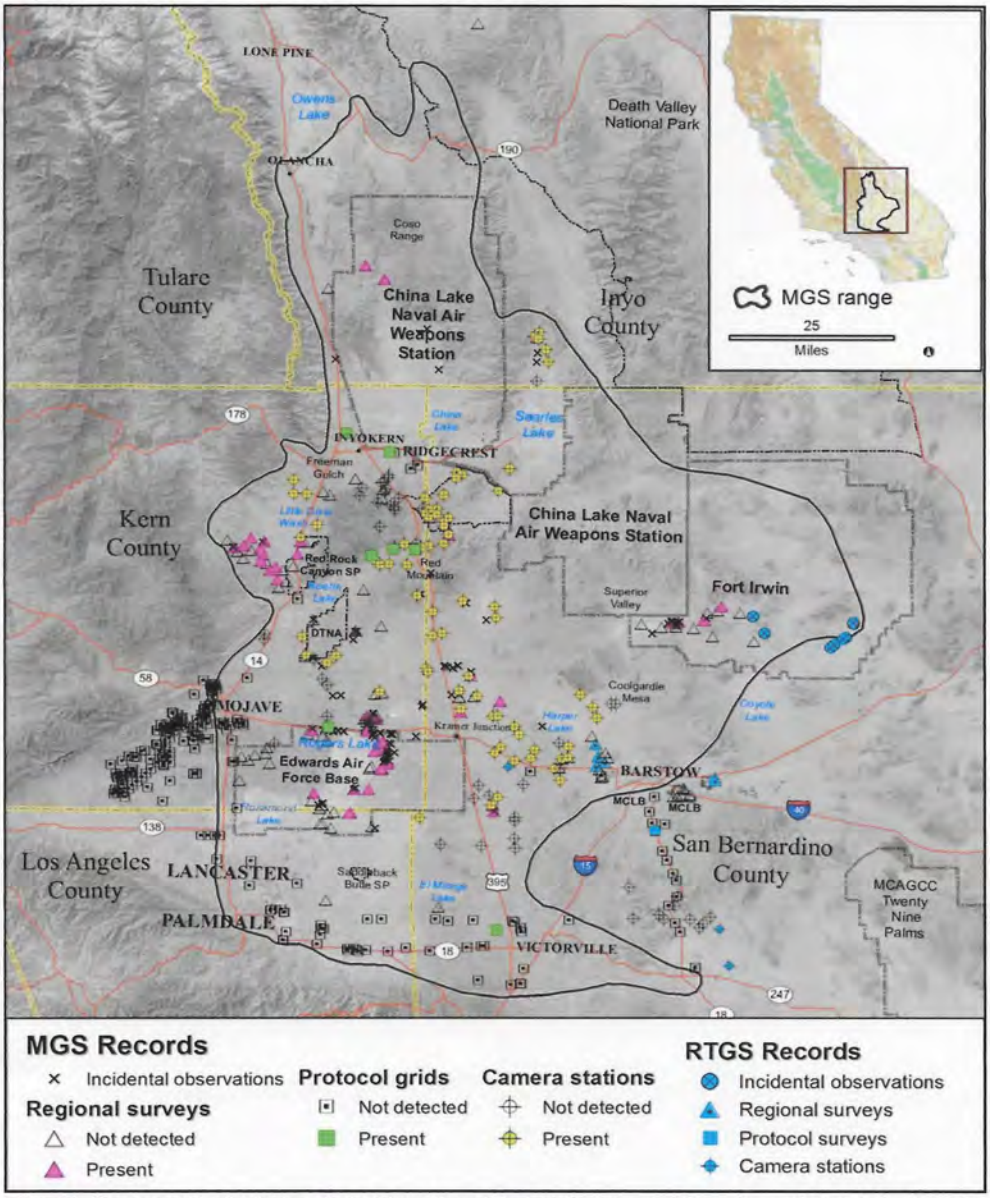


FIGURE 1. The geographic distribution of all Mohave Ground Squirrel (*Xerospermophilus mohavensis*) records for the period 2008–2012. Occurrences of the Round-tailed Ground Squirrel (*Xerospermophilus tereticaudus*) in the contact zone between the two species are also shown.

Desert Tortoise

The desert tortoise (*Gopherus agassizii*) is a desert dwelling reptile that occurs throughout the Mojave and Sonoran deserts. It is found in California, Nevada and Utah, occurring in almost every type of habitat except dry lakes or playas, sand dunes and sand sheets and rocky slopes.

Tortoises construct underground burrows as living quarters, and spend most of the year down in the burrows. They come out for forage in the early spring (February and March) and remain active above ground until early June, when they retreat to their burrows for most of the summer, fall and winter months. They will emerge and be active during the fall months of September and October, depending upon late summer weather conditions. Although they stay underground for most of the year, tortoises can be found active above ground at all times of the year.

Tortoises forage on spring annual wildflowers and grasses. During the foraging season, they also breed and lay eggs in preparation for the next spring.

The desert tortoise hibernates or estivates underground for much of the year as an adaptation to the extreme temperature changes characteristic of desert winters and summers. As a result, determining whether desert tortoise is present in a particular area is generally restricted to locating sign, or evidence, of recent activity.

The tortoise has been undergoing a decline in population due to a number of factors. These include loss or destruction of habitat, killing or harming of animals in the wild, collection of individual animals, raven predation and disease.

The CDFW listed the desert tortoise as threatened on June 22, 1989. The tortoise was emergency listed as endangered by the USFWS on August 4, 1989. The USFWS listing was later changed to threatened. Both listings were made based on populations declining due to the factors listed above. The discovery that the tortoise was rapidly disappearing throughout its range as a result of a disease known as Upper Respiratory Disease Syndrome (URDS) was a critical part of the listing decisions.

This species is known to occur throughout the project general region. Figure 4 depicts the USFW Service critical habitat for the desert tortoise. Figure 5 the desert tortoise distribution in the Mohave desert.

Figure 4. USFWS Desert Tortoise Critical Habitat

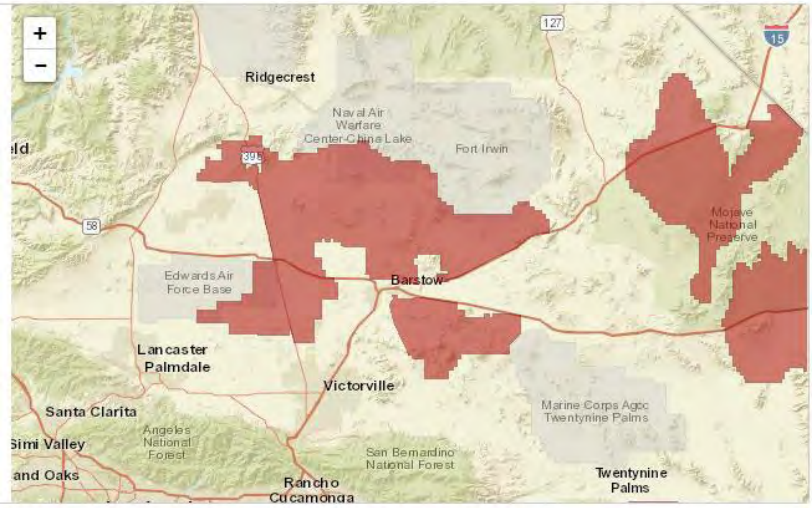


Figure 5. Desert Tortoise Distribution for Mohave Desert



Rare Plants

Several rare plants are listed as possibly occurring within the proposed project area (Table 3).

Table 3. Rare Plants in Project Vicinity

Parish's brittlescale *Atriplex parishii*	Annual. Alkali flats largely in valley or annual grassland. From cismontane California to the edge of the desert, extending into the Central Valley.
Ayenia *Ayenia compacta*	Perennial. Mojave Desert scrub, Sonoran Desert scrub. Sandy and gravelly washes in the desert. Dry desert canyons. 150 to 1095meters elevation
Lincoln rockcress *Boechera lincolnensis*	Perennial that grows on carbonate soils in chenopod(saltbush) and Mojave desert scrub plant communities. The historical distribution was limited to Inyo County and extending to Utah. It has since been found in the San Bernardino and Kingston mountain ranges, elevations from 3600 feet to 8800 feet.
Alkali mariposa lily *Calochortus striatus*	Alkaline meadows and in moist areas in creosote bush scrub. Historically distributed from Mojave Desert at the northern base of the San Bernardino and San Gabriel Mountains east to Las Vegas.
Pygmy poppy *Canbya candida*	Grows in sand flats in creosote bush scrub, Joshua tree woodland. Western Mojave from Walker Pass to Victorville. 2000 to 4000 feet elevation.
White-bracted spine flower *Chorizanthe xanti* var. *leucotheca*	Annual herb. Mojave Desert scrub, pinyon juniper woodlands. 300 to 1200 meters in elevation.
Booth's evening primrose *Eremothera boothii* ssp. *boothii*	Annual herb. Joshua tree woodland, and pinyon-juniper woodland in the Therange for this species is in the Mojave and Colorado deserts. It blooms from April through September at elevations from 2600 to 7900 feet.

Survey for the above-mentioned plants periods ranged from April to July depending on species. Transects for rare plants were conducted concurrent with the MGS surveys. Transects were walked over the entire site on April 6, May 26, and July 7.

4.0 LITERATURE REVIEW

Prior to beginning field surveys, resource specialists were consulted and available information from resource management plans and relevant documents were reviewed to determine the locations and types of biological resources that have the potential to exist within and adjacent to the study area; resources within several miles of the Project Site were evaluated.

The materials reviewed included, but were not limited to, the following:

8. U.S. Fish and Wildlife Service (USFWS) Critical Habitat Mapper and File Data (USFWS 2013a);
9. USFWS Ventura Field Office Species List for San Bernardino County (2013b);
10. California Natural Diversity Database maintained by the California Department of Fish and Wildlife (CDFW 2013);
11. California Native Plant Society (CNPS) Electronic Inventory (CNPS 2013);
12. Aerial Photographs (Microsoft Corporation 2013); and
13. Previous biological reports prepared for nearby sites (Brylski 2012; CASC 2022, Vergne 2017, 2020,2021)
14. Leitner Current Status of MGS.

5.0 METHODS FOCUSED SURVEYS

Mohave Ground Squirrel

Survey methods were derived from generally accepted professional standards including the 2010 California Department of Fish and Game Mohave Ground Squirrel Survey Guidelines (CDFG 2010); and performed under the auspices of a Memorandum of Understanding (MOU) with the CDFW.

Per protocol, since no MGS were captured, three five-day trapping session were conducted.

Within the grid, 100 traps were deployed at less 35-meter (m) spacing due to property size (Figure 6). The grid consisted of a ten by ten array covering most of the site. Standard small-mammal aluminum, foldable, ventilated 12–inch Sherman Traps were used within the Project Site for sampling purposes. The bait used consisted of crushed four-way grains with horse supplement. Folding cardboard boxes held down by dirt were deployed as shade covers for each trap as appropriate. Traps and shade covers were configured to provide the greatest shade cover possible.

Figure 6. MGS Trapping Grid



Temperature readings were taken and recorded every hour, at 1 foot above the ground and at ground level in the shade. Traps were checked every 1-2 hours depending on temperature and other environmental influential factors (i.e., pregnant or lactating females in traps, feral dogs on grid, cold weather, presence of juveniles, etc.). Traps were open within 1 hour after sunrise and closed within 1 hour before sunset. Traps were closed when air temperature reached 90 °F. Traps were not opened until AM temperatures reached 50 °F. No rain occurred during the surveys. Weather data is given in Table 6.

During live trapping surveys, plants were identified to the lowest taxonomic level sufficient to determine whether the plant species observed were non-native, native, or special-status. Plants of uncertain identity were subsequently identified from taxonomic keys (Baldwin et al. 2012). Scientific and common species names were recorded. The presence of a wildlife species was based on direct observation and/or wildlife

sign (e.g., tracks, burrows, nests, scat, or vocalization). Field data compiled for wildlife species included scientific name, common name, and evidence of sign when no direct observations were made. Wildlife of uncertain identity was documented and subsequently identified from specialized field guides and related literature. A reference list is provided in Section 9.0.

Desert Tortoise

Desert tortoise surveys were conducted according to protocol by covering the entire project site by walking east to west transects ten meters apart, and the zone of influence surveys-ZOI.

Surveys were conducted on April 8 and 9 of 2022.

The zone of influence **(ZOI)** includes parallel transects of 100, 300, 600, 1200 and 2400-feet for Tortoises. The zone of influence was completed until being bisected by the Canal, fencing, development and private property boundaries.

Survey temperatures ranged from mid-fifties to mid-eighties, and winds ranged from 5 to 12 mph.

6.0 SURVEY RESULTS

Project Site in Relation to MGS Historical Range

The project site is located at the southern margin of the historical range for the Mohave ground squirrel. There are several MGS records in the California Natural Diversity Database (CNDDB) in the project vicinity. These are as follows:

- 6.2 miles north, 4 miles W Hesperia, near Mountain View. One male captured on July 1, 1977. This site is 1.45 miles N of the project site.
- 1.5 miles SSW Duncan Corners, Sunset Ridge. One juvenile captured on July 13, 2005. This site is 1.3 miles N of the project site.
- Hesperia (exact location uncertain). One individual was collected on March 9, 1921. This site is approximately 3.3 miles SE of the project site.
- Victorville. One individual collected on March 2, 1919. This site is 7.6 miles NNE of the project site.
- 3.2 miles NW Adelanto Post Office. One juvenile captured on June 24, 2011. This site is 5.3miles NW of the project site.
- Victorville, near Adelanto Road, west of Mojave Heights. Two individuals detected on June 3, 1980. This site is 9.5miles NNE of the project site.

Leitner (2012), in a review of the status of the MGS, examined the results of MGS trapping surveys throughout the species' range for the period 1998-2007. There have been a number of MGS surveys in the project vicinity. Two of these surveys, one carried out in 1977 and the other in 2005, yielded MGS captures in the project vicinity. These results are included in the CNDDB.

MGS Survey Results Trapping Dates, Grid Location, Weather, Capture Data are presented in Tables 4,5,6, 7, and 8.

Table 4. Trapping Dates MGS

Grid No.	First Session	Second Session	Third Session
1	**04/5 to 04/9 2022**	**05/23 to 05-27 2022**	**06/14 to 06/18 2022**

Table 5 MGS Grid Census Locations

Grid No. and Trapping Sessions 1-3	Grid Corners
Grid 1 – Three Sessions	SW 34 26 10.7 N 117 22 49.25 W NW 34 26 13.96 N 117 22 49.66 W NE 34 26 14.82 N 117 22 49.25 W SE 34 26 10.84 N 117 22 26.59 W

Center point of grid was 34 26 11.93 N and 117 22 37.97 W.

Table 6. Weather Summary

WEATHER CONDITIONS	Temp. Air Min F.	Temp. Air Max F.	Temp. Soil Min F.	Temp. Soil Max F.	Cloud Cover % AM	Cloud Cover % PM	Wind Min Mph	Wind Max Mph
Session 1								
April 5	**55**	**81**	**57**	**84**	**10**	**10**	**3**	**7**
April 6	**54**	**81**	**55**	**83**	**10**	**20**	**5**	**9**
April 7	**50**	**84**	**53**	**84**	**0**	**0**	**3**	**7**
April 8	**55**	**86**	**55**	**87**	**0**	**0**	**5**	**10**
April 9	**57**	**83**	**56**	**85**	**0**	**0**	**5**	**12**
Session 2								
May 23	**61**	**91**	**63**	**94**	**0**	**10**	**3**	**5**
May 24	**61**	**93**	**63**	**96**	**15**	**20**	**3**	**8**
May 25	**64**	**95**	**62**	**96**	**20**	**20**	**3**	**10**
May 26	**66**	**90**	**64**	**93**	**00**	**00**	**5**	**10**
May 27	**61**	**85**	**64**	**89**	**10**	**10**	**5**	**9**
Session 3								
June 14	**59**	**91**	**62**	**93**	**0**	**0**	**3**	**9**
June 15	**63**	**97**	**64**	**99**	**5**	**10**	**5**	**10**
June 16	**68**	**98**	**68**	**99**	**10**	**00**	**4**	**12**
June 17	**63**	**85**	**65**	**87**	**0**	**0**	**5**	**10**
June 18	**54**	**77**	**58**	**80**	**0**	**0**	**5**	**9**

AM and Min. Readings at 06:00
PM and Max Readings at 15:00

Table 7. MGS Live Tapping Data Summary

Category	Grid A Individuals (recaptures)	Total for Project Individuals
Trap Hours, Per Trap	178	178
Captures Totals All Species	18 (14)	18
MGS Captures	0	0
MGS Adult Male Captures	0	0
MGS Adult Female Captures	0	0
MGS Juvenile Male Captures	0	0
MGS Juvenile Female Captures	0	0
MGS Unknown Sex	0	0
AGS Captures	13(7)	5
AGS Adult Male Captures	5 (3)	2
AGS Adult Female Captures	7 (4)	3
AGS Juvenile Male Captures	0	0
AGS Juvenile Female Captures	1 (0)	1
AGS Unknown Sex	0	0
Number Of Species Captured	2	2

The California ground squirrel (*Spermophilus beecheyi)* was also captured (2 Adults and 3 juveniles).

Table 8. Sensitive Animals and Habitat on Palmetto Site

REPTILES				
Desert tortoise *Gopherus agassizii*	Historically found throughout the Mojave and Sonoran Deserts into Arizona, Nevada, and Utah. Occurs throughout the Mojave Desert in scattered populations. Found in creosote bush scrub, saltbush scrub, thornscrub (in Mexico), and Joshua tree woodland. Found in the open desert as well as in oases, riverbanks, washes, dunes, and occasionally rocky slopes.	February - June, all deserts Aug - Sep primarily eastern deserts. Can be present throughout year	FED: THR STATE: THR	Not present. Sign not observed on the property or zone of influence during the focused surveys.
BIRDS				
Northern harrier *Circus cyaneus*	Grassland and marshy habitats in Southern California. Uncommonly in open desert and brushlands.	Year round	FED: ND STATE: CSC	Low. Not observed during the surveys. Forages over a wide range of open habitat and can be expected to occur throughout most of Southern California. Although no

				nesting habitat was found, foraging habitat exists on site.
Sharp-shinned hawk *Accipiter striatus*	Nests in woodland, coniferous deciduous forest. Winter visitor and migrant to coastal Southern California. Forages over a variety of habitats.	Fall & winter; scarce in summers	FED: ND STATE: CSC	Low. Not observed during the surveys, but are expected to forage infrequently over the property during migration and in winter.
Cooper's hawk *Accipiter cooperi*	Woodland and semi-open habitats, riparian groves and mountain canyons. Uncommon permanent resident in coastal, mountains, and deserts of Southern California. Transients fairly common on coast in fall.	Year round; predominant in summer	FED: ND STATE: CSC	Low. Not observed during the surveys, but are expected to forage infrequently over the property during migration and in winter.
Ferruginous hawk *Buteo regalis*	Fairly common in winter in open grassland and agricultural regions in the interior, as well as some valleys along the coast. Rare and uncommon along the coast and in the desert.	Winter	FED: C2* STATE: CSC	Low. Not observed during the surveys. Poor quality foraging habitat for this species exists on site. No suitable nesting habitat occurs on site.
Prairie falcon *Falco mexicanus*	Nest in cliffs or rocky outcrops; forage in open arid valleys, agricultural fields. Throughout the desert and arid interior	Year round diurnal	FED: ND STATE: CSC	Low. Not observed during the surveys. Foraging habitat exists for this

	portions of coastal counties. Uncommon resident in Southern California.			species over the property, no suitable nesting habitat.
Burrowing owl *Athene cunicularia hypugea*	Grasslands and rangelands, usually occupying ground squirrel burrows. Resident over most of Southern California. Found in agricultural areas.	Year round	FED: ND STATE: CSC	Low. No burrows were observed on site, but this species may forage on site and nest in adjacent areas.
Le Conte's thrasher *Toxostoma lecontei*	Uncommon and local resident in low desert scrub throughout most of the Mojave Desert, extending up into the southwestern corner of the San Joaquin Valley. Breeding range extends from these areas into eastern Mojave, north into the Owens Valley and south into the lower Colorado Desert, and eastern Mojave. Also recorded from southern Nevada and Utah, as well as western Arizona and New Mexico.	Year round	FED: ND STATE: CSC	Moderate. This species may nest and forage on site. Was not observed during recent surveys.
Bendire's thrasher *Toxostoma bendirei*	Breeds in thorny shrubs and cactus in Joshua tree woodland with scattered desert shrubs such as creosote bush and burrobush primarily in eastern San Bernardino County. Also occur in the eastern Mojave in	Resident February - August	FED: ND STATE: CSC	Moderate. Not observed during the surveys; however, suitable breeding and foraging habitat

	areas with high numbers of *Opuntia*, or cholla, cactus. Common summer resident in Joshua Tree National Monument.			exist on the property.
Loggerhead shrike *Lanius ludovicianus*	Open fields with scattered trees, open woodland, scrub. Fairly common resident throughout southern California.	Year round	FED: ND STATE: CSC	Present. No nests observed. This species may nest in Joshua trees, and forage on site.
MAMMALS				
California leaf-nosed bat *Macrotus californicus*	In California, these bats primarily occupy low-lying desert areas, where they roost in caves, mines, and old buildings. Historic records extend west to near Chatsworth, Los Angeles County, but most populations from the California coastal basins are believed to have disappeared. Occurs from northern Nevada, Southern California, and western Arizona south to southern Baja California and Sonora.	Year round nocturnal	FED: ND STATE: CSC	Low. Because there are no suitable roost sites in the property limits this species does not roost on the property. However, it may forage over the property if there are roosting sites nearby.
Spotted bat *Euderma maculatum*	Found in the western North America from southern British Columbia to the Mexican border, at a small number of widely	Spring, Summer, Fall Nocturnal	FED: ND STATE: CSC	Low. Because there are no suitable roost sites in the property limits, this species does

	scattered localities. Habitats range from arid deserts and grasslands through mixed conifer forest up to 10,600 foot elevation. Prefers rock crevices in cliffs, also uses caves and buildings.	Hibernates in Winters		not roost on the property. However, it may forage over the property if there are roosting sites such as caves in the nearby mountains.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Variety of habitats including herbaceous and desert scrub areas, early stages of open forest and chaparral. Most common in relatively open habitats. Restricted to the cismontane areas of Southern California, extending from the coast to the Santa Monica, San Gabriel, San Bernardino and Santa Rosa mountain ranges.	Year round, diurnal and Crepuscular activity	FED: ND STATE: CSC	Present. Jackrabbits were observed during the field surveys, but the geographic location of the property indicates that the individuals observed belonged to the desert race, and not the coastal race.
Mohave ground squirrel *Spermophilus mohavensis*	Creosote bush scrub, saltbush scrub and Joshua tree woodland. This species is found in the open desert, at oases, along riverbanks, and washes, in dunes and on rocky slopes. Its known habitat extends from San Bernardino north to Kern and Inyo counties.	Active in spring	FED: ND STATE: THR	Not present per focused survey. Low quality habitat occurs on site
Grasshopper mouse	In the more arid regions of southern California. Especially prefers sandy	Year round	FED: ND STATE: CSC	Moderate probability.

Onychomys torridus ramona	areas of the Mojave, Sonoran deserts.			
SENSITIVE HABITATS				
Joshua tree woodland	Most of the Mojave Desert and parts of the Colorado Desert.	Year round	Protected by local ordinance	A Joshua tree woodland does not occur on site, but individual Joshua trees are scattered and present over the site. Survey and mapping performed.
Jurisdictional Drainages and Vernal Pools				
Drainages			Protected by Federal, State, and local ordinance	There are no jurisdictional drainages on site*
Vernal Pools			Protected by Federal, State, and local ordinance	There are no vernal pools nor suitable soils on site for vernal pools to occur.

*• **Site:** Does not have a USGS delineated “Blue Line Stream”.
- **100-Year-Flood Plain Designation:** The Site is not within a "Designated Flood Plain".
- **Dominate Upstream Desert Alluvial Fan Channel:** The Site does not have a "Dominate upstream desert alluvial fan channel" that has become undefined due to lower slope and braiding of typical desert type alluvial fan morphology, therefore no potentially significant upstream off-site concentrated or sheet flows are formed from an alluvial fan that would be of an issue impacting the Site.
- **Ephemeral Natural Drainage Course(s):** The Site does not have any "Significant Native or Altered Ephemeral” drainage course(s) bisecting the Site. The City of Palmdale (Upstream Development or Road improvements) typically concentrates the flows of these natural "Ephemeral Drainage Courses”.

Legend

FEDERAL*:* Federal Classifications

END	Taxa listed as endangered
THR	Taxa listed as threatened
PE	Taxa proposed to be listed as endangered
PT	Taxa proposed to be listed as threatened
C2*	The U.S. Fish and Wildlife Service (USFWS) revised its classifications of candidate taxa (species, subspecies, and other taxonomic designations). The former designation of "Category 2 Candidate for listing" has been discontinued. The USFWS will continue to assess the need for protection of these taxa and may, in the future, designate such taxa as Candidates. NRA, Inc. has noted the change in species status by marking with an asterisk (*) those C2 candidates that were removed from the list.
C	Candidate for listing. Refers to taxa for which the USFWS has sufficient information to support a proposal to list as Endangered or Threatened and issuance of the proposal is anticipated but precluded at this time.
ND	Not designated as a sensitive species

STATE: State Classifications

END	Taxa listed as endangered
THR	Taxa listed as threatened
CE	Candidate for endangered listing
CT	Candidate for threatened listing
CFP	California Fully Protected. Species legally protected under special legislation enacted prior to the California Endangered Species Act.
CSC	California Species of Special Concern. Taxa with populations declining seriously or that are otherwise highly vulnerable to human development.
SA	Special Animal. Taxa of concern to the California Natural Diversity Data Base regardless of their current legal or protected status.
ND	Not designated as a sensitive species

CNPS: California Native Plant Society Classifications

1A	Plants presumed by CNPS to be extinct in California
1B	Plants considered by CNPS to be rare or endangered in California and elsewhere
2	Plants considered by CNPS to be rare, threatened or endangered in California, but which are more common elsewhere
3	Review list of plants suggested by CNPS for consideration as endangered but about which more information is needed.
4	Watch list of plants of limited distribution whose status should be monitored.

Occurrence Probabilities

Occurs	Observed on the site during this study or recorded on site by other qualified biologists
Expected	Not observed or recorded on site, but likely to be present at least during a portion of the year
High	Known to occur in the vicinity of the project site. Suitable habitat exists on site.
Moderate	Known to occur in the vicinity of the project site. Small areas of or marginally suitable habitat exists on site.
Low	No reported sightings within the vicinity of the project. Available habitat limited and rarely used.
None	Focused surveys did not locate the species, or suitable habitat does not exist on site.
Unknown	No data is available on whether species is on or in the vicinity of the site, and information about the species is insufficient to make an accurate assessment of probability occurrence.

7.0 IMPACTS AND RECOMMENDATIONS

The MGS was not captured on the current project site during the 2022 protocol survey as described in this report.

No sign of desert tortoise was observed during the 100 percent coverage of the site or the ZOI surveys. The desert tortoise is not present within the proposed project footprint nor the zone of influence.

No rare plants were documented on site.

The Project Site does not currently support MGS, desert tortoise, nor rare plants.

Implementation of the Project will not result in the loss of individual MGS, nor will it adversely affect local or regional MGS populations; it will not result in the take of DT nor in impacts to occupied habitat; no rare plants were documented on site and no take will occur.

There are no blue line streams on site. There are no jurisdictional drainages on site. There are no vernal pools nor suitable soils for vernal pools on site.

8.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached figures present the data and information required for this resource assessment, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this investigation was performed by me. I certify that I have not signed a nondisclosure or consultant confidentiality agreement nor do I have any financial interest in the Project.

DATE: September 9, 2022 SIGNED: Philippe Jean Vergne

Report Author Philippe Vergne

9.0 REFERENCES

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Vergne P. Focused Survey for Mohave Ground Squirrel Amethyst Basin 2017 for Kidd Biological Consulting

Vergne P. Phase One Habitat Survey for Mohave Ground Squirrel US Cold Storage 2020

Appendix A Mohave Ground Squirrel (MGS) Trapping Summary Form

Mohave Ground Squirrel (MGS) Survey and Trapping Form

Part I – PROJECT INFORMATION (use a separate form for each sampling grid)

Project name: Palmetto Way Warehouse___` Property Owner: NA

Location: Township 4N___; Range 5W_; Section_14_____; ¼ Section NE 1/4 _SE 1/4____

Quad map/series: Baldy Mesa_ UTM coordinates **Center of grid 34 26 11.93 N and 117 22 37.97 W**

GPS coordinates of trapping grid corners:

MGS Grid Census Locations

Grid No. and Trapping Sessions 1-3	Grid Corners
Grid 1 – Three Sessions	SW 34 26 10.7 N 117 22 49.25 W NW 34 26 13.96 N 117 22 49.66 W NE 34 26 14.82 N 117 22 49.25 W SE 34 26 10.84 N 117 22 26.59 W

Acreage of Project Site: 30.52 acres ___ Acreage of potential MGS habitat on site 30.52 acres_

Total acreage visually surveyed on project site: 30.52 acres

Visual surveys conducted by: Philippe Vergne of ENVIRA

Total acres trapped: 26 acres

Number of sampling grids: 1

Trapping conducted by:_____Philippe Vergne of ENVIRA___

Dates of sampling term(s): (all 2022)

FIRST April 5-9, SECOND _May 23 to 27 THIRD June 14 to 18

Site Elevation 3,220

Weather Summary

WEATHER CONDITIONS	Temp. Air Min F.	Temp. Air Max F.	Temp. Soil Min F.	Temp. Soil Max F.	Cloud Cover % AM	Cloud Cover % PM	Wind Min Mph	Wind Max Mph
Session 1								
April 5	**55**	**81**	**57**	**84**	**10**	**10**	**3**	**7**
April 6	**54**	**81**	**55**	**83**	**10**	**20**	**5**	**9**
April 7	**50**	**84**	**53**	**84**	**0**	**0**	**3**	**7**
April 8	**55**	**86**	**55**	**87**	**0**	**0**	**5**	**10**
April 9	**57**	**83**	**56**	**85**	**0**	**0**	**5**	**12**
Session 2								
May 23	**61**	**91**	**63**	**94**	**0**	**10**	**3**	**5**
May 24	**61**	**93**	**63**	**96**	**15**	**20**	**3**	**8**
May 25	**64**	**95**	**62**	**96**	**20**	**20**	**3**	**10**
May 26	**66**	**90**	**64**	**93**	**00**	**00**	**5**	**10**
May 27	**61**	**85**	**64**	**89**	**10**	**10**	**5**	**9**
Session 3								
June 14	**59**	**91**	**62**	**93**	**0**	**0**	**3**	**9**
June 15	**63**	**97**	**64**	**99**	**5**	**10**	**5**	**10**
June 16	**68**	**98**	**68**	**99**	**10**	**00**	**4**	**12**
June 17	**63**	**85**	**65**	**87**	**0**	**0**	**5**	**10**
June 18	**54**	**77**	**58**	**80**	**0**	**0**	**5**	**9**

AM and Min. Readings at 06:00
PM and Max Readings at 15:00
Live Tapping Data Summary

MGS were not detected in the Project Site or within any census grids during any of the three live trapping sessions. Only the AGS and California Ground squirrel were trapped within the grid.

Total trap hours were in excess of 172 hours, averaging approximately 11.5 hours per day or 57.5 hours per live trapping event. There were no MGS captures. AGS capture totals were low at 17 representing 8 individuals.

Part II – GENERAL HABITAT DESCRIPTION

The disturbed annual grasslands and understory on site are dominated by fiddleneck, brome, and forbs. Joshua Tree are scattered throughout the site. Scrub community is dominated by Saltbush, California Juniper, and isolated creosote bush

Site Vegetation

Common name	Scientific name
California juniper	*Juniperus californica*
Burro Bush or white bur sage	*Ambrosia dumosa*
Desert sunflower	*Geraea canescens*
Fremont pincushion	*Chaenactis fremontii*
Cheese bush	*Hymenoclea salsola*
Antelope bush	*Purshia tritendata*
Flat-topped buckwheat	*Eriogonum plumatella*
California buckwheat	*Eriogonum fasciculatum*
Great Basin sagebrush	*Artemisia tritendata*
Coopers box-thorn	*Lycium cooperi*
Desert sage	*Salvia dorii*
Woody bottle washer	*Camissonia boothii*
Plantain	*Plantago insularis*
Cotton thorn	*Tetradymia axillaris*
Creosote bush	*Larrea tridentata*
Hop sage	*Grayia sinosa*
Snakeweed	*Gutierrezia microcephala*
Rabbit brush	*Chrysothamnus nauseosus*
Nevada ephedra	*Ephreda nevadensis*
Joshua tree	*Yucca brevifolia*

Common name	Scientific name
Red brome	*Bromus madritensis*
Cheat grass	*Bromus tectorum*
Perennial bluegrass	*Poa secunda*
Meditarrean grass	*Schismus barbatus*
Red stemmed filaree	*Erodium cicutarium*

Land form (mesa, bajada, wash): Mesa adjacent to commercial warehouses and rural housing. The project site is an undeveloped portion north of Palmetto Way, to the West of Amargosa Road (adjacent to the 15 Freeway). The valley floor is almost flat (approximately 1.25% slope to the southeast).

Soils description: The soils on the site are Cajon sands, and Hesperia loamy fine sands

Elevation: 3,443 to 3,468 Slope: estimated 1.25% slope to southeast

Appendix B MOU

—

State of California - Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Wildlife Branch
1812 9th Street
Sacramento, CA 95811
http://www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor
CHARLTON H. BONHAM, Director

Expiration Date: December 31, 2021

MEMORANDUM OF UNDERSTANDING

Philippe J. Vergne (SC-002835)
Principal Investigator
ENVIRA

Research on Mohave Ground Squirrel in California

May 7, 2018
(This supersedes the MOU issued on September 26, 2012)

This Memorandum of Understanding (MOU) is issued pursuant to California Code of Regulations Title 14 Section 783.1(a), and Fish and Game Code (FGC) Section 2081(a) of the California Endangered Species Act (CESA) whereby through permits or memorandums of understanding, the Department of Fish and Wildlife (Department) may authorize individuals, public agencies, universities, zoological gardens, and scientific or educational institutions, to import, export, take, or possess any endangered species, threatened species, or candidate species for scientific, educational, or management purposes.

This MOU is a legal instrument connected to your Scientific Collecting Permit (**SCP; SC-002835**) pursuant to Fish and Game Code Section 1002 and CCR Title 14 Section 650, referenced herein for the purpose of linking the two regulatory documents and all authorized research activities.

MOUs issued pursuant to Fish and Game Code 2081(a) generally do not cover "movement out of harm's way" during project activities (as defined in Public Resources Code 21065) unless part of the project's purpose is to contribute to recovery of the species. Incidental take, as well as movement out of harm's way to avoid lethal take, of CESA-listed or fully protected species associated with project activities is typically authorized by the Department Regional Office with jurisdiction over the project site through separate permits issued pursuant to other Fish and Game Code sections such as 2081(b) or 2835.

Authorized Species and Research Activities

The Department authorizes you to conduct the following scientific research methods and activities on the CESA-listed threatened Mohave ground squirrel (*Xerospermophilus mohavensis;* squirrel):

a) search (survey) for, including the capture using live-traps;

Renewed October 2021.

APPENDIX D
Cultural and Paleontological Resources Assessment for Palmetto Way Industrial Building Project

DUKE CRM

18 Technology Dr., Ste. 103
Irvine, CA 92618
949-356-6660
www.dukecrm.com

September 23, 2022

Anthony DeLuca
CASC Engineering & Consulting
1470 E. Cooley Drive
Colton, CA 92324

Subject: Cultural and Paleontological Resources Assessment for Palmetto Way Industrial Building Project, City of Hesperia, San Bernardino County, California (DUKE Project Number C-0413)

Dear Mr. DeLuca:

At the request of the CASC Engineering & Consulting (CLIENT), Duke Cultural Resources Management, LLC (DUKE CRM) has prepared a cultural and paleontological resources assessment for the Palmetto Way Industrial Building Project (Project), located in the City of Hesperia, San Bernardino County, California. The Project is 34 acres in size. The City of Hesperia is the lead agency for California Environmental Quality Act (CEQA).

The Project is located in the High Desert within APNs 0405-072-52, 53, 54, and 55 in Section 14, Township 4 North, Range 5 West, as shown on the USGS *Baldy Mesa, & Hesperia, Calif.* 7.5-minute quadrangle map (see Attachment 1 for Project Maps). The Project will construct a 498,500 square foot Industrial Warehouse Building with up to 25,000 square feet of office space. The proposed Project will include 76 loading dock doors, 182 truck/trailer parking spaces and 281 auto parking spaces on four (4) parcels. Maximum depth of excavation of approximately eight (8) to 10 feet.

This report includes the result of our research and field survey for cultural and paleontological resources.

Research

On May 18, 2022, DUKE CRM submitted a request for a records search by the South Central Coastal Information Center (SCCIC) for the Project. The SCCIC located at the California State University, Fullerton is part of the California Historical Resources Information System. However, due to a SCCIC backlog, the records search was performed by DUKE CRM staff archaeologist Morgan Bender on September 12, 2022. It included a review of all recorded cultural resources within a ½-mile radius of the Project, as well as a review of known cultural resource survey and excavation reports.

The records search identified three (3) cultural resources within ½ mile of the Project, none of which are located within the current Project area. Resource P-36-0021351 is the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR)-eligible California Aqueduct located 670 feet from the southwest corner of the Project. Resource P-36-021288, located 2400 feet northeast of the Project area, is a mid-20th century trash deposit consisting primarily of cans; CRHR eligibility has not been determined. P-36-021366 is a mid-20th century trash scatter. CRHR eligibility has not been determined.

The SCCIC identified seven (7) cultural reports within ½ mile of the Project, three (3) of which overlap with the Project area (Table 1). No resources were identified within the Project area by any of these previous investigations.

Table 1. Reports within the Project Boundary

Report No.	Year	Report Title	Author(s)
SB-04975	2005	Historical/Archaeological Resources Survey Report: Baldy Mesa Water District Arsenic Treatment Project, Cities of Victorville and Hesperia, San Bernardino County, California.	Matthew Wetherbee
SB-06859	2010	Identification and Evaluation of Historic Properties: Town of Apple Valley and City of Hesperia Wastewater Reclamation Plants and Related Facilities Project, Victor Valley Area, San Bernardino County, California.	Tang, Bai "Tom", Terri Jacquemain, Daniel Ballester, and Harry Quinn
SB-07494	2013	G.O. 131-D Victor-Aqueduct-Phelan 115kV Replacement Project.	Clark, Fatima V. and Dave Hanna

Additionally, an inquiry to the Native American Heritage Commission (NAHC) was submitted to ascertain the presence of known sacred sites, Native American cultural resources, and/or Native American human remains within the boundaries of the proposed Project. On June 21, 2022, the NAHC the Sacred Lands File indicated Native American cultural resources have been identified within the general vicinity of the Project location (see Attachment 2).

DUKE CRM conducted a review of online historical aerial photographs and historical USGS quad maps utilizing University of California, Santa Barbara FrameFinder, historicaerials.com, and USGS Historical Topographic Map Explorer. The Hesperia 1:62,500 scale map from 1902 does not show any trails, roads, buildings or structures within the Project area. By 1942, a few trails are located in the vicinity of the Project area but not within its boundaries (Hesperia 1:62,500 1942). The predecessor to U.S. 395/I-15 has been constructed by 1942, as are several power transmission lines. A basic network of roads is visible on the 1956 Baldy Mesa 1:24,000 quadrangle; they are a mix of maintained and unmaintained dirt roads. Additional roads were noted on the 1968 Baldy Mesa & Hesperia 1:24,000 maps, but the Project area remains undeveloped. The California Aqueduct is illustrated on the 1980 Baldy Mesa & Hesperia 1:24,000 maps to the south and west of the Project area.

Aerial imagery analysis verifies the map analysis (UCSB Framefinder 2022, HistoricAerials.com 2022). A 1952 aerial image illustrates minor road developments connecting sparsely distributed homesteads with the predecessor of U.S. 395/I-15 as a two-lane road. By 1968, the highway is well developed with off- and on-ramps. The road network around the Project area is well developed by 1986. The property to the south of the Project area is developed between 1995 and 2002. No development of the Project area is noted through 2018.

The geology in the vicinity of the Project has been mapped by Dibblee and Minch (2008). A review of this map indicates the proposed Project is located on primarily alluvial gravel from the Pleistocene period (*Qa*).

DUKE CRM requested that the Western Science Center (WSC) perform a paleontological records search for known fossil localities within, and in the vicinity of, the Project. On May 27, 2022, the WSC found that there have been no paleontological resources discovered within the Project area or within a one (1) mile search radius. But significant fossils have been discovered in similar sediments in other areas of southern California. The WSC recommends a paleontological mitigation program. The WSC classifies these deposits as having high paleontological sensitivity.

Field Survey

Morgan Bender, M.A., RPA, Archaeologist and Zachary Duke, Archaeological Technician conducted an intensive pedestrian survey of the Project on July 27, 2022. The survey area included all 34 acres in the area of the proposed Project with the exception of fenced 2.3 acre existing facility in the northwest corner. Transects

were spaced no more than 15 meters apart. The surface visibility was good, ranging from 90-100 percent. The area has little to no vegetation and scattered debris with a mean elevation of approximately 3,450 feet above mean sea level. A motocross track has been established on the eastern half of the Project area. See photographs in Attachment B. No cultural or paleontological resources were observed as a result of the field survey.

Conclusions

DUKE CRM assessed the proposed Project for impacts to cultural and paleontological resources according to CEQA. As a result of negative findings during the SCCIC records search and field survey, our assessment is that the Project has a low potential to impact cultural resources. Therefore, no further action is recommended with regards to cultural resources.

The Project is located on Pleistocene age (*Qa*) sediments. The Project is considered to have a high potential to impact paleontological resources. The WSC documents numerous fossil localities within similar deposits, but none noted within one (1) mile of the Project area. Research indicates that there is a high sensitivity for paleontological resources in the old alluvial deposits that underlie the Project. Therefore, significant and unique paleontological resources may be impacted by the project during earth disturbing activities in this area. These impacts would be considered potentially significant. In order to reduce the potential for impacts to paleontological resources to a level that is less than significant under CEQA, paleontological monitoring is recommended where ground disturbance exceeds four (4) feet below surface within the Project.

Paleontological Monitoring

A paleontological monitor shall be present during ground disturbing activities below four (4) feet in depth within the Project. The monitor shall work under the direct supervision of a qualified paleontologist (B.S./B.A. in geology, or related discipline with an emphasis in paleontology and demonstrated competence in paleontological research, fieldwork, reporting, and curation).

1. The qualified paleontologist shall be on-site at the pre-construction meeting to discuss monitoring protocols.
2. The paleontological monitor shall be present full-time during ground disturbance below 4 feet in depth within the Project, including but not limited to grading, trenching, utilities, and off-site easements. If, after excavation begins, the qualified paleontologist determines that the sediments are not likely to produce fossil resources, monitoring efforts shall be reduced.
3. The monitor shall be empowered to temporarily halt or redirect grading efforts if paleontological resources are discovered.
4. In the event of a paleontological discovery the monitor shall flag the area and notify the construction crew immediately. No further disturbance in the flagged area shall occur until the qualified paleontologist has cleared the area.
5. In consultation with the qualified paleontologist, the monitor shall quickly assess the nature and significance of the find. If the specimen is not significant it shall be quickly mapped, documented, removed, and the area cleared.
6. If the discovery is significant the qualified paleontologist shall notify the CLIENT and CITY immediately.
7. In consultation with the CLIENT and CITY the qualified paleontologist shall develop a plan of mitigation which will likely include full-time monitoring, salvage excavation, scientific removal of the find, removal of sediment from around the specimen (in the laboratory), research to identify and categorize the find, curation of the find in a local qualified repository, and preparation of a report summarizing the find.

If previously unidentified cultural materials are unearthed during construction, work shall be halted in that area until a qualified archaeologist can assess the significance of the find. If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The

County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify the Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

Thank you for contacting DUKE C R M on this interesting project. If you have any questions or comments, you can contact me at (714) 345-9883, or by e-mail at BrianGlenn@dukecrm.com.

Sincerely,

DUKE CULTURAL RESOURCES MANAGEMENT, LLC



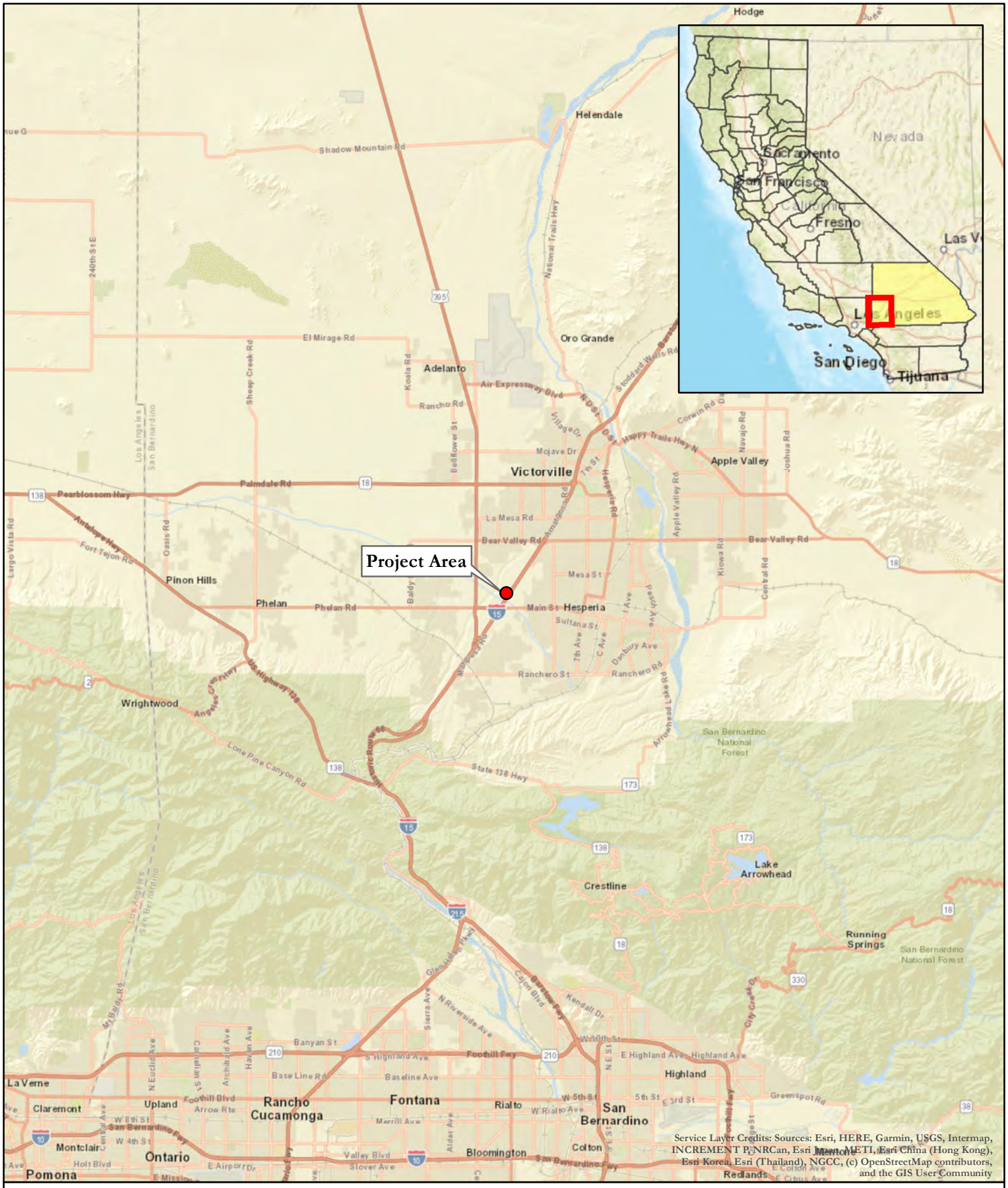
Brian Glenn, M.A., RPA
Archaeologist

Attachments

1: Project Maps
2: Native American Heritage Commission Letter
3: Project Photographs

ATTACHMENT 1

PROJECT MAPS



Map 1 - Project Vicinity

Palmetto Way Industrial Bldg, C-0413

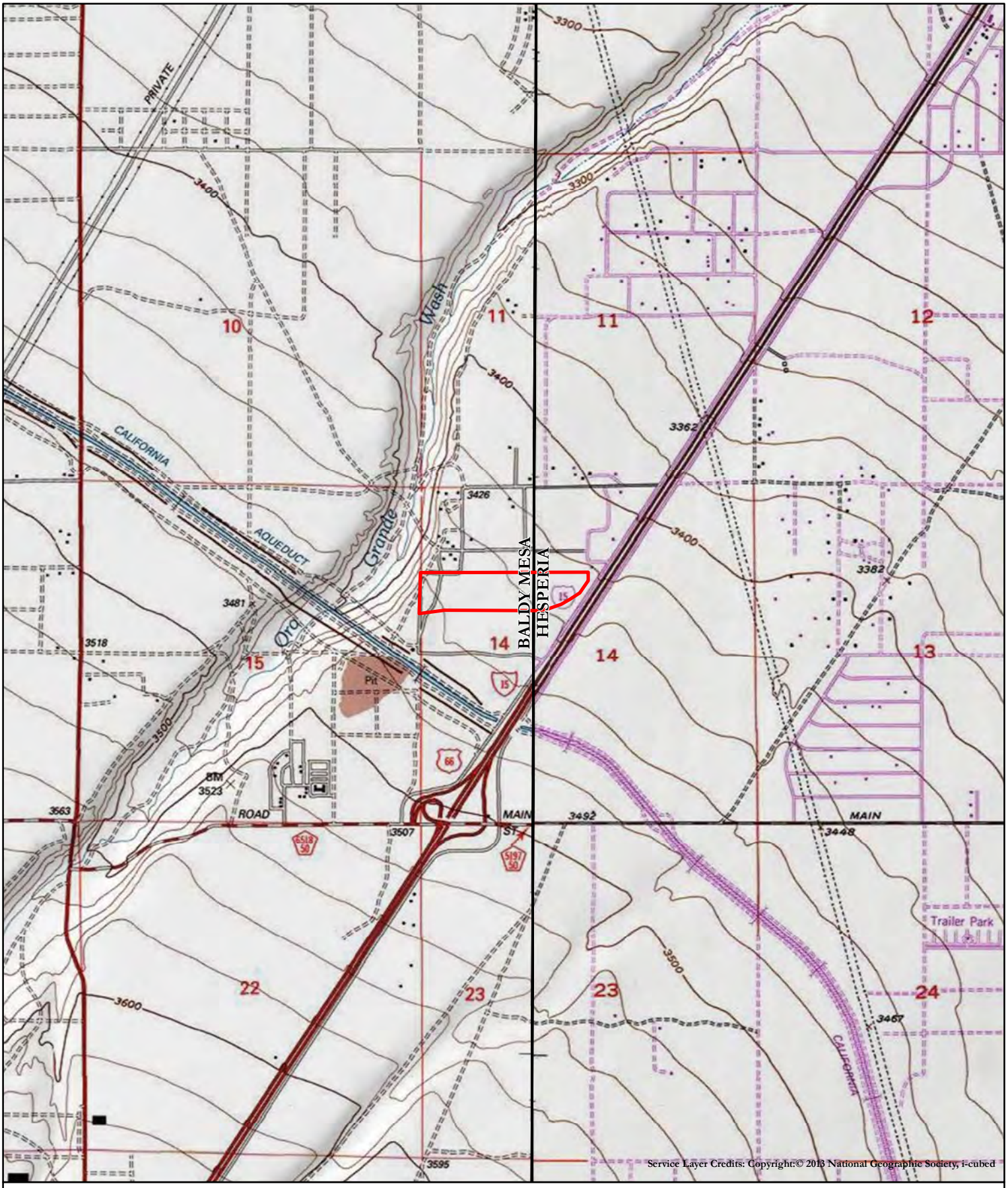
DUKE CRM

● Project Area

0 6 12 Miles

N

1 inch = 6 miles 1:360,000



Map 2 - Project Location
Palmetto Way Industrial Bldg, C-0413

DUKE CRM

Baldy Mesa & Hesperia, Calif USGS 7.5-minute quadrangle
T4N, R5W, Section 14
Date of Map: 1956 / Photorevised: 1980

Project Area
USGS 7.5' Quads

0 0.25 0.5 Miles
0 0.25 0.5 Kilometers
N
1 inch = 2,000 feet
1:24,000



Map 3 - Project Aerial Photo

Palmetto Way Industrial Bldg, C-0413

DUKE CRM

Project Area

0 175 350 Feet

N

1 inch =405 feet

1:4,860

ATTACHMENT 2

NATIVE AMERICAN HERITAGE COMMISSION LETTER

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
Raymond C. Hitchcock
Miwok/Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

June 21, 2022

Brian Glenn
DUKECRM

Via Email to: brianglenn@dukecrm.com

Re: Palmetto Way Industrial (C-0413) Project, San Bernardino County

Dear Mr. Glenn:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information submitted for the above referenced project. The results were positive. Please contact the Chemehuevi Indian Tribe and the San Manuel Band of Mission Indians on the attached list for information. Please note that tribes do not always record their sacred sites in the SLF, nor are they required to do so. A SLF search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with a project's geographic area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites, such as the appropriate regional California Historical Research Information System (CHRIS) archaeological Information Center for the presence of recorded archaeological sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. Please contact all of those listed; if they cannot supply information, they may recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify the NAHC. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
San Bernardino County
6/21/2022

Chemehuevi Indian Tribe
Sierra Pencille, Chairperson
P.O. Box 1976 1990 Palo Verde Drive
Havasu Lake, CA, 92363
Phone: (760) 858 - 4219
Fax: (760) 858-5400
chairman@cit-nsn.gov
Chemehuevi

Morongo Band of Mission Indians
Ann Brierty, THPO
12700 Pumarra Road
Banning, CA, 92220
Phone: (951) 755 - 5259
Fax: (951) 572-6004
abrierty@morongo-nsn.gov
Cahuilla
Serrano

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Road
Banning, CA, 92220
Phone: (951) 755 - 5110
Fax: (951) 755-5177
abrierty@morongo-nsn.gov
Cahuilla
Serrano

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com
Quechan

Quechan Tribe of the Fort Yuma Reservation
Manfred Scott, Acting Chairman
Kw'ts'an Cultural Committee
P.O. Box 1899
Yuma, AZ, 85366
Phone: (928) 750 - 2516
scottmanfred@yahoo.com
Quechan

San Fernando Band of Mission Indians
Donna Yocum, Chairperson
P.O. Box 221838
Newhall, CA, 91322
Phone: (503) 539 - 0933
Fax: (503) 574-3308
ddyocum@comcast.net
Kitanemuk
Vanyume
Tataviam

San Manuel Band of Mission Indians
Jessica Mauck, Director of Cultural Resources
26569 Community Center Drive
Highland, CA, 92346
Phone: (909) 864 - 8933
Jessica.Mauck@sanmanuel-nsn.gov
Serrano

Serrano Nation of Mission Indians
Wayne Walker, Co-Chairperson
P. O. Box 343
Patton, CA, 92369
Phone: (253) 370 - 0167
serranonation1@gmail.com
Serrano

Serrano Nation of Mission Indians
Mark Cochrane, Co-Chairperson
P. O. Box 343
Patton, CA, 92369
Phone: (909) 528 - 9032
serranonation1@gmail.com
Serrano

Twenty-Nine Palms Band of Mission Indians
Darrell Mike, Chairperson
46-200 Harrison Place
Coachella, CA, 92236
Phone: (760) 863 - 2444
Fax: (760) 863-2449
29chairman@29palmsbomi-nsn.gov
Chemehuevi

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Palmetto Way Industrial (C-0413) Project, San Bernardino County.

Twenty-Nine Palms Band of Mission Indians
Anthony Madrigal, Tribal Historic Preservation Officer
46-200 Harrison Place Chemehuevi
Coachella, CA, 92236
Phone: (760) 775 - 3259
amadrigal@29palmsbomi-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Palmetto Way Industrial (C-0413) Project, San Bernardino County.

ATTACHMENT 3

PROJECT PHOTOGRAPHS



Site overview. View to northeast.



Site overview. View to southeast.



Site overview. View to east.



Site overview. View to west.



Ground visibility. Plan view.



Scattered modern debris. View to southeast.



Building located on the Project area. View to north.



Small faunal bone. Plan view.

APPENDIX E
Amargosa and Palmetto High-Cube Warehouse Energy Analysis

Amargosa and Palmetto High-Cube Warehouse

ENERGY ANALYSIS

CITY OF HESPERIA

PREPARED BY:

Haseeb Qureshi
hqureshi@urbanxroads.com

Ali Dadabhoy
adadabhoy@urbanxroads.com

FEBRUARY 1, 2023

TABLE OF CONTENTS

TABLE OF CONTENTS I
APPENDICES II
LIST OF EXHIBITS II
LIST OF TABLES II
LIST OF ABBREVIATED TERMS III
EXECUTIVE SUMMARY 1
ES.1 Summary of Findings 1
ES.2 Project Requirements 1
1 INTRODUCTION 3
1.1 Site Location 3
1.2 Project Description 3
2 EXISTING CONDITIONS 7
2.1 Overview 7
2.2 Electricity 9
2.3 Natural Gas 11
2.4 Transportation Energy Resources 14
3 REGULATORY BACKGROUND 17
3.1 Federal Regulations 17
3.2 California Regulations 17
4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES 21
4.1 Evaluation Criteria 21
4.2 Methodology 21
4.3 Construction Energy Demands 22
4.4 Operational Energy Demands 30
4.5 Summary 32
5 CONCLUSIONS 36
6 REFERENCES 39
7 CERTIFICATIONS 42

APPENDICES

APPENDIX 4.1: CALEEMOD CONSTRUCTION EMISSIONS MODEL OUTPUTS
APPENDIX 4.2: CALEEMOD OPERATIONAL EMISSIONS MODEL OUTPUTS
APPENDIX 4.3: EMFAC2021

LIST OF EXHIBITS

EXHIBIT 1-A: LOCATION MAP 4
EXHIBIT 1-B: SITE PLAN 5

LIST OF TABLES

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS 1
TABLE 2-1: TOTAL ELECRICITY SYSTEM POWER (CALIFORNIA 2020) 8
TABLE 2-2: SCE 2020 POWER CONTENT MIX 11
TABLE 4-1: CONSTRUCTION DURATION 22
TABLE 4-2: CONSTRUCTION POWER COST 23
TABLE 4-3: CONSTRUCTION ELECTRICITY USAGE 23
TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS 24
TABLE 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES 26
TABLE 4-6: CONSTRUCTION TRIPS AND VMT 27
TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES 28
TABLE 4-8: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES 29
TABLE 4-9: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION 31
TABLE 4-10: PROJECT ANNUAL OPERATIONAL NATURAL GAS DEMAND SUMMARY 31

LIST OF ABBREVIATED TERMS

%	Percent
(1)	Reference
AQIA	*Amargosa and Palmetto High-Cube Warehouse Air Quality Impact Analysis*
BACM	Best Available Control Measures
BTU	British Thermal Units
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of Hesperia
CPEP	Clean Power and Electrification Pathway
CPUC	California Public Utilities Commission
DMV	Department of Motor Vehicles
EIA	Energy Information Administration
EPA	Environmental Protection Agency
EMFAC	EMissions FACtor
FERC	Federal Energy Regulatory Commission
GHG	Greenhouse Gas
GWh	Gigawatt Hour
HHDT	Heavy-Heavy Duty Trucks
hp-hr-gal	Horsepower Hours Per Gallon
IEPR	Integrated Energy Policy Report
ISO	Independent Service Operator
ISTEA	Intermodal Surface Transportation Efficiency Act
ITE	Institute of Transportation Engineers
kBTU	Thousand-British Thermal Units
kWh	Kilowatt Hour
LDA	Light Duty Auto
LDT1/LDT2	Light-Duty Trucks
LHDT1/LHDT2	Light-Heavy Duty Trucks
MARB/IPA	March Air Reserve Base/Inland Port Airport
MDV	Medium Duty Trucks
MHDT	Medium-Heavy Duty Trucks

MMcfd	Million Cubic Feet Per Day
mpg	Miles Per Gallon
MPO	Metropolitan Planning Organization
PG&E	Pacific Gas and Electric
Project	Amargosa and Palmetto High-Cube Warehouse
PV	Photovoltaic
SCAB	South Coast Air Basin
SCE	Southern California Edison
SDAB	San Diego Air Basin
sf	Square Feet
SoCalGas	Southern California Gas
TEA-21	Transportation Equity Act for the 21st Century
U.S.	United States
VMT	Vehicle Miles Traveled

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Amargosa and Palmetto High-Cube Warehouse Energy Analysis* is summarized below based on the significance criteria in Section 5 of this report consistent with Appendix G of the 2020 California Environmental Quality Act (CEQA) Statute and Guidelines (*CEQA Guidelines*) (1). Table ES-1 shows the findings of significance for potential energy impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Energy Impact #1: Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	5.0	*Less Than Significant*	*n/a*
Energy Impact #2: Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	5.0	*Less Than Significant*	*n/a*

ES.2 PROJECT REQUIREMENTS

The Project would be required to comply with regulations imposed by the federal and state agencies that regulate energy use and consumption through various means and programs. Those that are directly and indirectly applicable to the Project and that would assist in the reduction of energy usage include:

- Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)
- The Transportation Equity Act for the 21st Century (TEA-21
- Integrated Energy Policy Report (IEPR)
- State of California Energy Plan
- California Code Title 24, Part 6, Energy Efficiency Standards
- California Code Title 24, Part 11, California Green Building Standards Code (CALGreen)
- AB 1493 Pavley Regulations and Fuel Efficiency Standards
- California's Renewable Portfolio Standard (RPS)
- Clean Energy and Pollution Reduction Act of 2015 (SB 350)

Consistency with the above regulations is discussed in detail in section 5 of this report.

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1 INTRODUCTION

This report presents the results of the energy analysis prepared by Urban Crossroads, Inc., for the proposed Amargosa and Palmetto High-Cube Warehouse Project (Project). The purpose of this report is to ensure that energy implication is considered by the City of Hesperia (Lead Agency), as the lead agency, and to quantify anticipated energy usage associated with construction and operation of the Project, determine if the usage amounts are efficient, typical, or wasteful for the land use type, and to emphasize avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy.

1.1 SITE LOCATION

The proposed Project is located on the northwest corner of Amargosa Road, and Palmetto Way in the City of Hesperia as shown on Exhibit 1-A.

1.2 PROJECT DESCRIPTION

The proposed Project is to consist of 499,850[1] square high-cube fulfillment center warehouse building as shown on Exhibit 1-B. The proposed project is anticipated to be constructed and fully operational by year 2024.

It is expected that the Project business operations would primarily be conducted within the enclosed buildings, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays. This analysis includes a conservative assumption of on-site Project-related emission sources for potential future tenants, including architectural coatings, consumer products, landscape maintenance equipment, natural gas, electricity, mobile operations, and on-site cargo handling equipment. This analysis is intended to describe air quality impacts associated with the expected typical operational activities at the Project site. To present a conservative approach, this report assumes the Project would operate 24-hours daily for seven days per week.

Per the *Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis* prepared by Ganddini Group, Inc., the Project is expected to generate a total of approximately 905 total vehicular trips per day (453 vehicles inbound + 453 vehicles outbound), which includes 115 total truck trips per day (58 trucks inbound + 58 trucks outbound) (2).

1 The proposed building square footage utilized in this analysis is based on a previous site plan which assumed a slightly smaller building square footage. Nonetheless, the emissions analyzed in this report would not change and a less than significant impact is expected.

EXHIBIT 1-A: LOCATION MAP

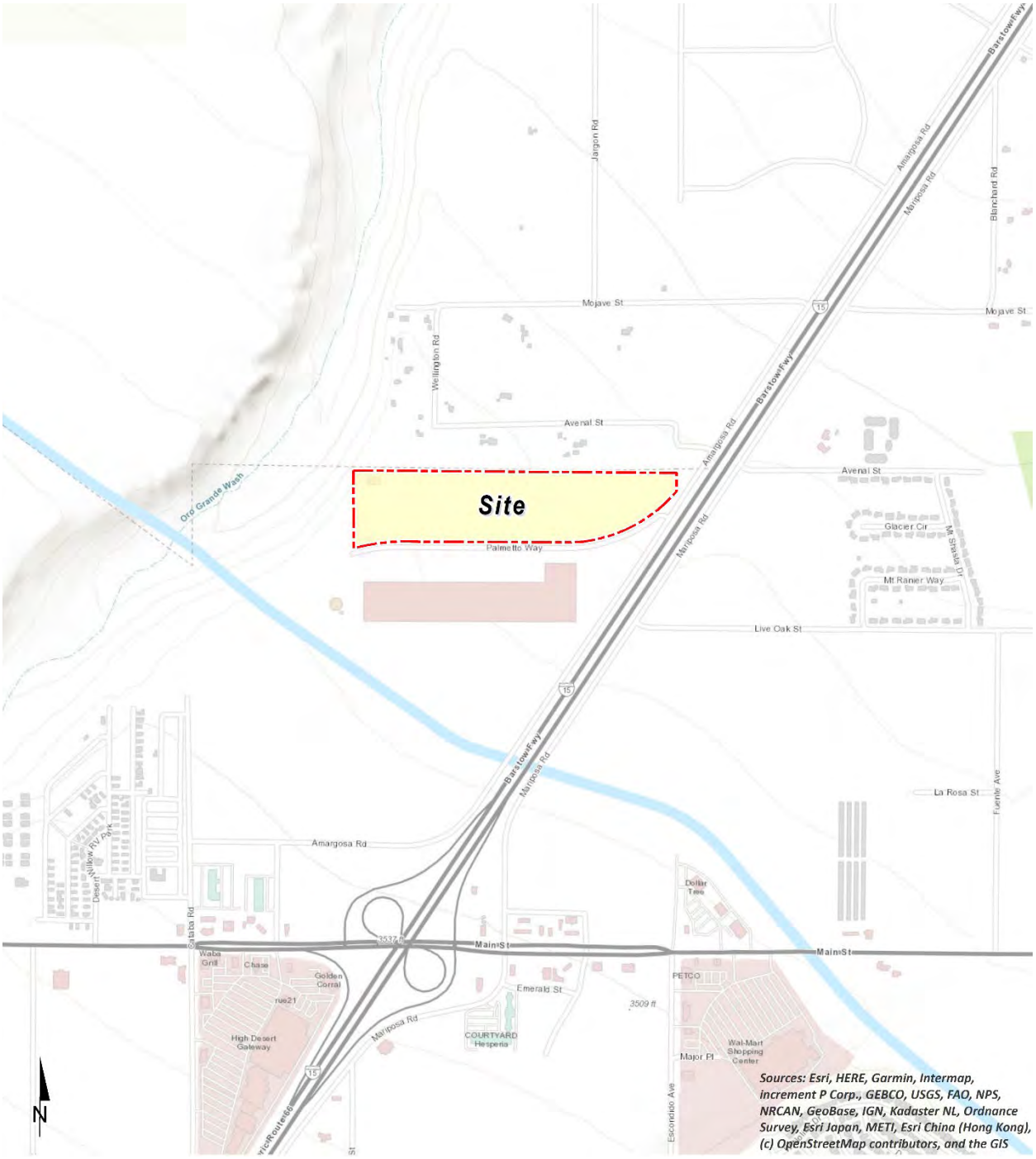
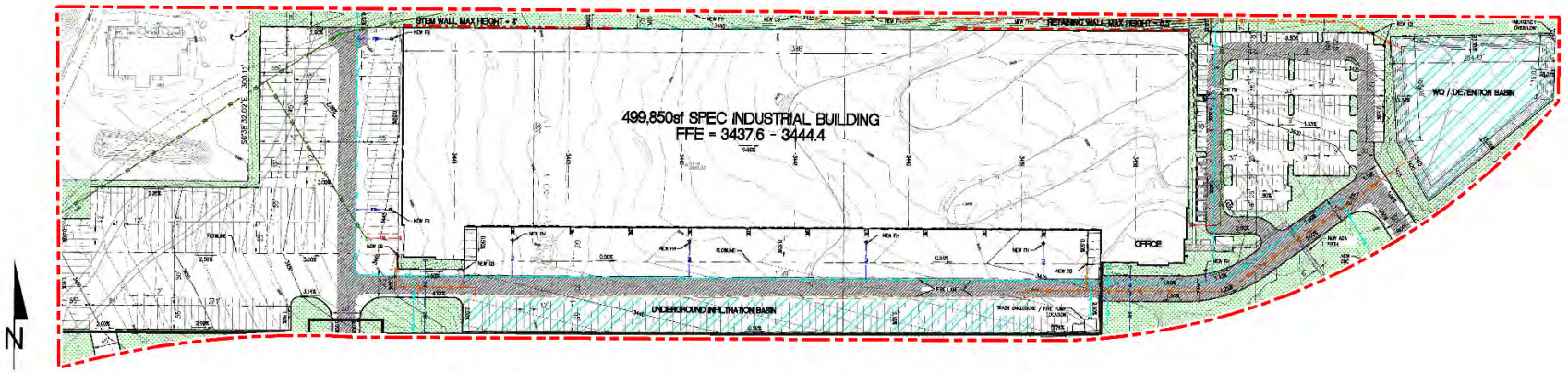


EXHIBIT 1-B: SITE PLAN



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2 EXISTING CONDITIONS

This section provides an overview of the existing energy conditions in the Project region.

2.1 OVERVIEW

The most recent data for California's estimated total energy consumption and natural gas consumption is from 2019, released by the United States (U.S.) Energy Information Administration's (EIA) California State Profile and Energy Estimates in 2021 and included (3):

- As of 2019, approximately 7,802 trillion British Thermal Unit (BTU) of energy was consumed
- As of 2019, approximately 662 million barrels of petroleum
- As of 2019, approximately 2,144 billion cubic feet of natural gas
- As of 2019, approximately 1 million short tons of coal

The California Energy Commission's (CEC) Transportation Energy Demand Forecast 2018-2030 was released in order to support the 2017 Integrated Energy Policy Report. The Transportation energy Demand Forecast 2018-2030 lays out graphs and data supporting their projections of California's future transportation energy demand. The projected inputs consider expected variable changes in fuel prices, income, population, and other variables. Predictions regarding fuel demand included:

- Gasoline demand in the transportation sector is expected to decline from approximately 15.8 billion gallons in 2017 to between 12.3 billion and 12.7 billion gallons in 2030 (4)
- Diesel demand in the transportation sector is expected to rise, increasing from approximately 3.7 billion diesel gallons in 2015 to approximately 4.7 billion in 2030 (4)
- Data from the Department of Energy states that approximately 3.9 billion gallons of diesel fuel were consumed in 2019 (5)

The most recent data provided by the EIA for energy use in California by demand sector is from 2018 and is reported as follows:

- Approximately 39.3% transportation
- Approximately 23.2% industrial
- Approximately 18.7% residential
- Approximately 18.9% commercial (6)

In 2020, total system electric generation for California was 272,576 gigawatt hours (GWh). California's massive electricity in-state generation system generated approximately 190,913 GWh which accounted for approximately 70% of the electricity it uses; the rest was imported from the Pacific Northwest (15%) and the U.S. Southwest (15%) (7). Natural gas is the main source for electricity generation at 42.97% of the total in-state electric generation system power as shown in Table 2-1.

TABLE 2-1: TOTAL ELECRICITY SYSTEM POWER (CALIFORNIA 2020)

Fuel Type	California In-State Generation (GWh)	Percent of California In-State Generation	Northwest Imports (GWh)	Southwest Imports (GWh)	Total Imports (GWh)	Percent of Imports	Total California Energy Mix	Total California Power Mix
Coal	317	0.17%	194	6,963	7,157	8.76%	7,474	2.74%
Natural Gas	92,298	48.35%	70	8,654	8,724	10.68%	101,022	37.06%
Oil	30	0.02%	-	-	0	0.00%	30	0.01%
Other (Waste Heat/Petroleum Coke)	384	0.20%	125	9	134	0.16%	518	0.19%
Nuclear	16,280	8.53%	672	8,481	9,154	11.21%	25,434	9.33%
Large Hydro	17,938	9.40%	14,078	1,259	15,337	18.78%	33,275	12.21%
Unspecified	-	0.00%	12,870	1,745	14,615	17.90%	14,615	5.36%
Non-Renewable and Unspecified Totals	127,248	66.65%	28,009	27,111	55,120	67.50%	182,368	66.91%
Biomass	5,680	2.97%	975	25	1,000	1.22%	6,679	2.45%
Geothermal	11,345	5.94%	166	1,825	1,991	2.44%	13,336	4.89%
Small Hydro	3,476	1.82%	320	2	322	0.39%	3,798	1.39%
Solar	29,456	15.43%	284	6,312	6,596	8.08%	36,052	13.23%
Wind	13,708	7.18%	11,438	5,197	16,635	20.37%	30,343	11.13%
Renewable Totals	63,665	33.35%	13,184	13,359	26,543	32.50%	90,208	33.09%
System Totals	***190,913***	***100.00%***	***41,193***	***40,471***	***81,663***	***100.00%***	***272,576***	***100.00%***

Source: California Energy Commission's 2020 Total System Electric Generation

An updated summary of, and context for energy consumption and energy demands within the State is presented in "U.S. Energy Information Administration, California State Profile and Energy Estimates, Quick Facts" excerpted below (8):

- California was the seventh-largest producer of crude oil among the 50 states in 2019, and, as of January 2020, it ranked third in oil refining capacity. Foreign suppliers, led by Saudi Arabia, Iraq, Ecuador, and Colombia, provided more than half of the crude oil refined in California in 2019.
- California is the largest consumer of both jet fuel and motor gasoline among the 50 states and accounted for 17% of the nation's jet fuel consumption and 11% of motor gasoline consumption in 2019. The state is the second-largest consumer of all petroleum products combined, accounting for 10% of the U.S. total. In 2018, California's energy consumption was the second highest among the states, but its per capita energy consumption was the fourth-lowest due in part to its mild climate and its energy efficiency programs.
- In 2019, California was the nation's top producer of electricity from solar, geothermal, and biomass energy and the state was second in the nation in conventional hydroelectric power generation.
- In 2019, California was the fourth largest electricity producer in the nation, but the state was also the nation's largest importer of electricity and received about 28% of its electricity supply from generating facilities outside of California, including imports from Mexico.

As indicated above, California is one of the nation's leading energy-producing states, and California's per capita energy use is among the nation's most efficient. Given the nature of the Project, the remainder of this discussion will focus on the three sources of energy that are most relevant to the project—namely, electricity, natural gas, and transportation fuel for vehicle trips associated with the uses planned for the Project.

2.2 ELECTRICITY

The usage associated with electricity use were calculated using the California Emissions Estimator Model (CalEEMod) Version 2022.1. The Southern California region's electricity reliability has been of concern for the past several years due to the planned retirement of aging facilities that depend upon once-through cooling technologies, as well as the June 2013 retirement of the San Onofre Nuclear Generating Station (San Onofre). While the once-through cooling phase-out has been ongoing since the May 2010 adoption of the State Water Resources Control Board's once-through cooling policy, the retirement of San Onofre complicated the situation. California ISO studies revealed the extent to which the South California Air Basin (SCAB) and the San Diego Air Basin (SDAB) region were vulnerable to low-voltage and post-transient voltage instability concerns. A preliminary plan to address these issues was detailed in the 2013 Integrative Energy Policy Report (IEPR) after a collaborative process with other energy agencies, utilities, and air districts (9). Similarly, the subsequent 2021 IEPR's identify broad strategies that are aimed at maintaining electricity system reliability.

Electricity is currently provided to the Project by Southern California Edison (SCE). SCE provides electric power to more than 15 million persons in 15 counties and in 180 incorporated cities, within a service area encompassing approximately 50,000 square miles. Based on SCE's 2018 Power Content Label Mix, SCE derives electricity from varied energy resources including: fossil fuels, hydroelectric generators, nuclear power plants, geothermal power plants, solar power generation, and wind farms. SCE also purchases from independent power producers and utilities, including out-of-state suppliers (10).

California's electricity industry is an organization of traditional utilities, private generating companies, and state agencies, each with a variety of roles and responsibilities to ensure that electrical power is provided to consumers. The California Independent Service Operator (ISO) is a nonprofit public benefit corporation and is the impartial operator of the State's wholesale power grid and is charged with maintaining grid reliability, and to direct uninterrupted electrical energy supplies to California's homes and communities. While utilities still own transmission assets, the ISO routes electrical power along these assets, maximizing the use of the transmission system and its power generation resources. The ISO matches buyers and sellers of electricity to ensure that enough power is available to meet demand. To these ends, every five minutes the ISO forecasts electrical demands, accounts for operating reserves, and assigns the lowest cost power plant unit to meet demands while ensuring adequate system transmission capacities and capabilities (11).

Part of the ISO's charge is to plan and coordinate grid enhancements to ensure that electrical power is provided to California consumers. To this end, utilities file annual transmission expansion/modification plans to accommodate the State's growing electrical needs. The ISO reviews and either approves or denies the proposed additions. In addition, and perhaps most importantly, the ISO works with other areas in the western United States electrical grid to ensure that adequate power supplies are available to the State. In this manner, continuing reliable and affordable electrical power is assured to existing and new consumers throughout the State.

Tables 2-2 identifies SCE's specific proportional shares of electricity sources in 2020. As indicated in Table 2-2, the 2020 SCE Power Mix has renewable energy at 30.9% of the overall energy resources. Geothermal resources are at 5.5%, wind power is at 9.4%, large hydroelectric sources are at 3.3%, solar energy is at 15.1%, and coal is at 0% (12).

TABLE 2-2: SCE 2020 POWER CONTENT MIX

Energy Resources	2020 SCE Power Mix
Eligible Renewable	**30.9%**
Biomass & Waste	0.1%
Geothermal	5.5%
Eligible Hydroelectric	0.8%
Solar	15.1%
Wind	9.4%
Coal	**0.0%**
Large Hydroelectric	**3.3%**
Natural Gas	**15.2%**
Nuclear	**8.4%**
Other	**0.3%**
Unspecified Sources of power*	42.0%
Total	**100%**

* "Unspecified sources of power" means electricity from transactions that are not traceable to specific generation sources

2.3 NATURAL GAS

The following summary of natural gas customers and volumes, supplies, delivery of supplies, storage, service options, and operations is excerpted from information provided by the California Public Utilities Commission (CPUC).

> *"The CPUC regulates natural gas utility service for approximately 10.8 million customers that receive natural gas from Pacific Gas and Electric (PG&E), Southern California Gas (SoCalGas), San Diego Gas & Electric (SDG&E), Southwest Gas, and several smaller natural gas utilities. The CPUC also regulates independent storage operators: Lodi Gas Storage, Wild Goose Storage, Central Valley Storage and Gill Ranch Storage.*
>
> *California's natural gas utilities provide service to over 11 million gas meters. SoCalGas and PG&E provide service to about 5.9 million and 4.3 million customers, respectively, while SDG&E provides service to over 800, 000 customers. In 2018, California gas utilities forecasted that they would deliver about 4740 million cubic feet per day (MMcfd) of gas to their customers, on average, under normal weather conditions.*
>
> *The overwhelming majority of natural gas utility customers in California are residential and small commercials customers, referred to as "core" customers. Larger volume gas customers, like electric generators and industrial customers, are called "noncore" customers. Although very small in number relative to core customers, noncore customers consume about 65% of the natural gas delivered by the state's natural gas utilities, while core customers consume about 35%.*

A significant amount of gas (about 19%, or 1131 MMcfd, of the total forecasted California consumption in 2018) is also directly delivered to some California large volume consumers, without being transported over the regulated utility pipeline system. Those customers, referred to as "bypass" customers, take service directly from interstate pipelines or directly from California producers.

SDG&E and Southwest Gas' southern division are wholesale customers of SoCalGas, i.e., they receive deliveries of gas from SoCalGas and in turn deliver that gas to their own customers. (Southwest Gas also provides natural gas distribution service in the Lake Tahoe area.) Similarly, West Coast Gas, a small gas utility, is a wholesale customer of PG&E. Some other wholesale customers are municipalities like the cities of Palo Alto, Long Beach, and Vernon, which are not regulated by the CPUC.

Natural gas from out-of-state production basins is delivered into California via the interstate natural gas pipeline system. The major interstate pipelines that deliver out-of-state natural gas to California gas utilities are Gas Transmission Northwest Pipeline, Kern River Pipeline, Transwestern Pipeline, El Paso Pipeline, Ruby Pipeline, Mojave Pipeline, and Tuscarora. Another pipeline, the North Baja - Baja Norte Pipeline takes gas off the El Paso Pipeline at the California/Arizona border and delivers that gas through California into Mexico. While the Federal Energy Regulatory Commission (FERC) regulates the transportation of natural gas on the interstate pipelines, and authorizes rates for that service, the California Public Utilities Commission may participate in FERC regulatory proceedings to represent the interests of California natural gas consumers.

The gas transported to California gas utilities via the interstate pipelines, as well as some of the California-produced gas, is delivered into the PG&E and SoCalGas intrastate natural gas transmission pipelines systems (commonly referred to as California's "backbone" pipeline system). Natural gas on the utilities' backbone pipeline systems is then delivered to the local transmission and distribution pipeline systems, or to natural gas storage fields. Some large volume noncore customers take natural gas delivery directly off the high-pressure backbone and local transmission pipeline systems, while core customers and other noncore customers take delivery off the utilities' distribution pipeline systems. The state's natural gas utilities operate over 100,000 miles of transmission and distribution pipelines, and thousands more miles of service lines.

Bypass customers take most of their deliveries directly off the Kern/Mojave pipeline system, but they also take a significant amount of gas from California production.

PG&E and SoCalGas own and operate several natural gas storage fields that are located within their service territories in northern and southern California, respectively. These storage fields, and four independently owned storage utilities - Lodi Gas Storage, Wild Goose Storage, Central Valley Storage, and Gill Ranch Storage - help meet peak seasonal and daily natural gas demand and allow California natural gas customers to secure natural gas supplies more efficiently. PG&E is a 25% owner of the Gill Ranch Storage field. These storage fields provide a significant amount of infrastructure capacity to help meet

California's natural gas requirements, and without these storage fields, California would need much more pipeline capacity in order to meet peak gas requirements.

Prior to the late 1980s, California regulated utilities provided virtually all natural gas services to all their customers. Since then, the Commission has gradually restructured the California gas industry in order to give customers more options while assuring regulatory protections for those customers that wish to, or are required to, continue receiving utility-provided services.

The option to purchase natural gas from independent suppliers is one of the results of this restructuring process. Although the regulated utilities procure natural gas supplies for most core customers, core customers have the option to purchase natural gas from independent natural gas marketers, called "core transport agents" (CTA). Contact information for core transport agents can be found on the utilities' web sites. Noncore customers, on the other hand, make natural gas supply arrangements directly with producers or with marketers.

Another option resulting from the restructuring process occurred in 1993, when the Commission removed the utilities' storage service responsibility for noncore customers, along with the cost of this service from noncore customers' transportation rates. The Commission also encouraged the development of independent storage fields, and in subsequent years, all the independent storage fields in California were established. Noncore customers and marketers may now take storage service from the utility or from an independent storage provider (if available), and pay for that service, or may opt to take no storage service at all. For core customers, the Commission assures that the utility has adequate storage capacity set aside to meet core requirements, and core customers pay for that service.

In a 1997 decision, the Commission adopted PG&E's "Gas Accord", which unbundled PG&E's backbone transmission costs from noncore transportation rates. This decision gave customers and marketers the opportunity to obtain pipeline capacity rights on PG&E's backbone transmission pipeline system, if desired, and pay for that service at rates authorized by the Commission. The Gas Accord also required PG&E to set aside a certain amount of backbone transmission capacity in order to deliver gas to its core customers. Subsequent Commission decisions modified and extended the initial terms of the Gas Accord. The "Gas Accord" framework is still in place today for PG&E's backbone and storage rates and services and is now simply referred to as PG&E Gas Transmission and Storage (GT&S).

In a 2006 decision, the Commission adopted a similar gas transmission framework for Southern California, called the "firm access rights" system. SoCalGas and SDG&E implemented the firm access rights (FAR) system in 2008, and it is now referred to as the backbone transmission system (BTS) framework. As under the PG&E backbone transmission system, SoCalGas backbone transmission costs are unbundled from noncore transportation rates. Noncore customers and marketers may obtain, and pay for, firm backbone transmission capacity at various receipt points on the SoCalGas system. A

certain amount of backbone transmission capacity is obtained for core customers to assure meeting their requirements.

Many if not most noncore customers now use a marketer to provide for several of the services formerly provided by the utility. That is, a noncore customer may simply arrange for a marketer to procure its supplies, and obtain any needed storage and backbone transmission capacity, in order to assure that it will receive its needed deliveries of natural gas supplies. Core customers still mainly rely on the utilities for procurement service, but they have the option to take procurement service from a CTA. Backbone transmission and storage capacity is either set aside or obtained for core customers in amounts to assure very high levels of service.

In order properly operate their natural gas transmission pipeline and storage systems, PG&E and SoCalGas must balance the amount of gas received into the pipeline system and delivered to customers or to storage fields. Some of these utilities' storage capacity is dedicated to this service, and under most circumstances, customers do not need to precisely match their deliveries with their consumption. However, when too much or too little gas is expected to be delivered into the utilities' systems, relative to the amount being consumed, the utilities require customers to more precisely match up their deliveries with their consumption. And, if customers do not meet certain delivery requirements, they could face financial penalties. The utilities do not profit from these financial penalties - the amounts are then returned to customers as a whole. If the utilities find that they are unable to deliver all the gas that is expected to be consumed, they may even call for a curtailment of some gas deliveries. These curtailments are typically required for just the largest, noncore customers. It has been many years since there has been a significant curtailment of core customers in California." (13)

As indicated in the preceding discussions, natural gas is available from a variety of in-state and out-of-state sources and is provided throughout the state in response to market supply and demand. Complementing available natural gas resources, biogas may soon be available via existing delivery systems, thereby increasing the availability and reliability of resources in total. The CPUC oversees utility purchases and transmission of natural gas to ensure reliable and affordable natural gas deliveries to existing and new consumers throughout the State.

2.4 TRANSPORTATION ENERGY RESOURCES

The Project would generate additional vehicle trips with resulting consumption of energy resources, predominantly gasoline and diesel fuel. The Department of Motor Vehicles (DMV) identified 36.2 million registered vehicles in California (14), and those vehicles consume an estimated 17.2 billion gallons of fuel each year[2]. Gasoline (and other vehicle fuels) are commercially provided commodities and would be available to the Project patrons and employees via commercial outlets.

[2] Fuel consumptions estimated utilizing information from EMFAC2021.

California's on-road transportation system includes 396,616 lane miles, more than 26.6 million passenger vehicles and light trucks, and almost 9.0 million medium- and heavy-duty vehicles (14). While gasoline consumption has been declining since 2008 it is still by far the dominant fuel. California is the second-largest consumer of petroleum products, after Texas, and accounts for 10% of the nation's total consumption. The state is the largest U.S. consumer of motor gasoline and jet fuel, and 85% of the petroleum consumed in California is used in the transportation sector (15).

California accounts for less than 1% of total U.S. natural gas reserves and production. As with crude oil, California's natural gas production has experienced a gradual decline since 1985. In 2019, about 37% of the natural gas delivered to consumers went to the state's industrial sector, and about 28% was delivered to the electric power sector. Natural gas fueled more than two-fifths of the state's utility-scale electricity generation in 2019. The residential sector, where two-thirds of California households use natural gas for home heating, accounted for 22% of natural gas deliveries. The commercial sector received 12% of the deliveries to end users and the transportation sector consumed the remaining 1% (15).

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3 REGULATORY BACKGROUND

Federal and state agencies regulate energy use and consumption through various means and programs. On the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency (EPA) are three federal agencies with substantial influence over energy policies and programs. On the state level, the CPUC and the CEC are two agencies with authority over different aspects of energy. Relevant federal and state energy-related laws and plans are summarized below.

3.1 FEDERAL REGULATIONS

3.1.1 INTERMODAL SURFACE TRANSPORTATION EFFICIENCY ACT OF 1991 (ISTEA)

The ISTEA promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) were to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

3.1.2 THE TRANSPORTATION EQUITY ACT FOR THE 21ST CENTURY (TEA-21)

The TEA-21 was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

3.2 CALIFORNIA REGULATIONS

3.2.1 INTEGRATED ENERGY POLICY REPORT (IEPR)

Senate Bill 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (Public Resources Code § 25301[a]). The CEC prepares these assessments and associated policy recommendations every two years, with updates in alternate years, as part of the Integrated Energy Policy Report.

The 2021 IEPR was adopted February 22, 2022, and continues to work towards improving electricity, natural gas, and transportation fuel energy use in California. The 2021 IEPR provides

the results of the CEC's assessments of a variety of energy issues facing California. Many of these issues will require action if the state is to meet its climate, energy, air quality, and other environmental goals while maintaining reliability and controlling costs. (16)

3.2.2 STATE OF CALIFORNIA ENERGY PLAN

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The Plan calls for the state to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies several strategies, including assistance to public agencies and fleet operators and encouragement of urban designs that reduce vehicle miles traveled (VMT) and accommodate pedestrian and bicycle access.

3.2.3 CALIFORNIA CODE TITLE 24, PART 6, ENERGY EFFICIENCY STANDARDS

The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. The most recent update to the California Energy Code was a on August 11, 2021. Buildings whose permit applications are submitted after January 1, 2023 must comply with the 2022 Energy Code.

TITLE 24 CCR PART 11 – CALIFORNIA GREEN BUILDING STANDARDS CODE

CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission. The Project would be required to comply with the applicable standards in place at the time building permit document submittals are made.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that will be effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and reduce GHG emissions by 10 million metric tons (17).

3.2.4 AB 1493 PAVLEY REGULATIONS AND FUEL EFFICIENCY STANDARDS

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks). Although aimed at reducing GHG emissions, specifically, a co-benefit of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption.

3.2.5 CALIFORNIA'S RENEWABLE PORTFOLIO STANDARD (RPS)

First established in 2002 under Senate Bill (SB) 1078, California's Renewable Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable resources to 33% of total retail sales by 2020 (18).

3.2.6 CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015 (SB 350)

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the renewables portfolio standard (RPS), higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for electric vehicle charging stations. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.
- Reorganize the Independent System Operator (ISO) to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States (California Leginfo 2015).

3.2.7 100 PERCENT CLEAN ENERGY ACT OF 2018 (SB 100)

In September 2018, the legislature approved, and the Governor signed SB 100, which builds on the targets established in SB 1078 and SB 350. Most notably, SB 100 sets a goal of powering all retail electricity sold in California with renewable and zero-carbon resources. Additionally, SB 100 updates the interim renewables target from 50% to 60% by 2030.

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4 PROJECT ENERGY DEMANDS AND ENERGY EFFICIENCY MEASURES

The Project proposes conventional development types, reflecting contemporary energy efficient/energy conserving designs and operational programs. Uses proposed by the Project are not inherently energy intensive, and the Project energy demands in total would be comparable to, or less than, other similar projects of like scale and configuration.

4.1 EVALUATION CRITERIA

Per Appendix F of the *State CEQA Guidelines* (19), states that the means of achieving the goal of energy conservation includes the following:

- Decreasing overall per capita energy consumption;
- Decreasing reliance on fossil fuels such as coal, natural gas, and oil; and
- Increasing reliance on renewable energy sources.

In compliance with Appendix G of the *State CEQA Guidelines* (20), this report analyzes the project's anticipated energy use during construction and operations to determine if the Project would:

- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

4.2 METHODOLOGY

Information from the CalEEMod Version 2022.1 outputs for the *Amargosa and Palmetto High-Cube Warehouse Air Quality Impact Analysis* (AQIA) (21) was utilized in this analysis, detailing Project related construction equipment, transportation energy demands, and facility energy demands.

4.2.1 CALEEMOD

In May 2022 California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of the CalEEMod Version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage. (22). Accordingly, the latest version of CalEEMod has been used to determine the Project's anticipated transportation and facility energy demands. Outputs from the annual model runs are provided in Appendices 4.1 through 4.2.

4.2.2 EMISSION FACTORS MODEL

On May 2, 2022, the EPA approved the 2021 version of the EMissions FACtor model (EMFAC) web database for use in State Implementation Plan and transportation conformity analyses. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel

consumption, VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (23). This energy study utilizes the different fuel types for each vehicle class from the annual EMFAC2021 emission inventory in order to derive the average vehicle fuel economy which is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operational activities. For purposes of analysis, the 2024 analysis years were utilized to determine the average vehicle fuel economy used throughout the duration of the Project. Output from the EMFAC2021 model run is provided in Appendix 4.3.

4.3 CONSTRUCTION ENERGY DEMANDS

The focus within this section is the energy implications of the construction process, specifically the power cost from on-site electricity consumption during construction of the Project.

4.3.1 CONSTRUCTION POWER COST

The total Project construction power costs is the summation of the products of the area (sf) by the construction duration and the typical power cost.

CONSTRUCTION DURATION

Construction is expected to commence in January 2023 and will last through December 2023. Construction duration by phase is shown on Table 4-1. The construction schedule utilized in the analysis represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[3] The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines*. The duration of construction activity was based on the 2024 opening year.

TABLE 4-1: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Site Preparation	1/15/2023	2/1/2023	13
Grading	2/1/2023	3/31/2023	43
Building Construction	3/15/2023	11/30/2023	187
Paving	11/15/2023	12/30/2023	33
Architectural Coating	11/6/2023	12/30/2023	40

[3] As shown in the CalEEMod User's Guide Version 2022.1, Section 4.3"OFFROAD Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

PROJECT CONSTRUCTION POWER COST

The *2022 National Construction Estimator* identifies a typical power cost per 1,000 sf of construction per month of $2.41, which was used to calculate the Project's total construction power cost (24).

As shown on Table 4-2, the total power cost of the on-site electricity usage during the construction of the Project is estimated to be approximately $35,245.60.

TABLE 4-2: CONSTRUCTION POWER COST

Land Use	Power Cost (per 1,000 SF)	Size (1,000 SF)	Construction Duration (months)	Project Construction Power Cost
High-Cube Fulfillment Center	$2.41	499.700	11	$13,247.05
Parking Lot	$2.41	171.092	11	$4,535.65
Other Asphalt Surfaces	$2.41	658.729	11	$17,462.91
			CONSTRUCTION POWER COST	***$35,245.60***

4.3.2 CONSTRUCTION ELECTRICITY USAGE

The total Project construction electricity usage is the summation of the products of the power cost (estimated in Table 4-2) by the utility provider cost per kilowatt hour (kWh) of electricity.

PROJECT CONSTRUCTION ELECTRICITY USAGE

The SCE's general service rate schedule were used to determine the Project's electrical usage. As of January 1, 2022, SCE's general service rate is $0.13 per kilowatt hours (kWh) of electricity for industrial services (25). As shown on Table 4-3, the total electricity usage from on-site Project construction related activities is estimated to be approximately 267,580 kWh.

TABLE 4-3: CONSTRUCTION ELECTRICITY USAGE

Land Use	Cost per kWh	Project Construction Electricity Usage (kWh)
High-Cube Fulfillment Center	$0.13	100,570
Parking Lot	$0.13	34,434
Other Asphalt Surfaces	$0.13	132,576
	CONSTRUCTION ELECTRICITY USAGE	***267,580***

4.3.3 CONSTRUCTION EQUIPMENT FUEL ESTIMATES

Fuel consumed by construction equipment would be the primary energy resource expended over the course of Project construction.

CONSTRUCTION EQUIPMENT

Consistent with industry standards and typical construction practices, each piece of equipment listed in Table 4-4 will operate up to a total of eight (8) hours per day, or more than two-thirds of the period during which construction activities are allowed pursuant to the code. It should be noted that most pieces of equipment would likely operate for fewer hours per day. A summary of construction equipment assumptions by phase is provided at Table 4-4.

TABLE 4-4: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Phase Name	Equipment	Number	Hours Per Day
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Grading	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
	Crawler Tractors	2	8
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

PROJECT CONSTRUCTION EQUIPMENT FUEL CONSUMPTION

Project construction activity timeline estimates, construction equipment schedules, equipment power ratings, load factors, and associated fuel consumption estimates are presented in Table 4-5. The aggregate fuel consumption rate for all equipment is estimated at 18.5 horsepower hour per gallon (hp-hr-gal.), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Moyer guidelines (26). For the purposes of this analysis, the calculations are based on all construction equipment being diesel-powered which is consistent with industry standards. Diesel fuel would be supplied by existing commercial fuel providers serving the Project area and region[4]. As presented in Table 4-5, Project

[4] Based on Appendix A of the CalEEMod User's Guide, Construction consists of several types of off-road equipment. Since the majority of the off-road construction equipment used for construction projects are diesel fueled, CalEEMod assumes all of the equipment operates on diesel fuel.

construction activities would consume an estimated 41,845 gallons of diesel fuel. Project construction would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

TABLE 4-5: CONSTRUCTION EQUIPMENT FUEL CONSUMPTION ESTIMATES

Activity/Duration	Duration (Days)	Equipment	HP Rating	Quantity	Usage Hours	Load Factor	HP-hrs/day	Total Fuel Consumption (gal. diesel fuel)
Site Preparation	13	Rubber Tired Dozers	367	3	8	0.4	3,523	2,476
		Crawler Tractors	87	4	8	0.43	1,197	841
Grading	43	Excavators	36	2	8	0.38	219	509
		Graders	148	1	8	0.41	485	1,128
		Rubber Tired Dozers	367	1	8	0.4	1,174	2,730
		Scrapers	423	2	8	0.48	3,249	7,551
		Crawler Tractors	87	2	8	0.43	599	1,391
Building Construction	187	Cranes	367	1	8	0.29	851	8,606
		Forklifts	82	3	8	0.2	394	3,979
		Generator Sets	14	1	8	0.74	83	838
Paving	33	Tractors/Loaders/Backhoes	84	3	8	0.37	746	7,540
		Welders	46	1	8	0.45	166	1,674
		Pavers	81	2	8	0.42	544	971
Architectural Coating	40	Air Compressors	37	1	8	0.48	142	307
CONSTRUCTION FUEL DEMAND (GALLONS DIESEL FUEL)								***58,207***

4.3.3 CONSTRUCTION TRIPS AND VMT

Construction generates on-road vehicle emissions from vehicle usage for workers, hauling, and vendors commuting to and from the site. The number of workers, hauling, and vendor trips are presented below in Table 4-6. It should be noted that for Vendor Trips, specifically, CalEEMod only assigns Vendor Trips to the Building Construction phase. Vendor trips would likely occur during all phases of construction. As such, the CalEEMod defaults for Vendor Trips have been adjusted based on a ratio of the total vendor trips to the number of days of each subphase of activity.

TABLE 4-6: CONSTRUCTION TRIPS AND VMT

Construction Activity	Worker Trips Per Day	Vendor Trips Per Day	Hauling Trips Per Day
Site Preparation	18	4	0
Grading	20	15	1
Building Construction	210	63	0
Paving	15	0	0
Architectural Coating	42	0	0

4.3.4 CONSTRUCTION WORKER FUEL ESTIMATES

With respect to estimated VMT for the Project, the construction worker trips would generate an estimated 792,022 VMT during the 1 months of construction (21). Based on CalEEMod methodology, it is assumed that 50% of all vendor trips are from light-duty-auto vehicles (LDA), 25% are from light-duty-trucks (LDT1[5]), and 25% are from light-duty-trucks (LDT2[6]). Data regarding Project related construction worker trips were based on CalEEMod defaults utilized within the AQIA.

Vehicle fuel efficiencies for LDA, LDT1, and LDT2 were estimated using information generated within the 2021 version of the EMFAC developed by CARB. EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California and is commonly used by the CARB to project changes in future emissions from on-road mobile sources (23). EMFAC2021 was run for the LDA, LDT1, and LDT2 vehicle class within the San Bernardino Mojave Desert sub-area for the 2023 calendar year. Data from EMFAC2021 is shown in Appendix 4.3.

Table 4-7 provides an estimated annual fuel consumption resulting from Project construction worker trips. Based on Table 4-7, it is estimated that 29,890 gallons of fuel will be consumed related to construction worker trips during full construction of the Project.

[5] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[6] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

TABLE 4-7: CONSTRUCTION WORKER FUEL CONSUMPTION ESTIMATES

Year	Construction Activity	Duration (Days)	Worker Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel Consumption (gallons)
2023	**LDA**						
	Site Preparation	13	9	18.5	2,165	30.29	71
	Grading	43	10	18.5	7,955	30.29	263
	Building Construction	187	105	18.5	363,248	30.29	11,993
	Paving	33	8	18.5	4,884	30.29	161
	Architectural Coating	40	21	18.5	15,540	30.29	513
	LDT1						
	Site Preparation	13	5	18.5	1,203	23.75	51
	Grading	43	5	18.5	3,978	23.75	167
	Building Construction	187	53	18.5	183,354	23.75	7,720
	Paving	33	4	18.5	2,442	23.75	103
	Architectural Coating	40	11	18.5	8,140	23.75	343
	LDT2						
	Site Preparation	13	5	18.5	1,203	23.41	51
	Grading	43	5	18.5	3,978	23.41	170
	Building Construction	187	53	18.5	183,354	23.41	7,831
	Paving	33	4	18.5	2,442	23.41	104
	Architectural Coating	40	11	18.5	8,140	23.41	348
	Paving	55	15	10.8	8,910	27.48	324
	Architectural Coating	55	173	10.8	102,762	27.48	3,739
Total Construction Worker Fuel Consumption							***29,890***

It should be noted that construction worker trips would represent a "single-event" gasoline fuel demand and would not require on-going or permanent commitment of fuel resources for this purpose.

4.3.5 CONSTRUCTION VENDOR/HAULING FUEL ESTIMATES

With respect to estimated VMT, the construction vendor and hauling trips (vehicles that deliver materials to the site during construction) would generate an estimated 131,342 VMT along area roadways for the Project over the duration of construction activity (21). It is assumed that 50% of all vendor trips are from medium-heavy duty trucks (MHDT), 50% of vendor trips are from heavy-heavy duty trucks (HHDT), and 100% of all hauling trips are from HHDTs. These

assumptions are consistent with the CalEEMod defaults utilized within the within the AQIA (21). Vehicle fuel efficiencies for MHDTs and HHDTs were estimated using information generated within EMFAC2021. EMFAC2021 was run for the MHDT and HHDT vehicle classes within the San Bernardino Mojave Desert sub-area for the 2023 calendar year. Data from EMFAC2021 is shown in Appendix 4.3.

Based on Table 4-8, it is estimated that 19,718 gallons of fuel will be consumed related to construction vendor trips during full construction of the Project.

TABLE 4-8: CONSTRUCTION VENDOR FUEL CONSUMPTION ESTIMATES

Year	Construction Activity	Duration (days)	Vendor/Hauling Trips / Day	Trip Length (miles)	Vehicle Miles Traveled	Average Vehicle Fuel Economy (mpg)	Estimated Fuel
2023	**MHDT**						
	Site Preparation	13	2	10.2	265	7.37	36
	Grading	43	8	10.2	3,509	7.37	476
	Building Construction	187	32	10.2	61,037	7.37	8,281
	HHDT (Vendor)						
	Site Preparation	13	2	10.2	265	6.09	44
	Grading	43	8	10.2	3,509	6.09	576
	Building Construction	187	32	10.2	61,037	6.09	10,022
	HHDT (Hauling)						
	Grading	43	2	20	1,720	6.09	282
TOTAL VENDOR/HAULING FUEL CONSUMPTION							***19,718***

It should be noted that Project construction vendor trips would represent a "single-event" diesel fuel demand and would not require on-going or permanent commitment of diesel fuel resources for this purpose.

4.3.6 CONSTRUCTION ENERGY EFFICIENCY/CONSERVATION MEASURES

Starting in 2014, CARB adopted the nation's first regulation aimed at cleaning up off-road construction equipment such as bulldozers, graders, and backhoes. These requirements ensure fleets gradually turnover the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment. As such, the equipment used for Project construction would conform to CARB regulations and California emissions standards. It should also be noted that there are no unusual Project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities; or equipment that would not conform to current emissions standards (and related fuel efficiencies). Equipment employed in construction of the Project would therefore not result in inefficient wasteful, or unnecessary consumption of fuel.

Construction contractors would be required to comply with applicable CARB regulation regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other Toxic Air Contaminants. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additional construction-source energy efficiencies would occur due to required California regulations and best available control measures (BACM). For example, CCR Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than five minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. Section 2449(d)(3) requires that grading plans shall reference the requirement that a sign shall be posted on-site stating that construction workers need to shut off engines at or before five minutes of idling." In this manner, construction equipment operators are required to be informed that engines are to be turned off at or prior to five minutes of idling. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

A full analysis related to the energy needed to form construction materials is not included in this analysis due to a lack of detailed Project-specific information on construction materials. At this time, an analysis of the energy needed to create Project-related construction materials would be extremely speculative and thus has not been prepared.

In general, the construction processes promote conservation and efficient use of energy by reducing raw materials demands, with related reduction in energy demands associated with raw materials extraction, transportation, processing, and refinement. Use of materials in bulk reduces energy demands associated with preparation and transport of construction materials as well as the transport and disposal of construction waste and solid waste in general, with corollary reduced demands on area landfill capacities and energy consumed by waste transport and landfill operations.

4.4 OPERATIONAL ENERGY DEMANDS

Energy consumption in support of or related to Project operations would include transportation energy demands (energy consumed by passenger car and truck vehicles accessing the Project site) and facilities energy demands (energy consumed by building operations and site maintenance activities).

4.4.1 TRANSPORTATION ENERGY DEMANDS

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. The VMT per vehicle class can be determined by evaluated in the vehicle fleet mix and the total VMT.

As with worker and vendors trips, operational vehicle fuel efficiencies were estimated using information generated within EMFAC2021 developed by CARB (23). EMFAC2021 was run for the San Bernardino Mojave Desert sub-area for the 2024 calendar year. Data from EMFAC2021 is shown in Appendix 4.3.

As summarized on Table 4-9 the Project will result in 5,558,434 annual VMT and an estimated annual fuel consumption of 320,534 gallons of fuel.

TABLE 4-9: TOTAL PROJECT-GENERATED TRAFFIC ANNUAL FUEL CONSUMPTION

Vehicle Type	Annual VMT	Average Vehicle Fuel Economy (mpg)	Estimated Annual Fuel Consumption (gallons)
LDA	31.22	2,357,829	75,524
LDT1	24.20	222,260	9,184
LDT2	24.10	993,089	41,212
MDV	19.43	767,959	39,531
MCY	40.86	128,833	3,153
LHDT1	15.69	141,866	9,040
LHDT2	15.24	37,967	2,491
MHDT	7.48	227,158	30,381
HHDT	6.19	681,473	110,016
TOTAL (ALL VEHICLES)	***5,558,434***		***320,534***

4.4.2 FACILITY ENERGY DEMANDS

Project building operations activities would result in the consumption of natural gas and electricity. Natural gas would be supplied to the Project by SoCalGas; electricity would be supplied to the Project by SCE. Annual natural gas and electricity demands of the Project are summarized in Table 4-10 and provided in Appendix 4.2.

TABLE 4-10: PROJECT ANNUAL OPERATIONAL NATURAL GAS DEMAND SUMMARY

Land Use	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
High-Cube Fulfillment Center	9,499,636	2,307,966
Parking Lot	0.00	149,963
TOTAL PROJECT ENERGY DEMAND	***9,499,636***	***2,457,929***

kBTU – kilo-British Thermal Units

4.4.3 OPERATIONAL ENERGY EFFICIENCY/CONSERVATION MEASURES

Energy efficiency/energy conservation attributes of the Project would be complemented by increasingly stringent state and federal regulatory actions addressing vehicle fuel economies and

vehicle emissions standards; and enhanced building/utilities energy efficiencies mandated under California building codes (e.g., Title24, California Green Building Standards Code).

ENHANCED VEHICLE FUEL EFFICIENCIES

Project annual fuel consumption estimates presented previously in Table 4-9 represent likely potential maximums that would occur for the Project. Under subsequent future conditions, average fuel economies of vehicles accessing the Project site can be expected to improve as older, less fuel-efficient vehicles are removed from circulation, and in response to fuel economy and emissions standards imposed on newer vehicles entering the circulation system.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands.

The Property Owner/Developer would comply with the City's transportation demand management ordinance (see Chapter 10.24 of the Development Code).

4.5 SUMMARY

4.5.1 CONSTRUCTION ENERGY DEMANDS

The estimated power cost of on-site electricity usage during the construction of the Project is assumed to be approximately $35,245.60. Additionally, based on the assumed power cost, it is estimated that the total electricity usage during construction, after full Project build-out, is calculated to be approximately 267,580 kWh.

Construction equipment used by the Project would result in single event consumption of approximately 41,845 gallons of diesel fuel. Construction equipment use of fuel would not be atypical for the type of construction proposed because there are no aspects of the Project's proposed construction process that are unusual or energy-intensive, and Project construction equipment would conform to the applicable CARB emissions standards, acting to promote equipment fuel efficiencies.

CCR Title 13, Title 13, Motor Vehicles, section 2449(d)(3) Idling, limits idling times of construction vehicles to no more than 5 minutes, thereby precluding unnecessary and wasteful consumption of fuel due to unproductive idling of construction equipment. BACMs inform construction equipment operators of this requirement. Enforcement of idling limitations is realized through periodic site inspections conducted by City building officials, and/or in response to citizen complaints.

Construction worker trips for full construction of the Project would result in the estimated fuel consumption of 29,890 gallons of fuel. Additionally, fuel consumption from construction vendor trips (MHDTs and HHDTs) will total approximately 19,718 gallons. Diesel fuel would be supplied by City and regional commercial vendors. Indirectly, construction energy efficiencies and energy conservation would be achieved using bulk purchases, transport and use of construction

materials. The 2021 IEPR released by the CEC has shown that fuel efficiencies are getting better within on and off-road vehicle engines due to more stringent government requirements (27). As supported by the preceding discussions, Project construction energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

4.5.2 Operational Energy Demands

Transportation Energy Demands

Annual vehicular trips and related VMT generated by the operation of the Project would result in a fuel demand of 320,534 gallons of fuel.

Fuel would be provided by current and future commercial vendors. Trip generation and VMT generated by the Project are consistent with other industrial uses of similar scale and configuration, as reflected respectively in the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Ed., 2021); and CalEEMod. As such, Project operations would not result in excessive and wasteful vehicle trips and VMT, nor excess and wasteful vehicle energy consumption compared to other industrial uses.

It should be noted that the state strategy for the transportation sector for medium and heavy-duty trucks is focused on making trucks more efficient and expediting truck turnover rather than reducing VMT from trucks. This is in contrast to the passenger vehicle component of the transportation sector where both per-capita VMT reductions and an increase in vehicle efficiency are forecasted to be needed to achieve the overall state emissions reductions goals.

Heavy duty trucks involved in goods movements are generally controlled on the technology side and through fleet turnover of older trucks and engines to newer and cleaner trucks and engines. The first battery-electric heavy-heavy duty trucks are being tested this year and SCAQMD is looking to integrate this new technology into large-scale truck operations. The following state strategies reduce GHG emissions from the medium and heavy-duty trucks:

- CARB's Mobile Source Strategy focuses on reducing GHGs through the transition to zero and low emission vehicles and from medium-duty and heavy-duty trucks.
- CARB's Sustainable Freight Action Plan establishes a goal to improve freight efficiency by 25 percent by 2030, deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.
- CARB's Emissions Reduction Plan for Ports and Goods Movement (Goods Movement Plan) in California focuses on reducing heavy-duty truck-related emissions focus on establishment of emissions standards for trucks, fleet turnover, truck retrofits, and restriction on truck idling (CARB 2006). While the focus of Goods Movement Plan is to reduce criteria air pollutant and air toxic emissions, the strategies to reduce these pollutants would also generally have a beneficial effect in reducing GHG emissions.
- CARB's On-Road Truck and Bus Regulation (2010) requires diesel trucks and buses that operate in California to be upgraded to reduce emissions. Newer heavier trucks and buses must meet particulate matter filter requirements beginning January 1, 2012. Lighter and older heavier trucks

must be replaced starting January 1, 2015. By January 1, 2023, nearly all trucks and buses will need to have 2010 model year engines or equivalent (28).

- CARB's Heavy-Duty (Tractor-Trailer) GHG Regulation requires SmartWay tractor trailers that include idle-reduction technologies, aerodynamic technologies, and low-rolling resistant tires that would reduce fuel consumption and associated GHG emissions.

The Project would implement project design features that would facilitate the accessibility, parking, and loading of trucks on site.

Enhanced fuel economies realized pursuant to federal and state regulatory actions, and related transition of vehicles to alternative energy sources (e.g., electricity, natural gas, biofuels, hydrogen cells) would likely decrease future gasoline fuel demands per VMT. Location of the Project proximate to regional and local roadway systems tends to reduce VMT within the region, acting to reduce regional vehicle energy demands. The Project would implement sidewalks, facilitating and encouraging pedestrian access. Facilitating pedestrian and bicycle access would reduce VMT and associated energy consumption. In compliance with the California Green Building Standards Code and City requirements, the Project would promote the use of bicycles as an alternative mean of transportation by providing short-term and/or long-term bicycle parking accommodations. As supported by the preceding discussions, Project transportation energy consumption would not be considered inefficient, wasteful, or otherwise unnecessary.

FACILITY ENERGY DEMANDS

Project facility operational energy demands are estimated at 9,499,636 kBTU/year of natural gas and 2,457,929 kWh/year of electricity. Natural gas would be supplied to the Project by SoCalGas; electricity would be supplied by SCE. The Project proposes conventional industrial uses reflecting contemporary energy efficient/energy conserving designs and operational programs. The Project does not propose uses that are inherently energy intensive and the energy demands in total would be comparable to other industrial uses of similar scale and configuration.

Lastly, the Project will comply with the applicable Title 24 standards. Compliance itself with applicable Title 24 standards will ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary.

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5 CONCLUSIONS

5.1 ENERGY IMPACT 1

Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

As supported by the preceding analyses, Project construction and operations would not result in the inefficient, wasteful or unnecessary consumption of energy, and potential Project impacts in these regards would be less-than-significant. Further, energy demands of the Project can be accommodated within the context of available resources and energy delivery systems. The Project would therefore not cause or result in the need for additional energy-producing or energy transmission facilities. The Project would not create or otherwise result in a potentially significant impact affecting energy resources or energy delivery systems.

5.2 ENERGY IMPACT 2

Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The Project's consistency with the applicable state and local plans is discussed below.

CONSISTENCY WITH ISTEA

Transportation and access to the Project site is provided by the local and regional roadway systems. The Project would not interfere with, nor otherwise obstruct intermodal transportation plans or projects that may be realized pursuant to the ISTEA because SCAG is not planning for intermodal facilities on or through the Project site.

CONSISTENCY WITH TEA-21

The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access, acts to reduce vehicle miles traveled, takes advantage of existing infrastructure systems, and promotes land use compatibilities through collocation of similar uses. The Project supports the strong planning processes emphasized under TEA-21. The Project is therefore consistent with, and would not otherwise interfere with, nor obstruct implementation of TEA-21.

CONSISTENCY WITH IEPR

Electricity would be provided to the Project by SCE. SCE's *Clean Power and Electrification Pathway* (CPEP) white paper builds on existing state programs and policies. As such, the Project is consistent with, and would not otherwise interfere with, nor obstruct implementation the goals presented in the 2021 IEPR.

Additionally, the Project will comply with the applicable Title 24 standards which would ensure that the Project energy demands would not be inefficient, wasteful, or otherwise unnecessary. As such, development of the Project would support the goals presented in the 2021 IEPR.

CONSISTENCY WITH STATE OF CALIFORNIA ENERGY PLAN

The Project site is located along major transportation corridors with proximate access to the Interstate freeway system. The site selected for the Project facilitates access and takes advantage of existing infrastructure systems. The Project therefore supports urban design and planning processes identified under the State of California Energy Plan, is consistent with, and would not otherwise interfere with, nor obstruct implementation of the State of California Energy Plan.

CONSISTENCY WITH CALIFORNIA CODE TITLE 24, PART 6, ENERGY EFFICIENCY STANDARDS

The 2022 version of Title 24 was adopted by the CEC and will become effective on January 1, 2023. The Project would be required to comply with the applicable standards in place at the time building permit document submittals are made. Therefore, the Project would not result in a significant impact on energy resources (29). The proposed Project would be subject to Title 24 standards.

CONSISTENCY WITH CALIFORNIA CODE TITLE 24, PART 11, CALGREEN

As previously stated, CCR, Title 24, Part 11: CALGreen is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2009, and is administered by the California Building Standards Commission. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards which will become effective January 1, 2023. The proposed Project would be required to comply with the applicable standards in place at the time building permit document submittals are made.

CONSISTENCY WITH AB 1493

AB 1493 is not applicable to the Project as it is a statewide measure establishing vehicle emissions standards. No feature of the Project would interfere with implementation of the requirements under AB 1493.

CONSISTENCY WITH RPS

California's RPS is not applicable to the Project as it is a statewide measure that establishes a renewable energy mix. No feature of the Project would interfere with implementation of the requirements under RPS.

CONSISTENCY WITH SB 350 AND SB 100

The Project would use energy from SCE, which have committed to diversify their portfolio of energy sources by increasing energy from wind and solar sources. No feature of the Project would interfere with implementation of SB 350 and SB 100. Additionally, the Project would be designed and constructed to implement the energy efficiency measures for new industrial developments and would include several measures designed to reduce energy consumption.

As shown above, the Project would not conflict with any of the state or local plans. As such, a less than significant impact is expected.

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7 CERTIFICATIONS

The contents of this energy analysis report represent an accurate depiction of the environmental impacts associated with the proposed Amargosa and Palmetto High-Cube Warehouse. The information contained in this energy analysis report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

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California State University, Fullerton • May 2010

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PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
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APPENDIX 4.1:

CALEEMOD CONSTRUCTION EMISSIONS MODEL OUTPUTS

14848-Palmetto Industrial (Construction) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

3.3. Grading (2023) - Unmitigated

3.5. Building Construction (2023) - Unmitigated

3.7. Paving (2023) - Unmitigated

3.9. Architectural Coating (2023) - Unmitigated

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	14848-Palmetto Industrial (Construction)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	1.40
Location	34.436795901992426, -117.37836806854374
County	San Bernardino-Mojave Desert
City	Hesperia
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5106
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	500	1000sqft	11.5	499,700	255,000	—	—	—
Parking Lot	508	Space	3.93	0.00	0.00	—	—	—

Other Non-Asphalt Surfaces	659	1000sqft	15.1	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.18	2.70	16.3	36.0	0.04	0.62	3.28	3.91	0.58	0.79	1.37	—	7,900	7,900	0.24	0.41	19.0	8,047
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.1	70.8	89.0	73.5	0.12	4.50	9.00	13.5	4.14	3.83	7.97	—	15,076	15,076	0.53	0.55	0.59	15,254
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.49	9.46	16.0	22.8	0.03	0.68	2.33	3.02	0.63	0.65	1.28	—	5,240	5,240	0.18	0.23	4.52	5,319
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.45	1.73	2.93	4.16	0.01	0.12	0.43	0.55	0.12	0.12	0.23	—	868	868	0.03	0.04	0.75	881

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	3.18	2.70	16.3	36.0	0.04	0.62	3.28	3.91	0.58	0.79	1.37	—	7,900	7,900	0.24	0.41	19.0	8,047
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	11.1	70.8	89.0	73.5	0.12	4.50	9.00	13.5	4.14	3.83	7.97	—	15,076	15,076	0.53	0.55	0.59	15,254
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.49	9.46	16.0	22.8	0.03	0.68	2.33	3.02	0.63	0.65	1.28	—	5,240	5,240	0.18	0.23	4.52	5,319
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.45	1.73	2.93	4.16	0.01	0.12	0.43	0.55	0.12	0.12	0.23	—	868	868	0.03	0.04	0.75	881

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.83	4.90	47.0	38.0	0.05	2.53	—	2.53	2.33	—	2.33	—	5,530	5,530	0.22	0.04	—	5,549
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.17	1.67	1.35	< 0.005	0.09	—	0.09	0.08	—	0.08	—	197	197	0.01	< 0.005	—	198
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	—	32.6	32.6	< 0.005	< 0.005	—	32.7
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.12	1.15	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	235	235	0.01	0.01	0.03	238
Vendor	0.01	< 0.005	0.15	0.07	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	132	132	< 0.005	0.02	0.01	137
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.63	8.63	< 0.005	< 0.005	0.02	8.75

Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.70	4.70	< 0.005	< 0.005	0.01	4.90
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.43	1.43	< 0.005	< 0.005	< 0.005	1.45
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.78	0.78	< 0.005	< 0.005	< 0.005	0.81
Hauling	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	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.00	4.20	40.9	32.7	0.06	1.96	—	1.96	1.80	—	1.80	—	6,715	6,715	0.27	0.05	—	6,738
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.49	4.82	3.85	0.01	0.23	—	0.23	0.21	—	0.21	—	791	791	0.03	0.01	—	794

Dust From Material Movement	—	—	—	—	—	—	0.31	0.31	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.88	0.70	< 0.005	0.04	—	0.04	0.04	—	0.04	—	131	131	0.01	< 0.005	—	131
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.32	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	269	269	0.01	0.01	0.03	272
Vendor	0.02	0.02	0.56	0.26	< 0.005	0.01	0.03	0.03	0.01	0.01	0.02	—	495	495	< 0.005	0.07	0.03	515
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	62.7	62.7	< 0.005	0.01	< 0.005	65.6
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.17	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	32.6	32.6	< 0.005	< 0.005	0.06	33.1
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	58.3	58.3	< 0.005	0.01	0.07	60.7
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.38	7.38	< 0.005	< 0.005	0.01	7.73
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	5.40	5.40	< 0.005	< 0.005	0.01	5.48
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.65	9.65	< 0.005	< 0.005	0.01	10.1

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	< 0.005	< 0.005	< 0.005	1.28

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.62	1.36	12.8	14.3	0.03	0.60	—	0.60	0.55	—	0.55	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.62	1.36	12.8	14.3	0.03	0.60	—	0.60	0.55	—	0.55	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.83	0.69	6.56	7.32	0.01	0.31	—	0.31	0.28	—	0.28	—	1,347	1,347	0.05	0.01	—	1,352
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.20	1.34	< 0.005	0.06	—	0.06	0.05	—	0.05	—	223	223	0.01	< 0.005	—	224
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.46	1.27	1.30	20.6	0.00	0.00	0.17	0.17	0.00	0.00	0.00	—	3,193	3,193	0.13	0.10	13.5	3,240
Vendor	0.10	0.08	2.23	1.07	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	2,078	2,078	< 0.005	0.28	5.51	2,168
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.23	1.12	1.39	13.8	0.00	0.00	0.17	0.17	0.00	0.00	0.00	—	2,823	2,823	0.14	0.10	0.35	2,858
Vendor	0.10	0.07	2.36	1.09	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	2,080	2,080	< 0.005	0.28	0.14	2,165
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.64	0.58	0.76	7.93	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,490	1,490	0.07	0.05	2.97	1,510
Vendor	0.05	0.04	1.21	0.55	0.01	0.01	0.06	0.07	0.01	0.02	0.04	—	1,065	1,065	< 0.005	0.15	1.22	1,110
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.45	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	247	247	0.01	0.01	0.49	250
Vendor	0.01	0.01	0.22	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	176	176	< 0.005	0.02	0.20	184
Hauling	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	0.00

3.7. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.04	0.88	8.06	10.0	0.01	0.41	—	0.41	0.38	—	0.38	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.73	0.91	< 0.005	0.04	—	0.04	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	0.99	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	202	202	0.01	0.01	0.02	204
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.10	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	18.8	18.8	< 0.005	< 0.005	0.04	19.0
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.11	3.11	< 0.005	< 0.005	0.01	3.15
Vendor	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	0.00
Hauling	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	0.00

3.9. Architectural Coating (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.25	1.54	< 0.005	0.05	—	0.05	0.05	—	0.05	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	66.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.14	0.17	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	19.5	19.5	< 0.005	< 0.005	—	19.6
Architectural Coatings	—	7.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.23	3.23	< 0.005	< 0.005	—	3.24
Architectural Coatings	—	1.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.22	0.28	2.77	0.00	0.00	0.03	0.03	0.00	0.00	0.00	—	565	565	0.03	0.02	0.07	572
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.34	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	63.7	63.7	< 0.005	< 0.005	0.13	64.6
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	10.6	10.6	< 0.005	< 0.005	0.02	10.7
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/15/2023	2/1/2023	5.00	13.0	—
Grading	Grading	2/1/2023	3/31/2023	5.00	43.0	—
Building Construction	Building Construction	3/15/2023	11/30/2023	5.00	187	—
Paving	Paving	11/15/2023	12/30/2023	5.00	33.0	—
Architectural Coating	Architectural Coating	11/6/2023	12/30/2023	5.00	40.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38

Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Site Preparation	Crawler Tractors	Diesel	Average	4.00	8.00	87.0	0.43

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	15.0	10.2	HHDT,MHDT

Grading	Hauling	0.88	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	210	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	63.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	42.0	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	786,896	262,299	49,795

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	45.5	0.00	—
Grading	300	—	172	0.00	—
Paving	0.00	0.00	0.00	0.00	19.1

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	3.93	100%
Other Non-Asphalt Surfaces	15.1	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	33.6	annual days of extreme heat
Extreme Precipitation	4.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	22.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A

Drought	1	1	1	2
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	32.2
AQ-DPM	57.9
Drinking Water	29.7
Lead Risk Housing	13.8
Pesticides	0.00
Toxic Releases	25.0
Traffic	83.1
Effect Indicators	—
CleanUp Sites	73.4
Groundwater	0.00
Haz Waste Facilities/Generators	65.9

Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	84.6
Cardio-vascular	99.5
Low Birth Weights	5.81
Socioeconomic Factor Indicators	—
Education	67.1
Housing	11.2
Linguistic	19.9
Poverty	67.2
Unemployment	82.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	66.22610035
Employed	25.70255357
Education	—
Bachelor's or higher	31.64378288
High school enrollment	2.258437059
Preschool enrollment	41.10098807
Transportation	—
Auto Access	89.83703323
Active commuting	14.92364943
Social	—

2-parent households	97.98537149
Voting	43.48774541
Neighborhood	—
Alcohol availability	89.68304889
Park access	26.5622995
Retail density	22.41755422
Supermarket access	25.03528808
Tree canopy	7.25009624
Housing	—
Homeownership	84.70422174
Housing habitability	80.57230848
Low-inc homeowner severe housing cost burden	56.2941101
Low-inc renter severe housing cost burden	70.48633389
Uncrowded housing	64.30129603
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.6
Asthma ER Admissions	14.5
High Blood Pressure	1.1
Cancer (excluding skin)	0.9
Asthma	37.3
Coronary Heart Disease	1.0
Chronic Obstructive Pulmonary Disease	1.6
Diagnosed Diabetes	6.3
Life Expectancy at Birth	28.4
Cognitively Disabled	58.3
Physically Disabled	16.0

Heart Attack ER Admissions	1.2
Mental Health Not Good	58.7
Chronic Kidney Disease	1.3
Obesity	41.7
Pedestrian Injuries	90.6
Physical Health Not Good	24.5
Stroke	2.9
Health Risk Behaviors	—
Binge Drinking	95.3
Current Smoker	59.6
No Leisure Time for Physical Activity	48.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8
Elderly	53.1
English Speaking	52.3
Foreign-born	39.5
Outdoor Workers	27.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	86.5
Traffic Density	80.1
Traffic Access	23.0
Other Indices	—
Hardship	53.1
Other Decision Support	—
2016 Voting	53.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Client indicated construction schedule
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases Standard 8-hour work day
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction

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APPENDIX 4.2:

CALEEMOD OPERATIONAL EMISSIONS MODEL OUTPUTS

14848-Palmetto Industrial (Operations) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.2. Unmitigated

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	14848-Palmetto Industrial (Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	1.40
Location	34.436795901992426, -117.37836806854374
County	San Bernardino-Mojave Desert
City	Hesperia
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5106
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	500	1000sqft	11.5	499,700	255,000	—	—	—
Parking Lot	508	Space	3.93	0.00	0.00	—	—	—

Other Non-Asphalt Surfaces	659	1000sqft	15.1	0.00	0.00	—	—	—
User Defined Industrial	500	User Defined Unit	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.34	19.9	16.4	85.9	0.23	0.47	5.30	5.78	0.47	0.99	1.46	475	27,622	28,096	49.0	2.32	72.7	30,086
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.08	15.9	17.1	48.9	0.21	0.44	5.30	5.75	0.43	0.99	1.42	475	26,308	26,782	49.0	2.34	1.89	28,706
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.31	17.1	15.3	56.2	0.19	0.42	4.52	4.94	0.41	0.84	1.26	475	23,582	24,056	48.9	2.09	26.7	25,929
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.15	3.11	2.79	10.2	0.03	0.08	0.82	0.90	0.08	0.15	0.23	78.6	3,904	3,983	8.10	0.35	4.43	4,293

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.20	4.67	13.6	62.0	0.21	0.25	5.30	5.55	0.24	0.99	1.22	—	21,482	21,482	0.43	1.73	72.7	22,082
Area	3.86	15.1	0.18	21.7	< 0.005	0.03	—	0.03	0.04	—	0.04	—	89.4	89.4	< 0.005	0.01	—	92.0
Energy	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	5,392	5,392	0.49	0.03	—	5,414
Water	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Waste	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Total	9.34	19.9	16.4	85.9	0.23	0.47	5.30	5.78	0.47	0.99	1.46	475	27,622	28,096	49.0	2.32	72.7	30,086
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.80	4.27	14.6	46.7	0.20	0.25	5.30	5.55	0.24	0.99	1.22	—	20,257	20,257	0.44	1.76	1.89	20,794
Area	—	11.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	5,392	5,392	0.49	0.03	—	5,414
Water	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Waste	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Total	5.08	15.9	17.1	48.9	0.21	0.44	5.30	5.75	0.43	0.99	1.42	475	26,308	26,782	49.0	2.34	1.89	28,706
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.13	3.67	12.6	43.3	0.17	0.21	4.52	4.73	0.20	0.84	1.04	—	17,487	17,487	0.38	1.50	26.7	17,972
Area	1.90	13.2	0.09	10.7	< 0.005	0.01	—	0.01	0.02	—	0.02	—	44.1	44.1	< 0.005	< 0.005	—	45.4
Energy	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	5,392	5,392	0.49	0.03	—	5,414
Water	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Waste	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Total	6.31	17.1	15.3	56.2	0.19	0.42	4.52	4.94	0.41	0.84	1.26	475	23,582	24,056	48.9	2.09	26.7	25,929
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.75	0.67	2.30	7.90	0.03	0.04	0.82	0.86	0.04	0.15	0.19	—	2,895	2,895	0.06	0.25	4.43	2,975

Area	0.35	2.42	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.30	7.30	< 0.005	< 0.005	—	7.51
Energy	0.05	0.03	0.47	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	893	893	0.08	0.01	—	896
Water	—	—	—	—	—	—	—	—	—	—	—	36.7	109	146	3.77	0.09	—	267
Waste	—	—	—	—	—	—	—	—	—	—	—	41.9	0.00	41.9	4.19	0.00	—	147
Total	1.15	3.11	2.79	10.2	0.03	0.08	0.82	0.90	0.08	0.15	0.23	78.6	3,904	3,983	8.10	0.35	4.43	4,293

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	4.83	4.36	3.01	58.6	0.11	0.05	0.44	0.49	0.04	0.13	0.17	—	11,178	11,178	0.40	0.28	43.2	11,313
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
User Defined Industrial	0.37	0.31	10.6	3.40	0.10	0.20	0.72	0.92	0.19	0.23	0.42	—	10,304	10,304	0.03	1.46	29.5	10,769
Total	5.20	4.67	13.6	62.0	0.21	0.25	1.16	1.41	0.24	0.36	0.60	—	21,482	21,482	0.43	1.73	72.7	22,082

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	4.45	3.98	3.35	43.3	0.10	0.05	0.44	0.49	0.04	0.13	0.17	—	9,948	9,948	0.41	0.30	1.12	10,048
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
User Defined Industrial	0.35	0.29	11.2	3.41	0.10	0.20	0.72	0.92	0.19	0.23	0.42	—	10,309	10,309	0.03	1.46	0.77	10,746
Total	4.80	4.27	14.6	46.7	0.20	0.25	1.16	1.41	0.24	0.36	0.60	—	20,257	20,257	0.44	1.76	1.89	20,794
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.70	0.62	0.55	7.38	0.02	0.01	0.07	0.08	0.01	0.02	0.03	—	1,442	1,442	0.06	0.04	2.63	1,459
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
User Defined Industrial	0.06	0.05	1.76	0.52	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	1,453	1,453	< 0.005	0.21	1.80	1,516
Total	0.75	0.67	2.30	7.90	0.03	0.04	0.18	0.22	0.04	0.06	0.09	—	2,895	2,895	0.06	0.25	4.43	2,975

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,205	2,205	0.21	0.03	—	2,217
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	143	143	0.01	< 0.005	—	144
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,348	2,348	0.22	0.03	—	2,361
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,205	2,205	0.21	0.03	—	2,217
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	143	143	0.01	< 0.005	—	144
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,348	2,348	0.22	0.03	—	2,361
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	365	365	0.03	< 0.005	—	367
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	23.7	23.7	< 0.005	< 0.005	—	23.9
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	389	389	0.04	< 0.005	—	391

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Parking Lot	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

Other Non-Asphalt Surfaces	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
User Defined Industrial	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
Total	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Parking Lot	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
Other Non-Asphalt Surfaces	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
User Defined Industrial	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
Total	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.03	0.47	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	504	504	0.04	< 0.005	—	505
Parking Lot	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
Other Non-Asphalt Surfaces	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

User Defined Industrial	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
Total	0.05	0.03	0.47	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	504	504	0.04	< 0.005	—	505

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	10.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.86	3.56	0.18	21.7	< 0.005	0.03	—	0.03	0.04	—	0.04	—	89.4	89.4	< 0.005	0.01	—	92.0
Total	3.86	15.1	0.18	21.7	< 0.005	0.03	—	0.03	0.04	—	0.04	—	89.4	89.4	< 0.005	0.01	—	92.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	10.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	11.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.35	0.32	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.30	7.30	< 0.005	< 0.005	—	7.51
Total	0.35	2.42	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.30	7.30	< 0.005	< 0.005	—	7.51

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	36.7	109	146	3.77	0.09	—	267
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	36.7	109	146	3.77	0.09	—	267

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	41.9	0.00	41.9	4.19	0.00	—	147
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	41.9	0.00	41.9	4.19	0.00	—	147

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	790	391	369	245,576	14,380	7,113	6,713	4,469,970
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	115	57.0	53.5	35,722	3,502	1,736	1,629	1,088,464

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

0	0.00	786,896	262,299	49,795

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	2,307,966	349	0.0330	0.0040	9,499,636
Parking Lot	149,963	349	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	349	0.0330	0.0040	0.00
User Defined Industrial	0.00	349	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	115,555,625	5,645,327
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	470	0.00
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit

Temperature and Extreme Heat	33.6	annual days of extreme heat
Extreme Precipitation	4.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	22.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	32.2
AQ-DPM	57.9
Drinking Water	29.7
Lead Risk Housing	13.8

Pesticides	0.00
Toxic Releases	25.0
Traffic	83.1
Effect Indicators	—
CleanUp Sites	73.4
Groundwater	0.00
Haz Waste Facilities/Generators	65.9
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	84.6
Cardio-vascular	99.5
Low Birth Weights	5.81
Socioeconomic Factor Indicators	—
Education	67.1
Housing	11.2
Linguistic	19.9
Poverty	67.2
Unemployment	82.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	66.22610035
Employed	25.70255357
Education	—

Bachelor's or higher	31.64378288
High school enrollment	2.258437059
Preschool enrollment	41.10098807
Transportation	—
Auto Access	89.83703323
Active commuting	14.92364943
Social	—
2-parent households	97.98537149
Voting	43.48774541
Neighborhood	—
Alcohol availability	89.68304889
Park access	26.5622995
Retail density	22.41755422
Supermarket access	25.03528808
Tree canopy	7.25009624
Housing	—
Homeownership	84.70422174
Housing habitability	80.57230848
Low-inc homeowner severe housing cost burden	56.2941101
Low-inc renter severe housing cost burden	70.48633389
Uncrowded housing	64.30129603
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.6
Asthma ER Admissions	14.5
High Blood Pressure	1.1
Cancer (excluding skin)	0.9

Asthma	37.3
Coronary Heart Disease	1.0
Chronic Obstructive Pulmonary Disease	1.6
Diagnosed Diabetes	6.3
Life Expectancy at Birth	28.4
Cognitively Disabled	58.3
Physically Disabled	16.0
Heart Attack ER Admissions	1.2
Mental Health Not Good	58.7
Chronic Kidney Disease	1.3
Obesity	41.7
Pedestrian Injuries	90.6
Physical Health Not Good	24.5
Stroke	2.9
Health Risk Behaviors	—
Binge Drinking	95.3
Current Smoker	59.6
No Leisure Time for Physical Activity	48.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8
Elderly	53.1
English Speaking	52.3
Foreign-born	39.5
Outdoor Workers	27.8
Climate Change Adaptive Capacity	—

Impervious Surface Cover	86.5
Traffic Density	80.1
Traffic Access	23.0
Other Indices	—
Hardship	53.1
Other Decision Support	—
2016 Voting	53.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Client indicated construction schedule

Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases Standard 8-hour work day
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Construction: Dust From Material Movement	Ex
Operations: Vehicle Data	Trip Characteristics based on information provided in the Traffic Analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle
Operations: Refrigerants	Unrefrigerated warehouse modeled with no refrigerant emissions

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APPENDIX 4.3:

EMFAC2021

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: San Bernardino (MD)
Calendar Year: 2023
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calen	Vehicle Cat	Model Year	Speed	Fuel	Population	Total VMT	Fuel Consumption	Fuel_Consumption (gal)	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
San Bernardino (MD)	2023	HHDT	Aggregate	Aggregate	Gasoline	3.706020688	198.5497848	0.05580807	55.80807012	429094.7266	198.5497848	2613238.336	6.09	HHDT
San Bernardino (MD)	2023	HHDT	Aggregate	Aggregate	Diesel	12541.2239	2609489.247	428.631287	428631.287		2609489.247			
San Bernardino (MD)	2023	HHDT	Aggregate	Aggregate	Electricity	11.53583972	1130.876004	0	0		1130.876004			
San Bernardino (MD)	2023	HHDT	Aggregate	Aggregate	Natural Gas	33.1907971	2419.663613	0.407631558	407.6315577		2419.663613			
San Bernardino (MD)	2023	LDA	Aggregate	Aggregate	Gasoline	312180.2726	12850025.9	448.5592007	448559.2007	455321.7978	12850025.9	13790681.2	30.29	LDA
San Bernardino (MD)	2023	LDA	Aggregate	Aggregate	Diesel	1111.779846	36864.07043	0.899996768	899.9967678		36864.07043			
San Bernardino (MD)	2023	LDA	Aggregate	Aggregate	Electricity	11324.98946	536054.6226	0	0		536054.6226			
San Bernardino (MD)	2023	LDA	Aggregate	Aggregate	Plug-in Hybr	7422.455377	367736.6077	5.862600371	5862.600371		367736.6077			
San Bernardino (MD)	2023	LDT1	Aggregate	Aggregate	Gasoline	32278.55095	1068871.467	45.10188563	45101.88563	45129.3869	1068871.467	1071843.523	23.75	LDT1
San Bernardino (MD)	2023	LDT1	Aggregate	Aggregate	Diesel	17.7719872	243.4069851	0.010382367	10.38236679		243.4069851			
San Bernardino (MD)	2023	LDT1	Aggregate	Aggregate	Electricity	37.46099309	1553.818678	0	0		1553.818678			
San Bernardino (MD)	2023	LDT1	Aggregate	Aggregate	Plug-in Hybr	21.98847633	1174.830471	0.017118907	17.11890704		1174.830471			
San Bernardino (MD)	2023	LDT2	Aggregate	Aggregate	Gasoline	135449.7785	5476170.679	236.1411805	236141.1805	237379.2465	5476170.679	5557754.986	23.41	LDT2
San Bernardino (MD)	2023	LDT2	Aggregate	Aggregate	Diesel	415.1711158	18119.07266	0.578110582	578.1105817		18119.07266			
San Bernardino (MD)	2023	LDT2	Aggregate	Aggregate	Electricity	534.2570507	20036.79258	0	0		20036.79258			
San Bernardino (MD)	2023	LDT2	Aggregate	Aggregate	Plug-in Hybr	841.1395529	43428.44096	0.659955358	659.9553577		43428.44096			
San Bernardino (MD)	2023	LHDT1	Aggregate	Aggregate	Gasoline	13373.18195	482494.3403	38.02966063	38029.66063	58441.51975	482494.3403	897451.7074	15.36	LHDT1
San Bernardino (MD)	2023	LHDT1	Aggregate	Aggregate	Diesel	11266.77185	414957.3672	20.41185912	20411.85912		414957.3672			
San Bernardino (MD)	2023	LHDT2	Aggregate	Aggregate	Gasoline	1757.472296	63304.89683	5.541732627	5541.732627	16323.74543	63304.89683	245227.1248	15.02	LHDT2
San Bernardino (MD)	2023	LHDT2	Aggregate	Aggregate	Diesel	4751.018174	181922.228	10.78201281	10782.01281		181922.228			
San Bernardino (MD)	2023	MCY	Aggregate	Aggregate	Gasoline	18296.66506	105592.6229	2.599049491	2599.049491	2599.049491	105592.6229	105592.6229	40.63	MCY
San Bernardino (MD)	2023	MDV	Aggregate	Aggregate	Gasoline	106014.0905	4096216.013	219.1155882	219115.5882	222623.2901	4096216.013	4215059.816	18.93	MDV
San Bernardino (MD)	2023	MDV	Aggregate	Aggregate	Diesel	1733.718228	70442.83229	3.080871724	3080.871724		70442.83229			
San Bernardino (MD)	2023	MDV	Aggregate	Aggregate	Electricity	582.245085	21819.8923	0	0		21819.8923			
San Bernardino (MD)	2023	MDV	Aggregate	Aggregate	Plug-in Hybr	554.32769	26581.07894	0.42683018	426.8301803		26581.07894			
San Bernardino (MD)	2023	MH	Aggregate	Aggregate	Gasoline	3314.159385	28525.30478	5.986739837	5986.739837	7057.640687	28525.30478	39737.73873	5.63	MH
San Bernardino (MD)	2023	MH	Aggregate	Aggregate	Diesel	1297.87851	11212.43395	1.070900849	1070.900849		11212.43395			
San Bernardino (MD)	2023	MHDT	Aggregate	Aggregate	Gasoline	920.2847184	63606.39039	12.56685824	12566.85824	29969.89352	63606.39039	220886.5569	7.37	MHDT
San Bernardino (MD)	2023	MHDT	Aggregate	Aggregate	Diesel	2658.087983	156869.8925	17.3625782	17362.5782		156869.8925			
San Bernardino (MD)	2023	MHDT	Aggregate	Aggregate	Electricity	1.582673807	49.9804468	0	0		49.9804468			
San Bernardino (MD)	2023	MHDT	Aggregate	Aggregate	Natural Gas	7.663495521	360.2936086	0.040457078	40.45707772		360.2936086			
San Bernardino (MD)	2023	OBUS	Aggregate	Aggregate	Gasoline	281.3228219	17086.93238	3.443318417	3443.318417	4122.346324	17086.93238	22050.43546	5.35	OBUS
San Bernardino (MD)	2023	OBUS	Aggregate	Aggregate	Diesel	71.62191097	4963.503081	0.679027908	679.0279076		4963.503081			
San Bernardino (MD)	2023	SBUS	Aggregate	Aggregate	Gasoline	93.76777841	5830.784163	0.637465093	637.4650932		5830.784163			
San Bernardino (MD)	2023	SBUS	Aggregate	Aggregate	Diesel	620.8980814	14679.01532	1.941851204	1941.851204	2579.316297	14679.01532	20512.94447	7.95	SBUS
San Bernardino (MD)	2023	SBUS	Aggregate	Aggregate	Electricity	0.270902054	3.144981365	0	0		3.144981365			
San Bernardino (MD)	2023	UBUS	Aggregate	Aggregate	Gasoline	55.06244647	5254.364757	1.388409085	1388.409085		5254.364757			
San Bernardino (MD)	2023	UBUS	Aggregate	Aggregate	Diesel	2.558566388	252.3863908	0.031795366	31.79536623		252.3863908			
San Bernardino (MD)	2023	UBUS	Aggregate	Aggregate	Electricity	0.196662013	20.74124617	0	0	4878.358	20.74124617	19220.95553	3.94	UBUS
San Bernardino (MD)	2023	UBUS	Aggregate	Aggregate	Natural Gas	103.6567732	13693.46313	3.458153548	3458.153548		13693.46313			

Source: EMFAC2021 (v1.0.2) Emissions Inventory
Region Type: Sub-Area
Region: San Bernardino (MD)
Calendar Year: 2024
Season: Annual
Vehicle Classification: EMFAC2007 Categories
Units: miles/day for CVMT and EVMT, trips/day for Trips, kWh/day for Energy Consumption, tons/day for Emissions, 1000 gallons/day for Fuel Consumption

Region	Calen	Vehicle Cat	Model Year	Speed	Fuel	Population	Total VMT	Fuel Consumption	Fuel_Consumption	Total Fuel	VMT	Total VMT	Miles per Gallon	Vehicle Class
San Bernardino (MD)	2024	HHDT	Aggregate	Aggregate	Gasoline	2.67371537	179.0665221	0.047227051	47.22705145	431524.1776	179.0665221	2672982.086	6.19	HHDT
San Bernardino (MD)	2024	HHDT	Aggregate	Aggregate	Diesel	12941.95694	2664602.465	431.0654074	431065.4074		2664602.465			
San Bernardino (MD)	2024	HHDT	Aggregate	Aggregate	Electricity	35.13402513	5737.248237	0	0		5737.248237			
San Bernardino (MD)	2024	HHDT	Aggregate	Aggregate	Natural Gas	34.45532984	2463.306139	0.411543149	411.5431489		2463.306139			
San Bernardino (MD)	2024	LDA	Aggregate	Aggregate	Gasoline	309548.7892	12857053.58	440.1966248	440196.6248	447331.193	12857053.58	13965428.57	31.22	LDA
San Bernardino (MD)	2024	LDA	Aggregate	Aggregate	Diesel	1034.982141	34051.71651	0.824103926	824.103926		34051.71651			
San Bernardino (MD)	2024	LDA	Aggregate	Aggregate	Electricity	13623.83126	668545.7008	0	0		668545.7008			
San Bernardino (MD)	2024	LDA	Aggregate	Aggregate	Plug-in Hybr	8183.169851	405777.5733	6.310464316	6310.464316		405777.5733			
San Bernardino (MD)	2024	LDT1	Aggregate	Aggregate	Gasoline	31233.77168	1048128.245	43.45105088	43451.05088	43486.19277	1048128.245	1052389.791	24.20	LDT1
San Bernardino (MD)	2024	LDT1	Aggregate	Aggregate	Diesel	15.99626011	215.2408333	0.009170376	9.170375651		215.2408333			
San Bernardino (MD)	2024	LDT1	Aggregate	Aggregate	Electricity	48.63773853	2207.053268	0	0		2207.053268			
San Bernardino (MD)	2024	LDT1	Aggregate	Aggregate	Plug-in Hybr	34.41015177	1839.251886	0.025971515	25.97151479		1839.251886			
San Bernardino (MD)	2024	LDT2	Aggregate	Aggregate	Gasoline	137725.5016	5643211.721	237.0500862	237050.0862	238447.9934	5643211.721	5745847.212	24.10	LDT2
San Bernardino (MD)	2024	LDT2	Aggregate	Aggregate	Diesel	435.2924741	19152.63273	0.59798519	597.9851905		19152.63273			
San Bernardino (MD)	2024	LDT2	Aggregate	Aggregate	Electricity	786.4209618	29403.79568	0	0		29403.79568			
San Bernardino (MD)	2024	LDT2	Aggregate	Aggregate	Plug-in Hybr	1052.1882	54079.0621	0.799922079	799.922079		54079.0621			
San Bernardino (MD)	2024	LHDT1	Aggregate	Aggregate	Gasoline	13065.12456	480544.6519	36.82043144	36820.43144	56877.26029	480544.6519	892607.9514	15.69	LHDT1
San Bernardino (MD)	2024	LHDT1	Aggregate	Aggregate	Diesel	11067.90041	409320.0985	20.05682885	20056.82885		409320.0985			
San Bernardino (MD)	2024	LHDT1	Aggregate	Aggregate	Electricity	35.57307835	2743.201006	0	0		2743.201006			
San Bernardino (MD)	2024	LHDT2	Aggregate	Aggregate	Gasoline	1727.120361	62917.63426	5.382965998	5382.965998	16041.7624	62917.63426	244483.5133	15.24	LHDT2
San Bernardino (MD)	2024	LHDT2	Aggregate	Aggregate	Diesel	4731.795472	180893.1491	10.6587964	10658.7964		180893.1491			
San Bernardino (MD)	2024	LHDT2	Aggregate	Aggregate	Electricity	9.20742508	672.7299431	0	0		672.7299431			
San Bernardino (MD)	2024	MCY	Aggregate	Aggregate	Gasoline	18161.87327	104842.2951	2.566095645	2566.095645	2566.095645	104842.2951	104842.2951	40.86	MCY
San Bernardino (MD)	2024	MDV	Aggregate	Aggregate	Gasoline	104992.7033	4103194.432	214.6505054	214650.5054	218155.5699	4103194.432	4237999.5	19.43	MDV
San Bernardino (MD)	2024	MDV	Aggregate	Aggregate	Diesel	1714.88073	69248.41239	2.991593915	2991.593915		69248.41239			
San Bernardino (MD)	2024	MDV	Aggregate	Aggregate	Electricity	866.9961777	32393.89091	0	0		32393.89091			
San Bernardino (MD)	2024	MDV	Aggregate	Aggregate	Plug-in Hybr	687.4700368	33162.76439	0.513470573	513.470573		33162.76439			
San Bernardino (MD)	2024	MH	Aggregate	Aggregate	Gasoline	3091.371633	26724.2653	5.605041279	5605.041279	6656.655531	26724.2653	37736.37285	5.67	MH
San Bernardino (MD)	2024	MH	Aggregate	Aggregate	Diesel	1276.896684	11012.10756	1.051614251	1051.614251		11012.10756			
San Bernardino (MD)	2024	MHDT	Aggregate	Aggregate	Gasoline	898.6661288	63890.69959	12.44579031	12445.79031	30031.31509	63890.69959	224542.5252	7.48	MHDT
San Bernardino (MD)	2024	MHDT	Aggregate	Aggregate	Diesel	2714.454563	159428.8117	17.54186171	17541.86171		159428.8117			
San Bernardino (MD)	2024	MHDT	Aggregate	Aggregate	Electricity	10.1031131	832.4896331	0	0		832.4896331			
San Bernardino (MD)	2024	MHDT	Aggregate	Aggregate	Natural Gas	8.401730183	390.5243176	0.043663079	43.66307868		390.5243176			
San Bernardino (MD)	2024	OBUS	Aggregate	Aggregate	Gasoline	271.7824577	16376.9448	3.255024528	3255.024528	3935.151344	16376.9448	21439.92288	5.45	OBUS
San Bernardino (MD)	2024	OBUS	Aggregate	Aggregate	Diesel	72.39768455	4993.524222	0.680126817	680.1268166		4993.524222			
San Bernardino (MD)	2024	OBUS	Aggregate	Aggregate	Electricity	0.546180409	69.45385865	0	0		69.45385865			
San Bernardino (MD)	2024	SBUS	Aggregate	Aggregate	Gasoline	96.21442986	6087.08589	0.660941658	660.941658		6087.08589			
San Bernardino (MD)	2024	SBUS	Aggregate	Aggregate	Diesel	625.5915659	14655.09273	1.93386489	1933.86489	2594.806548	14655.09273	20791.50655	8.01	SBUS
San Bernardino (MD)	2024	SBUS	Aggregate	Aggregate	Electricity	1.465134098	49.32793183	0	0		49.32793183			
San Bernardino (MD)	2024	UBUS	Aggregate	Aggregate	Gasoline	55.17381074	5264.991755	1.390338076	1390.338076		5264.991755			
San Bernardino (MD)	2024	UBUS	Aggregate	Aggregate	Diesel	2.531039845	250.3343972	0.03157511	31.57511024		250.3343972			
San Bernardino (MD)	2024	UBUS	Aggregate	Aggregate	Electricity	0.196662013	20.74124617	0	0	4704.95373	20.74124617	19259.83007	4.09	UBUS
San Bernardino (MD)	2024	UBUS	Aggregate	Aggregate	Natural Gas	103.8995189	13723.76268	3.283040544	3283.040544		13723.76268			

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APPENDIX F
Geotechnical Investigation Proposed Warehouse

GEOTECHNICAL INVESTIGATION
PROPOSED WAREHOUSE

NWC Palmeto Way and Amargosa Road
Hesperia, California
for
Rachamin 5, LLC



SOUTHERN
CALIFORNIA
GEOTECHNICAL
A California Corporation

July 18, 2022

Rachamin 5, LLC
6001 East Slauson Avenue
Commerce, California 90040

Attention: Mr. Ramin Namvar

Project No.: **22G203-1**

Subject: **Geotechnical Investigation**
Proposed Warehouse
NWC Palmeto Way and Amargosa Road
Hesperia, California

Mr. Namvar:

In accordance with your request, we have conducted a geotechnical investigation at the subject site. We are pleased to present this report summarizing the conclusions and recommendations developed from our investigation.

We sincerely appreciate the opportunity to be of service on this project. We look forward to providing additional consulting services during the course of the project. If we may be of further assistance in any manner, please contact our office.

Respectfully Submitted,

SOUTHERN CALIFORNIA GEOTECHNICAL, INC.

Joseph Lozano Leon
Project Engineer

Robert G. Trazo, M.Sc., GE 2655
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
ROBERT TRAZO
No. 2655
GEOTECHNICAL
STATE OF CALIFORNIA

Distribution: (1) Addressee

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY 1

2.0 SCOPE OF SERVICES 3

3.0 SITE AND PROJECT DESCRIPTION 4

3.1 Site Conditions 4
3.2 Proposed Development 4

4.0 SUBSURFACE EXPLORATION 5

4.1 Scope of Exploration/Sampling Methods 5
4.2 Geotechnical Conditions 5

5.0 LABORATORY TESTING 7

6.0 CONCLUSIONS AND RECOMMENDATIONS 9

6.1 Seismic Design Considerations 9
6.2 Geotechnical Design Considerations 11
6.3 Site Grading Recommendations 14
6.4 Construction Considerations 17
6.5 Foundation Design and Construction 17
6.6 Floor Slab Design and Construction 19
6.7 Retaining Wall Design and Construction 20
6.8 Pavement Design Parameters 22

7.0 GENERAL COMMENTS 25

APPENDICES

A Plate 1: Site Location Map
Plate 2: Boring Location Plan
B Boring Logs
C Laboratory Test Results
D Grading Guide Specifications
E Seismic Design Parameters

1.0 EXECUTIVE SUMMARY

Presented below is a brief summary of the conclusions and recommendations of this investigation. Since this summary is not all inclusive, it should be read in complete context with the entire report.

Geotechnical Design Considerations

- Artificial fill soils were encountered at one of the boring locations, extending from the ground surface to a depth of 4½± feet. The fill soils possess varying strengths and densities, and are considered to represent undocumented fill. These soils, in their present condition, are not considered suitable for support of the foundation loads of the new structure.
- The fill soils are underlain by native alluvium which possesses varying strengths and densities. The results of laboratory testing indicate that the near-surface soils within the upper 5 to 6± feet possess a potential for moderate to severe collapse when exposed to moisture infiltration as well as moderate consolidation when exposed to load increases in the range of those that will be exerted by the new foundations.
- Remedial grading will be necessary to remove all of the undocumented fill soils in their entirety and the upper portion of the near-surface native alluvial soils, and replace these materials as compacted structural fill soils.

Site Preparation Recommendations

- Site stripping within vegetated areas should remove include all vegetation, including tree root masses and any organic topsoil.
- Remedial grading is recommended to be performed within the proposed building area in order to remove all of the undocumented fill soils in their entirety, and the upper portion of the near-surface native alluvial soils. The soils within the proposed building pad area should be overexcavated to a depth of 5 feet below existing grade and to a depth of at least 4 feet below proposed building pad subgrade elevations, whichever is greater.
- The depth of overexcavation should also be sufficient to remove any existing fill soils. The proposed foundation influence zones should be overexcavated to a depth of at least 3 feet below proposed foundation bearing grade.
- Following completion of the overexcavation, the resulting subgrade soils should be evaluated by the geotechnical engineer to identify any additional soils that should be overexcavated. The resulting soils should be scarified and moisture conditioned to achieve a moisture content of 0 to 4 percent above optimum moisture, to a depth of at least 12 inches. The overexcavation subgrade soils should then be recompacted under the observation of the geotechnical engineer. The previously excavated soils may then be replaced as compacted structural fill. All structural fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density.
- The new pavement and flatwork subgrade soils are recommended to be scarified to a depth of 12± inches, moisture conditioned and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density.

Building Foundation Recommendations

- Spread footing foundations, supported in newly placed structural fill soils.
- Maximum, net allowable soil bearing pressure: 2,500 lbs/ft^2.

- Reinforcement consisting of at least two (2) No. 5 rebars (1 top and 1 bottom) in strip footings. Additional reinforcement may be necessary for structural considerations.

Building Floor Slab Recommendations

- Conventional Slab on Grade, at least 6 inches thick
- Modulus of Subgrade Reaction: k = 150 psi/in
- Reinforcement is not considered to be necessary for geotechnical considerations.
- The actual thickness and reinforcement of the floor slab should be determined by the structural engineer, based on the imposed slab loading.

Pavements

ASPHALT PAVEMENTS (R = 40)					
Materials	**Thickness (inches)**				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	4	6	7	8	10
Compacted Subgrade	12	12	12	12	12

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 40)				
Materials	**Thickness (inches)**			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic		
		(TI =7.0)	(TI =8.0)	(TI =9.0)
PCC	5	5½	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

2.0 SCOPE OF SERVICES

The scope of services performed for this project was in accordance with our Proposal No. 22P103R, dated January 10, 2022, revised date April 27, 2022. The scope of services included a visual site reconnaissance, subsurface exploration, field and laboratory testing, and geotechnical engineering analysis to provide criteria for preparing the design of the building foundations, building floor slab, and parking lot pavements along with site preparation recommendations and construction considerations for the proposed development. The evaluation of the environmental aspects of this site was beyond the scope of services for this geotechnical investigation.

3.0 SITE AND PROJECT DESCRIPTION

3.1 Site Conditions

The subject site is located at the northwest corner of Palmeto Way and Amargosa Road in Hesperia, California. The site is bounded to the north by Avenal Street, to the west by a vacant lot and a commercial/industrial building, to the south by Palmeto Way, and to the east by Amargosa Road. The general location of the site is illustrated on the Site Location Map, included as Plate 1 in Appendix A of this report.

The site consists of an irregularly-shaped property, 30.52± acres in size. The site is currently vacant and generally undeveloped, with the exception of a series of ramps and embankments located in the central region of the site, presumably used as a dirt bike track. The ground surface cover for the site generally consists of exposed soil with spare native shrubs and brush growth, and a few medium-sized trees scattered throughout.

Detailed topographic information was not available at the time of this report. Based on elevations obtained from Google Earth, and visual observations made at the time of the subsurface investigation, the overall site topography slopes downward to the northeast at a gradient of less than 2 percent.

3.2 Proposed Development

The most current conceptual site plan, identified as Preliminary Site Plan – Scheme 02 prepared by RGA, was provided to our office by the client. The plan indicates that the new development will consist of one (1) new warehouse, 545,000± ft² in size, located in the northern region of the subject site. Dock-high doors will be constructed on the south side of the proposed building. The new building is expected to be surrounded by asphaltic concrete (AC) pavements in the parking and drive areas, and Portland cement concrete (PCC) pavements in the loading dock area. Several landscaped planters and concrete flatwork are also expected to be included throughout the site.

Detailed structural information has not been provided. It is assumed that the new building will be a single-story structure of tilt-up concrete construction, supported on a conventional shallow foundation system with a concrete slab-on-grade floor. Based on the assumed construction, maximum column and wall loads are expected to be on the order of 100 kips and 4 to 7 kips per linear foot, respectively.

No significant amounts of below-grade construction, such as basements or crawl spaces, are expected to be included in the proposed development. Based on the assumed topography, cuts and fills of up to 5± feet are expected to be necessary to achieve the proposed building pad grades. It should be noted that this estimate does not include any remedial grading recommendations which are presented in a subsequent section of this report.

4.0 SUBSURFACE EXPLORATION

4.1 Scope of Exploration/Sampling Methods

The subsurface exploration conducted for this project consisted of nine (9) borings (identified as Boring Nos. B-1 through B-9) advanced to depths of 10 to 25± feet below the existing site grades. All of the borings were logged during drilling by a member of our staff.

The borings were advanced with hollow-stem augers, by a conventional truck-mounted drilling rig. Representative bulk and relatively undisturbed soil samples were taken during drilling. Relatively undisturbed soil samples were taken with a split barrel "California Sampler" containing a series of one inch long, 2.416± inch diameter brass rings. This sampling method is described in ASTM Test Method D-3550. In-situ samples were also taken using a 1.4± inch inside diameter split spoon sampler, in general accordance with ASTM D-1586. Both of these samplers are driven into the ground with successive blows of a 140-pound weight falling 30 inches. The blow counts obtained during driving are recorded for further analysis. Bulk samples were collected in plastic bags to retain their original moisture content. The relatively undisturbed ring samples were placed in molded plastic sleeves that were then sealed and transported to our laboratory.

The approximate locations of the borings are indicated on the Boring Location Plan, included as Plate 2 in Appendix A of this report. The Boring Logs, which illustrate the conditions encountered at the boring locations, as well as the results of some of the laboratory testing, are included in Appendix B.

4.2 Geotechnical Conditions

Artificial Fill

Artificial fill soils were encountered at the ground surface at Boring No. B-3, extending to a depth of 4½± feet below the existing site grades. The fill soils generally consist of medium dense silty sands to sandy silts. The fill soils possess a disturbed and mottled appearance resulting in their classification as artificial fill.

Alluvium

Native alluvium was encountered beneath the artificial fill soils at Boring No. B-3 and at the ground surface at the remaining boring locations, extending to at least the maximum depth explored of 25± feet. The near-surface soils generally consist of medium dense to dense sands, silty sands and sandy silts with varying gravel content, extending to depths of 5½ to 17± feet below the existing site grades. At greater depths, the alluvium generally consists of dense to very dense sands, silty sands, sandy silts, and clayey sands. Boring No. B-1 encountered a stratum consisting of very loose silty sands at a depth of 5½ to 8± feet. Boring No. B-2 encountered a stratum

consisting of very dense silty sands to sandy silts at a depth of 2½ to 4½± feet. Boring No. B-2 also encountered a stratum consisting of hard silty clays at a depth of 17 to 20± feet.

Groundwater

Free water was not encountered during the drilling of any of the borings. Based on the lack of any water within the borings and the moisture contents of the recovered soil samples, the static groundwater table is considered to have existed at a depth in excess of 25± feet at the time of the subsurface exploration.

Water level data was obtained from the California Department of Water Resources Water Data Library website, https://wdl.water.ca.gov/waterdatalibrary/. The nearest monitoring well on record (identified as State Well Number: 04N05W15G001S) is located approximately 3,200 feet west of the project site. Water level readings within this monitoring well indicate a high groundwater level of 638± feet below the ground surface in February 2015.

5.0 LABORATORY TESTING

The soil samples recovered from the subsurface exploration were returned to our laboratory for further testing to determine selected physical and engineering properties of the soils. The tests are briefly discussed below. It should be noted that the test results are specific to the actual samples tested, and variations could be expected at other locations and depths.

Classification

All recovered soil samples were classified using the Unified Soil Classification System (USCS), in accordance with ASTM D-2488. The field identifications were then supplemented with additional visual classifications and/or by laboratory testing. The USCS classifications are shown on the Boring Logs and are periodically referenced throughout this report.

Density and Moisture Content

The density has been determined for selected relatively undisturbed ring samples. These densities were determined in general accordance with the method presented in ASTM D-2937. The results are recorded as dry unit weight in pounds per cubic foot. The moisture contents are determined in accordance with ASTM D-2216, and are expressed as a percentage of the dry weight. These test results are presented on the Boring Logs.

Consolidation

Selected soil samples have been tested to determine their consolidation potential, in accordance with ASTM D-2435. The testing apparatus is designed to accept either natural or remolded samples in a one-inch-high ring, approximately 2.416 inches in diameter. Each sample is then loaded incrementally in a geometric progression and the resulting deflection is recorded at selected time intervals. Porous stones are in contact with the top and bottom of the sample to permit the addition or release of pore water. The samples are typically inundated with water at an intermediate load to determine their potential for collapse or heave. The results of the consolidation testing are plotted on Plates C-1 through C-7 in Appendix C of this report.

Maximum Dry Density and Optimum Moisture Content

One representative bulk sample has been tested for its maximum dry density and optimum moisture content. The results have been obtained using the Modified Proctor procedure, per ASTM D-1557 and are presented on Plate C-8 in Appendix C of this report. This test is generally used to compare the in-situ densities of undisturbed field samples, and for later compaction testing. Additional testing of other soil types or soil mixes may be necessary at a later date.

Direct Shear

One direct shear test was performed on a representative sample of the near-surface soils to determine its shear strength parameters in accordance with ASTM D-3080. The testing apparatus is designed to accept either natural or remolded samples in a one-inch high ring, approximately 2.416 inches in diameter. For tests on remolded soils, three samples of the same soil are prepared

by remolding them to 90± percent compaction and near optimum moisture. Each of the three samples are then loaded with different normal loads and the resulting shear strength is determined for that particular normal load. The shearing of the samples is performed at a rate slow enough to permit the dissipation of excess pore water pressure. Porous stones are in contact with the top and bottom of the sample to permit the addition or release of pore water. The results of the direct shear test are presented on Plate C-9 in Appendix C of this report.

Expansion Index

The expansion potential of the on-site soils was determined in general accordance with ASTM D-4829. The testing apparatus is designed to accept a 4-inch diameter, 1-in high, remolded sample. The sample is initially remolded to 50± 1 percent saturation and then loaded with a surcharge equivalent to 144 pounds per square foot. The sample is then inundated with water and allowed to swell against the surcharge. The resultant swell or consolidation is recorded after a 24-hour period. The results of the EI testing are as follows:

Sample Identification	Expansion Index	Expansive Potential
B-5 @ 0 to 5 feet	0	Non-Expansive

Soluble Sulfates

A representative sample of the near-surface soil was submitted to a subcontracted analytical laboratory for determination of soluble sulfate content. Soluble sulfates are naturally present in soils, and if the concentration is high enough, can result in degradation of concrete which comes into contact with these soils. The results of the soluble sulfate testing are presented below, and are discussed further in a subsequent section of this report.

Sample Identification	Soluble Sulfates (%)	Sulfate Classification
B-4 @ 0 to 5 feet	0.049	Not Applicable (S0)

Corrosivity Testing

One representative sample of the near-surface soils was submitted to a subcontracted corrosion engineering laboratory to identify potentially corrosive characteristics with respect to common construction materials. The corrosivity testing included a determination of the electrical resistivity, pH, and chloride and nitrate concentrations of the soils, as well as other tests. The results of some of these tests are presented below.

Sample Identification	Saturated Resistivity (ohm-cm)	pH	Chlorides (mg/kg)	Nitrates (mg/kg)
B-4 @ 0 to 5 feet	16,750	7.3	77.7	8.7

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of our review, field exploration, laboratory testing and geotechnical analysis, the proposed development is considered feasible from a geotechnical standpoint. The recommendations contained in this report should be taken into the design, construction, and grading considerations.

The recommendations are contingent upon all grading and foundation construction activities being monitored by the geotechnical engineer of record. The recommendations are provided with the assumption that an adequate program of client consultation, construction monitoring, and testing will be performed during the final design and construction phases to verify compliance with these recommendations. Maintaining Southern California Geotechnical, Inc., (SCG) as the geotechnical consultant from the beginning to the end of the project will provide continuity of services. The geotechnical engineering firm providing testing and observation services shall assume the responsibility of Geotechnical Engineer of Record.

The Grading Guide Specifications, included as Appendix D, should be considered part of this report, and should be incorporated into the project specifications. The contractor and/or owner of the development should bring to the attention of the geotechnical engineer any conditions that differ from those stated in this report, or which may be detrimental for the development.

6.1 Seismic Design Considerations

The subject site is located in an area which is subject to strong ground motions due to earthquakes. The performance of a site-specific seismic hazards analysis was beyond the scope of this investigation. However, numerous faults capable of producing significant ground motions are located near the subject site. Due to economic considerations, it is not generally considered reasonable to design a structure that is not susceptible to earthquake damage. Therefore, significant damage to structures may be unavoidable during large earthquakes. The proposed structure should, however, be designed to resist structural collapse and thereby provide reasonable protection from serious injury, catastrophic property damage and loss of life.

Faulting and Seismicity

Research of available maps indicates that the subject site is not located within an Alquist-Priolo Earthquake Fault Zone. Furthermore, SCG did not identify any evidence of faulting during the geotechnical investigations. Therefore, the possibility of significant fault rupture on the site is considered to be low.

The potential for other geologic hazards such as seismically induced settlement, lateral spreading, tsunamis, inundation, seiches, flooding, and subsidence affecting the site is considered low. Based on Map Number 06071C6475H, dated August 28, 2008, prepared by the Federal Emergency Management Agency (FEMA) Flood Maps, the project site is in an area designated as Zone X which is determined to be outside the 0.2% annual chance floodplain.

Seismic Design Parameters

The 2019 California Building Code (CBC) provides procedures for earthquake resistant structural design that include considerations for on-site soil conditions, occupancy, and the configuration of the structure including the structural system and height. The seismic design parameters presented below are based on the soil profile and the proximity of known faults with respect to the subject site. Based on standards in place at the time of this report, the proposed development is expected to be designed in accordance with the requirements of the 2019 edition of the California Building Code (CBC), which was adopted on January 1, 2020.

The 2019 CBC Seismic Design Parameters have been generated using the SEAOC/OSHPD Seismic Design Maps Tool, a web-based software application available at the website www.seismicmaps.org. This software application calculates seismic design parameters in accordance with several building code reference documents, including ASCE 7-16, upon which the 2019 CBC is based. The application utilizes a database of risk-targeted maximum considered earthquake (MCER) site accelerations at 0.01-degree intervals for each of the code documents. The tables below were created using data obtained from the application. The output generated from this program is included as Plate E-1 in Appendix E of this report.

The 2019 CBC requires that a site-specific ground motion study be performed in accordance with Section 11.4.8 of ASCE 7-16 for Site Class D sites with a mapped S1 value greater than 0.2. However, Section 11.4.8 of ASCE 7-16 also indicates an exception to the requirement for a site-specific ground motion hazard analysis for certain structures on Site Class D sites. The commentary for Section 11 of ASCE 7-16 (Page 534 of Section C11 of ASCE 7-16) indicates that "In general, this exception effectively limits the requirements for site-specific hazard analysis to very tall and or flexible structures at Site Class D sites." **Based on our understanding of the proposed development, the seismic design parameters presented below were calculated assuming that the exception in Section 11.4.8 applies to the proposed structure at this site. However, the structural engineer should verify that this exception is applicable to the proposed structure.** Based on the exception, the spectral response accelerations presented below were calculated using the site coefficients (Fa and Fv) from Tables 1613.2.3(1) and 1613.2.3(2) presented in Section 16.4.4 of the 2019 CBC.

2019 CBC SEISMIC DESIGN PARAMETERS

Parameter		Value
Mapped MCE_R Acceleration at 0.2 sec Period	S_S	1.466
Mapped MCE_R Acceleration at 1.0 sec Period	S_1	0.569
Site Class	---	D
Site Modified Spectral Acceleration at 0.2 sec Period	S_{MS}	1.466
Site Modified Spectral Acceleration at 1.0 sec Period	S_{M1}	0.985
Design Spectral Acceleration at 0.2 sec Period	S_{DS}	0.978
Design Spectral Acceleration at 1.0 sec Period	S_{D1}	0.657

It should be noted that the site coefficient F_v and the parameters S_{M1} and S_{D1} were not included in the SEAOC/OSHPD Seismic Design Maps Tool output for the 2019 CBC. We calculated these

parameters-based on Table 1613.2.3(2) in Section 16.4.4 of the 2019 CBC using the value of S_1 obtained from the Seismic Design Maps Tool, assuming that a site-specific ground motion hazards analysis is not required for the proposed building at this site.

Liquefaction

Liquefaction is the loss of the strength in generally cohesionless, saturated soils when the pore-water pressure induced in the soil by a seismic event becomes equal to or exceeds the overburden pressure. The primary factors which influence the potential for liquefaction include groundwater table elevation, soil type and grain size characteristics, relative density of the soil, initial confining pressure, and intensity and duration of ground shaking. The depth within which the occurrence of liquefaction may impact surface improvements is generally identified as the upper 50 feet below the existing ground surface. Liquefaction potential is greater in saturated, loose, poorly graded fine sands with a mean (d_{50}) grain size in the range of 0.075 to 0.2 mm (Seed and Idriss, 1971). Clayey (cohesive) soils or soils which possess clay particles (d<0.005mm) in excess of 20 percent (Seed and Idriss, 1982) are generally not considered to be susceptible to liquefaction, nor are those soils which are above the historic static groundwater table.

The California Geological Survey (CGS) has not yet conducted detailed seismic hazards mapping in the area of the subject site. The general liquefaction susceptibility of the site was determined by research of the San Bernardino County Land Use Plans, General Plan, Geologic Hazard Overlays. Maps FH05 for the Baldy Mesa Quadrangle and FH06 for the Hesperia Quadrangle indicate that the subject site is not located within an area of liquefaction susceptibility. Based on the mapping performed by the county of San Bernardino, the subsurface profile identified in this report, which includes moderate to high strength alluvium, and the lack of a historic high groundwater table within the upper 50± feet, liquefaction is not considered to be a design concern for this project.

6.2 Geotechnical Design Considerations

General

The near-surface soils encountered at the boring locations generally consist of native alluvium, with the exception of Boring No. B-3, extending to at least the maximum depth explored of 25± feet below the existing site grades. The artificial fill soils at Boring No. B-3 extend to a depth of 4½± feet from the ground surface. Based on a lack of documentation regarding the placement and compaction of the existing fill materials, these soils are considered to consist of undocumented fill. Therefore, the fill soils in their present condition are not suitable for the support of the foundation loads of the proposed building. The fill soils are underlain by native alluvium which possesses varying strengths and densities. The results of laboratory testing indicate that the near-surface soils within the upper 5 to 6± feet possess a potential for moderate to severe collapse when exposed to moisture infiltration as well as moderate consolidation when exposed to load increases in the range of those that will be exerted by the new foundations. The underlying native soils possess more favorable consolidation/collapse characteristics. Based on these conditions, remedial grading is recommended within the proposed building area, in order to remove and replace a portion of the near-surface alluvial soils as compacted structural fill.

Settlement

Laboratory testing indicates that some samples of soils taken from the near-surface native alluvial soils possess a minor collapse potential when exposed to moisture infiltration. The proposed remedial grading will remove the near-surface collapsible native soils from within the proposed building area. Therefore, following completion of the recommended grading, post-construction settlements are expected to be within tolerable limits.

Expansion

Laboratory testing performed on a representative sample of the near surface soils indicates that these materials are considered to be non-expansive (EI = 0). Therefore, no design considerations related to expansive soils are considered warranted for this site. It is recommended that additional expansion index testing be conducted at the completion of rough grading to verify the expansion potential of the as-graded building pad.

Soluble Sulfates

The results of the soluble sulfate testing indicate that the selected sample of the on-site soils corresponds to Class S0 with respect to the American Concrete Institute (ACI) Publication 318-14 Building Code Requirements for Structural Concrete and Commentary, Section 4.3. Therefore, specialized concrete mix designs are not considered to be necessary, with regard to sulfate protection purposes. It is, however, recommended that additional soluble sulfate testing be conducted at the completion of rough grading to verify the soluble sulfate concentrations of the soils which are present at pad grade within the building area.

Corrosion Potential

The results of laboratory testing indicate that the tested sample of the on-site soils possesses a saturated resistivity value of 16,750 ohm-cm, and a pH value of 7.3. These test results have been evaluated in accordance with guidelines published by the Ductile Iron Pipe Research Association (DIPRA). The DIPRA guidelines consist of a point system by which characteristics of the soils are used to quantify the corrosivity characteristics of the site. Resistivity and pH are two of the five factors that enter into the evaluation procedure. Redox potential, relative soil moisture content and sulfides are also included. Although sulfide testing was not part of the scope of services for this project, we have evaluated the corrosivity characteristics of the on-site soils using resistivity, pH and moisture content. Based on these factors, and utilizing the DIPRA procedure, the on-site soils are not considered to be corrosive to ductile iron pipe. Therefore, polyethylene protection is not expected to be required for cast iron or ductile iron pipes.

Based on American Concrete Institute (ACI) Publication 318 Building Code Requirements for Structural Concrete and Commentary, reinforced concrete that is exposed to external sources of chlorides requires corrosion protection for the steel reinforcement contained within the concrete. ACI 318 defines concrete exposed to moisture and an external source of chlorides as "severe" or exposure category C2. ACI 318 does not clearly define a specific chloride concentration at which contact with the adjacent soil will constitute a "C2" or severe exposure. However, the Caltrans Memo to Designers 10-5, Protection of Reinforcement Against Corrosion Due to Chlorides, Acids and Sulfates, dated June 2010, indicates that soils possessing chloride concentrations greater than 500 mg/kg are considered to be corrosive to reinforced concrete. The results of the

laboratory testing indicate chloride concentrations of 77.7 mg/kg. Although the soils contain some chlorides, we do not expect that the chloride concentrations of the tested soils are high enough to constitute a "severe" or C2 chloride exposure. Therefore, a chloride exposure category of C1 is considered appropriate for this site.

Nitrates present in soil can be corrosive to copper tubing at concentrations greater than 50 mg/kg. The tested sample possesses a nitrate concentration of 8.7 mg/kg. Based on this test result, the on-site soils are not considered to be corrosive to copper pipe.

Since SCG does not practice in the area of corrosion engineering, we recommend that the client contact a corrosion engineer to provide a more thorough evaluation of these test results.

Shrinkage/Subsidence

Removal and recompaction of the existing fill soils and near-surface alluvium is estimated to result in an average shrinkage of 4 to 14 percent. However, potential shrinkage for individual samples ranged locally between 3 and 22 percent. The potential shrinkage estimate is based on dry density testing performed on small-diameter samples taken at the boring locations. If a more accurate and precise shrinkage estimate is desired, SCG can perform a shrinkage study involving several excavated test-pits where in-place densities are determined using in-situ testing methods instead of laboratory density testing on small-diameter samples. Please contact SCG for details and a cost estimate regarding a shrinkage study, if desired.

Minor ground subsidence is expected to occur in the soils below the zone of removal, due to settlement and machinery working. The subsidence is estimated to be 0.1 feet.

These estimates are based on previous experience and the subsurface conditions encountered at the boring locations. The actual amount of subsidence is expected to be variable and will be dependent on the type of machinery used, repetitions of use, and dynamic effects, all of which are difficult to assess precisely.

Slope Stability

No evidence of landslides or deep-seated slope instability was noted during our investigation. However, the loose granular soils on sloping ground surfaces could be prone to surficial failures.

Newly constructed fill slopes, comprised of properly compacted engineered fill, at inclinations of 2h:1v (horizontal to vertical) will possess adequate gross stability.

Cut slopes excavated within the existing granular alluvial soils may be subject to surficial instability due to the lack of cohesion within these materials. Therefore, stability fills may be required within these areas. This condition may affect proposed cut slopes at the site. The need for stability fills should be determined by SCG as part of the future detailed grading plan review.

Grading and Foundation Plan Review

Grading and foundation plans were unavailable at the time of this report. It is therefore recommended that we be provided with copies of the preliminary grading and foundation plans,

when they become available, for review with regard to the conclusions, recommendations, and assumptions contained within this report.

6.3 Site Grading Recommendations

The grading recommendations presented below are based on the subsurface conditions encountered at the boring locations and our understanding of the proposed development. We recommend that all grading activities be completed in accordance with the Grading Guide Specifications included as Appendix D of this report, unless superseded by site-specific recommendations presented below.

Site Stripping

Vegetation including weeds, grasses, shrubs, and trees on the site should be stripped and disposed of off-site. Stripping should include any organic soils and any root masses from trees. The actual extent of site stripping should be determined in the field by the geotechnical engineer, based on the organic content and stability of the materials encountered.

Treatment of Existing Soils: Building Pad

Remedial grading should be performed within the proposed building area in order to remove the existing undocumented fill soils and a portion of the near-surface native alluvial soils. Based on conditions encountered at the boring locations, the existing soils within the proposed building area are recommended to be overexcavated to a depth of at least 5 feet below existing grade and to a depth of at least 4 feet below proposed building pad subgrade elevation, whichever is greater.

Additional overexcavation should be performed within the influence zones of the new foundations, to provide for a new layer of compacted structural fill extending to a depth of 3 feet below proposed foundation bearing grade.

The overexcavation area should extend at least 5 feet beyond the building foundations and perimeters. If the proposed structure incorporates any exterior columns (such as for a canopy or overhang) the area of overexcavation should also encompass these areas.

Following completion of the overexcavation, the subgrade soils within the building area should be evaluated by the geotechnical engineer to verify their suitability to serve as the structural fill subgrade, as well as to support the foundation loads of the new structure. This evaluation should include proofrolling and probing to identify any soft, loose, or otherwise unstable soils that must be removed. **Some localized areas of deeper excavation may be required if additional fill materials or loose, porous, or low-density native soils are encountered at the base of the overexcavation**. It should be noted that very loose soils extending to a depth of 8± feet were encountered at Boring No. B-1.

After a suitable overexcavation subgrade has been achieved, the exposed soils should be scarified to a depth of at least 12 inches, moisture conditioned to achieve a moisture content of 0 to 4 percent above optimum moisture content. The moisture conditioning of the overexcavation subgrade soils should be verified by the geotechnical engineer. The subgrade soils should then

be recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. The previously excavated soils may then be replaced as compacted structural fill.

Treatment of Existing Soils: Retaining Walls and Site Walls

The existing soils within the areas of any proposed retaining walls and non-retaining site walls should be overexcavated to a depth of 3 feet below foundation bearing grade and replaced as compacted structural fill, as discussed above for the proposed building pad. Any undocumented fill soils within any of these foundation areas should be removed in their entirety. The overexcavation areas should extend at least 5 feet beyond the foundation perimeters, and to an extent equal to the depth of fill below the new foundations. Any erection pads used to construct the walls are considered to be part of the foundation system with respect to these remedial grading recommendations. The overexcavation subgrade soils should be evaluated by the geotechnical engineer prior to scarifying, moisture conditioning, and recompacting the upper 12 inches of exposed subgrade soils. The previously excavated soils may then be replaced as compacted structural fill.

If the full lateral recommended remedial grading cannot be completed for the proposed retaining walls and site walls located along property lines, the foundations for those walls should be designed using a reduced allowable bearing pressure. Furthermore, the contractor should take necessary precautions to protect the adjacent improvements during rough grading. Specialized grading techniques, such as A-B-C slot cuts or temporary shoring, will likely be required during remedial grading. The geotechnical engineer of record should be contacted if additional recommendations, such as shoring design recommendations, are required during grading.

Treatment of Existing Soils: Parking and Drive Areas

Based on economic considerations, overexcavation of the existing near-surface existing soils in the new flatwork, parking and drive areas is not considered warranted, with the exception of areas where lower strength or unstable soils are identified by the geotechnical engineer during grading. Subgrade preparation in the new flatwork, parking and drive areas should initially consist of removal of all soils disturbed during stripping and demolition operations.

The geotechnical engineer should then evaluate the subgrade to identify any areas of additional unsuitable soils. Any such materials should be removed to a level of firm and unyielding soil. The exposed subgrade soils should then be scarified to a depth of 12± inches, moisture conditioned to 0 to 4 percent above the optimum moisture content, and recompacted to at least 90 percent of the ASTM D-1557 maximum dry density. Based on the presence of variable strength surficial soils throughout the site, it is expected that some isolated areas of additional overexcavation may be required to remove zones of lower strength, unsuitable soils.

The grading recommendations presented above for the proposed flatwork, parking and drive areas assume that the owner and/or developer can tolerate minor amounts of settlement within these areas. The grading recommendations presented above do not mitigate the extent of undocumented fill or compressible/collapsible native alluvium in the flatwork, parking and drive areas. As such, some settlement and associated pavement distress could occur. Typically, repair of such distressed areas involves significantly lower costs than completely mitigating these soils at the time of construction. If the owner cannot tolerate the risk of such settlements, the flatwork,

parking and drive areas should be overexcavated to a depth of 2 feet below proposed pavement subgrade elevation, with the resulting soils replaced as compacted structural fill.

Fill Placement

- Fill soils should be placed in thin (6± inches), near-horizontal lifts, moisture conditioned to within 0 to 4 percent above the optimum moisture content, and compacted.
- On-site soils may be used for fill provided they are cleaned of any debris to the satisfaction of the geotechnical engineer.
- All grading and fill placement activities should be completed in accordance with the requirements of the 2019 CBC and the grading code of the city of Hesperia.
- All fill soils should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density.
- Compaction tests should be performed periodically by the geotechnical engineer as random verification of compaction and moisture content. These tests are intended to aid the contractor. Since the tests are taken at discrete locations and depths, they may not be indicative of the entire fill and therefore should not relieve the contractor of his responsibility to meet the job specifications.

Imported Structural Fill

All imported structural fill should consist of very low expansive (EI < 20), well graded soils possessing at least 10 percent fines (that portion of the sample passing the No. 200 sieve). Additional specifications for structural fill are presented in the Grading Guide Specifications, included as Appendix D.

Utility Trench Backfill

In general, all utility trench backfill should be compacted to at least 90 percent of the ASTM D-1557 maximum dry density. As an alternative, a clean sand (minimum Sand Equivalent of 30) may be placed within trenches and compacted in place (jetting or flooding is not recommended). It is recommended that materials in excess of 3 inches in size not be used for utility trench backfill. Compacted trench backfill should conform to the requirements of the local grading code, and more restrictive requirements may be indicated by the city of Hesperia. All utility trench backfills should be witnessed by the geotechnical engineer. The trench backfill soils should be compaction tested where possible; probed and visually evaluated elsewhere.

Utility trenches which parallel a footing, and extending below a 1h:1v (horizontal to vertical) plane projected from the outside edge of the footing should be backfilled with structural fill soils, compacted to at least 90 percent of the ASTM D-1557 standard. Pea gravel backfill should not be used for these trenches.

Any soils used to backfill voids around subsurface utility structures, such as manholes or vaults, should be placed as compacted structural fill. If it is not practical to place compacted fill in these areas, then such void spaces may be backfilled with lean concrete slurry. Uncompacted pea gravel or sand is not recommended for backfilling these voids since these materials have a potential to settle and thereby cause distress of pavements placed around these subterranean structures.

6.4 Construction Considerations

Moisture Sensitive Subgrade Soils

Some of the near-surface soils possess appreciable silt and clay content and will become unstable if exposed to significant moisture infiltration or disturbance by construction traffic. If grading occurs during a period of relatively wet weather, an increase in subgrade instability in localized areas should also be expected. The site should, therefore, be graded to prevent ponding of surface water and to prevent water from running into excavations.

Excavation Considerations

The near-surface soils are predominately granular in composition. These materials will likely be subject to caving within shallow excavations. Where caving occurs within shallow excavations, flattened excavation slopes may be sufficient to provide excavation stability. On a preliminary basis, the inclination of temporary slopes should not exceed 2h:1v. Maintaining adequate moisture content within the near-surface soils will improve excavation stability. All excavation activities on this site should be conducted in accordance with Cal-OSHA regulations.

Groundwater

The historic groundwater table at this site is considered to exist at a depth greater than 25± feet. Therefore, groundwater is not expected to impact the grading or foundation construction activities.

6.5 Foundation Design and Construction

Based on the preceding grading recommendations, it is assumed that the new building pad will be underlain by structural fill soils used to replace the upper portion of the existing variable strength, potentially collapsible alluvial soils. These new structural fill soils are expected to extend to a depth of at least 3 feet below proposed foundation bearing grade, underlain by 1± foot of additional soil that has been densified and moisture conditioned in place. Based on this subsurface profile, the proposed structure may be supported on conventional shallow foundations.

Foundation Design Parameters

New square and rectangular footings may be designed as follows:

- Maximum, net allowable soil bearing pressure: 2,500 lbs/ft^2.
- Minimum wall/column footing width: 14 inches/24 inches.
- Minimum longitudinal steel reinforcement within strip footings: Two (2) No. 5 rebars (1 top and 1 bottom).

- Minimum foundation embedment: 12 inches into suitable structural fill soils, and at least 18 inches below adjacent exterior grade. Interior column footings may be placed immediately beneath the floor slab.

- It is recommended that the perimeter building foundations be continuous across all exterior doorways. Any flatwork adjacent to the exterior doors should be doweled into the perimeter foundations in a manner determined by the structural engineer.

The allowable bearing pressure presented above may be increased by one-third when considering short duration wind or seismic loads. The minimum steel reinforcement recommended above is based on geotechnical considerations; additional reinforcement may be necessary for structural considerations. The actual design of the foundations should be determined by the structural engineer.

Foundation Construction

The foundation subgrade soils should be evaluated at the time of overexcavation, as discussed in Section 6.3 of this report. It is further recommended that the foundation subgrade soils be evaluated by the geotechnical engineer immediately prior to steel or concrete placement. Soils suitable for direct foundation support should consist of newly placed structural fill, compacted to at least 90 percent of the ASTM D-1557 maximum dry density. Any unsuitable materials should be removed to a depth of suitable bearing compacted structural fill or suitable native alluvium (where reduced bearing pressures are utilized), with the resulting excavations backfilled with compacted fill soils. As an alternative, lean concrete slurry (500 to 1,500 psi) may be used to backfill such isolated overexcavations.

The foundation subgrade soils should also be properly moisture conditioned to 0 to 4 percent above the Modified Proctor optimum, to a depth of at least 12 inches below bearing grade. Since it is typically not feasible to increase the moisture content of the floor slab and foundation subgrade soils once rough grading has been completed, care should be taken to maintain the moisture content of the building pad subgrade soils throughout the construction process.

Estimated Foundation Settlements

Post-construction total and differential settlements of shallow foundations designed and constructed in accordance with the previously presented recommendations are estimated to be less than 1.0 and 0.5 inches, respectively. Differential movements are expected to occur over a 50-foot span, thereby resulting in an angular distortion of less than 0.002 inches per inch.

Lateral Load Resistance

Lateral load resistance will be developed by a combination of friction acting at the base of foundations and slab and the passive earth pressure developed by footings below grade. The following friction and passive pressure may be used to resist lateral forces:

- Passive Earth Pressure: 300 lbs/ft^3
- Friction Coefficient: 0.30

These are allowable values, and include a factor of safety. When combining friction and passive resistance, the passive pressure component should be reduced by one-third. These values assume that footings will be poured directly against compacted structural fill. The maximum allowable passive pressure is 3,000 lbs/ft^2.

6.6 Floor Slab Design and Construction

Subgrades which will support new floor slab should be prepared in accordance with the recommendations contained in the ***Site Grading Recommendations*** section of this report. Based on the anticipated grading which will occur at this site, the floor of the new structure may be constructed as a conventional slab-on-grade supported on newly placed structural fill soils. These fill soils are expected to extend to a depth of at least 4 feet below finished pad grade. Based on geotechnical considerations, the floor slab may be designed as follows:

- Minimum slab thickness: 6 inches.

- Modulus of Subgrade Reaction: k = 150 psi/in

- Minimum slab reinforcement: Reinforcement is not required for geotechnical conditions. The actual floor slab reinforcement should be determined by the structural engineer, based upon the imposed loading.

- Slab underlayment: If moisture sensitive floor coverings will be used the minimum slab underlayment should consist of a moisture vapor barrier constructed below the entire area where such moisture sensitive floor coverings are anticipated. The moisture vapor barrier should meet or exceed the Class A rating as defined by ASTM E 1745-97 and have a permeance rating less than 0.01 perms as described in ASTM E 96-95 and ASTM E 154-88. A polyolefin material such as a 15 mil. Stego® Wrap Vapor Barrier or equivalent will meet these specifications. The moisture vapor barrier should be properly constructed in accordance with all applicable manufacturer specifications. The need for sand and/or the amount of sand above the moisture vapor barrier should be specified by the structural engineer or concrete contractor. The selection of sand above the barrier is not a geotechnical engineering issue and hence outside our purview.

- Moisture condition the floor slab subgrade soils to 0 to 4 percent above the Modified Proctor optimum moisture content, to a depth of 12 inches. The moisture content of the floor slab subgrade soils should be verified by the geotechnical engineer within 24 hours prior to concrete placement.

- Proper concrete curing techniques should be utilized to reduce the potential for slab curling or the formation of excessive shrinkage cracks.

The actual design of the floor slab should be completed by the structural engineer to verify adequate thickness and reinforcement.

6.7 Retaining Wall Design and Construction

Small retaining walls are expected to be necessary in the area of the new truck loading docks and may also be required to facilitate the new site grades. The parameters recommended for use in the design of these walls are presented below.

Retaining Wall Design Parameters

Based on the soil conditions encountered at the boring locations, the following parameters may be used in the design of new retaining walls for this site. We have provided parameters assuming the use of on-site soils for retaining wall backfill. The near-surface soils generally consist of sands, silty sands and sandy silts. Based on the results of laboratory testing, these materials are expected to possess an internal angle of friction of at least 34 degrees when compacted to 90 percent of the ASTM D-1557 maximum dry density.

If desired, SCG could provide design parameters for an alternative select backfill material behind the retaining walls. The use of select backfill material could result in lower lateral earth pressures. In order to use the design parameters for the imported select fill, this material must be placed within the entire active failure wedge. This wedge is defined as extending from the heel of the retaining wall upwards at an angle of approximately 60° from horizontal. If select backfill material behind the retaining wall is desired, SCG should be contacted for supplementary recommendations.

RETAINING WALL DESIGN PARAMETERS

Design Parameter		Soil Type
		On-Site Silty Sands
Internal Friction Angle (ϕ)		34°
Unit Weight		135 lbs/ft^3
Equivalent Fluid Pressure:	Active Condition (level backfill)	38 lbs/ft^3
	Active Condition (2h:1v backfill)	57 lbs/ft^3
	At-Rest Condition (level backfill)	60 lbs/ft^3

The walls should be designed using a soil-footing coefficient of friction of 0.30 and an equivalent passive pressure of 300 lbs/ft^3. The structural engineer should incorporate appropriate factors of safety in the design of the retaining walls.

The active earth pressure may be used for the design of retaining walls that do not directly support structures or support soils that in turn support structures and which will be allowed to deflect. The at-rest earth pressure should be used for walls that will not be allowed to deflect such as those which will support foundation bearing soils, or which will support foundation loads directly.

Where the soils on the toe side of the retaining wall are not covered by a "hard" surface such as a structure or pavement, the upper 1 foot of soil should be neglected when calculating passive resistance due to the potential for the material to become disturbed or degraded during the life of the structure.

Retaining Wall Foundation Design

The retaining wall foundations should be supported within newly placed structural fill. Foundations to support new retaining walls should be designed in accordance with the general Foundation Design Parameters presented in a previous section of this report.

Seismic Lateral Earth Pressures

In accordance with the 2019 CBC, any retaining walls more than 6 feet in height must be designed for seismic lateral earth pressures. If walls 6 feet or more are required for this site, the geotechnical engineer should be contacted for supplementary seismic lateral earth pressure recommendations.

Backfill Material

On-site soils may be used to backfill the retaining walls. However, all backfill material placed within 3 feet of the back-wall face should have a particle size no greater than 3 inches. The retaining wall backfill materials should be well graded.

It is recommended that a properly installed prefabricated drainage composite such as the MiraDRAIN 6000XL (or approved equivalent), which is specifically designed for use behind retaining walls, be placed against the face on the back side of the retaining walls. This material should extend from the top of the retaining wall footing to within 1 foot of the ground surface on the back side of the retaining wall. A 12-inch-thick layer of a low permeability soil should be placed over the backfill to reduce surface water migration to the underlying soils.

All retaining wall backfill should be placed and compacted under engineering-controlled conditions in the necessary layer thicknesses to ensure an in-place density between 90 and 93 percent of the maximum dry density as determined by the Modified Proctor test (ASTM D1557-91). Care should be taken to avoid over-compaction of the soils behind the retaining walls, and the use of heavy compaction equipment should be avoided.

Subsurface Drainage

As previously indicated, the retaining wall design parameters are based upon drained backfill conditions. Consequently, some form of permanent drainage system will be necessary in conjunction with the appropriate backfill material. Subsurface drainage may consist of either:

- A weep hole drainage system typically consisting of a series of 2-inch diameter holes in the wall situated slightly above the ground surface elevation on the exposed side of the wall and at an approximate 10-foot on-center spacing. Alternatively, 4-inch diameter holes at an approximate 20-foot on-center spacing can be used for this type of drainage system. In addition, the weep holes should include a 2 cubic foot pocket of open graded gravel, surrounded by an approved geotextile fabric, at each weep hole location.

- A 4-inch diameter perforated pipe surrounded by 2 cubic feet of gravel per linear foot of drain placed behind the wall, above the retaining wall footing. The gravel layer should be wrapped in a suitable geotextile fabric to reduce the potential for migration of fines. The footing drain should be extended to daylight or tied into a storm drainage system. The actual design of this type of system should be determined by the civil engineer to verify that the drainage system possesses the adequate capacity and slope for its intended use.

Weep holes or a footing drain will not be required for building stem walls.

6.8 Pavement Design Parameters

Site preparation in the pavement area should be completed as previously recommended in the ***Site Grading Recommendations*** section of this report. The subsequent pavement recommendations assume proper drainage and construction monitoring, and are based on either PCA or CALTRANS design parameters for a twenty (20) year design period. However, these designs also assume a routine pavement maintenance program to obtain the anticipated 20-year pavement service life.

Pavement Subgrades

It is anticipated that the new pavements will be primarily supported on a layer of compacted structural fill, consisting of scarified, thoroughly moisture conditioned and recompacted existing soils. The on-site soils generally consist of sands, silty sands and sandy silts. Based on their classification, these materials are expected to possess good to excellent pavement support characteristics, with R-values in the range of 40 to 50. Since R-value testing was not included in the scope of services for this project, the subsequent pavement design is based upon an assumed R-value of 40. Any fill material imported to the site should have support characteristics equal to or greater than that of the on-site soils and be placed and compacted under engineering-controlled conditions. It is recommended that R-value testing be performed after completion of rough grading to verify that the pavement design recommendations presented herein are valid.

Asphaltic Concrete

Presented below are the recommended thicknesses for new flexible pavement structures consisting of asphaltic concrete over a granular base. The pavement designs are based on the traffic indices (TI's) indicated. The client and/or civil engineer should verify that these TI's are representative of the anticipated traffic volumes. If the client and/or civil engineer determine that the expected traffic volume will exceed the applicable traffic index, we should be contacted for supplementary recommendations. The design traffic indices equate to the following approximate daily traffic volumes over a 20-year design life, assuming six operational traffic days per week.

Traffic Index	No. of Heavy Trucks per Day
4.0	0
5.0	1
6.0	3
7.0	11
8.0	35
9.0	93

For the purpose of the traffic volumes indicated above, a truck is defined as a 5-axle tractor trailer unit with one 8-kip axle and two 32-kip tandem axles. All of the traffic indices allow for 1,000 automobiles per day.

ASPHALT PAVEMENTS (R = 40)					
Materials	Thickness (inches)				
	Auto Parking and Auto Drive Lanes (TI = 4.0 to 5.0)	Truck Traffic			
		TI = 6.0	TI = 7.0	TI = 8.0	TI = 9.0
Asphalt Concrete	3	3½	4	5	5½
Aggregate Base	4	6	7	8	10
Compacted Subgrade	12	12	12	12	12

The aggregate base course should be compacted to at least 95 percent of the ASTM D-1557 maximum dry density. The asphaltic concrete should be compacted to at least 95 percent of the Marshall maximum density, as determined by ASTM D-2726. The aggregate base course may consist of crushed aggregate base (CAB) or crushed miscellaneous base (CMB), which is a recycled gravel, asphalt and concrete material. The gradation, R-Value, Sand Equivalent, and Percentage Wear of the CAB or CMB should comply with appropriate specifications contained in the current edition of the "Greenbook" Standard Specifications for Public Works Construction.

Portland Cement Concrete

The preparation of the subgrade soils within concrete pavement areas should be performed as previously described for proposed asphalt pavement areas. The minimum recommended thicknesses for the Portland Cement Concrete pavement sections are as follows:

PORTLAND CEMENT CONCRETE PAVEMENTS (R = 40)				
Materials	Thickness (inches)			
	Autos and Light Truck Traffic (TI = 6.0)	Truck Traffic		
		TI = 7.0	TI = 8.0	TI = 9.0
PCC	5	5½	6½	8
Compacted Subgrade (95% minimum compaction)	12	12	12	12

The concrete should have a 28-day compressive strength of at least 3,000 psi. Any reinforcement within the PCC pavements should be determined by the project structural engineer. The maximum joint spacing within all of the PCC pavements is recommended to be equal to or less than 30 times the pavement thickness.

7.0 GENERAL COMMENTS

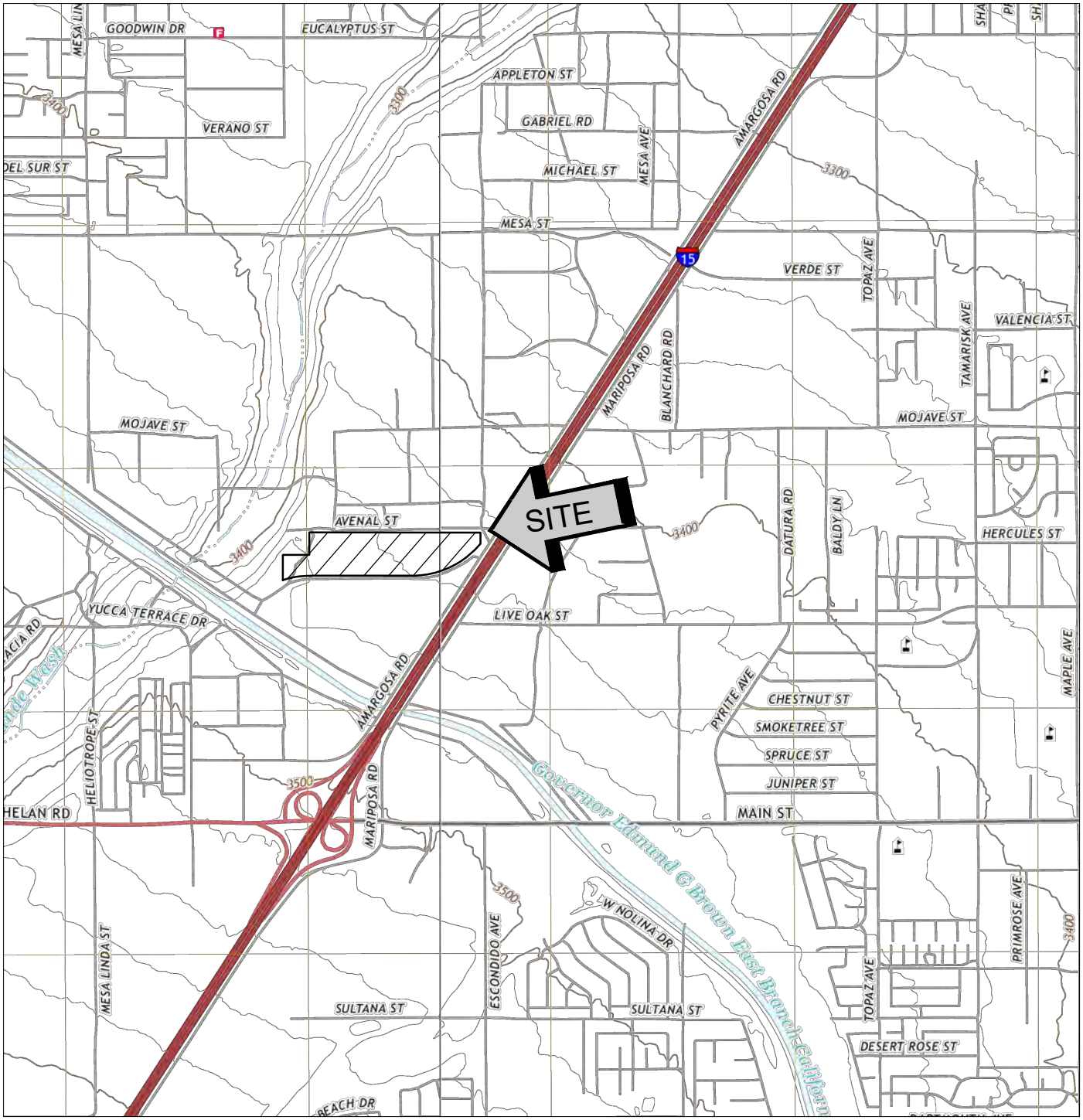
This report has been prepared as an instrument of service for use by the client, in order to aid in the evaluation of this property and to assist the architects and engineers in the design and preparation of the project plans and specifications. This report may be provided to the contractor(s) and other design consultants to disclose information relative to the project. However, this report is not intended to be utilized as a specification in and of itself, without appropriate interpretation by the project architect, civil engineer, and/or structural engineer. The reproduction and distribution of this report must be authorized by the client and Southern California Geotechnical, Inc. Furthermore, any reliance on this report by an unauthorized third party is at such party's sole risk, and we accept no responsibility for damage or loss which may occur. The client(s)' reliance upon this report is subject to the Engineering Services Agreement, incorporated into our proposal for this project.

The analysis of this site was based on a subsurface profile interpolated from limited discrete soil samples. While the materials encountered in the project area are considered to be representative of the total area, some variations should be expected between boring locations and sample depths. If the conditions encountered during construction vary significantly from those detailed herein, we should be contacted immediately to determine if the conditions alter the recommendations contained herein.

This report has been based on assumed or provided characteristics of the proposed development. It is recommended that the owner, client, architect, structural engineer, and civil engineer carefully review these assumptions to ensure that they are consistent with the characteristics of the proposed development. If discrepancies exist, they should be brought to our attention to verify that they do not affect the conclusions and recommendations contained herein. We also recommend that the project plans and specifications be submitted to our office for review to verify that our recommendations have been correctly interpreted.

The analysis, conclusions, and recommendations contained within this report have been promulgated in accordance with generally accepted professional geotechnical engineering practice. No other warranty is implied or expressed.

APPENDIX A



SOURCE: USGS TOPOGRAPHIC MAPS OF THE BALDY MESA QUADRANGLE AND THE HESPERIA QUADRANGLE, SAN BERNARDINO COUNTY, CALIFORNIA, 2021.

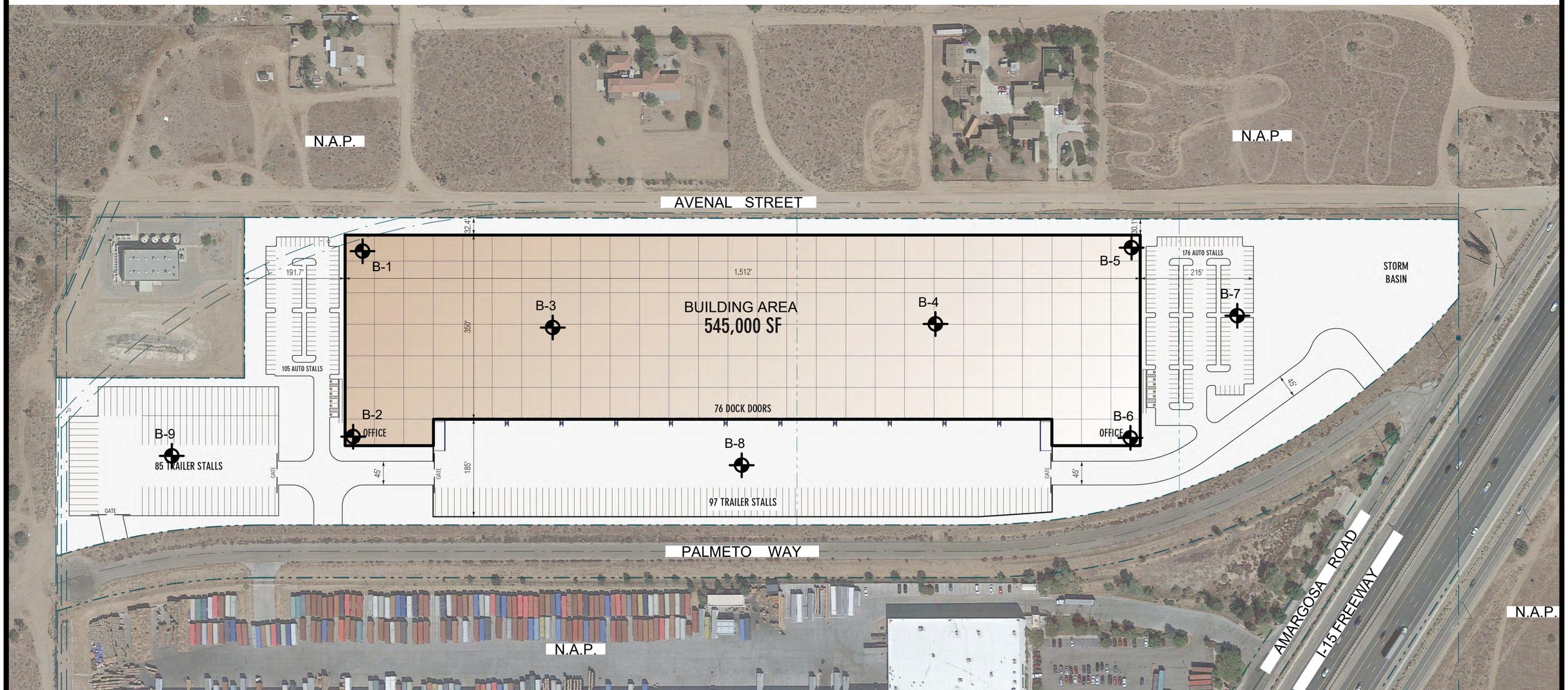
SITE LOCATION MAP

PROPOSED WAREHOUSE

HESPERIA, CALIFORNIA

SCALE: 1" = 2000'	
DRAWN: JJH CHKD: RGT	
SCG PROJECT 22G203-1	
PLATE 1	

SOUTHERN CALIFORNIA GEOTECHNICAL



GEOTECHNICAL LEGEND

APPROXIMATE BORING LOCATION

NORTH

NOTE: SITE PLAN PROVIDED BY THE CLIENT. AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH (2020).

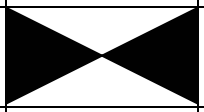
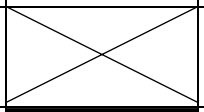
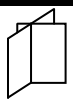
BORING LOCATION PLAN
PROPOSED WAREHOUSE
HESPERIA, CALIFORNIA

SCALE: 1" = 180'
DRAWN: OS
CHKD: RGT
SCG PROJECT 22G203-1
PLATE 2

SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX B

BORING LOG LEGEND

SAMPLE TYPE	GRAPHICAL SYMBOL	SAMPLE DESCRIPTION
AUGER		SAMPLE COLLECTED FROM AUGER CUTTINGS, NO FIELD MEASUREMENT OF SOIL STRENGTH. (DISTURBED)
CORE		ROCK CORE SAMPLE: TYPICALLY TAKEN WITH A DIAMOND-TIPPED CORE BARREL. TYPICALLY USED ONLY IN HIGHLY CONSOLIDATED BEDROCK.
GRAB		SOIL SAMPLE TAKEN WITH NO SPECIALIZED EQUIPMENT, SUCH AS FROM A STOCKPILE OR THE GROUND SURFACE. (DISTURBED)
CS		CALIFORNIA SAMPLER: 2-1/2 INCH I.D. SPLIT BARREL SAMPLER, LINED WITH 1-INCH HIGH BRASS RINGS. DRIVEN WITH SPT HAMMER. (RELATIVELY UNDISTURBED)
NSR		NO RECOVERY: THE SAMPLING ATTEMPT DID NOT RESULT IN RECOVERY OF ANY SIGNIFICANT SOIL OR ROCK MATERIAL.
SPT		STANDARD PENETRATION TEST: SAMPLER IS A 1.4 INCH INSIDE DIAMETER SPLIT BARREL, DRIVEN 18 INCHES WITH THE SPT HAMMER. (DISTURBED)
SH		SHELBY TUBE: TAKEN WITH A THIN WALL SAMPLE TUBE, PUSHED INTO THE SOIL AND THEN EXTRACTED. (UNDISTURBED)
VANE		VANE SHEAR TEST: SOIL STRENGTH OBTAINED USING A 4 BLADED SHEAR DEVICE. TYPICALLY USED IN SOFT CLAYS-NO SAMPLE RECOVERED.

COLUMN DESCRIPTIONS

DEPTH: Distance in feet below the ground surface.

SAMPLE: Sample Type as depicted above.

BLOW COUNT: Number of blows required to advance the sampler 12 inches using a 140 lb hammer with a 30-inch drop. 50/3" indicates penetration refusal (>50 blows) at 3 inches. WH indicates that the weight of the hammer was sufficient to push the sampler 6 inches or more.

POCKET PEN.: Approximate shear strength of a cohesive soil sample as measured by pocket penetrometer.

GRAPHIC LOG: Graphic Soil Symbol as depicted on the following page.

DRY DENSITY: Dry density of an undisturbed or relatively undisturbed sample in lbs/ft^3.

MOISTURE CONTENT: Moisture content of a soil sample, expressed as a percentage of the dry weight.

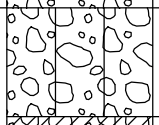
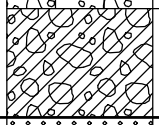
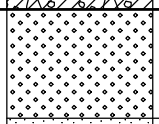
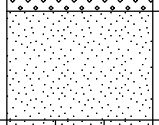
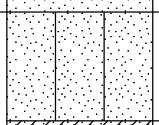
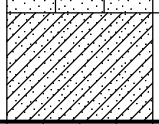
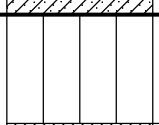
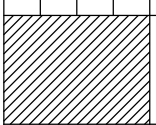
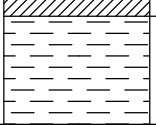
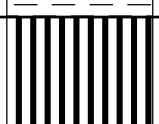
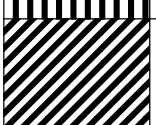
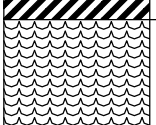
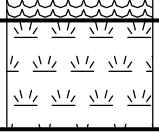
LIQUID LIMIT: The moisture content above which a soil behaves as a liquid.

PLASTIC LIMIT: The moisture content above which a soil behaves as a plastic.

PASSING #200 SIEVE: The percentage of the sample finer than the #200 standard sieve.

UNCONFINED SHEAR: The shear strength of a cohesive soil sample, as measured in the unconfined state.

SOIL CLASSIFICATION CHART

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS MORE THAN 50% OF MATERIAL IS LARGER THAN NO. 200 SIEVE SIZE	GRAVEL AND GRAVELLY SOILS MORE THAN 50% OF COARSE FRACTION RETAINED ON NO. 4 SIEVE	CLEAN GRAVELS (LITTLE OR NO FINES)		GW	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
				GP	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		GM	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
				GC	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS MORE THAN 50% OF COARSE FRACTION PASSING ON NO. 4 SIEVE	CLEAN SANDS (LITTLE OR NO FINES)		SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
				SP	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		SM	SILTY SANDS, SAND - SILT MIXTURES
				SC	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS MORE THAN 50% OF MATERIAL IS SMALLER THAN NO. 200 SIEVE SIZE	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				CH	INORGANIC CLAYS OF HIGH PLASTICITY
				OH	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS				PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-1

JOB NO.: 22G203-1
PROJECT: Proposed Warehouse
LOCATION: Hesperia, California

DRILLING DATE: 6/15/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 17 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		12			ALLUVIUM: Brown Silty fine Sand, little medium to coarse Sand, trace fine Gravel, little fine root fibers, medium dense-dry		2					
		10			Brown Silty fine to medium Sand, little coarse Sand, little fine Gravel, medium dense-dry		2					
5		2			@ 6 feet, very loose		2					
		15			Brown fine to medium Sand, little coarse Sand, trace to little Silt, trace fine Gravel, medium dense-dry to damp		2					
10												
		17					2					
15												
		62			Brown Silty fine Sand to fine Sandy Silt, little Clay, little medium to coarse Sand, trace fine Gravel, very dense-damp		4					
20												
		52			Gray Brown Clayey fine Sand, trace to little medium to coarse Sand, trace fine Gravel, very dense-damp		6					
25					Boring Terminated at 25'							

TBL 22G203-1.GPJ SOCALGEO.GDT 7/18/22

TEST BORING LOG

PLATE B-1

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-2

JOB NO.: 22G203-1
PROJECT: Proposed Warehouse
LOCATION: Hesperia, California

DRILLING DATE: 6/15/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 13 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		37			ALLUVIUM: Light Brown Silty fine Sand, trace medium to coarse Sand, trace fine root fibers, medium dense-dry	120	1					
		50/5"			Light Brown Silty fine Sand to fine Sandy Silt, little medium Sand, very dense-dry	112	1					
5		45			Brown fine to coarse Sand, trace Silt, trace fine Gravel, medium dense to dense-damp	111	2					
		29					2					@ 7 feet, Disturbed Sample
		23			Brown Silty fine to medium Sand, trace coarse Sand, medium dense-dry	100	1					
10												
		27					2					
15												
		90	4.5		Brown Silty Clay, trace fine to medium Sand, little Calcareous nodules, hard-damp		6					
20					Boring Terminated at 20'							

TBL 22G203-1.GPJ SOCALGEO.GDT 7/18/22

TEST BORING LOG

PLATE B-2

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-3

JOB NO.: 22G203-1
PROJECT: Proposed Warehouse
LOCATION: Hesperia, California

DRILLING DATE: 6/15/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 8 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		17			FILL: Brown Silty fine Sand to fine Sandy Silt, little medium to coarse Sand, trace fine Gravel, trace fine root fibers, medium dense-dry	109	2					
		28				112	1					
5		22			ALLUVIUM: Light Brown Silty fine to medium Sand, trace to little coarse Sand, trace fine Gravel, medium dense-dry	111	2					
		75/11"			@ 7 feet, very dense	111	2					
		50			Light Brown Silty fine Sand to fine Sandy Silt, little medium Sand, dense-dry	109	2					
10												
		44			Light Brown Silty fine to coarse Sand, trace fine Gravel, dense-dry		1					
15					Boring Terminated at 15'							

TBL 22G203-1.GPJ SOCALGEO.GDT 7/18/22

TEST BORING LOG **PLATE B-3**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-4

JOB NO.: 22G203-1
PROJECT: Proposed Warehouse
LOCATION: Hesperia, California

DRILLING DATE: 6/15/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 14 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		9			ALLUVIUM: Light Brown Silty fine to medium Sand, trace coarse Sand, trace fine Gravel, trace fine root fibers, loose-dry		1					
		29			@ 3½ feet, little coarse Sand, trace to little fine Gravel, medium dense		2					
5		44			Brown Clayey fine to medium Sand, little coarse Sand, trace Silt, trace fine Gravel, dense-damp		3					
		36			Brown fine to coarse Sand, little Clay, trace Silt, dense-dry		2					
10												
		35			Brown fine to coarse Sand, little Silt, trace Clay, dense-dry to damp		2					
15												
		30					2					
20					Boring Terminated at 20'							

TBL 22G203-1.GPJ SOCALGEO.GDT 7/18/22

TEST BORING LOG

PLATE B-4

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-5

JOB NO.: 22G203-1
PROJECT: Proposed Warehouse
LOCATION: Hesperia, California

DRILLING DATE: 6/15/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 19 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		29			ALLUVIUM: Light Brown Silty fine Sand to fine Sandy Silt, trace medium to coarse Sand, trace fine Gravel, trace fine root fibers, medium dense-dry	117	1					EI = 0 @ 0-5 feet
		64			Brown Silty fine to medium Sand, trace Clay, trace coarse Sand, trace fine Gravel, trace Calcareous nodules, dense-damp	111	3					
5		53			@ 5 feet, little Clay	115	4					
		26			Brown fine to medium Sand, little coarse Sand, trace Clay, little Silt, trace to little fine Gravel, medium dense-dry to damp	112	3					
		54			@ 9 feet, dense	115	2					
10												
					Light Gray Brown Silty fine to coarse Sand, trace fine to coarse Gravel, dense-dry							
		39					1					
15												
					Brown fine to medium Sand, little coarse Sand, little Silt, trace fine Gravel, dense-damp							
		37					3					
20					Boring Terminated at 20'							

TBL 22G203-1.GPJ SOCALGEO.GDT 7/18/22

TEST BORING LOG

PLATE B-5

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-6

JOB NO.: 22G203-1
PROJECT: Proposed Warehouse
LOCATION: Hesperia, California

DRILLING DATE: 6/15/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 14.5 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		64			ALLUVIUM: Brown Silty fine to medium Sand, trace coarse Sand, trace fine Gravel, trace fine root fibers, very dense-dry		2					
		31			Light Brown Silty fine to coarse Sand, trace Clay nodules, little fine Gravel, dense-dry		2					
5		25			Gray Brown fine to coarse Sand, little Silt, little fine Gravel, medium dense-dry to damp		2					
		22			Brown Silty fine to medium Sand, little coarse Sand, trace Clay, medium dense-dry		2					
10												
					Light Brown Silty fine Sand, little medium to coarse Sand, dense-dry							
		30					2					
15												
					Light Brown Silty fine to medium Sand to fine to medium Sandy Silt, trace coarse Sand, trace fine Gravel, dense-dry to damp							
		33					3					
20												
		34					2					
25					Boring Terminated at 25'							

TBL 22G203-1.GPJ SOCALGEO.GDT 7/18/22

TEST BORING LOG

PLATE B-6

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-7

JOB NO.: 22G203-1
PROJECT: Proposed Warehouse
LOCATION: Hesperia, California

DRILLING DATE: 6/15/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 5.5 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		20			ALLUVIUM: Brown fine to medium Sandy Silt, trace coarse Sand, medium dense-dry		2					
		33			Gray Brown Silty fine to coarse Sand, trace Clay, little fine Gravel, medium dense to dense-damp		3					
5		27					3					
		33			Gray Brown fine to coarse Sand, trace Silt, little to some fine Gravel, dense-dry		1					
10					Boring Terminated at 10'							

TBL 22G203-1.GPJ SOCALGEO.GDT 7/18/22

TEST BORING LOG **PLATE B-7**

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-8

JOB NO.: 22G203-1
PROJECT: Proposed Warehouse
LOCATION: Hesperia, California

DRILLING DATE: 6/15/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 4.5 feet
READING TAKEN: At Completion

FIELD RESULTS					DESCRIPTION	LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		55			ALLUVIUM: Light Gray Brown Silty fine to medium Sand, trace coarse Sand, trace to little Clay, dense to very dense-damp		3					
		43					3					
5					Light Brown Silty fine to medium Sand, trace to little coarse Sand, trace fine Gravel, medium dense to dense-dry to damp							
		31					3					
		25					1					
10					Boring Terminated at 10'							

TBL 22G203-1.GPJ SOCALGEO.GDT 7/18/22

TEST BORING LOG

PLATE B-8

SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

BORING NO. B-9

JOB NO.: 22G203-1
PROJECT: Proposed Warehouse
LOCATION: Hesperia, California

DRILLING DATE: 6/15/22
DRILLING METHOD: Hollow Stem Auger
LOGGED BY: Joey Hernandez

WATER DEPTH: Dry
CAVE DEPTH: 4 feet
READING TAKEN: At Completion

FIELD RESULTS						LABORATORY RESULTS						
DEPTH (FEET)	SAMPLE	BLOW COUNT	POCKET PEN. (TSF)	GRAPHIC LOG	DESCRIPTION SURFACE ELEVATION: --- MSL	DRY DENSITY (PCF)	MOISTURE CONTENT (%)	LIQUID LIMIT	PLASTIC LIMIT	PASSING #200 SIEVE (%)	ORGANIC CONTENT (%)	COMMENTS
		10			ALLUVIUM: Light Brown fine Sandy Silt, trace medium Sand, trace fine root fibers, medium dense-dry		1					
		11			Light Brown Silty fine to medium Sand, trace coarse Sand, trace fine Gravel, medium dense-dry		1					
5		21			@ 6 feet, little coarse Sand		1					
		36			Light Brown fine Sandy Silt, little medium to coarse Sand, dense-damp		3					
10					Boring Terminated at 10'							

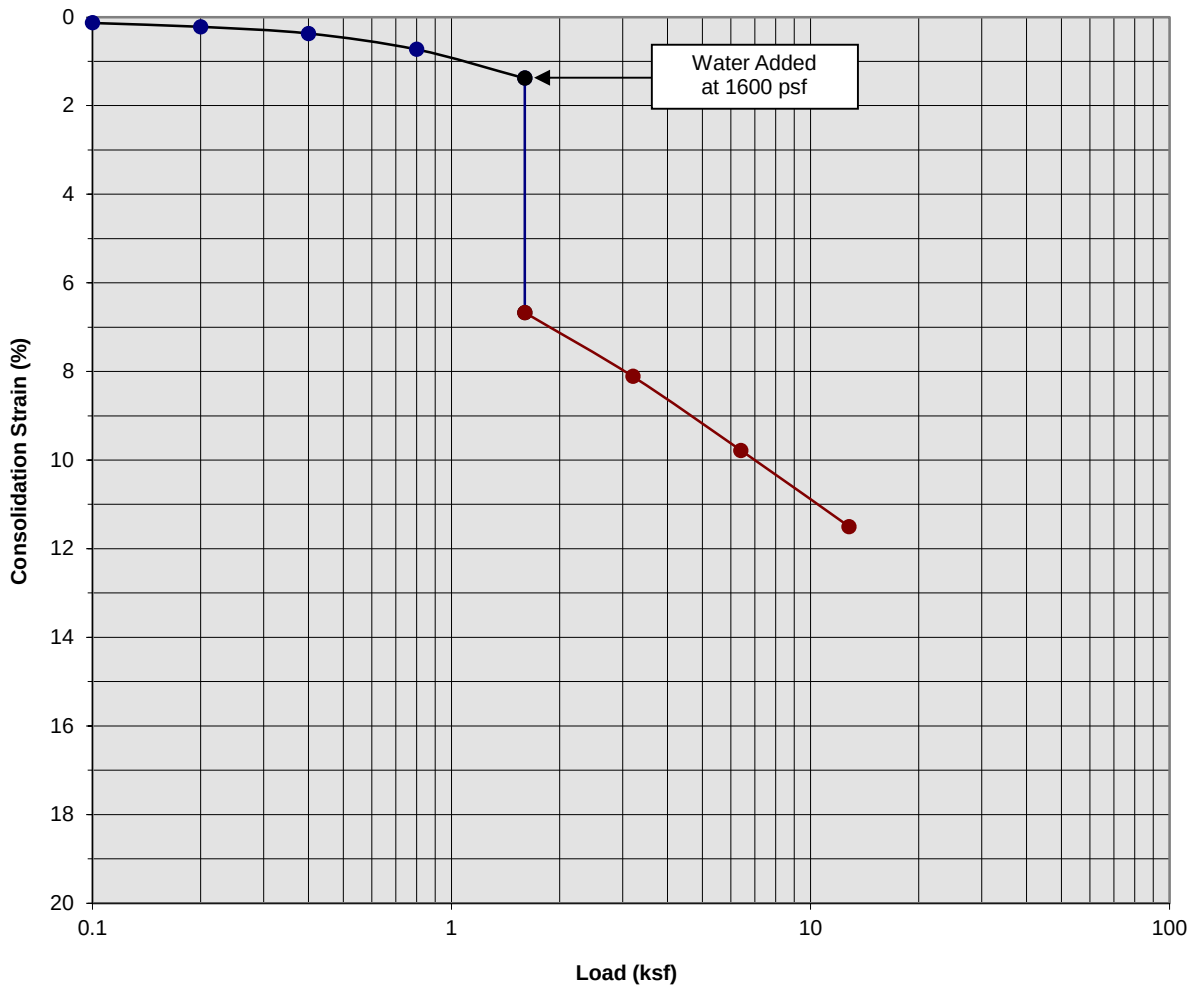
TBL 22G203-1.GPJ SOCALGEO.GDT 7/18/22

TEST BORING LOG

PLATE B-9

APPENDIX C

Consolidation/Collapse Test Results



Classification: Light Brown Silty fine Sand to fine Sandy Silt, little medium Sand

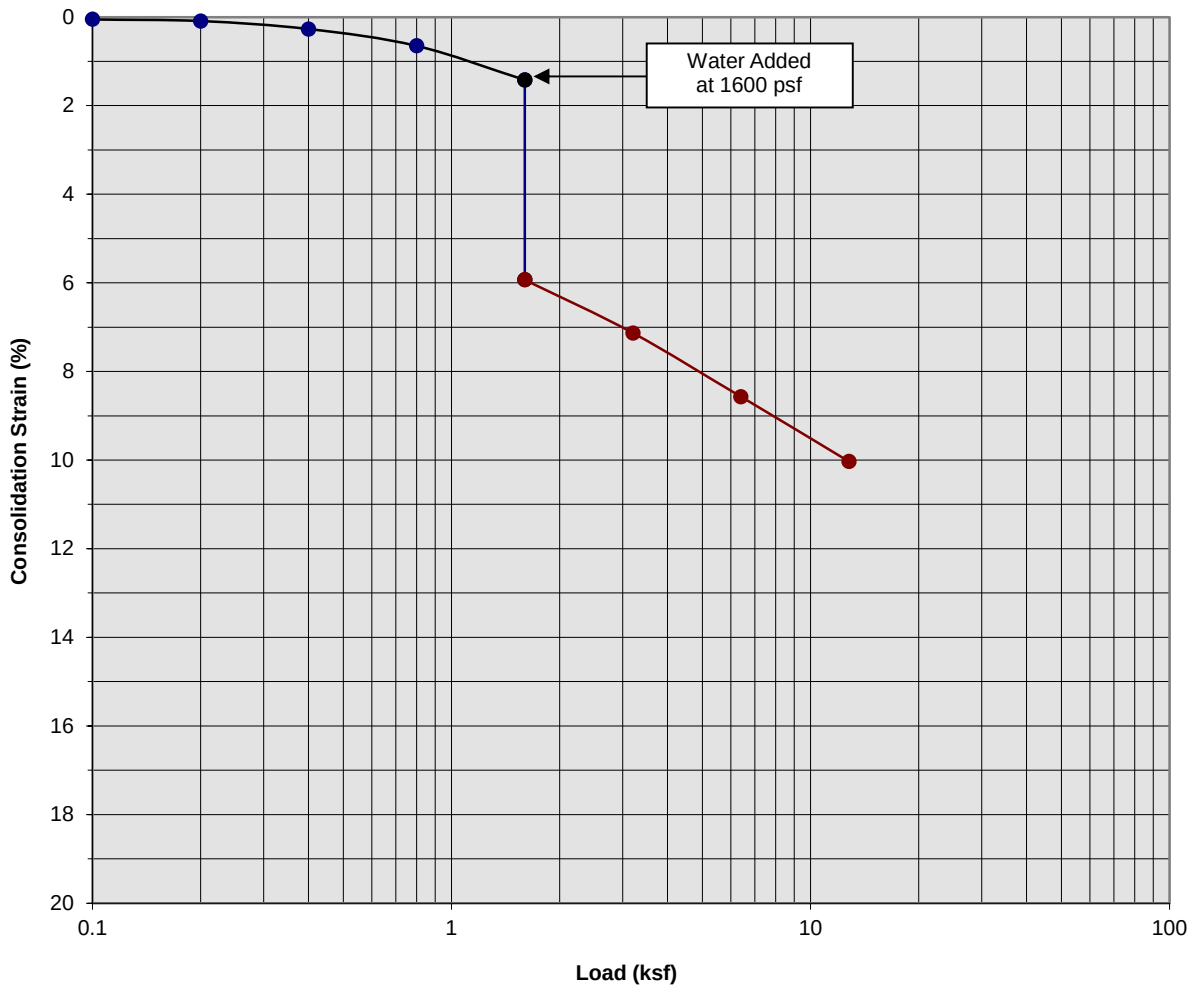
Boring Number:	B-2	Initial Moisture Content (%)	1
Sample Number:	---	Final Moisture Content (%)	11
Depth (ft)	3 to 4	Initial Dry Density (pcf)	110.9
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	124.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	5.29

Proposed Warehouse
Hesperia, California
Project No. 22G203-1

PLATE C- 1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Brown fine to coarse Sand, trace Silt, trace fine Gravel

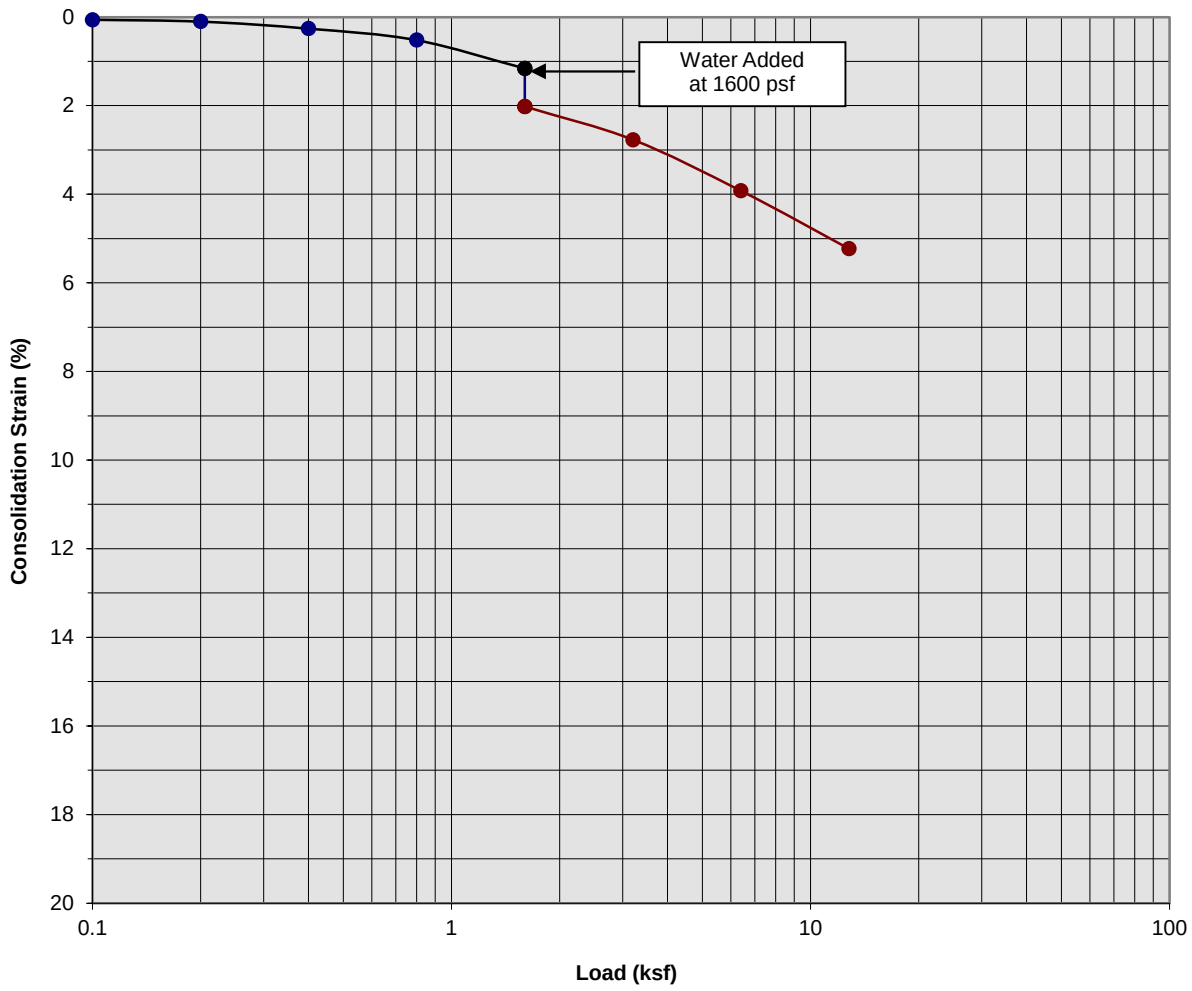
Boring Number:	B-2	Initial Moisture Content (%)	2
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	5 to 6	Initial Dry Density (pcf)	110.8
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	122.5
Specimen Thickness (in)	1.0	Percent Collapse (%)	4.51

Proposed Warehouse
Hesperia, California
Project No. 22G203-1

PLATE C- 2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Brown Silty fine to medium Sand, trace coarse Sand

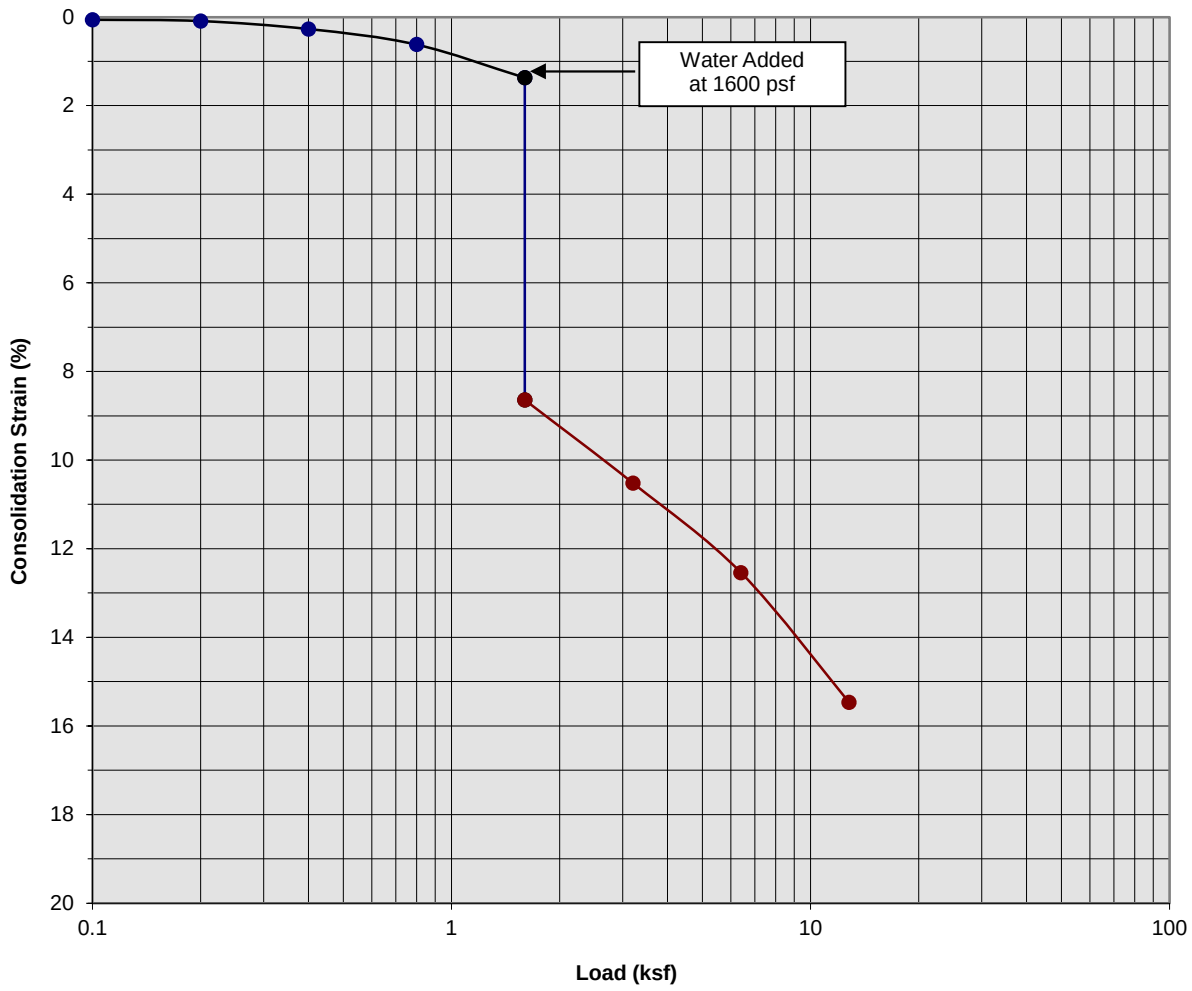
Boring Number:	B-2	Initial Moisture Content (%)	1
Sample Number:	---	Final Moisture Content (%)	17
Depth (ft)	9 to 10	Initial Dry Density (pcf)	99.8
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	104.7
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.86

Proposed Warehouse
Hesperia, California
Project No. 22G203-1

PLATE C- 3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Brown Silty fine to medium Sand, trace Clay, trace coarse Sand

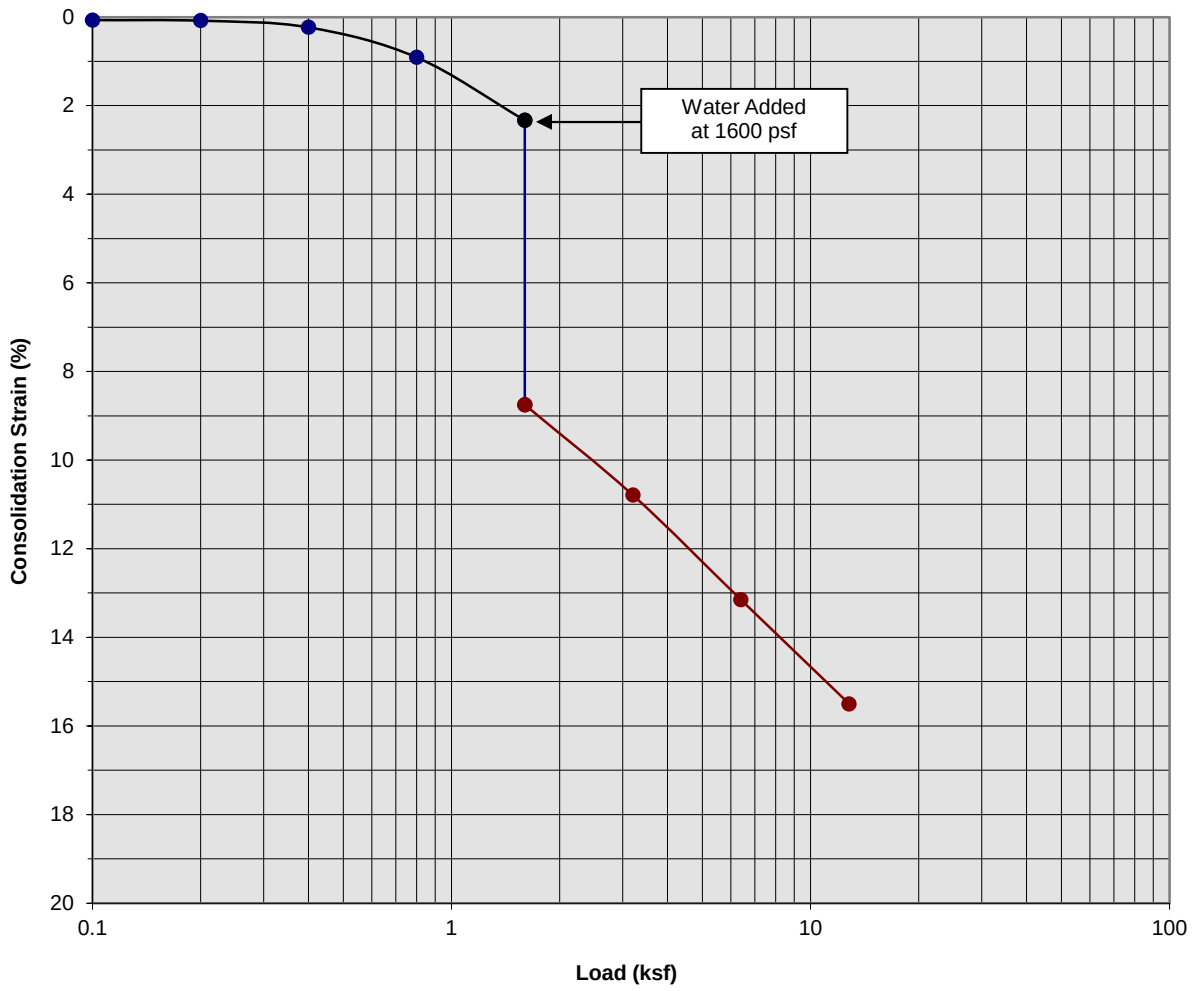
Boring Number:	B-5	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	12
Depth (ft)	3 to 4	Initial Dry Density (pcf)	111.2
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	130.8
Specimen Thickness (in)	1.0	Percent Collapse (%)	7.27

Proposed Warehouse
Hesperia, California
Project No. 22G203-1

PLATE C- 4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Brown Silty fine to medium Sand, little Clay, trace coarse Sand

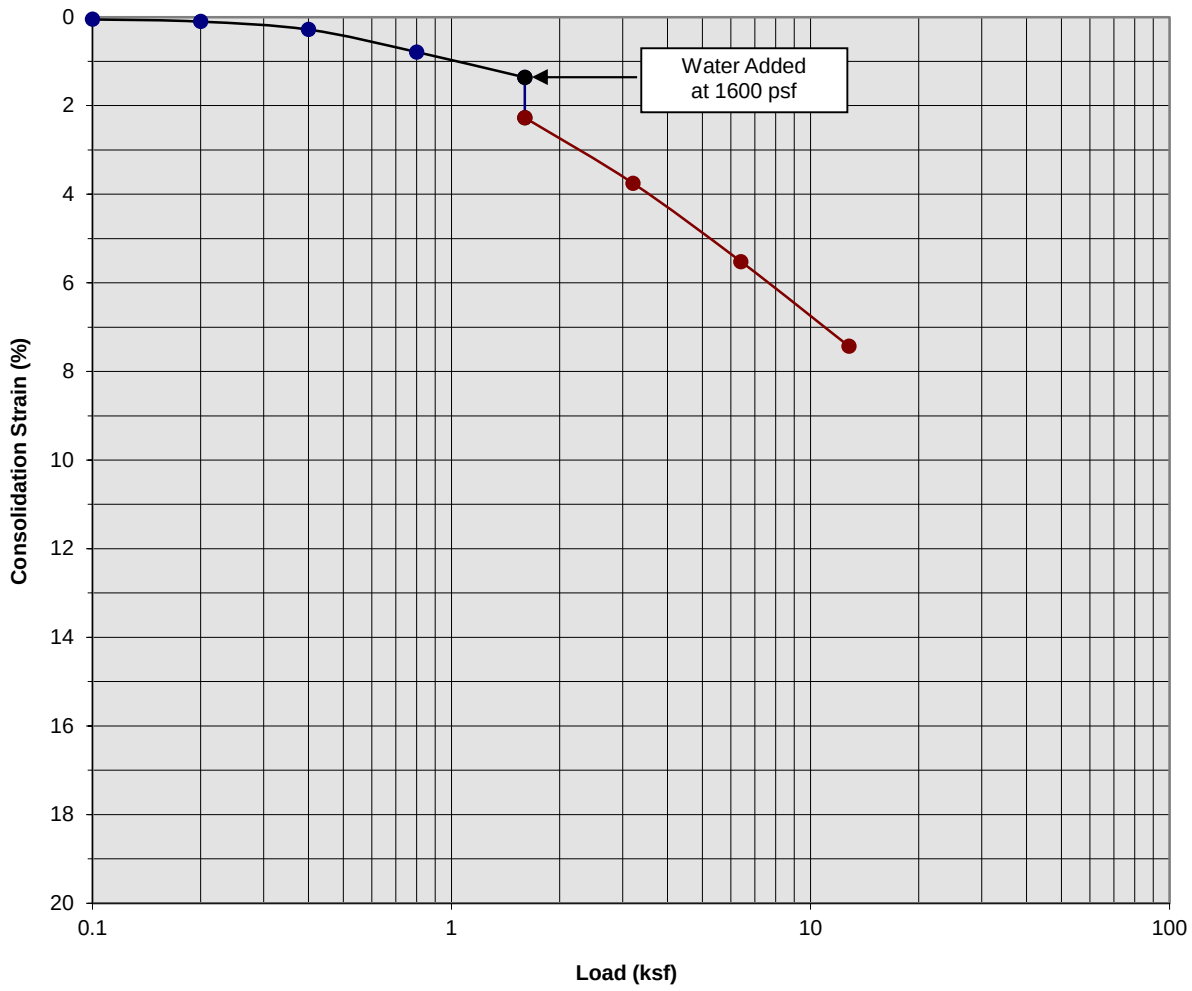
Boring Number:	B-5	Initial Moisture Content (%)	4
Sample Number:	---	Final Moisture Content (%)	12
Depth (ft)	5 to 6	Initial Dry Density (pcf)	115.2
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	135.7
Specimen Thickness (in)	1.0	Percent Collapse (%)	6.42

Proposed Warehouse
Hesperia, California
Project No. 22G203-1

PLATE C- 5

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Brown fine to medium Sand, little coarse Sand, trace Clay, little Silt

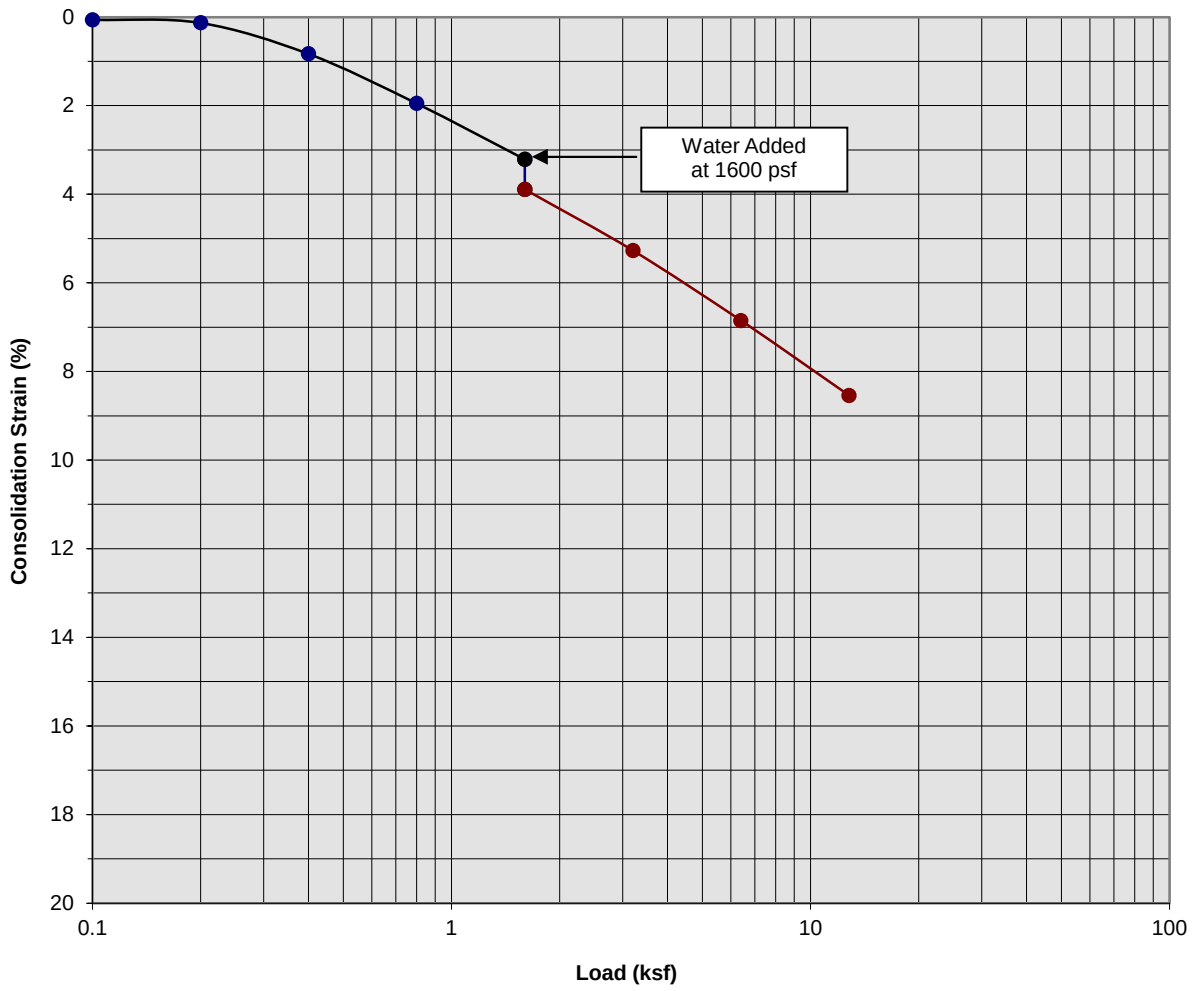
Boring Number:	B-5	Initial Moisture Content (%)	3
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	7 to 8	Initial Dry Density (pcf)	112.0
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	120.3
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.91

Proposed Warehouse
Hesperia, California
Project No. 22G203-1

PLATE C- 6

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
A California Corporation

Consolidation/Collapse Test Results



Classification: Brown fine to medium Sand, little coarse Sand, trace Clay, little Silt

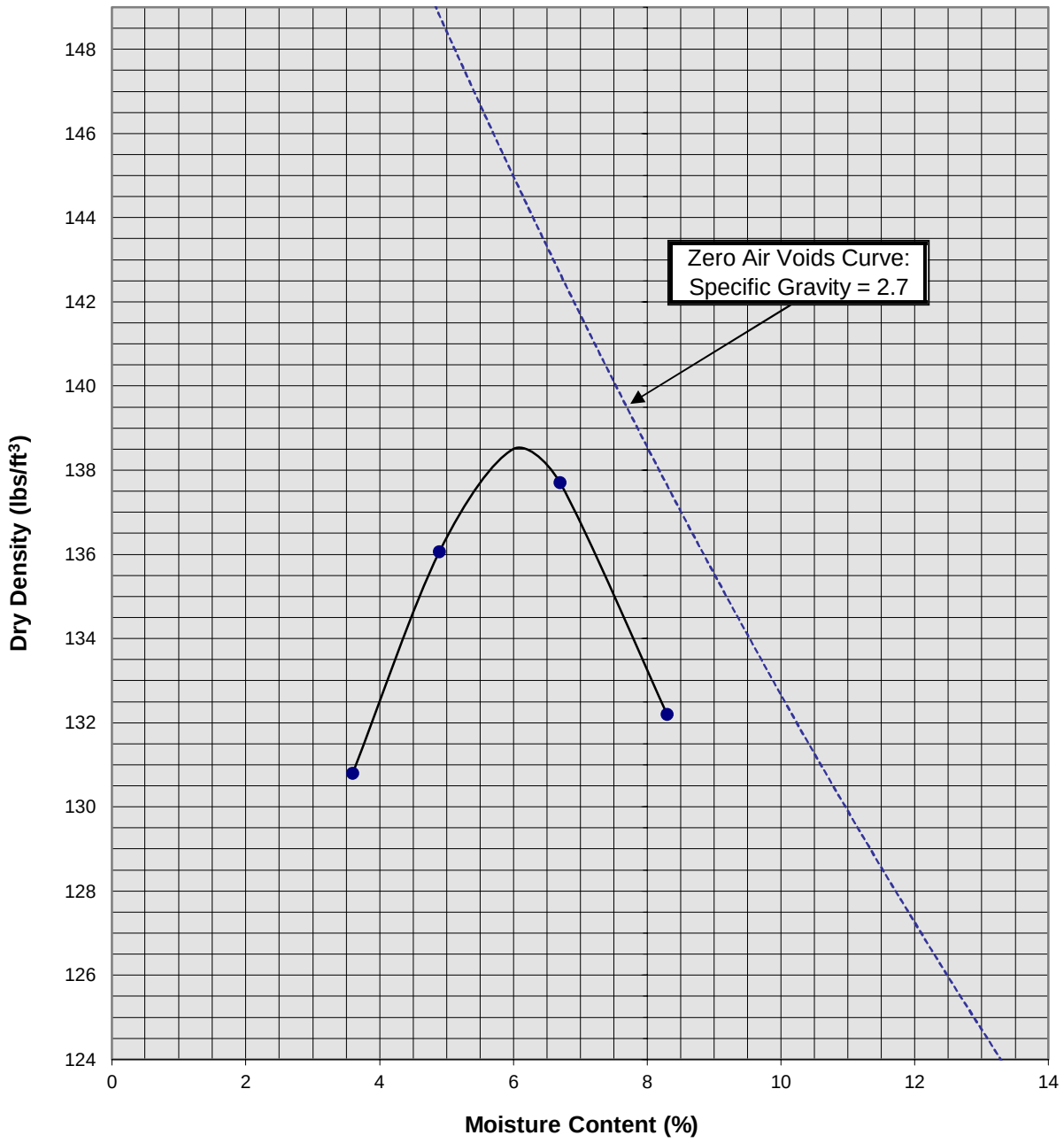
Boring Number:	B-5	Initial Moisture Content (%)	2
Sample Number:	---	Final Moisture Content (%)	14
Depth (ft)	9 to 10	Initial Dry Density (pcf)	114.7
Specimen Diameter (in)	2.4	Final Dry Density (pcf)	123.3
Specimen Thickness (in)	1.0	Percent Collapse (%)	0.68

Proposed Warehouse
Hesperia, California
Project No. 22G203-1

PLATE C- 7

SoCalGeo
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Moisture/Density Relationship
ASTM D-1557

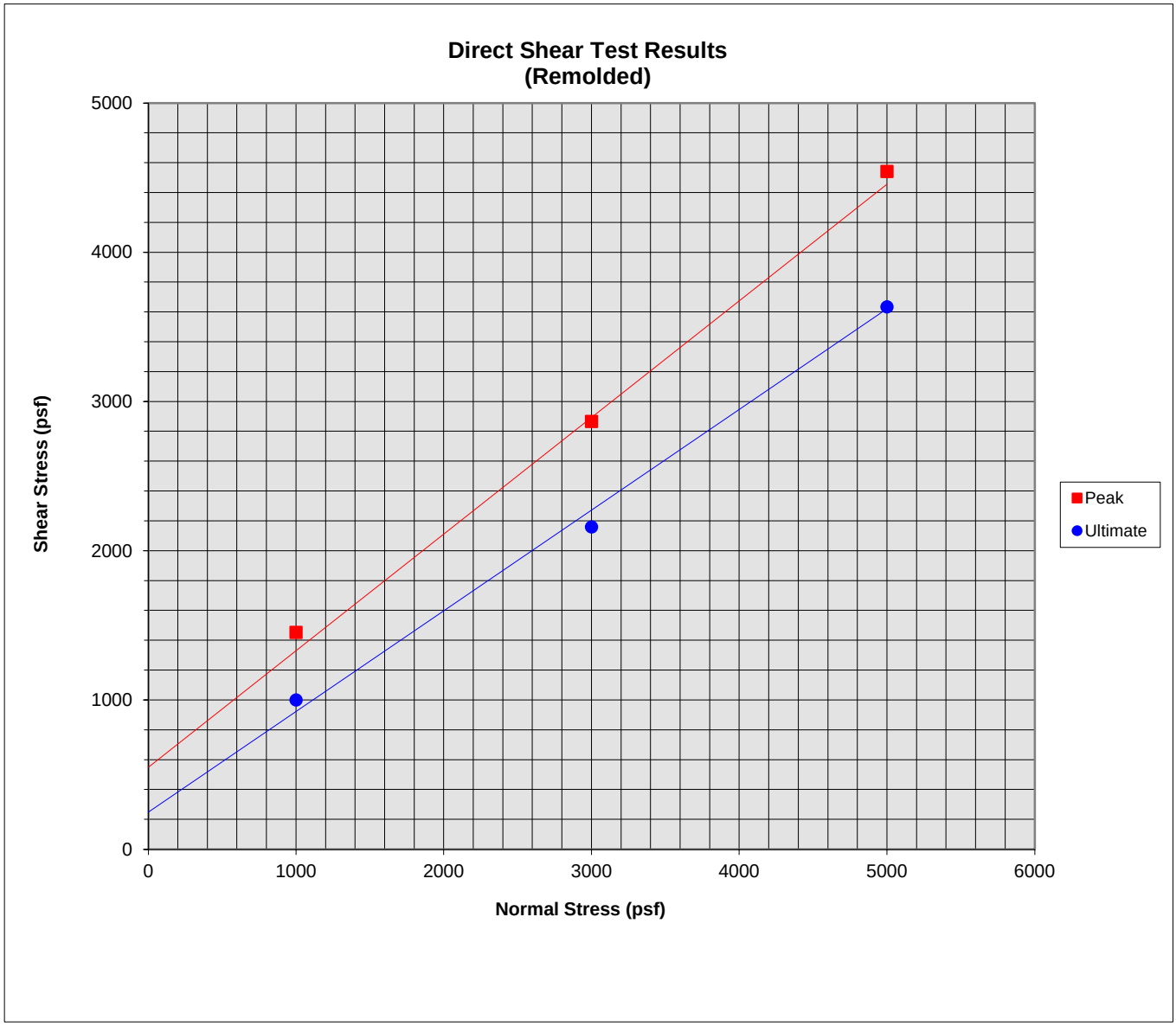


Soil ID Number	B-4 @ 0-5'
Optimum Moisture (%)	6
Maximum Dry Density (pcf)	138.5
Soil Classification	Light Brown Silty fine to medium Sand, trace coarse Sand, trace fine Gravel

Proposed Warehouse
Hesperia, California
Project No. 22G203-1

PLATE C- 8

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Sample Description: B-4 @ 0 to 5'

Classification: Light Brown Silty fine to medium Sand, trace coarse Sand, trace fine Gravel

Sample Data	
Remolded Moisture Content	6.4
Final Moisture Content	12.0
Remolded Dry Density	124.7
Percent Compaction	90.0
Final Dry Density	----
Specimen Diameter (in)	2.4
Specimen Thickness (in)	1.0

Test Results	Peak	Ultimate
ϕ (°)	38.0	34.0
C (psf)	550	250

Proposed Warehouse
Hesperia, California
Project No. 22G203-1

PLATE C- 9

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL
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APPENDIX D

GRADING GUIDE SPECIFICATIONS

These grading guide specifications are intended to provide typical procedures for grading operations. They are intended to supplement the recommendations contained in the geotechnical investigation report for this project. Should the recommendations in the geotechnical investigation report conflict with the grading guide specifications, the more site specific recommendations in the geotechnical investigation report will govern.

General

- The Earthwork Contractor is responsible for the satisfactory completion of all earthwork in accordance with the plans and geotechnical reports, and in accordance with city, county, and applicable building codes.

- The Geotechnical Engineer is the representative of the Owner/Builder for the purpose of implementing the report recommendations and guidelines. These duties are not intended to relieve the Earthwork Contractor of any responsibility to perform in a workman-like manner, nor is the Geotechnical Engineer to direct the grading equipment or personnel employed by the Contractor.

- The Earthwork Contractor is required to notify the Geotechnical Engineer of the anticipated work and schedule so that testing and inspections can be provided. If necessary, work may be stopped and redone if personnel have not been scheduled in advance.

- The Earthwork Contractor is required to have suitable and sufficient equipment on the job-site to process, moisture condition, mix and compact the amount of fill being placed to the approved compaction. In addition, suitable support equipment should be available to conform with recommendations and guidelines in this report.

- Canyon cleanouts, overexcavation areas, processed ground to receive fill, key excavations, subdrains and benches should be observed by the Geotechnical Engineer prior to placement of any fill. It is the Earthwork Contractor's responsibility to notify the Geotechnical Engineer of areas that are ready for inspection.

- Excavation, filling, and subgrade preparation should be performed in a manner and sequence that will provide drainage at all times and proper control of erosion. Precipitation, springs, and seepage water encountered shall be pumped or drained to provide a suitable working surface. The Geotechnical Engineer must be informed of springs or water seepage encountered during grading or foundation construction for possible revision to the recommended construction procedures and/or installation of subdrains.

Site Preparation

- The Earthwork Contractor is responsible for all clearing, grubbing, stripping and site preparation for the project in accordance with the recommendations of the Geotechnical Engineer.

- If any materials or areas are encountered by the Earthwork Contractor which are suspected of having toxic or environmentally sensitive contamination, the Geotechnical Engineer and Owner/Builder should be notified immediately.

- Major vegetation should be stripped and disposed of off-site. This includes trees, brush, heavy grasses and any materials considered unsuitable by the Geotechnical Engineer.

- Underground structures such as basements, cesspools or septic disposal systems, mining shafts, tunnels, wells and pipelines should be removed under the inspection of the Geotechnical Engineer and recommendations provided by the Geotechnical Engineer and/or city, county or state agencies. If such structures are known or found, the Geotechnical Engineer should be notified as soon as possible so that recommendations can be formulated.

- Any topsoil, slopewash, colluvium, alluvium and rock materials which are considered unsuitable by the Geotechnical Engineer should be removed prior to fill placement.

- Remaining voids created during site clearing caused by removal of trees, foundations basements, irrigation facilities, etc., should be excavated and filled with compacted fill.

- Subsequent to clearing and removals, areas to receive fill should be scarified to a depth of 10 to 12 inches, moisture conditioned and compacted

- The moisture condition of the processed ground should be at or slightly above the optimum moisture content as determined by the Geotechnical Engineer. Depending upon field conditions, this may require air drying or watering together with mixing and/or discing.

Compacted Fills

- Soil materials imported to or excavated on the property may be utilized in the fill, provided each material has been determined to be suitable in the opinion of the Geotechnical Engineer. Unless otherwise approved by the Geotechnical Engineer, all fill materials shall be free of deleterious, organic, or frozen matter, shall contain no chemicals that may result in the material being classified as "contaminated," and shall be very low to non-expansive with a maximum expansion index (EI) of 50. The top 12 inches of the compacted fill should have a maximum particle size of 3 inches, and all underlying compacted fill material a maximum 6-inch particle size, except as noted below.

- All soils should be evaluated and tested by the Geotechnical Engineer. Materials with high expansion potential, low strength, poor gradation or containing organic materials may require removal from the site or selective placement and/or mixing to the satisfaction of the Geotechnical Engineer.

- Rock fragments or rocks less than 6 inches in their largest dimensions, or as otherwise determined by the Geotechnical Engineer, may be used in compacted fill, provided the distribution and placement is satisfactory in the opinion of the Geotechnical Engineer.

- Rock fragments or rocks greater than 12 inches should be taken off-site or placed in accordance with recommendations and in areas designated as suitable by the Geotechnical Engineer. These materials should be placed in accordance with Plate D-8 of these Grading Guide Specifications and in accordance with the following recommendations:

    - Rocks 12 inches or more in diameter should be placed in rows at least 15 feet apart, 15 feet from the edge of the fill, and 10 feet or more below subgrade. Spaces should be left between each rock fragment to provide for placement and compaction of soil around the fragments.

    - Fill materials consisting of soil meeting the minimum moisture content requirements and free of oversize material should be placed between and over the rows of rock or

concrete. Ample water and compactive effort should be applied to the fill materials as they are placed in order that all of the voids between each of the fragments are filled and compacted to the specified density.

- Subsequent rows of rocks should be placed such that they are not directly above a row placed in the previous lift of fill. A minimum 5-foot offset between rows is recommended.

- To facilitate future trenching, oversized material should not be placed within the range of foundation excavations, future utilities or other underground construction unless specifically approved by the soil engineer and the developer/owner representative.

- Fill materials approved by the Geotechnical Engineer should be placed in areas previously prepared to receive fill and in evenly placed, near horizontal layers at about 6 to 8 inches in loose thickness, or as otherwise determined by the Geotechnical Engineer for the project.

- Each layer should be moisture conditioned to optimum moisture content, or slightly above, as directed by the Geotechnical Engineer. After proper mixing and/or drying, to evenly distribute the moisture, the layers should be compacted to at least 90 percent of the maximum dry density in compliance with ASTM D-1557-78 unless otherwise indicated.

- Density and moisture content testing should be performed by the Geotechnical Engineer at random intervals and locations as determined by the Geotechnical Engineer. These tests are intended as an aid to the Earthwork Contractor, so he can evaluate his workmanship, equipment effectiveness and site conditions. The Earthwork Contractor is responsible for compaction as required by the Geotechnical Report(s) and governmental agencies.

- Fill areas unused for a period of time may require moisture conditioning, processing and recompaction prior to the start of additional filling. The Earthwork Contractor should notify the Geotechnical Engineer of his intent so that an evaluation can be made.

- Fill placed on ground sloping at a 5-to-1 inclination (horizontal-to-vertical) or steeper should be benched into bedrock or other suitable materials, as directed by the Geotechnical Engineer. Typical details of benching are illustrated on Plates D-2, D-4, and D-5.

- Cut/fill transition lots should have the cut portion overexcavated to a depth of at least 3 feet and rebuilt with fill (see Plate D-1), as determined by the Geotechnical Engineer.

- All cut lots should be inspected by the Geotechnical Engineer for fracturing and other bedrock conditions. If necessary, the pads should be overexcavated to a depth of 3 feet and rebuilt with a uniform, more cohesive soil type to impede moisture penetration.

- Cut portions of pad areas above buttresses or stabilizations should be overexcavated to a depth of 3 feet and rebuilt with uniform, more cohesive compacted fill to impede moisture penetration.

- Non-structural fill adjacent to structural fill should typically be placed in unison to provide lateral support. Backfill along walls must be placed and compacted with care to ensure that excessive unbalanced lateral pressures do not develop. The type of fill material placed adjacent to below grade walls must be properly tested and approved by the Geotechnical Engineer with consideration of the lateral earth pressure used in the design.

Foundations

- The foundation influence zone is defined as extending one foot horizontally from the outside edge of a footing, and proceeding downward at a ½ horizontal to 1 vertical (0.5:1) inclination.

- Where overexcavation beneath a footing subgrade is necessary, it should be conducted so as to encompass the entire foundation influence zone, as described above.

- Compacted fill adjacent to exterior footings should extend at least 12 inches above foundation bearing grade. Compacted fill within the interior of structures should extend to the floor subgrade elevation.

Fill Slopes

- The placement and compaction of fill described above applies to all fill slopes. Slope compaction should be accomplished by overfilling the slope, adequately compacting the fill in even layers, including the overfilled zone and cutting the slope back to expose the compacted core

- Slope compaction may also be achieved by backrolling the slope adequately every 2 to 4 vertical feet during the filling process as well as requiring the earth moving and compaction equipment to work close to the top of the slope. Upon completion of slope construction, the slope face should be compacted with a sheepsfoot connected to a sideboom and then grid rolled. This method of slope compaction should only be used if approved by the Geotechnical Engineer.

- Sandy soils lacking in adequate cohesion may be unstable for a finished slope condition and therefore should not be placed within 15 horizontal feet of the slope face.

- All fill slopes should be keyed into bedrock or other suitable material. Fill keys should be at least 15 feet wide and inclined at 2 percent into the slope. For slopes higher than 30 feet, the fill key width should be equal to one-half the height of the slope (see Plate D-5).

- All fill keys should be cleared of loose slough material prior to geotechnical inspection and should be approved by the Geotechnical Engineer and governmental agencies prior to filling.

- The cut portion of fill over cut slopes should be made first and inspected by the Geotechnical Engineer for possible stabilization requirements. The fill portion should be adequately keyed through all surficial soils and into bedrock or suitable material. Soils should be removed from the transition zone between the cut and fill portions (see Plate D-2).

Cut Slopes

- All cut slopes should be inspected by the Geotechnical Engineer to determine the need for stabilization. The Earthwork Contractor should notify the Geotechnical Engineer when slope cutting is in progress at intervals of 10 vertical feet. Failure to notify may result in a delay in recommendations.

- Cut slopes exposing loose, cohesionless sands should be reported to the Geotechnical Engineer for possible stabilization recommendations.

- All stabilization excavations should be cleared of loose slough material prior to geotechnical inspection. Stakes should be provided by the Civil Engineer to verify the location and dimensions of the key. A typical stabilization fill detail is shown on Plate D-5.

- Stabilization key excavations should be provided with subdrains. Typical subdrain details are shown on Plates D-6.

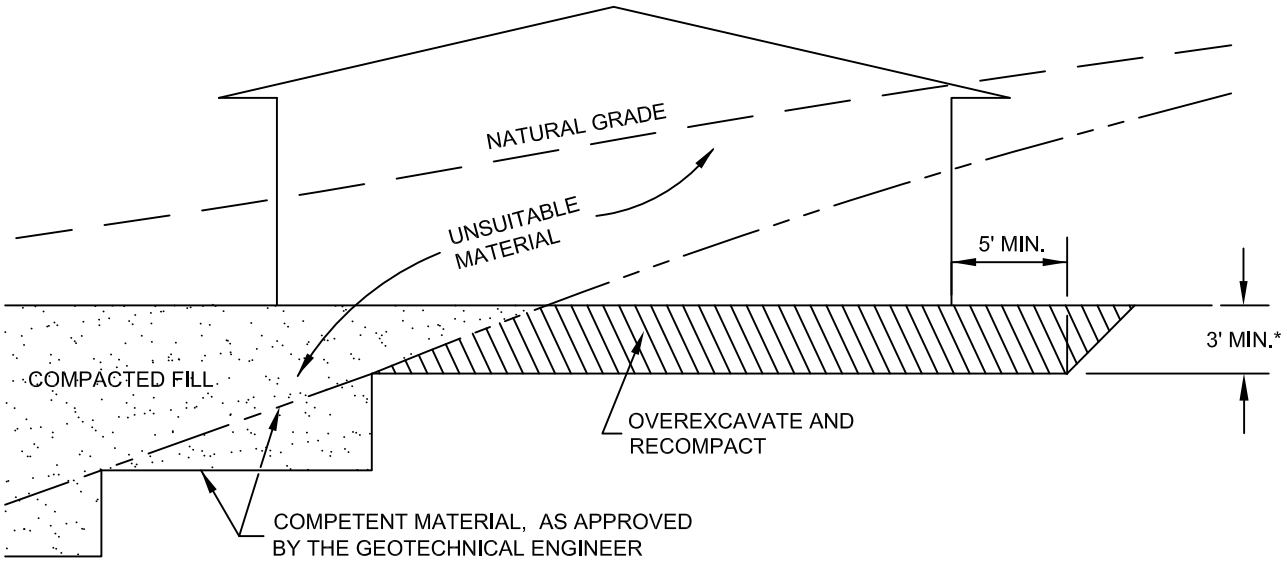
Subdrains

- Subdrains may be required in canyons and swales where fill placement is proposed. Typical subdrain details for canyons are shown on Plate D-3. Subdrains should be installed after approval of removals and before filling, as determined by the Soils Engineer.

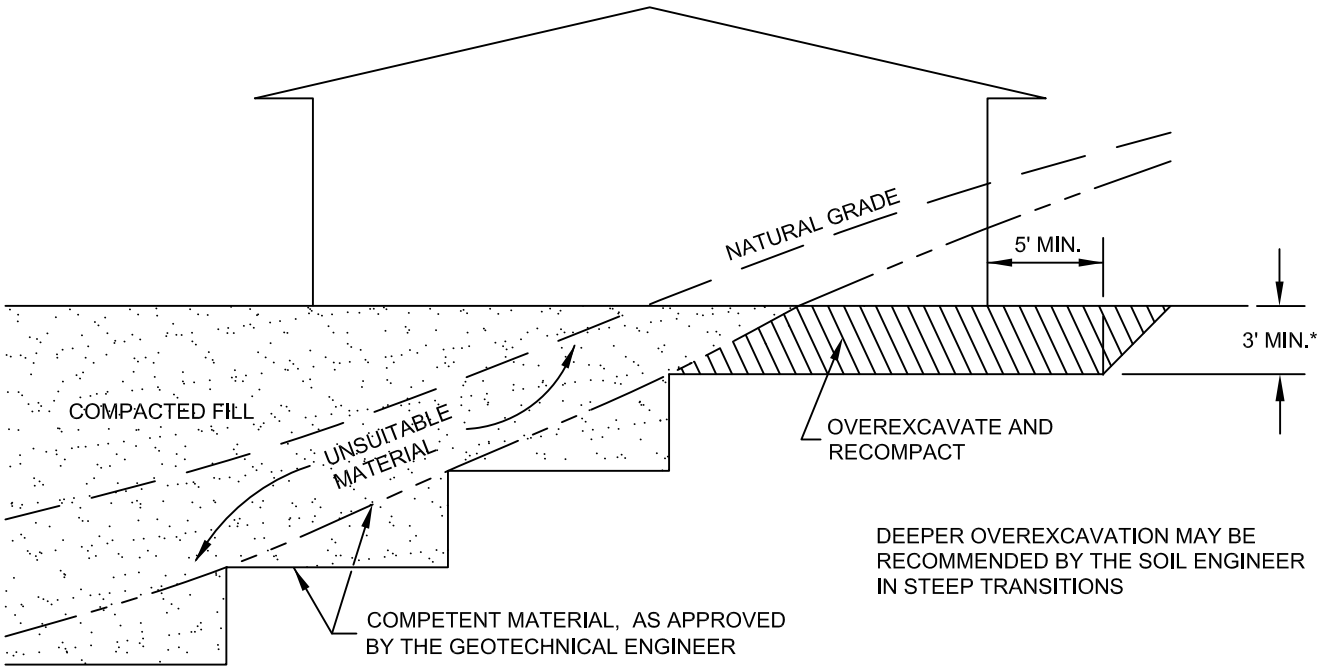
- Plastic pipe may be used for subdrains provided it is Schedule 40 or SDR 35 or equivalent. Pipe should be protected against breakage, typically by placement in a square-cut (backhoe) trench or as recommended by the manufacturer.

- Filter material for subdrains should conform to CALTRANS Specification 68-1.025 or as approved by the Geotechnical Engineer for the specific site conditions. Clean ¾-inch crushed rock may be used provided it is wrapped in an acceptable filter cloth and approved by the Geotechnical Engineer. Pipe diameters should be 6 inches for runs up to 500 feet and 8 inches for the downstream continuations of longer runs. Four-inch diameter pipe may be used in buttress and stabilization fills.

CUT LOT



CUT/FILL LOT (TRANSITION)



*SEE TEXT OF REPORT FOR SPECIFIC RECOMMENDATION. ACTUAL DEPTH OF OVEREXCAVATION MAY BE GREATER.

TRANSITION LOT DETAIL

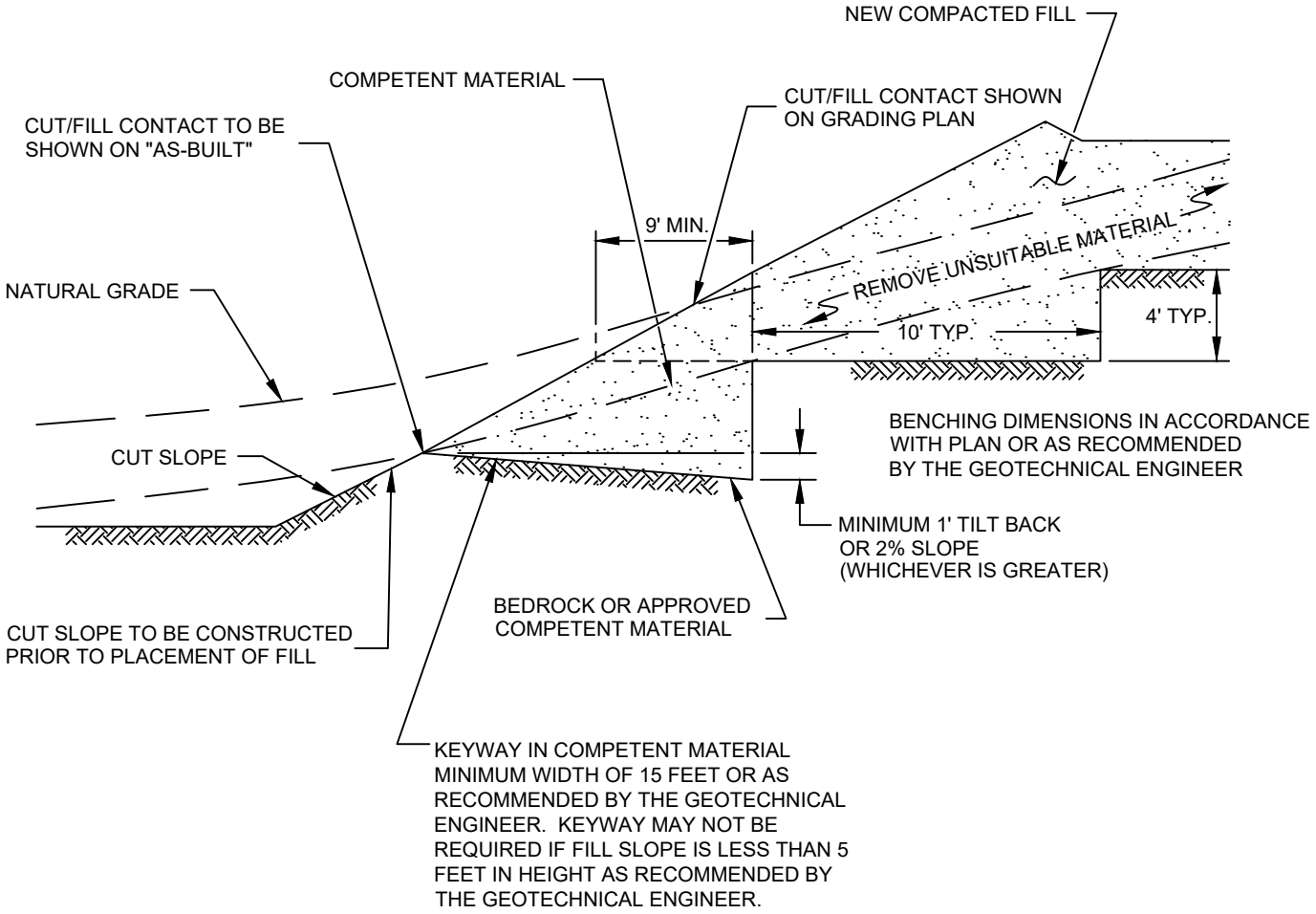
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-1

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FILL ABOVE CUT SLOPE DETAIL

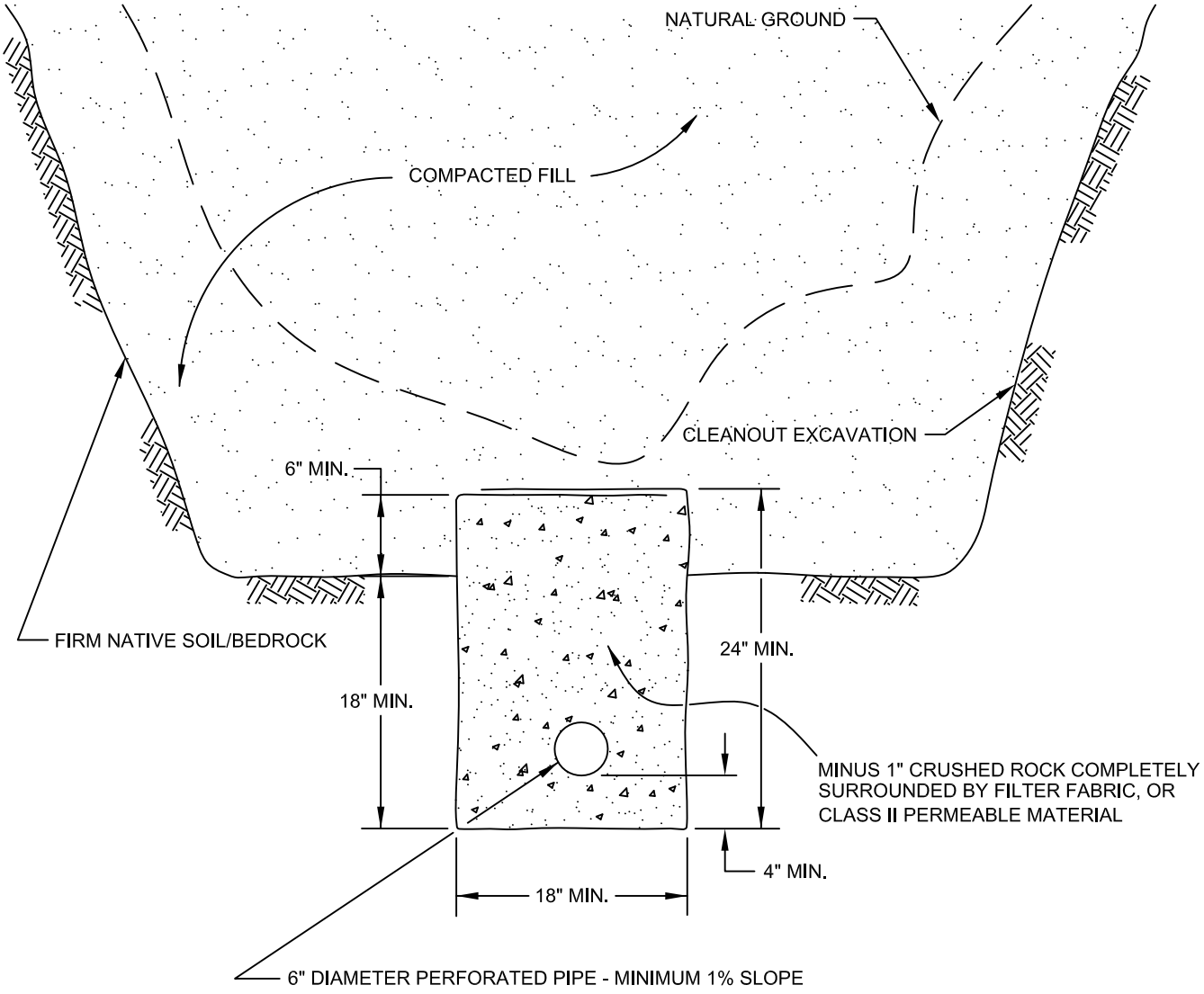
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-2

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



PIPE MATERIAL	DEPTH OF FILL OVER SUBDRAIN
ADS (CORRUGATED POLETHYLENE)	8
TRANSITE UNDERDRAIN	20
PVC OR ABS: SDR 35	35
SDR 21	100

SCHEMATIC ONLY
NOT TO SCALE

CANYON SUBDRAIN DETAIL

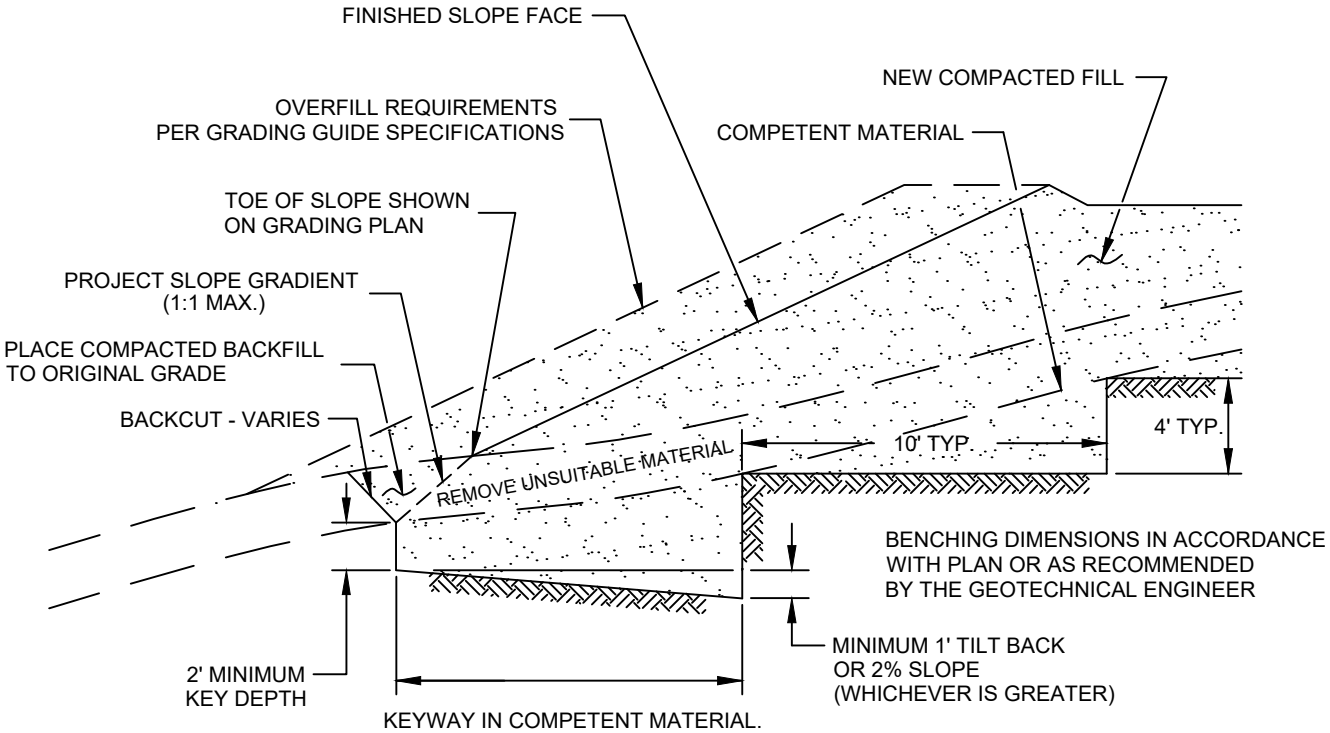
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-3

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



NOTE:
BENCHING SHALL BE REQUIRED WHEN NATURAL SLOPES ARE EQUAL TO OR STEEPER THAN 5:1 OR WHEN RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

FILL ABOVE NATURAL SLOPE DETAIL

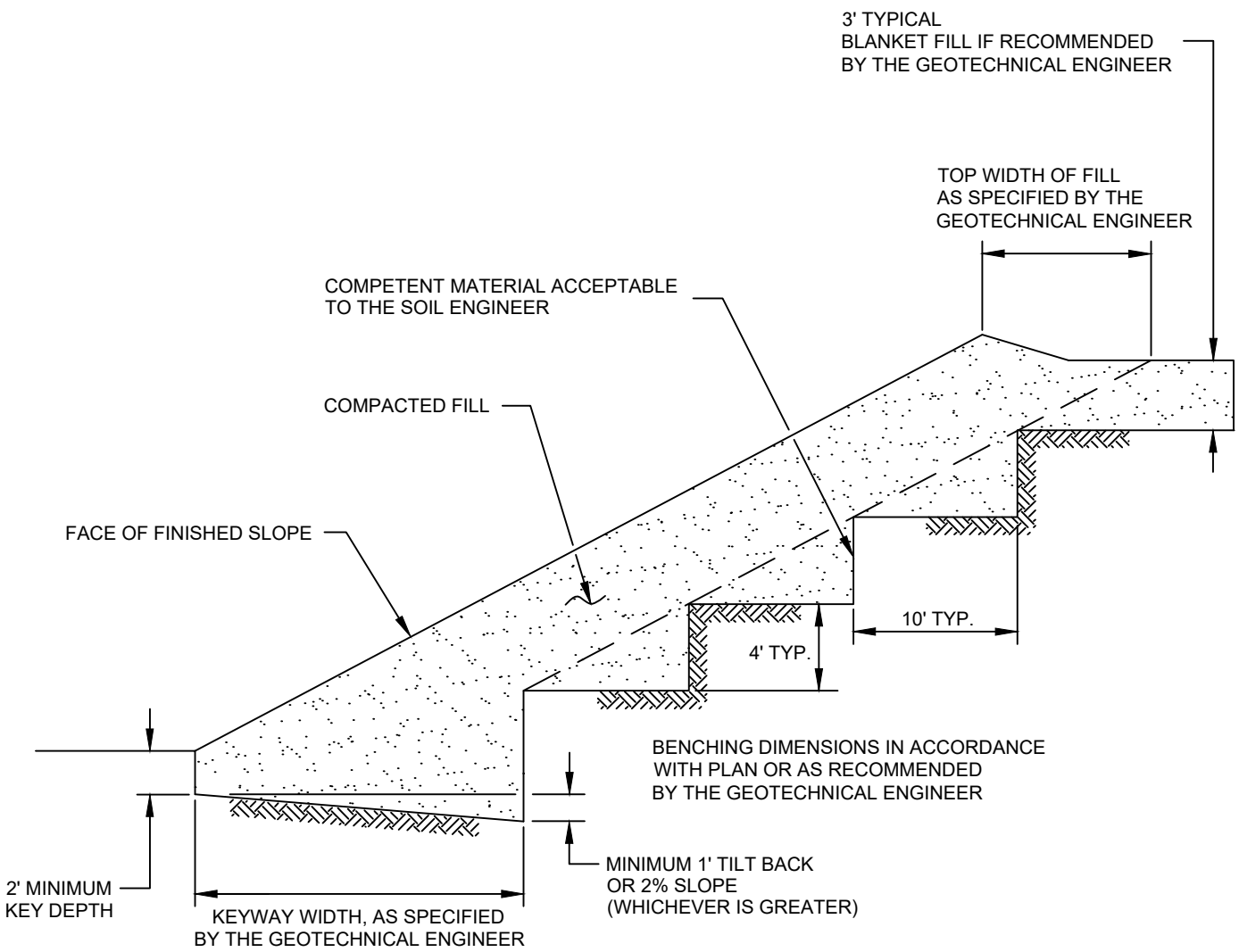
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-4

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



STABILIZATION FILL DETAIL

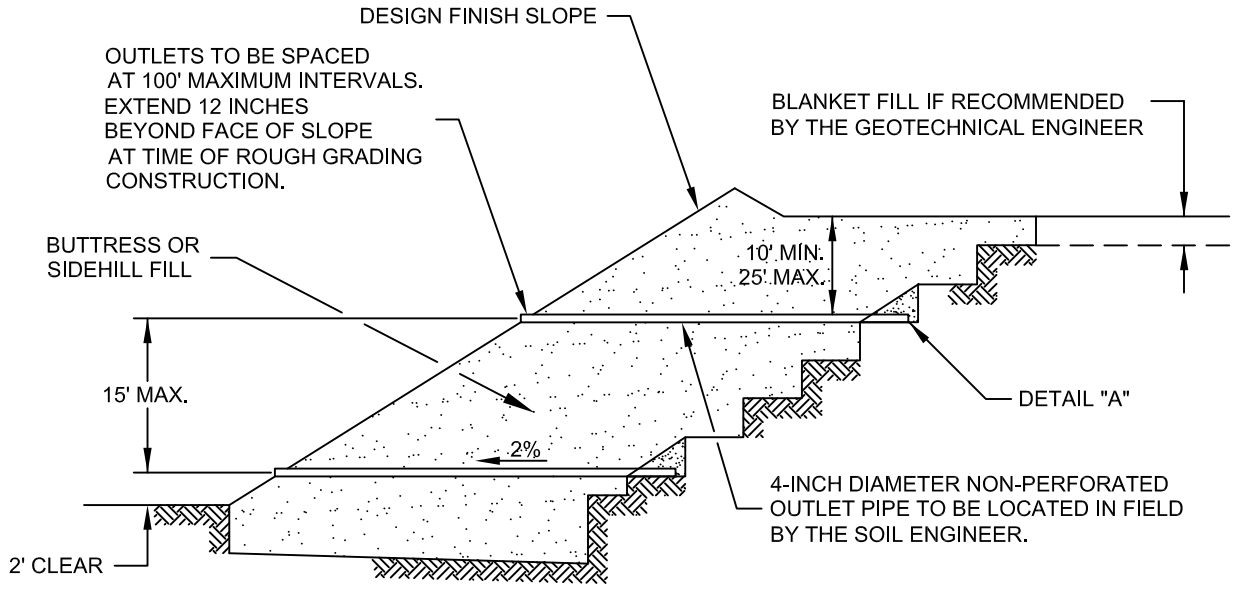
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-5

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



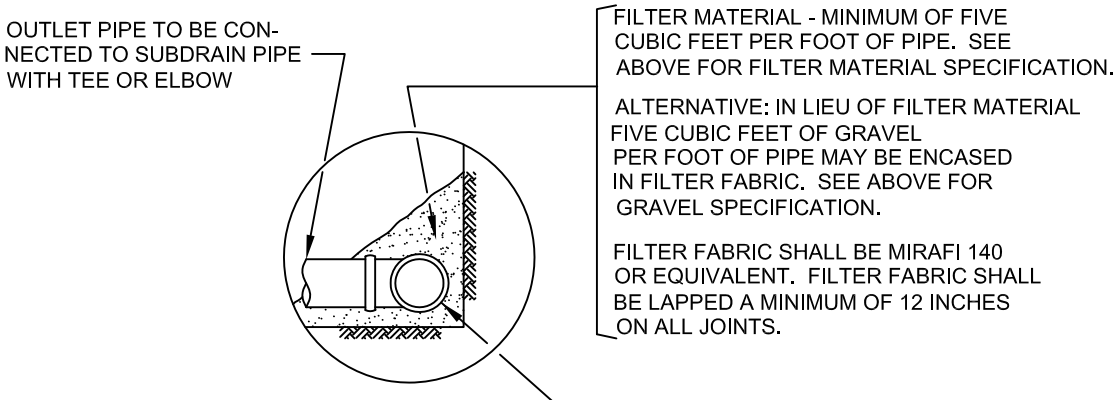
"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50



DETAIL "A"

NOTES:
1. TRENCH FOR OUTLET PIPES TO BE BACKFILLED WITH ON-SITE SOIL.

SLOPE FILL SUBDRAINS

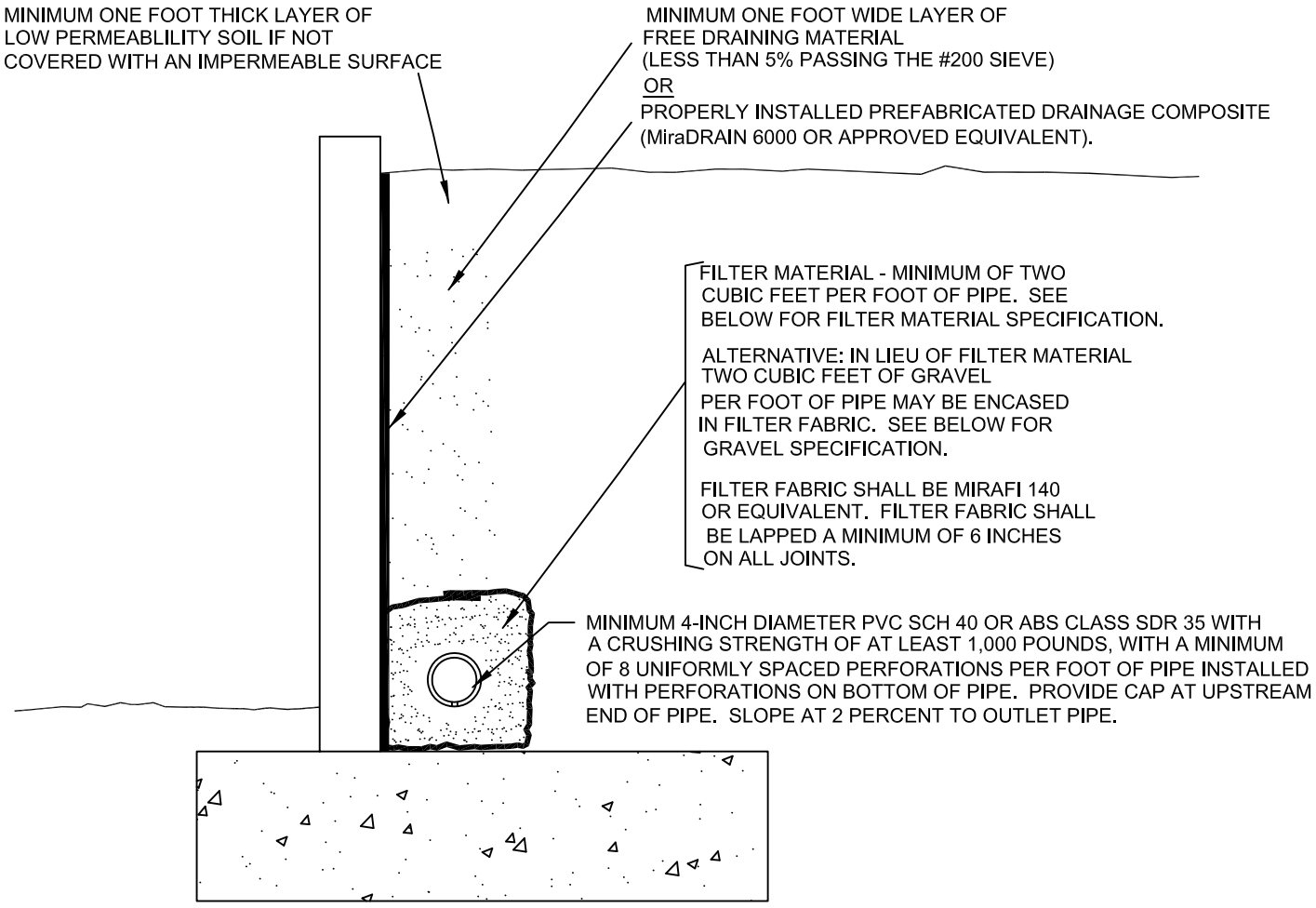
GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: JAS
CHKD: GKM

PLATE D-6

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL



"FILTER MATERIAL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT: (CONFORMS TO EMA STD. PLAN 323)

SIEVE SIZE	PERCENTAGE PASSING
1"	100
3/4"	90-100
3/8"	40-100
NO. 4	25-40
NO. 8	18-33
NO. 30	5-15
NO. 50	0-7
NO. 200	0-3

"GRAVEL" TO MEET FOLLOWING SPECIFICATION OR APPROVED EQUIVALENT:

SIEVE SIZE	MAXIMUM PERCENTAGE PASSING
1 1/2"	100
NO. 4	50
NO. 200	8

SAND EQUIVALENT = MINIMUM OF 50

RETAINING WALL BACKDRAINS

GRADING GUIDE SPECIFICATIONS

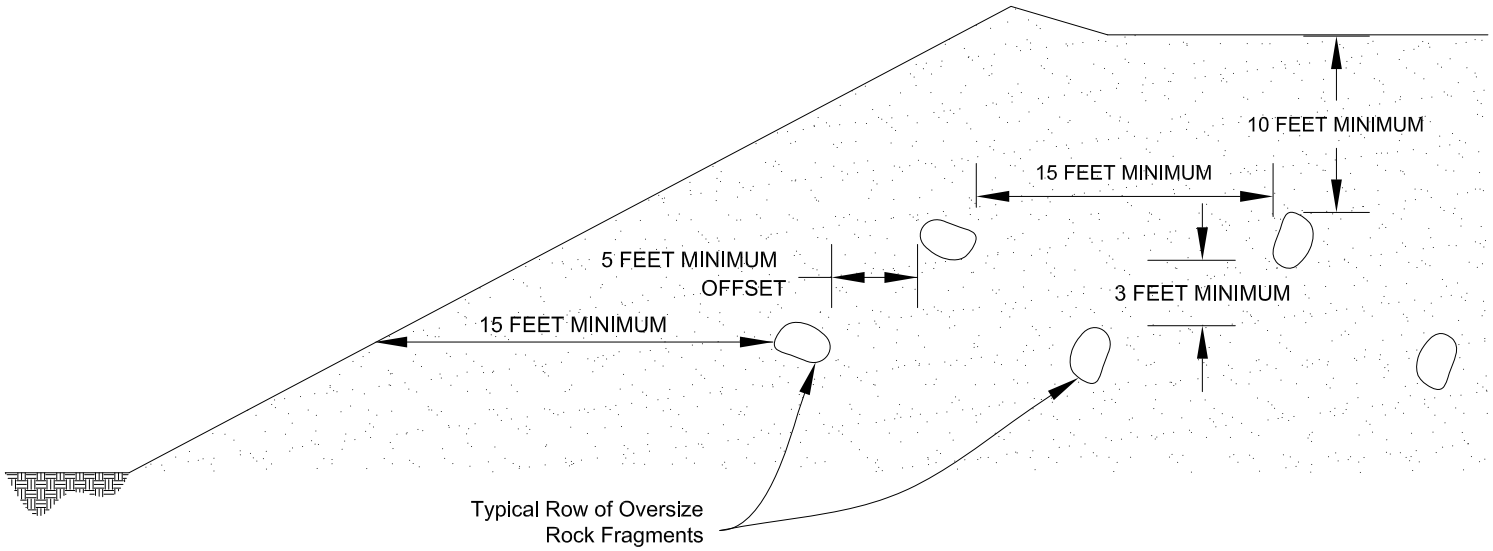
NOT TO SCALE

DRAWN: JAS
CHKD: GKM

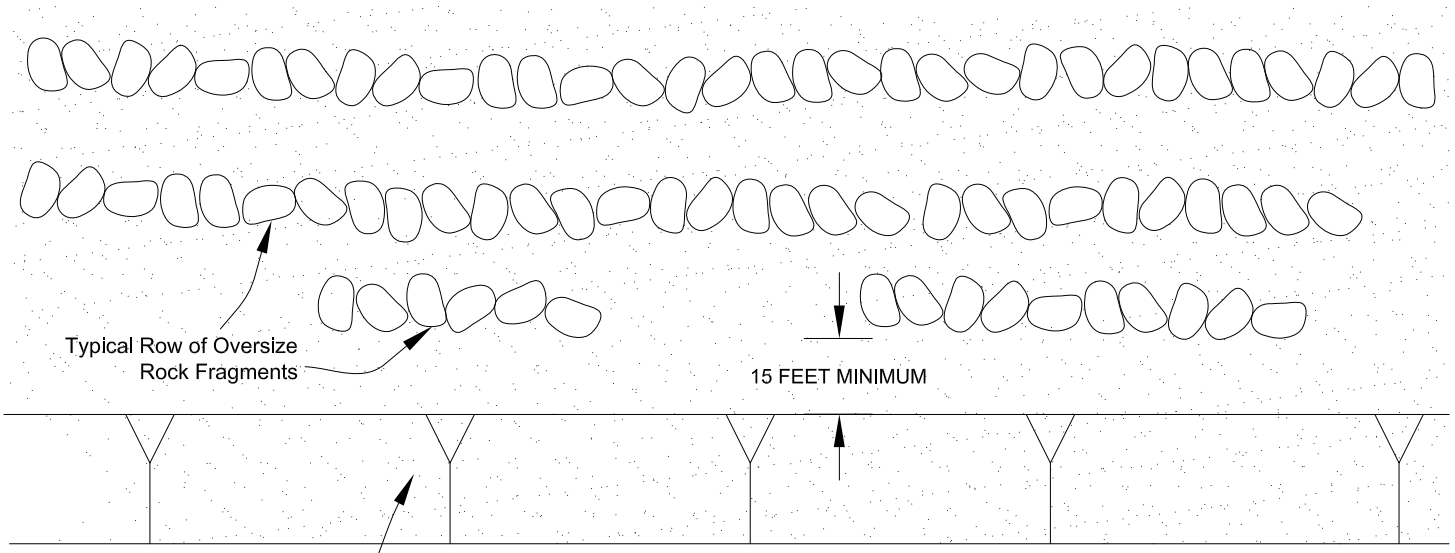
PLATE D-7

SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL



Section View



Plan View

PLACEMENT OF OVERSIZED MATERIAL

GRADING GUIDE SPECIFICATIONS

NOT TO SCALE

DRAWN: PM
CHKD: GKM

PLATE D-8

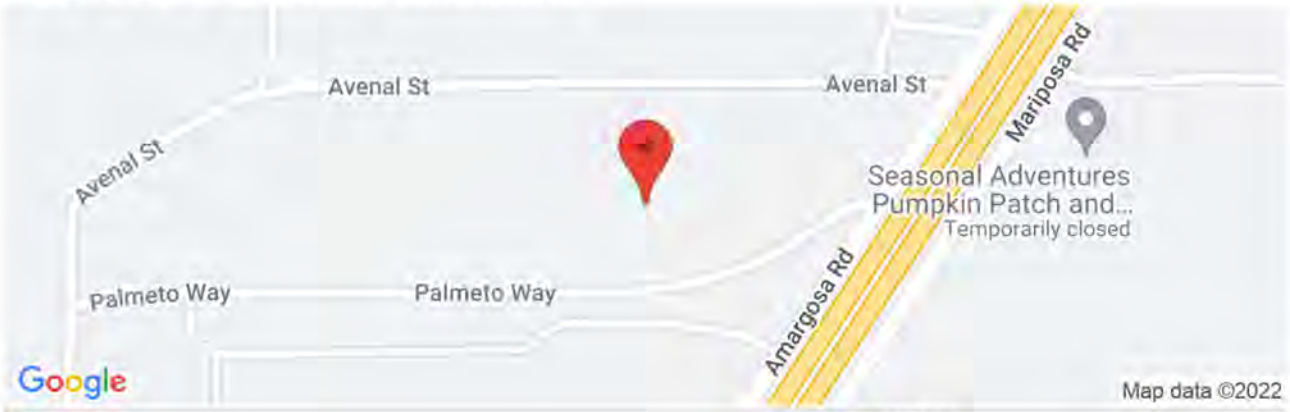
SoCalGeo

SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX E

OSHPD

Latitude, Longitude: 34.43653616, -117.37565949



Date	6/17/2022, 2:31:07 PM
Design Code Reference Document	ASCE7-16
Risk Category	III
Site Class	D - Stiff Soil

Type	Value	Description
S_S	1.466	MCE_R ground motion. (for 0.2 second period)
S_1	0.569	MCE_R ground motion. (for 1.0s period)
S_{MS}	1.466	Site-modified spectral acceleration value
S_{M1}	null -See Section 11.4.8	Site-modified spectral acceleration value
S_{DS}	0.978	Numeric seismic design value at 0.2 second SA
S_{D1}	null -See Section 11.4.8	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	null -See Section 11.4.8	Seismic design category
F_a	1	Site amplification factor at 0.2 second
F_v	null -See Section 11.4.8	Site amplification factor at 1.0 second
PGA	0.5	MCE_G peak ground acceleration
F_{PGA}	1.1	Site amplification factor at PGA
PGA_M	0.55	Site modified peak ground acceleration
T_L	12	Long-period transition period in seconds
SsRT	1.466	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	1.581	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.569	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.627	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.928	Mapped value of the risk coefficient at short periods
C_{R1}	0.907	Mapped value of the risk coefficient at a period of 1 s

SOURCE: SEAOC/OSHPD Seismic Design Maps Tool
<https://seismicmaps.org/>

SEISMIC DESIGN PARAMETERS - 2019 CBC

PROPOSED WAREHOUSE

HESPERIA, CALIFORNIA

DRAWN: JJH
CHKD: JJL

SCG PROJECT
22G203-1

PLATE E-1

SoCalGeo
SOUTHERN CALIFORNIA GEOTECHNICAL

APPENDIX G
Amargosa and Palmetto High-Cube Warehouse Greenhouse Gas Analysis

Amargosa and Palmetto High-Cube Warehouse

GREENHOUSE GAS ANALYSIS

CITY OF HESPERIA

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TABLE OF CONTENTS

TABLE OF CONTENTS ..... **I**
APPENDICES ..... **II**
LIST OF EXHIBITS ..... **II**
LIST OF TABLES ..... **II**
LIST OF ABBREVIATED TERMS ..... **III**
EXECUTIVE SUMMARY **1**
ES.1 Summary of Findings 1
ES.2 Regulatory Requirements 1
1 INTRODUCTION **4**
1.1 Site Location 4
1.2 Project Description 4
2 CLIMATE CHANGE SETTING **8**
2.1 Introduction to Global Climate Change 8
2.2 Global Climate Change Defined 8
2.3 GHGs 8
2.4 Global Warming Potential 15
2.5 GHG Emissions Inventories 15
2.6 Effects of Climate Change in California 16
2.7 Regulatory Setting 18
2.8 Discussion on Establishment of Significance Thresholds 40
3 PROJECT GREENHOUSE GAS IMPACT **42**
3.1 Introduction 42
3.2 Standards of Significance 42
3.3 Models Employed To Analyze Greenhouse Gases Emissions 42
3.4 Construction Emissions 42
3.5 Operational Emissions 44
3.6 Emissions Summary 47
3.7 Greenhouse Gas Emissions Findings and Recommendations 48
3.8 City of Hesperia Climate Action Plan 54
4 REFERENCES **56**
5 CERTIFICATION **60**

APPENDICES

APPENDIX 3.1: CALEEMOD ANNUAL CONSTRUCTION EMISSIONS MODEL OUTPUTS
APPENDIX 3.2: CALEEMOD ANNUAL OPERATIONAL EMISSIONS MODEL OUTPUTS (WITHOUT REGULATORY REQUIREMENTS)
APPENDIX 3.3: CALEEMOD ANNUAL OPERATIONAL EMISSIONS MODEL OUTPUTS (WITH REGULATORY REQUIREMENTS)

LIST OF EXHIBITS

EXHIBIT 1-A: LOCATION MAP 5
EXHIBIT 1-B: SITE PLAN..... 6
EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT, 2070-2099 (AS COMPARED WITH 1961-1990)..... 14

LIST OF TABLES

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS..... 1
TABLE 2-1: GHGS..... 9
TABLE 2-2: GWP AND ATMOSPHERIC LIFETIME OF SELECT GHGS..... 15
TABLE 2-3: TOP GHG PRODUCING COUNTRIES AND THE EUROPEAN UNION 16
TABLE 3-1: CONSTRUCTION DURATION..... 43
TABLE 3-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS..... 43
TABLE 3-3: AMORTIZED ANNUAL CONSTRUCTION EMISSIONS 44
TABLE 3-4: PASSENGER CAR FLEET MIX 46
TABLE 3-5: TRUCK FLEET MIX 46
TABLE 3-6: PROJECT BASELINE GHG EMISSIONS SUMMARY 47
TABLE 3-7: PROJECT NET GHG EMISSIONS SUMMARY – 48
GHG EMISSIONS WITH IMPLEMENTATION OF CURRENT REGULATORY REQUIREMENTS..... 48
TABLE 3-8: 2017 SCOPING PLAN CONSISTENCY SUMMARY..... 49
TABLE 3-9: CAP CONSISTENCY 54
TABLE 3-10: PROJECT CONSISTENCY WITH CAP GHG EMISSIONS REDUCTION REQUIREMENTS..... 54

LIST OF ABBREVIATED TERMS

(1)	Reference
%	Percent
AB	Assembly Bill
AB 32	Global Warming Solutions Act of 2006
AB 1493	Pavley Fuel Efficiency Standards
AB 1881	California Water Conservation in Landscaping Act of 2006
APA	Administrative Procedure Act
AQIA	Air Quality Impact Analysis
BAU	Business As Usual
BSC	Building Standards Commission
CAA	Federal Clean Air Act
CalEEMod	California Emissions Estimator Model™
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGAPS	California LBNL GHG Analysis of Policies Spreadsheet
CALGreen	Californina Green Building Standards Code
CalRecycle	California's Department of Resources Recycling and Recovery
CalSTA	California State Transportation Agency
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CCR	California Code of Regulations
CDFA	California Department of Food and Agriculture
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbons
CH_4	Methane
CNRA	California Natural Resources Agency
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
Convention	United Nations Framework Convention on Climate Change
COP	UNCFCC Conference of the Parties
CPUC	California Public Utilities Commission

CTC	California Transportation Commission
DOF	Department of Finance
EPA	Environmental Protection Agency
FED	Functional Equivelent Document
GCC	Global Climate Change
Gg	Gigagram
GHG	Greenhouse Gas
GHGA	Greenhouse Gas Analysis
Gpd/acre	Gallons per Day per Acre
GO-Biz	Governor's Office of Business and Economic Development
GWP	Global Warming Potential
H_2O	Water Vapor
HD	Heavy-Duty
HFC	Hydrofluorocarbons
IBank	California Infrastructure and Economic Development Bank
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Planning
LBNL	Lawrence Berkeley National Laboratory
LCA	Life-Cycle Analysis
LCFS	Low Carbon Fuel Standard
MD	Medium-Duty
MDAQMD	Mojave Desert Air Quality Management District
MMT	Million Metric Tons
$MMTCO_2e$	Million Metric Ton of Carbon Dioxide Equivalent
MPG	Miles Per Gallon
MT	Metric Tons
MT/yr	Metric Tons per Year
$MTCO_2e$	Metric Ton of Carbon Dioxide Equivalent
MY	Model Year
N_20	Nitrogen Dioxide
NDC	Nationally Determined Contributions
NHTSA	National Highway Traffic Safety Administration
NO_X	Oxides of Nitrogen
NF_3	Nitrogen Trifluoride
OAL	Office of Administrative Law
Ordinance	Model Water Efficient Landscape Ordinance
OPR	Govenor's Office of Planning and Research
PFC	Perfluorocarbons

PM_{10}	Particulate Matter 10 microns in diameter or less
$PM_{2.5}$	Particulate Matter 2.5 microns in diameter or less
ppb	Parts Per Billion
ppm	Parts Per Million
ppt	Parts Per Trillion
Project	Amargosa and Palmetto High-Cube Warehouse
PSD	Prevention Significant Deterioration
RPS	Renewables Portfolio Standard
SB	Senate Bill
SB 32	Senate Bill 32
SB 375	Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies
SCAQMD	South Coast Air Quality Management District
Scoping Plan	CARB's Climate Change Scoping Plan
sf	Square Feet
SF_6	Sulfur Hexafluoride
SGC	Strategic Growth Council
SLPS	Short-Lived Climate Pollutant Strategy
SO_X	Oxides of Sulfur
SWRCB	California State Water Resources Control Board
tpy	Tons Per Year
TSF	Thousand Square Feet
UNFCCC	United Nations' Framework Convention on Climate Change
Update	CARB approved First Updated to the Scoping Plan
VMT	Vehicle-Miles Traveled
VOC	Volatile Organic Compounds
ZE/NZE	Zero- and near-zero-emission
ZEV	Zero Emission Vehicle

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Amargosa and Palmetto High-Cube Warehouse Greenhouse Gas Analysis* (GHGA) are summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines* (1). Table ES-1 shows the findings of significance for potential greenhouse gas (GHG) impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
GHG Impact #1: The Project would not generate direct or indirect GHG emission that would result in a significant impact on the environment.	3.8	*Less Than Significant*	*n/a*
GHG Impact #2: The Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs.	3.8	*Less Than Significant*	*n/a*

ES.2 REGULATORY REQUIREMENTS

The Project would be required to comply with all mandates imposed by the State of California and the Mojave Desert Air Quality Management District (MDAQMD). Those that are applicable to the Project and that would assist in the reduction of GHG emissions are:

- Global Warming Solutions Act of 2006 (Assembly Bill (AB) 32) (2).
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill (SB) 375) (3).
- Pavley Fuel Efficiency Standards (AB 1493). Establishes fuel efficiency ratings for new vehicles (4).
- California Building Code (Title 24 California Code of Regulations (CCR)) and CALGreen standards. Establishes energy efficiency requirements for new construction (5).
- Appliance Energy Efficiency Standards (Title 20 CCR). Establishes energy efficiency requirements for appliances (6).
- Low Carbon Fuel Standard (LCFS). Requires carbon content of fuel sold in California to be 10 percent (%) less by 2020 (7).

- California Water Conservation in Landscaping Act of 2006 (AB 1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010, to ensure efficient landscapes in new development and reduced water waste in existing landscapes (8).
- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions (9).
- Renewable Portfolio Standards (SB 1078 – also referred to as RPS). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20% by 2010 and 33% by 2020 (10).
- California Global Warming Solutions Act of 2006 (SB 32). Requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15 (11).

Promulgated regulations that will affect the Project's emissions are accounted for in the Project's GHG calculations provided in this report. In particular, AB 1493, LCFS, and RPS, are accounted for in the Project's emission calculations.

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1 INTRODUCTION

This report presents the results of the GHGA prepared by Urban Crossroads, Inc., for the Amargosa and Palmetto High-Cube Warehouse (Project).

The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of GHG impacts as a result of constructing and operating the Project.

1.1 SITE LOCATION

The proposed Project is located on the northwest corner of Amargosa Road, and Palmetto Way in the City of Hesperia as shown on Exhibit 1-A.

1.2 PROJECT DESCRIPTION

The proposed Project is to consist of 499,850[1] square high-cube fulfillment center warehouse building as shown on Exhibit 1-B. The proposed project is anticipated to be constructed and fully operational by year 2024.

The on-site Project-related emission sources are expected to include loading dock activity and entry gate & truck movements. This study evaluates GHG emissions impacts associated with the expected typical operational activities at the Project site. To present a conservative approach, this study assumes the Project will operate 24-hours daily for seven days per week.

1 The proposed building square footage utilized in this analysis is based on a previous site plan which assumed a slightly smaller building square footage. Nonetheless, the emissions analyzed in this report would not change and a less than significant impact is expected.

EXHIBIT 1-A: LOCATION MAP

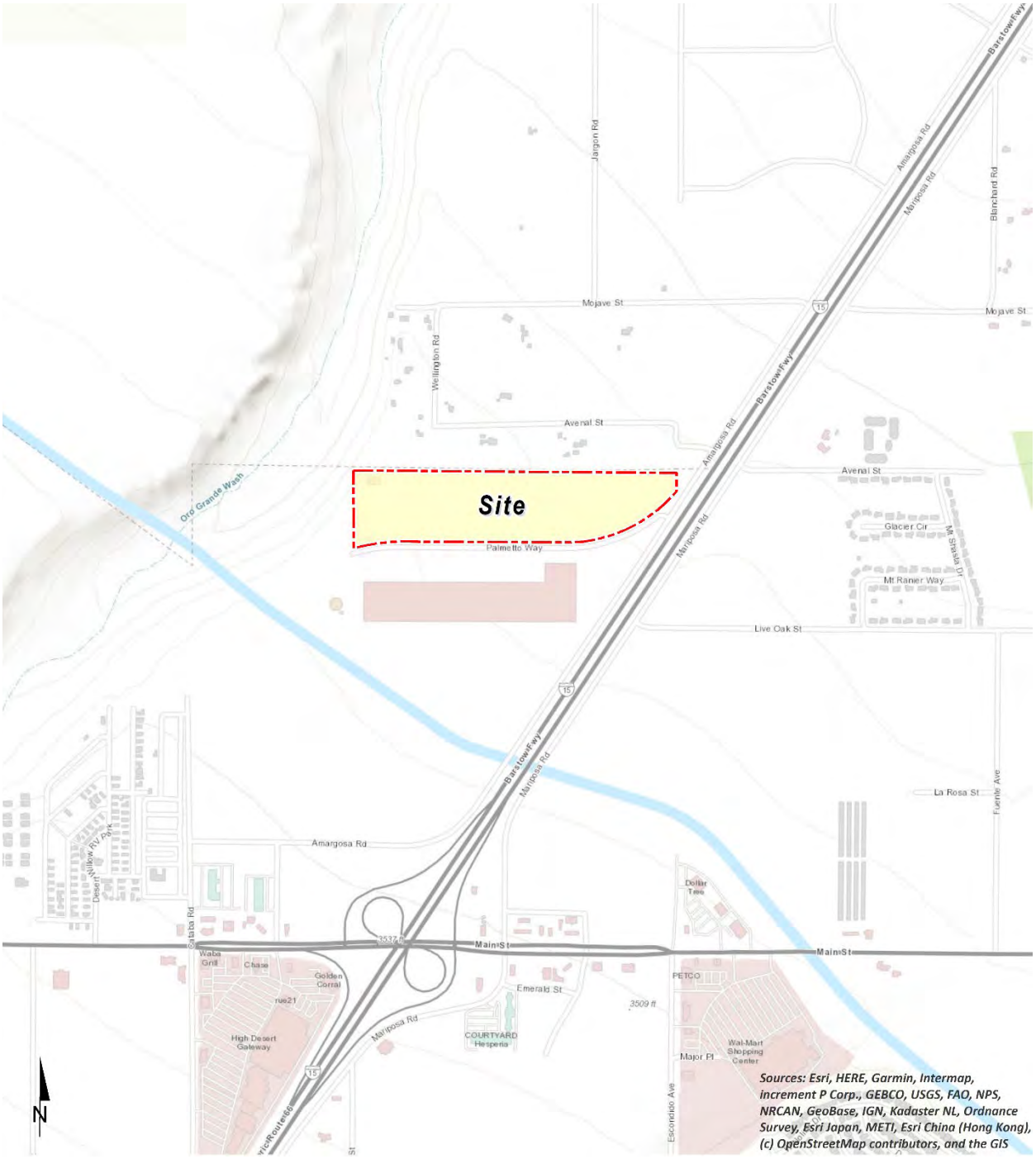
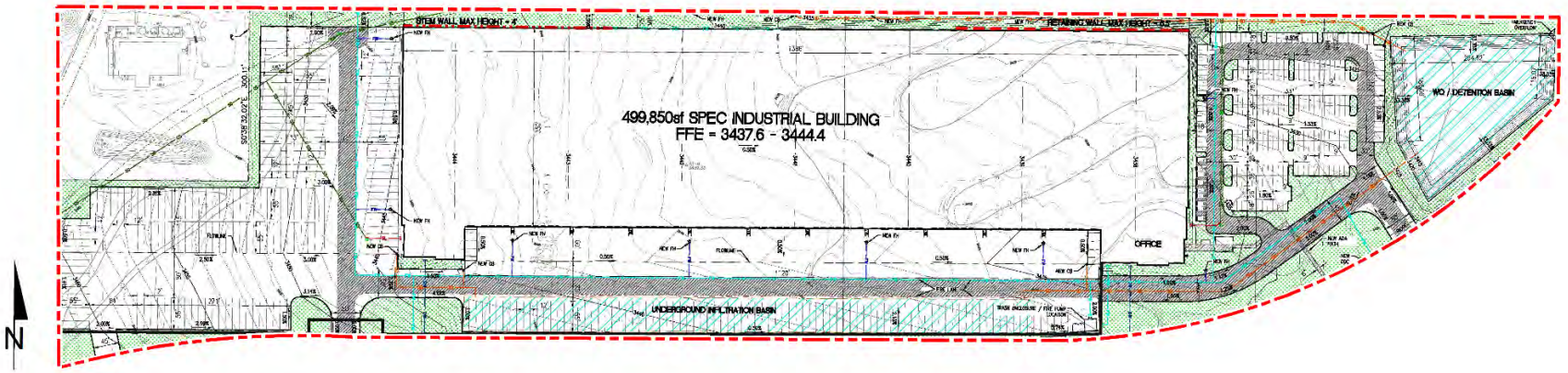


EXHIBIT 1-B: SITE PLAN



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2 CLIMATE CHANGE SETTING

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE

GCC is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years.

An individual development proposal like the Project evaluated in this GHGA cannot generate enough GHG emissions to affect a discernible change in global climate. However, the Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3.0 will evaluate the potential for the Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GLOBAL CLIMATE CHANGE DEFINED

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2, N_2O, CH_4, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrogen trifluoride (NF_3), and sulfur hexafluoride (SF_6). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radioactive heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

2.3 GHGS

2.3.1 GHGS AND HEALTH EFFECTS

GHGs trap heat in the atmosphere, creating a GHG effect that results in global warming and climate change. Many gases demonstrate these properties and as discussed in Table 2-1. For the purposes of this analysis, emissions of CO_2, CH_4, and N_2O were evaluated (see Table 3-1 later in this report) because these gases are the primary contributors to GCC from development projects.

Although there are other substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases.

TABLE 2-1: GHGS

GHGs	Description	Sources	Health Effects
Water	Water is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. A climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is	The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.	There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

GHGs	Description	Sources	Health Effects
	unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the earth's surface and heat it up) (12).		
CO_2	CO_2 is an odorless and colorless GHG. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO_2 in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (13).	CO_2 is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. CO_2 is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (14).	Outdoor levels of CO_2 are not high enough to result in negative health effects. According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of CO_2 can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of CO_2 in the earth's atmosphere are estimated to be approximately 370 ppm, the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15-minute period (15).

GHGs	Description	Sources	Health Effects
CH_4	CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs.	CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH_4. Other anthropocentric sources include fossil-fuel combustion and biomass burning (16).	CH_4 is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Exposure to high levels of CH_4 can cause asphyxiation, loss of consciousness, headache and dizziness, nausea and vomiting, weakness, loss of coordination, and an increased breathing rate.
N_2O	N_2O, also known as laughing gas, is a colorless GHG. Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb).	N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also	N_2O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (17).

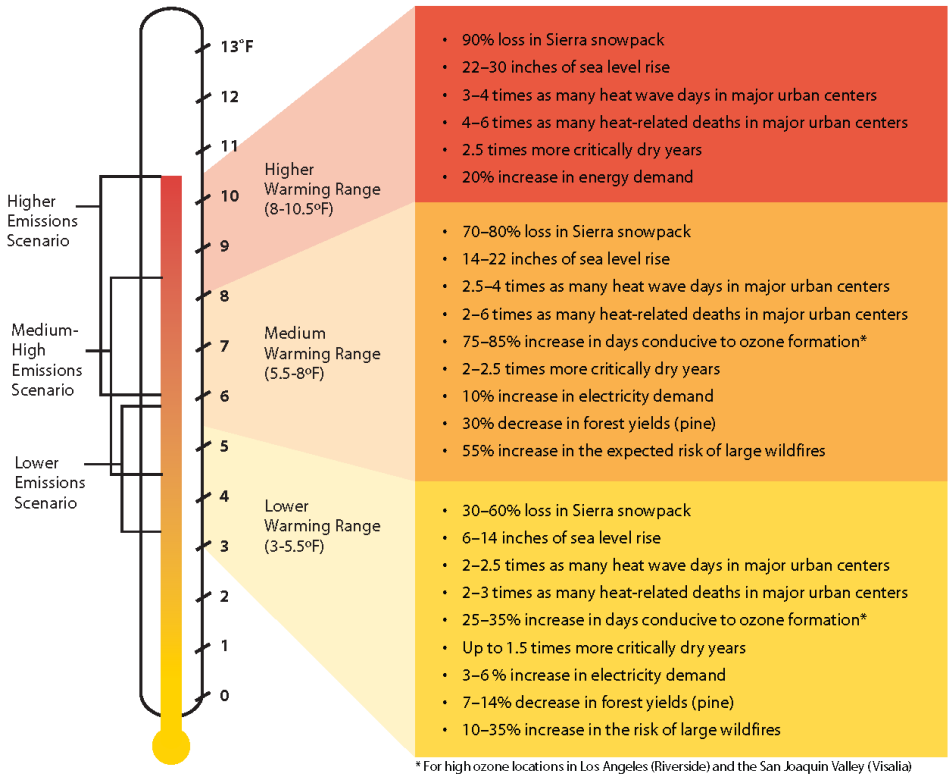
GHGs	Description	Sources	Health Effects
		used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. N_2O can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction (17).	
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years (18).	In confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

GHGs	Description	Sources	Health Effects
HFCs	HFCs are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential (GWP). The HFCs with the largest measured atmospheric abundances are (in order), Fluoroform (HFC-23), 1,1,1,2-tetrafluoroethane (HFC-134a), and 1,1-difluoroethane (HFC-152a). Prior to 1990, the only significant emissions were of HFC-23. HCF-134a emissions are increasing due to its use as a refrigerant.	HFCs are manmade for applications such as automobile air conditioners and refrigerants.	No health effects are known to result from exposure to HFCs.
PFCs	PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The EPA estimates that concentrations of CF_4 in the atmosphere are over 70 parts per trillion (ppt).	The two main sources of PFCs are primary aluminum production and semiconductor manufacture.	No health effects are known to result from exposure to PFCs.
SF_6	SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900) (19). The EPA indicates that concentrations in the 1990s were about 4 ppt.	SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.	In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

GHGs	Description	Sources	Health Effects
Nitrogen Trifluoride (NF_3)	NF_3 is a colorless gas with a distinctly moldy odor. The World Resources Institute (WRI) indicates that NF_3 has a 100-year GWP of 17,200 (20).	NF_3 is used in industrial processes and is produced in the manufacturing of semiconductors, Liquid Crystal Display (LCD) panels, types of solar panels, and chemical lasers.	Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis (21).

The potential health effects related directly to the emissions of CO_2, CH_4, and N_2O as they relate to development projects such as the Project are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (22). Exhibit 2-A presents the potential impacts of global warming (23).

EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT, 2070-2099 (AS COMPARED WITH 1961-1990)



Source: Barbara H. Allen-Diaz. "Climate change affects us all." *University of California, Agriculture and Natural Resources*

2.4 GLOBAL WARMING POTENTIAL

GHGs have varying GWP values. GWP of a GHG indicates the amount of warming a gas causes over a given period of time and represents the potential of a gas to trap heat in the atmosphere. CO_2 is utilized as the reference gas for GWP, and thus has a GWP of 1. CO_2 equivalent (CO_2e) is a term used for describing the difference GHGs in a common unit. CO_2e signifies the amount of CO_2 which would have the equivalent GWP.

The atmospheric lifetime and GWP of selected GHGs are summarized at Table 2-2. As shown in the table below, GWP for the 2nd Assessment Report, the Intergovernmental Panel on Climate Change (IPCC)'s scientific and socio-economic assessment on climate change, range from 1 for CO_2 to 23,900 for SF_6 and GWP for the IPCC's 5th Assessment Report range from 1 for CO_2 to 23,500 for SF_6 (24).

TABLE 2-2: GWP AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)		
		2nd Assessment Report	4th Assessment Report	5th Assessment Report
CO_2	See*	1	1	1
CH_4	12 .4	21	25	28
N_2O	121	310	298	265
HFC-23	222	11,700	14,800	12,400
HFC-134a	13.4	1,300	1,430	1,300
HFC-152a	1.5	140	124	138
SF_6	3,200	23,900	22,800	23,500
NF_3	740	-	17,200	16,100

*As per Appendix 8.A. of IPCC's 5th Assessment Report, no single lifetime can be given.
Source: IPCC Fourth Assessment Report: https://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html
IPCC Fifth Assessment Report: https://www.ipcc.ch/pdf/assessmentreport/ar5/wg1/WG1AR5_Chapter08_FINAL.pdf

2.5 GHG EMISSIONS INVENTORIES

2.5.1 GLOBAL

Worldwide anthropogenic GHG emissions are tracked by the IPCC for industrialized nations (referred to as Annex I) and developing nations (referred to as Non-Annex I). Human GHG emissions data for Annex I nations are available through 2017. Based on the latest available data, the sum of these emissions totaled approximately 29,216,501 gigagram (Gg) CO_2e[2] (25) (26) as summarized on Table 2-3.

[2] The global emissions are the sum of Annex I and non-Annex I countries, without counting Land-Use, Land-Use Change and Forestry (LULUCF). For countries without 2017 data, the United Nations' Framework Convention on Climate Change (UNFCCC) data for the most recent year were used U.N. Framework Convention on Climate Change, "Annex I Parties – GHG total without LULUCF," The most recent GHG emissions for China and India are from 2014.

2.5.2 UNITED STATES

As noted in Table 2-3, the United States, as a single country, was the number two producer of GHG emissions in 2017.

TABLE 2-3: TOP GHG PRODUCING COUNTRIES AND THE EUROPEAN UNION [3]

Emitting Countries	GHG Emissions (Gg CO_2e)
China	11,911,710
United States	6,456,718
European Union (28-member countries)	4,323,163
India	3,079,810
Russian Federation	2,155,470
Japan	1,289,630
Total	**29,216,501**

2.5.3 STATE OF CALIFORNIA

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls, but is still a substantial contributor to the United States (U.S.) emissions inventory total (27). The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Based upon the 2019 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2017 GHG emissions period, California emitted an average 424.1 million metric tons (MMT) of CO_2e per year ($MMTCO_2e/yr$) (28).

2.6 EFFECTS OF CLIMATE CHANGE IN CALIFORNIA

2.6.1 PUBLIC HEALTH

Higher temperatures may increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation could increase from 25 to 35% under the lower warming range to 75 to 85% under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances, depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55% more frequent if GHG emissions are not significantly reduced (29).

In addition, under the higher warming range scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures

[3] Used http://unfccc.int data for Annex I countries. Consulted the CAIT Climate Data Explorer in https://www.climatewatchdata.org site to reference Non-Annex I countries of China and India.

remain within or below the lower warming range. Rising temperatures could increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat (29).

2.6.2 WATER RESOURCES

A vast network of man-made reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on the Sierra Nevada snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages (29).

If temperatures continue to increase, more precipitation could fall as rain instead of snow, and the snow that does fall could melt earlier, reducing the Sierra Nevada spring snowpack by as much as 70 to 90%. Under the lower warming range scenario, snowpack losses could be only half as large as those possible if temperatures were to rise to the higher warming range. How much snowpack could be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snowpack could pose challenges to water managers and hamper hydropower generation. Winter tourism could be adversely affected, under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding (29).

The State's water supplies are also at risk from rising sea levels. An influx of saltwater could degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major fresh water supply (29).

2.6.3 AGRICULTURE

Increased temperatures could cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. First, California farmers could possibly lose as much as 25% of the water supply needed. Although higher CO_2 levels can stimulate plant production and increase plant water-use efficiency, California's farmers could face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development could change, as could the intensity and frequency of pest and disease outbreaks. Rising temperatures could aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth (29).

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than-optimal development for many crops, so rising temperatures could worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts (29).

In addition, continued GCC could shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion could occur in many species while range contractions may be less likely in rapidly evolving species with significant populations already established. Should range contractions occur, new or different weed species could fill the emerging gaps. Continued GCC could alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates (29).

2.6.4 FORESTS AND LANDSCAPES

GCC has the potential to intensify the current threat to forests and landscapes by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55%, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. In contrast, wildfires in northern California could increase by up to 90% due to decreased precipitation (29).

Moreover, continued GCC has the potential to alter natural ecosystems and biological diversity within the state. For example, alpine and subalpine ecosystems could decline by as much as 60 to 80% by the end of the century as a result of increasing temperatures. The productivity of the state's forests has the potential to decrease as a result of GCC (29).

2.6.5 RISING SEA LEVELS

Rising sea levels, more intense coastal storms, and warmer water temperatures could increasingly threaten the state's coastal regions. Under the higher warming range scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate low-lying coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats. Under the lower warming range scenario, sea level could rise 12-14 inches (29).

2.7 REGULATORY SETTING

2.7.1 INTERNATIONAL

Climate change is a global issue involving GHG emissions from all around the world; therefore, countries such as the ones discussed below have made an effort to reduce GHGs.

IPCC

In 1988, the United Nations (U.N.) and the World Meteorological Organization established the IPCC to assess the scientific, technical and socioeconomic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts, and options for adaptation and mitigation.

UNITED NATION'S FRAMEWORK CONVENTION ON CLIMATE CHANGE (CONVENTION)

On March 21, 1994, the U.S. joined a number of countries around the world in signing the Convention. Under the Convention, governments gather and share information on GHG emissions, national policies, and best practices; launch national strategies for addressing GHG emissions and adapting to expected impacts, including the provision of financial and technological support to developing countries; and cooperate in preparing for adaptation to the impacts of climate change.

INTERNATIONAL CLIMATE CHANGE TREATIES

The Kyoto Protocol is an international agreement linked to the Convention. The major feature of the Kyoto Protocol is that it sets binding targets for 37 industrialized countries and the European community for reducing GHG emissions at an average of 5% against 1990 levels over the five-year period 2008–2012. The Convention (as discussed above) encouraged industrialized countries to stabilize emissions; however, the Protocol commits them to do so. Developed countries have contributed more emissions over the last 150 years; therefore, the Protocol places a heavier burden on developed nations under the principle of "common but differentiated responsibilities."

In 2001, President George W. Bush indicated that he would not submit the treaty to the U.S. Senate for ratification, which effectively ended American involvement in the Kyoto Protocol. In December 2009, international leaders met in Copenhagen to address the future of international climate change commitments post-Kyoto. No binding agreement was reached in Copenhagen; however, the Committee identified the long-term goal of limiting the maximum global average temperature increase to no more than 2 degrees Celsius (°C) above pre-industrial levels, subject to a review in 2015. The UN Climate Change Committee held additional meetings in Durban, South Africa in November 2011; Doha, Qatar in November 2012; and Warsaw, Poland in November 2013. The meetings are gradually gaining consensus among participants on individual climate change issues.

On September 23, 2014 more than 100 Heads of State and Government and leaders from the private sector and civil society met at the Climate Summit in New York hosted by the U.N. At the Summit, heads of government, business and civil society announced actions in areas that would have the greatest impact on reducing emissions, including climate finance, energy, transport, industry, agriculture, cities, forests, and building resilience.

Parties to the U.N. Framework Convention on Climate Change (UNFCCC) reached a landmark agreement on December 12, 2015 in Paris, charting a fundamentally new course in the two-decade-old global climate effort. Culminating a four-year negotiating round, the new treaty ends the strict differentiation between developed and developing countries that characterized earlier efforts, replacing it with a common framework that commits all countries to put forward their best efforts and to strengthen them in the years ahead. This includes, for the first time, requirements that all parties report regularly on their emissions and implementation efforts and undergo international review.

The agreement and a companion decision by parties were the key outcomes of the conference, known as the 21st session of the UNFCCC Conference of the Parties (COP) 21. Together, the Paris Agreement and the accompanying COP decision:

- Reaffirm the goal of limiting global temperature increase well below 2°C, while urging efforts to limit the increase to 1.5 degrees;
- Establish binding commitments by all parties to make "nationally determined contributions" (NDCs), and to pursue domestic measures aimed at achieving them;
- Commit all countries to report regularly on their emissions and "progress made in implementing and achieving" their NDCs, and to undergo international review;
- Commit all countries to submit new NDCs every five years, with the clear expectation that they will "represent a progression" beyond previous ones;
- Reaffirm the binding obligations of developed countries under the UNFCCC to support the efforts of developing countries, while for the first time encouraging voluntary contributions by developing countries too;
- Extend the current goal of mobilizing $100 billion a year in support by 2020 through 2025, with a new, higher goal to be set for the period after 2025;
- Extend a mechanism to address "loss and damage" resulting from climate change, which explicitly will not "involve or provide a basis for any liability or compensation;"
- Require parties engaging in international emissions trading to avoid "double counting;" and
- Call for a new mechanism, similar to the Clean Development Mechanism under the Kyoto Protocol, enabling emission reductions in one country to be counted toward another country's NDC (C2ES 2015a) (30).

On November 4, 2019, the Trump administration formally notified the U.N. that the U.S. would withdraw from the Paris Agreement, which became effective one year after the notification in 2020. On January 20, 2020, President Biden signed the instrument to bring the U.S. back into the Paris Agreement. On February 19, 2021, The U.S. officially rejoined the Paris Agreement.

2.7.2 NATIONAL

Prior to the last decade, there have been no concrete federal regulations of GHGs or major planning for climate change adaptation. The following are actions regarding the federal government, GHGs, and fuel efficiency.

GHG ENDANGERMENT

In *Massachusetts v. Environmental Protection Agency* (EPA) 549 U.S. 497 (2007), decided on April 2, 2007, the U.S. Supreme Court (Supreme Court) found that four GHGs, including CO_2, are air pollutants subject to regulation under Section 202(a)(1) of the Federal Clean Air Act (CAA). The Court held that the EPA Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the CAA:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs— CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the Supreme Court declined to review an Appeals Court ruling that upheld the EPA Administrator's findings (31).

CLEAN VEHICLES

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the U.S. On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the U.S.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty (MD) passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 MMT and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and MD passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 mpg if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks (HDT) and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20% reduction in CO_2 emissions and fuel consumption by the 2018 model year. For HDT and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10% reduction for gasoline vehicles and a 15% reduction for diesel vehicles by the 2018 model year (12 and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle

standards would achieve up to a 10% reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

On August 2,2018, the NHTSA in conjunction with the EPA, released a notice of proposed rulemaking, the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Vehicles Rule). The SAFE Vehicles Rule was proposed to amend exiting CAFE and tailpipe CO_2 standards for passenger cars and light trucks and to establish new standards covering model years 2021 through 2026. As of March 31, 2020, the NHTSA and EPA finalized the SAFE Vehicle Rule which increased stringency of CAFE and CO_2 emissions standards by 1.5% each year through model year 2026 (32).

MANDATORY REPORTING OF GHGS

The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA issued the Final Mandatory Reporting of GHGs Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the U.S. and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons per year (MT/yr) or more of GHG emissions are required to submit annual reports to the EPA.

NEW SOURCE REVIEW

The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these CAA permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

> *"This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the CAA, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to GHG sources, starting with the largest GHG emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for GHG emissions until at least April 30, 2016."*

The EPA estimates that facilities responsible for nearly 70% of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

STANDARDS OF PERFORMANCE FOR GHG EMISSIONS FOR NEW STATIONARY SOURCES: ELECTRIC UTILITY GENERATING UNITS

As required by a settlement agreement, the EPA proposed new performance standards for emissions of CO_2 for new, affected, fossil fuel-fired electric utility generating units on March 27, 2012. New sources greater than 25 megawatts (MW) would be required to meet an output-based standard of 1,000 pounds (lbs) of CO_2 per MW-hour (MWh), based on the performance of widely used natural gas combined cycle technology. It should be noted that on February 9, 2016 the Supreme Court issued a stay of this regulation pending litigation. Additionally, the current EPA Administrator has also signed a measure to repeal the Clean Power Plan, including the CO_2 standards. The Clean Power Plan was officially repealed on June 19, 2019, when the EPA issued the final Affordable Clean Energy rule (ACE). Under ACE, new state emission guidelines were established that provided existing coal-fired electric utility generating units with achievable standards.

CAP-AND-TRADE

Cap-and-trade refers to a policy tool where emissions are limited to a certain amount and can be traded or provides flexibility on how the emitter can comply. Successful examples in the U.S. include the Acid Rain Program and the N_2O Budget Trading Program and Clean Air Interstate Rule in the northeast. There is no federal GHG cap-and-trade program currently; however, some states have joined to create initiatives to provide a mechanism for cap-and-trade.

The Regional GHG Initiative is an effort to reduce GHGs among the states of Connecticut, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New York, Rhode Island, and Vermont. Each state caps CO_2 emissions from power plants, auctions CO_2 emission allowances, and invests the proceeds in strategic energy programs that further reduce emissions, save consumers money, create jobs, and build a clean energy economy. The Initiative began in 2008 and in 2020 has retained all participating states.

The Western Climate Initiative (WCI) partner jurisdictions have developed a comprehensive initiative to reduce regional GHG emissions to 15% below 2005 levels by 2020. The partners were originally California, British Columbia, Manitoba, Ontario, and Quebec. However, Manitoba and Ontario are not currently participating. California linked with Quebec's cap-and-trade system January 1, 2014, and joint offset auctions took place in 2015. While the WCI has yet to publish whether it has successfully reached the 2020 emissions goal initiative set in 2007, SB 32, requires that California, a major partner in the WCI, adopt the goal of reducing statewide GHG emissions to 40% below the 1990 level by 2030.

SMARTWAY PROGRAM

The SmartWay Program is a public-private initiative between the EPA, large and small trucking companies, rail carriers, logistics companies, commercial manufacturers, retailers, and other federal and state agencies. Its purpose is to improve fuel efficiency and the environmental performance (reduction of both GHG emissions and air pollution) of the goods movement supply chains. SmartWay is comprised of four components (33):

1. SmartWay Transport Partnership: A partnership in which freight carriers and shippers commit to benchmark operations, track fuel consumption, and improve performance annually.
2. SmartWay Technology Program: A testing, verification, and designation program to help freight companies identify equipment, technologies, and strategies that save fuel and lower emissions.
3. SmartWay Vehicles: A program that ranks light-duty cars and small trucks and identifies superior environmental performers with the SmartWay logo.
4. SmartWay International Interests: Guidance and resources for countries seeking to develop freight sustainability programs modeled after SmartWay.

SmartWay effectively refers to requirements geared towards reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. Moreover, over time, all HDTs will have to comply with CARB GHG Regulation that is designed with the SmartWay Program in mind, to reduce GHG emissions by making them more fuel-efficient. For instance, in 2015, 53 foot or longer dry vans or refrigerated trailers equipped with a combination of SmartWay-verified low-rolling resistance tires and SmartWay-verified aerodynamic devices would obtain a total of 10% or more fuel savings over traditional trailers.

Through the SmartWay Technology Program, the EPA has evaluated the fuel saving benefits of various devices through grants, cooperative agreements, emissions and fuel economy testing, demonstration projects and technical literature review. As a result, the EPA has determined the following types of technologies provide fuel saving and/or emission reducing benefits when used properly in their designed applications, and has verified certain products:

- Idle reduction technologies – less idling of the engine when it is not needed would reduce fuel consumption.
- Aerodynamic technologies minimize drag and improve airflow over the entire tractor-trailer vehicle. Aerodynamic technologies include gap fairings that reduce turbulence between the tractor and trailer, side skirts that minimize wind under the trailer, and rear fairings that reduce turbulence and pressure drop at the rear of the trailer.
- Low rolling resistance tires can roll longer without slowing down, thereby reducing the amount of fuel used. Rolling resistance (or rolling friction or rolling drag) is the force resisting the motion when a tire rolls on a surface. The wheel will eventually slow down because of this resistance.
- Retrofit technologies include things such as diesel particulate filters, emissions upgrades (to a higher tier), etc., which would reduce emissions.
- Federal excise tax exemptions.

2.7.3 CALIFORNIA

2.7.3.1 LEGISLATIVE ACTIONS TO REDUCE GHGS

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as the landmark AB 32 was specifically enacted to address GHG emissions. Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water

conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

EXECUTIVE ORDER S-3-05

Former California Governor Arnold Schwarzenegger announced on June 1, 2005, through Executive Order S-3-05, the following reduction targets for GHG emissions:

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

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target. Because this is an executive order, the goals are not legally enforceable for local governments or the private sector.

AB 32

The California State Legislature enacted AB 32, which requires that GHGs emitted in California be reduced to 1990 levels by the year 2020. "GHGs" as defined under AB 32 include CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6. Since AB 32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. CARB is the state agency charged with monitoring and regulating sources of GHGs. Pursuant to AB 32, CARB adopted regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. AB 32 states the following:

> *"Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems."*

CARB approved the 1990 GHG emissions level of 427 $MMTCO_2e$ on December 6, 2007 (34). Therefore, emissions generated in California in 2020 are required to be equal to or less than 427 $MMTCO_2e$. Emissions in 2020 in a "business as usual" (BAU) scenario were estimated to be 596 $MMTCO_2e$, which do not account for reductions from AB 32 regulations (35). At that level, a 28.4% reduction was required to achieve the 427 $MMTCO_2e$ 1990 inventory. In October 2010, CARB prepared an updated 2020 forecast to account for the recession and slower forecasted growth. The forecasted inventory without the benefits of adopted regulation is now estimated at 545 $MMTCO_2e$. Therefore, under the updated forecast, a 21.7% reduction from BAU is required to achieve 1990 levels (36) .

PROGRESS IN ACHIEVING AB 32 TARGETS AND REMAINING REDUCTIONS REQUIRED

The State has made steady progress in implementing AB 32 and achieving targets included in Executive Order S-3-05. The progress is shown in updated emission inventories prepared by CARB for 2000 through 2012 (37). The State has achieved the Executive Order S-3-05 target for 2010 of reducing GHG emissions to 2000 levels. As shown below, the 2010 emission inventory achieved this target.

- 1990: 427 $MMTCO_2e$ (AB 32 2020 target)
- 2000: 463 $MMTCO_2e$ (an average 8% reduction needed to achieve 1990 base)
- 2010: 450 $MMTCO_2e$ (an average 5% reduction needed to achieve 1990 base)

CARB has also made substantial progress in achieving its goal of achieving 1990 emissions levels by 2020. As described earlier in this section, CARB revised the 2020 BAU inventory forecast to account for new lower growth projections, which resulted in a new lower reduction from BAU to achieve the 1990 base. The previous reduction from 2020 BAU needed to achieve 1990 levels was 28.4% and the latest reduction from 2020 BAU is 21.7%.

- 2020: 545 $MMTCO_2e$ BAU (an average 21.7% reduction from BAU needed to achieve 1990 base)

SB 375 – THE SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT OF 2008

Passing the Senate on August 30, 2008, Senate Bill (SB) 375 was signed by the Governor on September 30, 2008. According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40% of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: it (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

SB 375 also requires Metropolitan Planning Organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) within the Regional Transportation Plan (RTP) that guides growth while taking into account the transportation, housing, environmental, and economic needs of the region. SB 375 uses CEQA streamlining as an incentive to encourage residential projects, which help achieve AB 32 goals to reduce GHG emissions. Although SB 375 does not prevent CARB from adopting additional regulations, such actions are not anticipated in the foreseeable future.

Concerning CEQA, SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that CARB accepts as achieving the GHG emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).

3. Incorporates the mitigation measures required by an applicable prior environmental document.

AB 1493

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards will result in about a 22% reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30% reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

The second phase of the implementation for the Pavley bill was incorporated into Amendments to the Low-Emission Vehicle Program (LEV III) or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34% from 2016 levels by 2025. The new rules will clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles (EV) and hydrogen fuel cell cars. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

SB 350— CLEAN ENERGY AND POLLUTION REDUCTION ACT OF 2015

In October 2015, the legislature approved, and the Governor signed SB 350, which reaffirms California's commitment to reducing its GHG emissions and addressing climate change. Key provisions include an increase in the RPS, higher energy efficiency requirements for buildings, initial strategies towards a regional electricity grid, and improved infrastructure for EV charging stations. Provisions for a 50% reduction in the use of petroleum statewide were removed from the Bill because of opposition and concern that it would prevent the Bill's passage. Specifically, SB 350 requires the following to reduce statewide GHG emissions:

- Increase the amount of electricity procured from renewable energy sources from 33% to 50% by 2030, with interim targets of 40% by 2024, and 25% by 2027.
- Double the energy efficiency in existing buildings by 2030. This target will be achieved through the California Public Utility Commission (CPUC), the California Energy Commission (CEC), and local publicly owned utilities.

- Reorganize the Independent System Operator to develop more regional electrify transmission markets and to improve accessibility in these markets, which will facilitate the growth of renewable energy markets in the western United States.

SB 32

On September 8, 2016, Governor Jerry Brown signed the Senate Bill (SB) 32 and its companion bill, AB 197. SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80% below 1990 levels by 2050. AB 197 creates a legislative committee to oversee regulators to ensure that CARB not only responds to the Governor, but also the Legislature (11).

CARB SCOPING PLAN

CARB's Climate Change Scoping Plan (Scoping Plan) contains measures designed to reduce the State's emissions to 1990 levels by the year 2020 to comply with AB 32 (35). The Scoping Plan identifies recommended measures for multiple GHG emission sectors and the associated emission reductions needed to achieve the year 2020 emissions target—each sector has a different emission reduction target. Most of the measures target the transportation and electricity sectors. As stated in the Scoping Plan, the key elements of the strategy for achieving the 2020 GHG target include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;
- Achieving a statewide renewables energy mix of 33%;
- Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system;
- Establishing targets for transportation related GHG emissions for regions throughout California and pursuing policies and incentives to achieve those targets;
- Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the LCFS; and
- 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.

CARB approved the First Scoping Plan Update on May 22, 2014. The First Scoping Plan Update identifies the next steps for California's climate change strategy. The First Scoping Plan Update shows how California continues on its path to meet the near-term 2020 GHG limit, but also sets a path toward long-term, deep GHG emission reductions. The report establishes a broad framework for continued emission reductions beyond 2020, on the path to 80% below 1990 levels by 2050. The First Scoping Plan Update identifies progress made to meet the near-term objectives of AB 32 and defines California's climate change priorities and activities for the next several years. The First Scoping Plan Update does not set new targets for the State but describes

a path that would achieve the long term 2050 goal of Executive Order S-3-05 for emissions to decline to 80% below 1990 levels by 2050 (37).

Forecasting the amount of emissions that would occur in 2020 if no actions are taken was necessary to assess the amount of reductions California must achieve to return to the 1990 emissions level by 2020 as required by AB 32. The no-action scenario is known as "business-as-usual" or BAU. CARB originally defined the BAU scenario as emissions in the absence of any GHG emission reduction measures discussed in the Scoping Plan.

As part of CEQA compliance for the Scoping Plan, CARB prepared a Supplemental Functional Equivalent Document (FED) in 2011. The FED included an updated 2020 BAU emissions inventory projection based on current economic forecasts (i.e., as influenced by the economic downturn) and emission reduction measures already in place, replacing its prior 2020 BAU emissions inventory. CARB staff derived the updated emissions estimates by projecting emissions growth, by sector, from the state's average emissions from 2006–2008. The new BAU estimate includes emission reductions for the million-solar-roofs program, the AB 1493 motor vehicle GHG emission standards, and the LCFS. In addition, CARB factored into the 2020 BAU inventory emissions reductions associated with 33% RPS for electricity generation. The updated BAU estimate of 507 $MMTCO_2e$ by 2020 requires a reduction of 80 $MMTCO_2e$, or a 16% reduction below the estimated BAU levels to return to 1990 levels (i.e., 427 $MMTCO_2e$) by 2020.

In order to provide a BAU reduction that is consistent with the original definition in the Scoping Plan and with threshold definitions used in thresholds adopted by lead agencies for CEQA purposes and many CAPs, the updated inventory without regulations was also included in the Supplemental FED. CARB 2020 BAU projection for GHG emissions in California was originally estimated to be 596 $MMTCO_2e$. The updated CARB 2020 BAU projection in the Supplemental FED is 545 $MMTCO_2e$. Considering the updated BAU estimate of 545 $MMTCO_2e$ by 2020, CARB estimates a 21.7% reduction below the estimated statewide BAU levels is necessary to return to 1990 emission levels (i.e., 427 $MMTCO_2e$) by 2020, instead of the approximate 28.4% BAU reduction previously reported under the original Climate Change Scoping Plan (35).

2017 CLIMATE CHANGE SCOPING PLAN UPDATE

In compliance with AB 32 and the 2008 Scoping Plan, the target year 2020 has been fulfilled and will look onward to the 2017 Scoping Plan that should be in compliance by 2030.

In November 2017, CARB released the 2017 Scoping Plan Update, which identifies the State's post-2020 reduction strategy. The 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the LCFS, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce CH_4 emissions from agricultural and other wastes.

The 2017 Scoping Plan Update establishes a new emissions limit of 260 $MMTCO_2e$ for the year 2030, which corresponds to a 40% decrease in 1990 levels by 2030.

California's climate strategy will require contributions from all sectors of the economy, including the land base, and will include enhanced focus on zero- and near-zero-emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (CH_4, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries will further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources. Major elements of the 2017 Scoping Plan framework include:

- Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks.
- LCFS, with an increased stringency (18% by 2030).
- Implementing SB 350, which expands the RPS to 50% RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of zero-emission vehicles (ZEV) trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing CH_4 and hydroflurocarbon emissions by 40% and anthropogenic black carbon emissions by 50% by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20% reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Note, however, that the 2017 Scoping Plan acknowledges that:

> *"[a]chieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and 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."*

In addition to the statewide strategies listed above, the 2017 Scoping Plan Update also identifies local governments as essential partners in achieving the State's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO_2e ($MTCO_2e$) or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds—consistent with the Scoping Plan and the State's long-term GHG

goals—and projects with emissions over that amount may be required to incorporate on-site design features and mitigation measures that avoid or minimize project emissions to the degree feasible. Alternatively, a performance-based metric using a CAP or other plan to reduce GHG emissions is appropriate.

According to research conducted by the Lawrence Berkeley National Laboratory (LBNL) and supported by CARB, California, under its existing and proposed GHG reduction policies, is on track to meet the 2020 reduction targets under AB 32 and could achieve the 2030 goals under SB 32. The research utilized a new, validated model known as the California LBNL GHG Analysis of Policies Spreadsheet (CALGAPS), which simulates GHG and criteria pollutant emissions in California from 2010 to 2050 in accordance to existing and future GHG-reducing policies. The CALGAPS model showed that GHG emissions through 2020 could range from 317 to 415 $MTCO_2e$ per year ($MTCO_2e$/yr), "indicating that existing state policies will likely allow California to meet its target [of 2020 levels under AB 32]." CALGAPS also showed that by 2030, emissions could range from 211 to 428 $MTCO_2e$/yr, indicating that "even if all modeled policies are not implemented, reductions could be sufficient to reduce emissions 40% below the 1990 level [of SB 32]." CALGAPS analyzed emissions through 2050 even though it did not generally account for policies that might be put in place after 2030. Although the research indicated that the emissions would not meet the State's 80% reduction goal by 2050, various combinations of policies could allow California's cumulative emissions to remain very low through 2050 (38) (39).

CAP-AND-TRADE PROGRAM

The Scoping Plan identifies a Cap-and-Trade Program as one of the key strategies for California to reduce GHG emissions. According to CARB, a cap-and-trade program will help put California on the path to meet its goal of reducing GHG emissions to 1990 levels by the year 2020 and ultimately achieving an 80% reduction from 1990 levels by 2050. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap will be able to trade permits to emit GHGs within the overall limit.

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. See Title 17 of the CCR §§ 95800 to 96023). The Cap-and-Trade Program is designed to reduce GHG emissions from major sources (deemed "covered entities") by setting a firm cap on statewide GHG emissions and employing market mechanisms to achieve AB 32's emission-reduction mandate of returning to 1990 levels of emissions by 2020. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the program's duration.

Covered entities that emit more than 25,000 $MTCO_2e$/yr must comply with the Cap-and-Trade Program. Triggering of the 25,000 $MTCO_2e$/yr "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of GHG Emissions (Mandatory Reporting Rule or "MRR").

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities.

Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender "compliance instruments" (30) for each $MTCO_2e$ of GHG they emit. There also are requirements to surrender compliance instruments covering 30% of the prior year's compliance obligation by November of each year. For example, in November 2014, a covered entity was required to submit compliance instruments to cover 30% of its 2013 GHG emissions.

The Cap-and-Trade Program provides a firm cap, ensuring that the 2020 statewide emission limit will not be exceeded. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. As summarized by CARB in the First Update:

> *"The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative (CARB 2014)."*

The Cap-and-Trade Program works with other direct regulatory measures and provides an economic incentive to reduce emissions. If California's direct regulatory measures reduce GHG emissions more than expected, then the Cap-and-Trade Program will be responsible for relatively fewer emissions reductions. If California's direct regulatory measures reduce GHG emissions less than expected, then the Cap-and-Trade Program will be responsible for relatively more emissions reductions. Thus, the Cap-and-Trade Program assures that California will meet its 2020 GHG emissions reduction mandate:

> *"The Cap-and-Trade Program establishes an overall limit on GHG emissions from most of the California economy—the "capped sectors." Within the capped sectors, some of the reductions are being accomplished through direct regulations, such as improved building and appliance efficiency standards, the [Low Carbon Fuel Standard] LCFS, and the 33% [Renewables Portfolio Standard] RPS. Whatever additional reductions are needed to bring emissions within the cap is accomplished through price incentives posed by emissions allowance prices. Together, direct regulation and price incentives assure that emissions are brought down cost-effectively to the level of the overall cap. The Cap-and-Trade Regulation provides assurance that California's 2020 limit will be met because the regulation sets a firm limit on 85% of California's GHG emissions. In sum, the Cap-and-Trade Program will achieve aggregate, rather than site specific or project-level, GHG emissions reductions. Also, due to the regulatory architecture adopted by CARB in*

> *AB 32, the reductions attributed to the Cap-and-Trade Program can change over time depending on the State's emissions forecasts and the effectiveness of direct regulatory measures* (37)*."*

As of January 1, 2015, the Cap-and-Trade Program covered approximately 85% of California's GHG emissions. The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program.

The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period. While the Cap-and-Trade Program technically covered fuel suppliers as early as 2012, they did not have a compliance obligation (i.e., they were not fully regulated) until 2015. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported. The point of regulation for transportation fuels is when they are "supplied" (i.e., delivered into commerce). Accordingly, as with stationary source GHG emissions and GHG emissions attributable to electricity use, virtually all, if not all, of GHG emissions from CEQA projects associated with vehicle miles traveled (VMT) are covered by the Cap-and-Trade Program (40). In addition, the Scoping Plan differentiates between "capped" and "uncapped" strategies. "Capped" strategies are subject to the proposed cap-and-trade program. The Scoping Plan states that the inclusion of these emissions within the Program will help ensure that the year 2020 emission targets are met despite some degree of uncertainty in the emission reduction estimates for any individual measure. Implementation of the capped strategies is calculated to achieve a sufficient amount of reductions by 2020 to achieve the emission target contained in AB 32. "Uncapped" strategies that will not be subject to the cap-and-trade emissions caps and requirements are provided as a margin of safety by accounting for additional GHG emission reductions.[4]

2.7.3.2 EXECUTIVE ORDERS RELATED TO GHG EMISSIONS

California's Executive Branch has taken several actions to reduce GHGs through the use of Executive Orders. Although not regulatory, they set the tone for the state and guide the actions of state agencies.

EXECUTIVE ORDER S-13-08

Executive Order S-13-08 states that "climate change in California during the next century is expected to shift precipitation patterns, accelerate sea level rise and increase temperatures, thereby posing a serious threat to California's economy, to the health and welfare of its

[4] On March 17, 2011, the San Francisco Superior Court issued a final decision in *Association of Irritated Residents v. California Air Resources Board* (Case No. CPF-09-509562). While the Court upheld the validity of CARB Scoping Plan for the implementation of AB 32, the Court enjoined CARB from further rulemaking under AB 32 until CARB amends its CEQA environmental review of the Scoping Plan to address the flaws identified by the Court. On May 23, 2011, CARB filed an appeal. On June 24, 2011, the Court of Appeal granted CARB's petition staying the trail court's order pending consideration of the appeal. In the interest of informed decision-making, on June 13, 2011, CARB released the expanded alternatives analysis in a draft Supplement to the AB 32 Scoping Plan Functional Equivalent Document. CARB Board approved the Scoping Plan and the CEQA document on August 24, 2011.

population and to its natural resources." Pursuant to the requirements in the Order, the 2009 California Climate Adaptation Strategy was adopted, which is the "…first statewide, multi-sector, region-specific, and information-based climate change adaptation strategy in the United States." Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

EXECUTIVE ORDER B-30-15

On April 29, 2015, Governor Edmund G. Brown Jr. issued an executive order to establish a California GHG reduction target of 40% below 1990 levels by 2030. The Governor's executive order aligns California's GHG reduction targets with those of leading international governments ahead of the United Nations Climate Change Conference in Paris late 2015. The Order sets a new interim statewide GHG emission reduction target to reduce GHG emissions to 40% below 1990 levels by 2030 in order to ensure California meets its target of reducing GHG emissions to 80% below 1990 levels by 2050 and directs CARB to update the Climate Change Scoping Plan to express the 2030 target in terms of $MMTCO_2e$. The Order also requires the state's climate adaptation plan to be updated every three years, and for the State to continue its climate change research program, among other provisions. As with Executive Order S-3-05, this Order is not legally enforceable for local governments and the private sector. Legislation that would update AB 32 to make post 2020 targets and requirements a mandate is in process in the State Legislature.

EXECUTIVE ORDER S-01-07 – LCFS

The Governor signed Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020. In particular, the Executive Order established a LCFS and directed the Secretary for Environmental Protection to coordinate the actions of the CEC, CARB, the University of California, and other agencies to develop and propose protocols for measuring the "life-cycle carbon intensity" of transportation fuels. This analysis supporting development of the protocols was included in the State Implementation Plan for alternative fuels (State Alternative Fuels Plan adopted by CEC on December 24, 2007) and was submitted to CARB for consideration as an "early action" item under AB 32. CARB adopted the LCFS on April 23, 2009.

The LCFS was challenged in the U.S. District Court in Fresno in 2011. The court's ruling issued on December 29, 2011, included a preliminary injunction against CARB's implementation of the rule. The Ninth Circuit Court of Appeals stayed the injunction on April 23, 2012, pending final ruling on appeal, allowing CARB to continue to implement and enforce the regulation. The Ninth Circuit Court's decision, filed September 18, 2013, vacated the preliminary injunction. In essence, the court held that LCFS adopted by CARB were not in conflict with federal law. On August 8, 2013, the Fifth District Court of Appeal (California) ruled CARB failed to comply with CEQA and the Administrative Procedure Act (APA) when adopting regulations for LCFS. In a partially published opinion, the Court of Appeal reversed the trial court's judgment and directed issuance of a writ of mandate setting aside Resolution 09-31 and two executive orders of CARB approving LCFS regulations promulgated to reduce GHG emissions. However, the court tailored its remedy to

protect the public interest by allowing the LCFS regulations to remain operative while CARB complies with the procedural requirements it failed to satisfy.

To address the Court ruling, CARB was required to bring a new LCFS regulation to the Board for consideration in February 2015. The proposed LCFS regulation was required to contain revisions to the 2010 LCFS as well as new provisions designed to foster investments in the production of the low-carbon intensity fuels, offer additional flexibility to regulated parties, update critical technical information, simplify and streamline program operations, and enhance enforcement. On November 16, 2015 the Office of Administrative Law (OAL) approved the Final Rulemaking Package. The new LCFS regulation became effective on January 1, 2016.

EXECUTIVE ORDER B-55-18 AND SB 100

Executive Order B-55-18 was signed by Governor Brown on September 10, 2018. The order establishes an additional Statewide policy to achieve carbon neutrality by 2045 and maintain net negative emissions thereafter. As per Executive Order B-55-18, CARB is directed to work with relevant State agencies to develop a framework for implementation and accounting that tracks progress toward this goal and to ensure future Climate Change Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

2.7.3.3 CALIFORNIA REGULATIONS AND BUILDING CODES

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

TITLE 20 CCR

CCR, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. 23 categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles or other mobile equipment (CEC 2012).

TITLE 24 CCR

California Code of Regulations (CCR) Title 24 Part 6: The California Energy Code was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption.

The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that will be effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide $1.5 billion in consumer benefits and reduce GHG emissions by 10

million metric tons (41). The Project would be required to comply with the applicable standards in place at the time building permit document submittals are made. These require, among other items (42):

NONRESIDENTIAL MANDATORY MEASURES

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- Designated parking for clean air vehicles. In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reuse or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
  - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
  - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor- mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).

  - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
  - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).

- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).
- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

MWELO

The MWELO was required by AB 1881, the Water Conservation Act. The bill required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. Reductions in water use of 20% consistent with (SBX-7-7) 2020 mandate are expected upon compliance with the ordinance. Governor Brown's Drought Executive Order of April 1, 2015 (Executive Order B-29-15) directed Department of Water Resources (DWR) to update the Ordinance through expedited regulation. The California Water Commission approved the revised Ordinance on July 15, 2015 effective December 15, 2015. New development projects that include landscape areas of 500 sf or more are subject to the Ordinance. The update requires:

- More efficient irrigation systems;
- Incentives for graywater usage;
- Improvements in on-site stormwater capture;
- Limiting the portion of landscapes that can be planted with high water use plants; and
- Reporting requirements for local agencies.

TRACTOR-TRAILER GHG REGULATION

The tractors and trailers subject to this regulation must either use EPA SmartWay certified tractors and trailers or retrofit their existing fleet with SmartWay verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the HD tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low rolling resistance tires. Sleeper cab tractors model year 2011 and later must be SmartWay certified. All other tractors must use SmartWay verified low rolling resistance tires. There are also requirements for trailers to have low rolling resistance tires and aerodynamic devices.

PHASE I AND 2 HEAVY-DUTY VEHICLE GHG STANDARDS

CARB has adopted a new regulation for GHG emissions from HDTs and engines sold in California. It establishes GHG emission limits on truck and engine manufacturers and harmonizes with the EPA rule for new trucks and engines nationally. Existing HD vehicle regulations in California include engine criteria emission standards, tractor-trailer GHG requirements to implement SmartWay strategies (i.e., the Heavy-Duty Tractor-Trailer GHG Regulation), and in-use fleet retrofit requirements such as the Truck and Bus Regulation. In September 2011, the EPA adopted their new rule for HDTs and engines. The EPA rule has compliance requirements for new compression and spark ignition engines, as well as trucks from Class 2b through Class 8. Compliance requirements begin with model year 2014 with stringency levels increasing through model year 2018. The rule organizes truck compliance into three groupings, which include a) HD pickups and vans; b) vocational vehicles; and c) combination tractors. The EPA rule does not regulate trailers.

CARB staff has worked jointly with the EPA and the NHTSA on the next phase of federal GHG emission standards for medium-duty trucks (MDT) and HDT vehicles, called federal Phase 2. The federal Phase 2 standards were built on the improvements in engine and vehicle efficiency required by the Phase 1 emission standards and represent a significant opportunity to achieve further GHG reductions for 2018 and later model year HDT vehicles, including trailers. But as discussed above, the EPA and NHTSA have proposed to roll back GHG and fuel economy standards for cars and light-duty trucks, which suggests a similar rollback of Phase 2 standards for MDT and HDT vehicles may be pursued.

In February 2019, the OAL approved the Phase 2 Heavy-Duty Vehicle GHG Standards and became effective April 1, 2019. The Phase 2 GHG standards are needed to offset projected VMT growth and keep heavy-duty truck CO_2 emissions declining. The federal Phase 2 standards establish for the first time, federal emissions requirements for trailers hauled by heavy-duty tractors. The federal Phase 2 standards are more technology-forcing than the federal Phase 1 standards, requiring manufacturers to improve existing technologies or develop new technologies to meet the standards. The federal Phase 2 standards for tractors, vocational vehicles, and heavy-duty pick-up trucks and vans (PUVs) will be phased-in from 2021-2027, additionally for trailers, the standards are phased-in from 2018 (2020 in California) through 2027 (43).

SB 97 AND THE *CEQA GUIDELINES* UPDATE

Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research (OPR) shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010 for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of GHGs would not violate CEQA.

On December 28, 2018, the Natural Resources Agency announced the OAL approved the amendments to the *CEQA Guidelines* for implementing the CEQA. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing *CEQA Guidelines* to reference climate change.

Section 1506.4 was amended to state that in determining the significance of a project's GHG emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency's analysis should consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. Additionally, a lead agency may use a model or methodology to estimate GHG emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use (44).

CALIFORNIA RPS PROGRAM (SB 100)

Under the existing RPS, 25% of retail sales are required to be from renewable sources by December 31, 2016, 33% by December 31, 2020, 40% by December 31, 2024, 45% by December 31, 2027, and 50% by December 31, 2030. SB 100 raises California's RPS requirement to 50% renewable resources target by December 31, 2026, and to achieve a 60% target by December 31, 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours (kWh) of those products sold to their retail end-use customers achieve 44% of retail sales by December 31, 2024, 52% by December 31, 2027, and 60% by December 31, 2030. In addition to targets under AB 32 and SB 32, Executive Order B-55-18 establishes a carbon neutrality goal for the state of California by 2045; and sets a goal to maintain net negative

emissions thereafter. The Executive Order directs the California Natural Resources Agency (CNRA), California Environmental Protection Agency (CalEPA), the Department of Food and Agriculture (CDFA), and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

2.8 DISCUSSION ON ESTABLISHMENT OF SIGNIFICANCE THRESHOLDS

CITY OF HESPERIA CLIMATE ACTION PLAN (CAP)

On July 20, 2010, the City of Hesperia adopted the CAP, which provides a framework for reducing GHG emissions and managing resources to best prepare for a changing climate (45). The CAP recommends GHG emissions targets that are consistent with the reduction targets of the State of California and presents a number of strategies that will make it possible for the City to meet the recommended targets. Strategy CAP-1 specifies that "projects that are consistent with this CAP could result in less than significant impacts regarding climate change. This is because emissions from these projects are generally accounted for in this CAP and would be consistent with this CAP reduction target. To be consistent with this CAP, CEQA projects must implement the applicable CAP implementation strategies listed in Section 4.2" Per CAP Implementation Action 1.5 (CAP-1.5), projects that require a discretionary approval shall reduce operational GHG emissions by at least 12%, without accounting for regulations discussed in the CAP.

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3 PROJECT GREENHOUSE GAS IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a potentially significant GHG impact. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related GHG impacts are taken from the Initial Study Checklist in Appendix G of the State *CEQA Guidelines* (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to GHG if it would (46):

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

3.3 MODELS EMPLOYED TO ANALYZE GREENHOUSE GASES EMISSIONS

3.3.1 CALIFORNIA EMISSIONS ESTIMATOR MODEL™

In May 2022 California Air Pollution Control Officers Association (CAPCOA) in conjunction with other California air districts, including SCAQMD, released the latest version of CalEEMod version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (47). MDAQMD has approved the latest version of CalEEMod for modeling and evaluation of criteria air pollutant emissions and GHG emissions. Accordingly, the latest version of CalEEMod has been used for this Project to determine GHG emissions. Output from the model runs for construction and operational activity are provided in Appendices 3.1 through 3.3. CalEEMod includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water, refrigerants.

3.4 CONSTRUCTION EMISSIONS

Project construction actvities would generate CO_2, CH_4, and N_2O emissions. The report *Amargosa and Palmetto High-Cube Warehouse Air Quality Impact Analysis* (Urban Crossroads, Inc.) (AQIA) contains detailed information regarding Project construction activities (48). As discussed in the AQIA, Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Paving

- Architectural Coating

3.4.1 CONSTRUCTION DURATION

Construction is expected to commence in January 2023 and will last through December 2023. Construction duration by phase is shown on Table 3-2. The construction schedule utilized in the analysis represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[5] The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines*. The duration of construction activity was based on the 2024 opening year.

TABLE 3-1: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Site Preparation	1/15/2023	2/1/2023	13
Grading	2/1/2023	3/31/2023	43
Building Construction	3/15/2023	11/30/2023	187
Paving	11/15/2023	12/30/2023	33
Architectural Coating	11/6/2023	12/30/2023	40

3.4.2 CONSTRUCTION EQUIPMENT

Site specific construction fleet may vary due to specific project needs at the time of construction. A detailed summary of construction equipment assumptions by phase is provided at Table 3-2. Please refer to specific detailed modeling inputs/outputs contained in Appendix 3.1 of this GHGA.

TABLE 3-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Phase Name	Equipment	Number	Hours Per Day
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Grading	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
	Crawler Tractors	2	8

[5] As shown in the CalEEMod User's Guide Version 2022.1, Section 4.3"OFFROAD Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

Phase Name	Equipment	Number	Hours Per Day
Building Construction	Cranes	1	8
	Forklifts	3	8
	Generator Sets	1	8
	Tractors/Loaders/Backhoes	3	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

3.4.3 CONSTRUCTION EMISSIONS SUMMARY

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. MDAQMD follows the SCAQMD recommendation in calculating the total GHG emissions for construction activities by amortizing the emissions over the life of the Project by dividing it by a 30- year project life then adding that number to the annual operational phase GHG emissions (49). As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. The amortized construction emissions are presented in Table 3-3.

TABLE 3-3: AMORTIZED ANNUAL CONSTRUCTION EMISSIONS

Year	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	R	Total CO_2e
2023	868.00	0.03	0.04	0.75	881.00
Total GHG Emissions	868.00	0.03	0.04	0.75	881.00
Amortized Construction Emissions ($MTCO_2e$)	**28.93**	**0.00**	**0.00**	**0.03**	**29.37**

3.5 OPERATIONAL EMISSIONS

Project operations would generate GHG emissions of CO_2, CH_4, and N_2O. Primary GHG emissions sources would include:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions
- On-Site Cargo Handling Equipment Emissions
- Solid Waste Management
- Water Supply, Treatment, and Distribution

Unless otherwise noted, all emissions modeling presented herein employed CalEEMod default inputs and parameters.

3.5.1 AREA SOURCE EMISSIONS

LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. It should be noted that on October 9, 2021, Governor Gavin Newsom signed AB 1346. The bill aims to ban the sale of new gasoline-powered equipment under 25 gross horsepower (known as small off-road engines [SOREs]) by 2024.

3.5.2 ENERGY SOURCE

COMBUSTION EMISSIONS ASSOCIATED WITH NATURAL GAS AND ELECTRICITY

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the MDAB, criteria pollutant emissions from offsite generation of electricity are generally excluded from the evaluation of significance and only natural gas use is considered. Based on information provided by the Project Applicant, the Project would not utilize natural gas and therefore no air quality emissions from energy sources would occur.

3.5.3 MOBILE SOURCE

The Project GHG emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the *Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis* were utilized in this analysis (50).

APPROACH FOR ANALYSIS OF THE PROJECT

In order to determine emissions from passenger car vehicles, the CalEEMod defaults were utilized for trip length and trip purpose for the proposed industrial land uses.

For the proposed industrial uses, it is important to note that although the *Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis* does not breakdown passenger cars by type, this analysis assumes that passenger cars include Light-Duty-Auto vehicles (LDA), Light-Duty-Trucks (LDT1[6] & LDT2[7]), Medium-Duty-Vehicles (MDV), and Motorcycles (MCY) vehicle types. To account for emissions generated by passenger cars, the following fleet mix was utilized in this analysis:

[6] Vehicles under the LDT1 category have a gross vehicle weight rating (GVWR) of less than 6,000 lbs. and equivalent test weight (ETW) of less than or equal to 3,750 lbs.

[7] Vehicles under the LDT2 category have a GVWR of less than 6,000 lbs. and ETW between 3,751 lbs. and 5,750 lbs.

TABLE 3-4: PASSENGER CAR FLEET MIX

Land Use	% Vehicle Type				
	LDA	LDT1	LDT2	MDV	MCY
High Cube Fulfillment (Non-Sort Facility) Warehouse	52.72%	4.97%	22.22%	17.18%	2.88%

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, MDV, and MCY vehicle types.

To determine emissions from trucks for the proposed industrial uses, the analysis incorporated SCAQMD recommended truck trip length 15.3 miles for 2-axle (LHDT1, LHDT2) trucks, 14.2 miles 3-axle (MHDT) trucks and 40 miles for 4+-axle (HHDT) trucks and weighting the average trip lengths using traffic trip percentages taken from the *Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis*. The trip length function for the general light industrial and manufacturing uses has been revised to 30.47 miles with an assumption of 100% primary trips for the proposed industrial land uses.

In order to be consistent with the *Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis*, trucks are broken down by truck type. The truck fleet mix is estimated by rationing the trip rates for each truck type based on information provided in the *Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis*. Heavy trucks are broken down by truck type (or axle type) and are categorized as either Light-Heavy-Duty Trucks (LHDT1[8] & LHDT2 [9])/2-axle, Medium-Heavy-Duty Trucks (MHDT)/3-axle, and Heavy-Heavy-Duty Trucks (HHDT)/4+-axle. To account for emissions generated by trucks, the following fleet mix was utilized in this analysis:

TABLE 3-5: TRUCK FLEET MIX

Land Use	% Vehicle Type			
	LHDT1	LHDT2	MHDT	HHDT
High Cube Fulfillment (Non-Sort Facility) Warehouse	13.03%	3.49%	20.87%	62.61%

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) relative to the total number of truck trips.

3.5.4 ON-SITE CARGO HANDLING EQUIPMENT EMISSIONS

It is common for warehouse buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. For this particular Project, on-site modeled operational equipment includes up to two (2) 200 horsepower (hp), compressed natural gas or gasoline-powered tractors/loaders/backhoes operating at 4 hours a day[10] for 365 days of the year.

[8] Vehicles under the LHDT1 category have a GVWR of 8,501 to 10,000 lbs.

[9] Vehicles under the LHDT2 category have a GVWR of 10,001 to 14,000 lbs.

[10] Based on Table II-3, Port and Rail Cargo Handling Equipment Demographics by Type, from CARB's Technology Assessment: Mobile Cargo

3.5.6 SOLID WASTE MANAGEMENT

Industrial land uses will result in the generation and disposal of solid waste. A percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material.

3.5.7 WATER SUPPLY, TREATMENT, AND DISTRIBUTION

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of the water.

3.6 EMISSIONS SUMMARY

PROJECT BASELINE GHG EMISSIONS (PROJECT GHG EMISSIONS WITHOUT CURRENT REGULATORY REQUIREMENTS)

As shown on Table 3-6, without accounting for current regulatory requirements, Project GHG emissions would total approximately 5,793.17 $MTCO_2e$ per year.

TABLE 3-6: PROJECT BASELINE GHG EMISSIONS SUMMARY

Emission Source	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	R	Total CO_2e
Annual construction-related emissions amortized over 30 years	28.93	1.00E-03	1.33E-03	2.50E-02	29.37
Mobile Source	3,288.00	0.06	0.25	4.43	3,368.00
Area Source	7.30	< 0.005	< 0.005	0.00	7.51
Energy Source	1,287.00	0.08	0.01	0.00	1,291.00
Water	256.00	3.77	0.09	0.00	378.00
Waste	41.90	4.19	0.00	0.00	147.00
On-site Equipment Source	0.00	0.00	0.00	0.00	572.30
Total CO_2e (All Sources)	**5,793.17**				

Source: CalEEMod output, See Appendix 3.2 for detailed model outputs.

PROJECT NET GHG EMISSIONS (PROJECT GHG EMISSIONS WITH IMPLEMENTATION OF CURRENT REGULATORY REQUIREMENTS)

As shown on Table 3-7, after implementation of current regulatory requirements, Project GHG emissions would total approximately 4,894.17 $MTCO_2e$ per year. The Project GHG emissions estimates presented at Table 3-7 reflect contemporary GHG emissions regulatory actions enacted subsequent to adoption of the City's 2010 CAP. These regualtory actions (notably

Handling Equipment document, a single piece of equipment could operate up to 2 hours per day (Total Average Annual Activity divided by Total Number Pieces of Equipment). As such, the analysis conservatively assumes that the tractor/loader/backhoe would operate up to 4 hours per day.

implementation of the RPS) would yield an approximate 9% reduction in Project GHG emissions from sources other than vehicles. An additional 7% reduction in GHG emissions (primarily from vehicular/mobile sources) would be achieved through on-going implementation of the Pavley Fuel Efficiency Standards. These measures, which are not reflected in the CAP, would reduce Project GHG emissions by approximately 16%.

TABLE 3-7: PROJECT NET GHG EMISSIONS SUMMARY –
GHG EMISSIONS WITH IMPLEMENTATION OF CURRENT REGULATORY REQUIREMENTS

Emission Source	Emissions (MT/yr)				
	CO_2	CH_4	N_2O	R	Total CO_2e
Annual construction-related emissions amortized over 30 years	28.93	1.00E-03	1.33E-03	2.50E-02	29.37
Mobile Source	2,895.00	0.06	0.25	4.43	2,975.00
Area Source	7.30	< 0.005	< 0.005	0.00	7.51
Energy Source	893.00	0.08	0.01	0.00	896.00
Water	146.00	3.77	0.09	0.00	267.00
Waste	41.90	4.19	0.00	0.00	147.00
On-site Equipment Source	0.00	0.00	0.00	0.00	572.30
Total CO_2e (All Sources)	**4,894.17**				

Source: CalEEMod output, See Appendix 3.3 for detailed model outputs.

3.7 GREENHOUSE GAS EMISSIONS FINDINGS AND RECOMMENDATIONS

3.7.1 GHG IMPACT #1

The Project would not generate direct or indirect greenhouse gas emission that would result in a significant impact on the environment.

The Project has the potential to generate a total of approximately 4,894.17 $MTCO_2e$/yr, after control measures as summarized on Table 3-7, and meets the City's CAP target of a 12% reduction. An individual project cannot generate enough GHG emissions to influence global climate change. The project participates in this potential impact by its incremental contribution combined with the cumulative increase of all other sources of GHGs, which when taken together may have a significant impact on global climate change. Because the City's CAP addresses GHG emissions reduction, is in concert with AB 32 and international efforts to address global climate change and includes specific local requirements that will substantially lessen the cumulative problem, compliance with the CAP fulfills the description of mitigation found in CEQA Guidelines §15130(a)(3) and §15183.5.

3.7.2 GHG IMPACT #2

The Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

As previously stated, pursuant to 15604.4 of the *CEQA Guidelines*, a lead agency may rely on qualitative analysis or performance-based standards to determine the significance of impacts from GHG emissions (46). As such, the Project's consistency with SB 32 (2017 Scoping Plan) discussed below. It should be noted that the Project's consistency with the 2017 Scoping Plan also satisfies consistency with AB 32 since the 2017 Scoping Plan is based on the overall targets established by AB 32. Consistency with the 2008 Scoping Plan is not necessary, since the target year for the 2008 Scoping Plan was 2020, and the Project's buildout year is 2024. As such the 2008 Scoping Plan does not apply and consistency with the 2017 Scoping Plan is relevant. For reasons outlined herein, the Project would result in a less than significant impact with respect to GHG emissions for GHG Impact #2.

2017 SCOPING PLAN CONSISTENCY

The *2017 Scoping Plan* Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Table 3-8 summarizes the project's consistency with the *2017 Scoping Plan*. As summarized, the project will not conflict with any of the provisions of the *Scoping Plan* and in fact supports seven of the action categories.

TABLE 3-8: 2017 SCOPING PLAN CONSISTENCY SUMMARY[11]

Action	Responsible Parties	Consistency
Implement SB 350 by 2030		
Increase the Renewables Portfolio Standard to 50% of retail sales by 2030 and ensure grid reliability.	CPUC, CEC, CARB	Consistent. The Project would use energy from Southern California Edison (SCE). SCE has committed to diversify its portfolio of energy sources by increasing energy from wind and solar sources. The Project would not interfere with or obstruct SCE energy source diversification efforts.
Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.		Consistent. The Project would be constructed in compliance with incumbent California Building Code requirements. Specifically, new buildings must achieve compliance with applicable Building and Energy Efficiency Standards and California Green Building Standards

[11] Measures can be found at the following link: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf

Action	Responsible Parties	Consistency
Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in Integrated Resource Planning (IRP) to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly- owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.		requirements. The Project includes energy efficient field lighting and fixtures that meet the incumbent Title 24 Standards throughout the Project Site and would be a modern development with energy efficient boilers, heaters, and air conditioning systems.
Implement Mobile Source Strategy (Cleaner Technology and Fuels)		
At least 1.5 million zero emission and plug-in hybrid light-duty EVs by 2025.	CARB, California State Transportation Agency (CalSTA), Strategic Growth Council (SGC), California Department of Transportation (Caltrans), CEC, OPR, Local Agencies	Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2025 targets. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
At least 4.2 million zero emission and plug-in hybrid light-duty EVs by 2030.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB zero emission and plug-in hybrid light-duty EV 2030 targets. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean cars regulations. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.
Medium- and Heavy-Duty GHG Phase 2.		Consistent. This is a CARB Mobile Source Strategy. The Project would not obstruct or interfere with CARB efforts to implement Medium- and Heavy-Duty GHG Phase 2. As this is a CARB enforced standard, vehicles that access the Project are required to comply with the standards and will therefore comply with the strategy.

Action	Responsible Parties	Consistency
Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20% of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100% of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO_X standard.		Consistent. This measure is not within the purview of this Project. The Project would not obstruct or interfere with innovative clean transit regulations or strategies.
Last Mile Delivery: New regulation that would result in the use of low NO_X or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5% of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10% in 2025 and remaining flat through 2030.		Consistent. This Project is not responsible for implementation of SB 375. The Project would not obstruct or interfere with last mile regulations or strategies.
Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document "Potential VMT Reduction Strategies for Discussion."		Consistent. This Project would not obstruct or interfere with implementation of SB 375 and would therefore not conflict with this measure.
Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).	CARB	Consistent. This Project would not obstruct or interfere with implementation of SB 375 and would therefore not conflict with this measure.

Action	Responsible Parties	Consistency
Harmonize project performance with emissions reductions and increase competitiveness of transit and active transportation modes (e.g., via guideline documents, funding programs, project selection, etc.).	CalSTA, SGC, OPR, CARB, Governor's Office of Business and Economic Development (GO-Biz), California Infrastructure and Economic Development Bank (IBank), Department of Finance (DOF), California Transportation Commission (CTC), Caltrans	Consistent. The Project would not obstruct or interfere with agency efforts to harmonize transportation facility project performance with emissions reductions and increase competitiveness of transit and active transportation modes.
By 2019, develop pricing policies to support low-GHG transportation (e.g., low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).	CalSTA, Caltrans, CTC, OPR, SGC, CARB	Consistent. The Project would not obstruct or interfere with agency efforts to develop pricing policies to support low-GHG transportation.
Implement California Sustainable Freight Action Plan		
Improve freight system efficiency.	CalSTA, CalEPA, CNRA, CARB, Caltrans, CEC, GO-Biz	Consistent. This measure would apply to all trucks accessing the Project sites, this may include existing trucks or new trucks that are part of the statewide goods movement sector. The Project would not obstruct or interfere with agency efforts to Improve freight system efficiency.
Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.		Consistent. This measure is not within the purview of this Project. The Project would not obstruct or interfere with agency efforts to deploy zero and/or near-zero emissions freight vehicles.
Adopt a Low Carbon Fuel Standard with a Carbon Intensity reduction of 18%.	CARB	Consistent. When adopted, this measure would apply to all fuel purchased and used by the Project in the state. The Project would not obstruct or interfere with agency efforts to adopt a Low Carbon

Action	Responsible Parties	Consistency
		Fuel Standard with a Carbon Intensity reduction of 18%.
Implement the Short-Lived Climate Pollutant Strategy (SLPS) by 2030		
40% reduction in methane and hydrofluorocarbon emissions below 2013 levels.	CARB, CalRecycle, CDFA, California State Water Resource Control Board (SWRCB), Local Air Districts	Consistent. This measure is not within the purview of this Project. The Project would not obstruct or interfere with agency efforts to reduce methane, hydrofluorocarbon, and black carbon emissions.
50% reduction in black carbon emissions below 2013 levels.		
By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.	CARB, CalRecycle, CDFA, SWRCB, Local Air Districts	Consistent. This measure is not within the purview of this Project. The Project would not obstruct or interfere with agency efforts to develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.
Implement the post-2020 Cap-and-Trade Program with declining annual caps.	CARB	Consistent. The Project would be required to comply with any applicable Cap-and-Trade Program provisions. The Project would not obstruct or interfere agency efforts to implement the post-2020 Cap-and-Trade Program.
By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California's land base as a net carbon sink		
Protect land from conversion through conservation easements and other incentives.	CNRA, Departments Within CDFA, CalEPA, CARB	Consistent. This measure is not within the purview of this Project. the Project site is not an identified property that needs to be conserved. The Project would not obstruct or interfere with agency efforts to protect land from conversion.
Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity		Consistent. This measure is not within the purview of this Project. The Project would not obstruct or interfere with agency efforts to Increase the long-term resilience of carbon storage and/or enhance sequestration capacity.
Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments		Consistent. To the extent appropriate for the proposed industrial buildings, wood products would be used in construction, including for the roof structure.
Establish scenario projections to serve as the foundation for the Implementation Plan		Consistent. This measure is not within the purview of this Project. The Project would not obstruct or interfere with agency efforts to develop a foundation for the Implementation Plan.

Action	Responsible Parties	Consistency
Implement Forest Carbon Plan	CNRA, California Department of Forestry and Fire Protection (CAL FIRE), CalEPA and Departments Within	Consistent. This measure is not within the purview of this Project. The Project would not obstruct or interfere with agency efforts to implement the Forest Carbon Plan.
Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.	State Agencies & Local Agencies	Consistent. This measure is not within the purview of this Project. The Project would not obstruct or interfere with agency efforts to Identify and expand funding and financing mechanisms to support GHG reductions.

As shown above, the Project would not conflict with any of the *2017 Scoping Plan* elements as any regulations adopted would apply directly or indirectly to the Project. Further, recent studies show that the State's existing and proposed regulatory framework will allow the State to reduce its GHG emissions level to 40% below 1990 levels by 2030 (38).

3.8 CITY OF HESPERIA CLIMATE ACTION PLAN

The Project's consistency with applicable provisions of the City CAP is summarized on Tables 3-9, 3-10.

TABLE 3-9: CAP CONSISTENCY

CAP Strategy		Project Consistency
CAP-1.5	Projects that require a discretionary approval shall reduce operational GHG emissions by at least 12%, without accounting for regulations discussed in the CAP. The project inventory should include all potential sources, including but not limited to those identified in this CAP.	Consistent. The inventory prepared in this report includes all applicable sources of GHG emissions including area, mobile. Water use, water and solid waste. Implementation of current GHG emissions reduction requirements (measures not reflected in the CAP) would reduce Project GHG emissions by approximately 16% (see: Table 3-10). The Project would not otherwise conflict with, or obstruct implementation of, the City CAP.

TABLE 3-10: PROJECT CONSISTENCY WITH CAP GHG EMISSIONS REDUCTION REQUIREMENTS

Project GHG Emissions	Emissions ($MTCO_2e$ /yr)
Baseline Project GHG Emissions	5,793.17
Project GHG Emissions With Implementation of Current Regulatory Requirements (Measures not reflected in the CAP)	4,894.17
% Reduction	**16%**

Source: CalEEMod output, See Appendices 3.2 and 3.3 for detailed model outputs.

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5 CERTIFICATION

The contents of this greenhouse gas study report represent an accurate depiction of the greenhouse gas impacts associated with the proposed Amargosa and Palmetto High-Cube Warehouse Project. The information contained in this greenhouse gas report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 336-5987.

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EDUCATION

Master of Science in Environmental Studies
California State University, Fullerton • May, 2010

Bachelor of Arts in Environmental Analysis and Design
University of California, Irvine • June, 2006

PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
AWMA – Air and Waste Management Association
ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – California Air Resources Board • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 3.1:

CALEEMOD ANNUAL CONSTRUCTION EMISSIONS MODEL OUTPUTS

14848-Palmetto Industrial (Construction) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

2.2. Construction Emissions by Year, Unmitigated

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

3.3. Grading (2023) - Unmitigated

3.5. Building Construction (2023) - Unmitigated

3.7. Paving (2023) - Unmitigated

3.9. Architectural Coating (2023) - Unmitigated

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving

5.8. Construction Electricity Consumption and Emissions Factors

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	14848-Palmetto Industrial (Construction)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	1.40
Location	34.436795901992426, -117.37836806854374
County	San Bernardino-Mojave Desert
City	Hesperia
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5106
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	500	1000sqft	11.5	499,700	255,000	—	—	—
Parking Lot	508	Space	3.93	0.00	0.00	—	—	—

Other Non-Asphalt Surfaces	659	1000sqft	15.1	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.18	2.70	16.3	36.0	0.04	0.62	3.28	3.91	0.58	0.79	1.37	—	7,900	7,900	0.24	0.41	19.0	8,047
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	11.1	70.8	89.0	73.5	0.12	4.50	9.00	13.5	4.14	3.83	7.97	—	15,076	15,076	0.53	0.55	0.59	15,254
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	2.49	9.46	16.0	22.8	0.03	0.68	2.33	3.02	0.63	0.65	1.28	—	5,240	5,240	0.18	0.23	4.52	5,319
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.45	1.73	2.93	4.16	0.01	0.12	0.43	0.55	0.12	0.12	0.23	—	868	868	0.03	0.04	0.75	881

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e

Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	3.18	2.70	16.3	36.0	0.04	0.62	3.28	3.91	0.58	0.79	1.37	—	7,900	7,900	0.24	0.41	19.0	8,047
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	11.1	70.8	89.0	73.5	0.12	4.50	9.00	13.5	4.14	3.83	7.97	—	15,076	15,076	0.53	0.55	0.59	15,254
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	2.49	9.46	16.0	22.8	0.03	0.68	2.33	3.02	0.63	0.65	1.28	—	5,240	5,240	0.18	0.23	4.52	5,319
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2023	0.45	1.73	2.93	4.16	0.01	0.12	0.43	0.55	0.12	0.12	0.23	—	868	868	0.03	0.04	0.75	881

3. Construction Emissions Details

3.1. Site Preparation (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.83	4.90	47.0	38.0	0.05	2.53	—	2.53	2.33	—	2.33	—	5,530	5,530	0.22	0.04	—	5,549
Dust From Material Movement	—	—	—	—	—	—	5.66	5.66	—	2.69	2.69	—	—	—	—	—	—	—

Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.21	0.17	1.67	1.35	< 0.005	0.09	—	0.09	0.08	—	0.08	—	197	197	0.01	< 0.005	—	198
Dust From Material Movement	—	—	—	—	—	—	0.20	0.20	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.04	0.03	0.31	0.25	< 0.005	0.02	—	0.02	0.02	—	0.02	—	32.6	32.6	< 0.005	< 0.005	—	32.7
Dust From Material Movement	—	—	—	—	—	—	0.04	0.04	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.10	0.09	0.12	1.15	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	235	235	0.01	0.01	0.03	238
Vendor	0.01	< 0.005	0.15	0.07	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	132	132	< 0.005	0.02	0.01	137
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.05	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	8.63	8.63	< 0.005	< 0.005	0.02	8.75

Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	4.70	4.70	< 0.005	< 0.005	0.01	4.90
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	1.43	1.43	< 0.005	< 0.005	< 0.005	1.45
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.78	0.78	< 0.005	< 0.005	< 0.005	0.81
Hauling	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	0.00

3.3. Grading (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	5.00	4.20	40.9	32.7	0.06	1.96	—	1.96	1.80	—	1.80	—	6,715	6,715	0.27	0.05	—	6,738
Dust From Material Movement	—	—	—	—	—	—	2.67	2.67	—	0.98	0.98	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.59	0.49	4.82	3.85	0.01	0.23	—	0.23	0.21	—	0.21	—	791	791	0.03	0.01	—	794

Dust From Material Movement	—	—	—	—	—	—	0.31	0.31	—	0.12	0.12	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	0.09	0.88	0.70	< 0.005	0.04	—	0.04	0.04	—	0.04	—	131	131	0.01	< 0.005	—	131
Dust From Material Movement	—	—	—	—	—	—	0.06	0.06	—	0.02	0.02	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.13	1.32	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	269	269	0.01	0.01	0.03	272
Vendor	0.02	0.02	0.56	0.26	< 0.005	0.01	0.03	0.03	0.01	0.01	0.02	—	495	495	< 0.005	0.07	0.03	515
Hauling	< 0.005	< 0.005	0.08	0.02	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	62.7	62.7	< 0.005	0.01	< 0.005	65.6
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.02	0.17	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	32.6	32.6	< 0.005	< 0.005	0.06	33.1
Vendor	< 0.005	< 0.005	0.07	0.03	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	58.3	58.3	< 0.005	0.01	0.07	60.7
Hauling	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.38	7.38	< 0.005	< 0.005	0.01	7.73
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	5.40	5.40	< 0.005	< 0.005	0.01	5.48
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.65	9.65	< 0.005	< 0.005	0.01	10.1

Hauling	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.22	1.22	< 0.005	< 0.005	< 0.005	1.28

3.5. Building Construction (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.62	1.36	12.8	14.3	0.03	0.60	—	0.60	0.55	—	0.55	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.62	1.36	12.8	14.3	0.03	0.60	—	0.60	0.55	—	0.55	—	2,630	2,630	0.11	0.02	—	2,639
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.83	0.69	6.56	7.32	0.01	0.31	—	0.31	0.28	—	0.28	—	1,347	1,347	0.05	0.01	—	1,352
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.15	0.13	1.20	1.34	< 0.005	0.06	—	0.06	0.05	—	0.05	—	223	223	0.01	< 0.005	—	224
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.46	1.27	1.30	20.6	0.00	0.00	0.17	0.17	0.00	0.00	0.00	—	3,193	3,193	0.13	0.10	13.5	3,240
Vendor	0.10	0.08	2.23	1.07	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	2,078	2,078	< 0.005	0.28	5.51	2,168
Hauling	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	0.00
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	1.23	1.12	1.39	13.8	0.00	0.00	0.17	0.17	0.00	0.00	0.00	—	2,823	2,823	0.14	0.10	0.35	2,858
Vendor	0.10	0.07	2.36	1.09	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	2,080	2,080	< 0.005	0.28	0.14	2,165
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.64	0.58	0.76	7.93	0.00	0.00	0.09	0.09	0.00	0.00	0.00	—	1,490	1,490	0.07	0.05	2.97	1,510
Vendor	0.05	0.04	1.21	0.55	0.01	0.01	0.06	0.07	0.01	0.02	0.04	—	1,065	1,065	< 0.005	0.15	1.22	1,110
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.12	0.11	0.14	1.45	0.00	0.00	0.02	0.02	0.00	0.00	0.00	—	247	247	0.01	0.01	0.49	250
Vendor	0.01	0.01	0.22	0.10	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	176	176	< 0.005	0.02	0.20	184
Hauling	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	0.00

3.7. Paving (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.04	0.88	8.06	10.0	0.01	0.41	—	0.41	0.38	—	0.38	—	1,512	1,512	0.06	0.01	—	1,517
Paving	—	0.31	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.09	0.08	0.73	0.91	< 0.005	0.04	—	0.04	0.03	—	0.03	—	137	137	0.01	< 0.005	—	137
Paving	—	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.01	0.13	0.17	< 0.005	0.01	—	0.01	0.01	—	0.01	—	22.6	22.6	< 0.005	< 0.005	—	22.7
Paving	—	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.10	0.99	0.00	0.00	0.01	0.01	0.00	0.00	0.00	—	202	202	0.01	0.01	0.02	204
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	0.01	0.01	0.10	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	18.8	18.8	< 0.005	< 0.005	0.04	19.0
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	3.11	3.11	< 0.005	< 0.005	0.01	3.15
Vendor	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	0.00
Hauling	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	0.00

3.9. Architectural Coating (2023) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.24	0.20	1.25	1.54	< 0.005	0.05	—	0.05	0.05	—	0.05	—	178	178	0.01	< 0.005	—	179
Architectural Coatings	—	66.6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.14	0.17	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	19.5	19.5	< 0.005	< 0.005	—	19.6
Architectural Coatings	—	7.30	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.02	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.23	3.23	< 0.005	< 0.005	—	3.24
Architectural Coatings	—	1.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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	0.00
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.25	0.22	0.28	2.77	0.00	0.00	0.03	0.03	0.00	0.00	0.00	—	565	565	0.03	0.02	0.07	572
Vendor	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	0.00
Hauling	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	0.00
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.03	0.02	0.03	0.34	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	63.7	63.7	< 0.005	< 0.005	0.13	64.6
Vendor	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	0.00
Hauling	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	0.00
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.01	0.06	0.00	0.00	< 0.005	< 0.005	0.00	0.00	0.00	—	10.6	10.6	< 0.005	< 0.005	0.02	10.7
Vendor	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	0.00
Hauling	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	0.00

4. Operations Emissions Details

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	1/15/2023	2/1/2023	5.00	13.0	—
Grading	Grading	2/1/2023	3/31/2023	5.00	43.0	—
Building Construction	Building Construction	3/15/2023	11/30/2023	5.00	187	—
Paving	Paving	11/15/2023	12/30/2023	5.00	33.0	—
Architectural Coating	Architectural Coating	11/6/2023	12/30/2023	5.00	40.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Grading	Excavators	Diesel	Average	2.00	8.00	36.0	0.38

Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Grading	Scrapers	Diesel	Average	2.00	8.00	423	0.48
Grading	Crawler Tractors	Diesel	Average	2.00	8.00	87.0	0.43
Building Construction	Cranes	Diesel	Average	1.00	8.00	367	0.29
Building Construction	Forklifts	Diesel	Average	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	8.00	37.0	0.48
Site Preparation	Crawler Tractors	Diesel	Average	4.00	8.00	87.0	0.43

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	18.5	LDA,LDT1,LDT2
Site Preparation	Vendor	4.00	10.2	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	20.0	18.5	LDA,LDT1,LDT2
Grading	Vendor	15.0	10.2	HHDT,MHDT

Grading	Hauling	0.88	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	210	18.5	LDA,LDT1,LDT2
Building Construction	Vendor	63.0	10.2	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	18.5	LDA,LDT1,LDT2
Paving	Vendor	—	10.2	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	42.0	18.5	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	10.2	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	786,896	262,299	49,795

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	45.5	0.00	—
Grading	300	—	172	0.00	—
Paving	0.00	0.00	0.00	0.00	19.1

5.6.2. Construction Earthmoving Control Strategies

Control Strategies Applied	Frequency (per day)	PM10 Reduction	PM2.5 Reduction
Water Exposed Area	3	74%	74%

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-No Rail	0.00	0%
Parking Lot	3.93	100%
Other Non-Asphalt Surfaces	15.1	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2023	0.00	532	0.03	< 0.005

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	33.6	annual days of extreme heat
Extreme Precipitation	4.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	22.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A

Drought	1	1	1	2
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	32.2
AQ-DPM	57.9
Drinking Water	29.7
Lead Risk Housing	13.8
Pesticides	0.00
Toxic Releases	25.0
Traffic	83.1
Effect Indicators	—
CleanUp Sites	73.4
Groundwater	0.00
Haz Waste Facilities/Generators	65.9

Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	84.6
Cardio-vascular	99.5
Low Birth Weights	5.81
Socioeconomic Factor Indicators	—
Education	67.1
Housing	11.2
Linguistic	19.9
Poverty	67.2
Unemployment	82.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	66.22610035
Employed	25.70255357
Education	—
Bachelor's or higher	31.64378288
High school enrollment	2.258437059
Preschool enrollment	41.10098807
Transportation	—
Auto Access	89.83703323
Active commuting	14.92364943
Social	—

2-parent households	97.98537149
Voting	43.48774541
Neighborhood	—
Alcohol availability	89.68304889
Park access	26.5622995
Retail density	22.41755422
Supermarket access	25.03528808
Tree canopy	7.25009624
Housing	—
Homeownership	84.70422174
Housing habitability	80.57230848
Low-inc homeowner severe housing cost burden	56.2941101
Low-inc renter severe housing cost burden	70.48633389
Uncrowded housing	64.30129603
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.6
Asthma ER Admissions	14.5
High Blood Pressure	1.1
Cancer (excluding skin)	0.9
Asthma	37.3
Coronary Heart Disease	1.0
Chronic Obstructive Pulmonary Disease	1.6
Diagnosed Diabetes	6.3
Life Expectancy at Birth	28.4
Cognitively Disabled	58.3
Physically Disabled	16.0

Heart Attack ER Admissions	1.2
Mental Health Not Good	58.7
Chronic Kidney Disease	1.3
Obesity	41.7
Pedestrian Injuries	90.6
Physical Health Not Good	24.5
Stroke	2.9
Health Risk Behaviors	—
Binge Drinking	95.3
Current Smoker	59.6
No Leisure Time for Physical Activity	48.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8
Elderly	53.1
English Speaking	52.3
Foreign-born	39.5
Outdoor Workers	27.8
Climate Change Adaptive Capacity	—
Impervious Surface Cover	86.5
Traffic Density	80.1
Traffic Access	23.0
Other Indices	—
Hardship	53.1
Other Decision Support	—
2016 Voting	53.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Client indicated construction schedule
Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases Standard 8-hour work day
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction

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APPENDIX 3.2:

CALEEMOD ANNUAL OPERATIONAL EMISSIONS MODEL OUTPUTS (WITHOUT REGULATORY REQUIREMENTS)

14848-Palmetto Industrial (Operations) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.2. Unmitigated

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	14848-Palmetto Industrial (Operations)
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	1.40
Location	34.436795901992426, -117.37836806854374
County	San Bernardino-Mojave Desert
City	Hesperia
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5106
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	500	1000sqft	11.5	499,700	255,000	—	—	—
Parking Lot	508	Space	3.93	0.00	0.00	—	—	—

Other Non-Asphalt Surfaces	659	1000sqft	15.1	0.00	0.00	—	—	—
User Defined Industrial	500	User Defined Unit	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.34	19.9	16.4	85.9	0.23	0.47	5.30	5.78	0.47	0.99	1.46	475	27,622	28,096	49.0	2.32	72.7	30,086
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.08	15.9	17.1	48.9	0.21	0.44	5.30	5.75	0.43	0.99	1.42	475	26,308	26,782	49.0	2.34	1.89	28,706
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.31	17.1	15.3	56.2	0.19	0.42	4.52	4.94	0.41	0.84	1.26	475	23,582	24,056	48.9	2.09	26.7	25,929
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.15	3.11	2.79	10.2	0.03	0.08	0.82	0.90	0.08	0.15	0.23	78.6	3,904	3,983	8.10	0.35	4.43	4,293

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.20	4.67	13.6	62.0	0.21	0.25	5.30	5.55	0.24	0.99	1.22	—	21,482	21,482	0.43	1.73	72.7	22,082
Area	3.86	15.1	0.18	21.7	< 0.005	0.03	—	0.03	0.04	—	0.04	—	89.4	89.4	< 0.005	0.01	—	92.0
Energy	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	5,392	5,392	0.49	0.03	—	5,414
Water	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Waste	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Total	9.34	19.9	16.4	85.9	0.23	0.47	5.30	5.78	0.47	0.99	1.46	475	27,622	28,096	49.0	2.32	72.7	30,086
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.80	4.27	14.6	46.7	0.20	0.25	5.30	5.55	0.24	0.99	1.22	—	20,257	20,257	0.44	1.76	1.89	20,794
Area	—	11.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	5,392	5,392	0.49	0.03	—	5,414
Water	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Waste	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Total	5.08	15.9	17.1	48.9	0.21	0.44	5.30	5.75	0.43	0.99	1.42	475	26,308	26,782	49.0	2.34	1.89	28,706
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.13	3.67	12.6	43.3	0.17	0.21	4.52	4.73	0.20	0.84	1.04	—	17,487	17,487	0.38	1.50	26.7	17,972
Area	1.90	13.2	0.09	10.7	< 0.005	0.01	—	0.01	0.02	—	0.02	—	44.1	44.1	< 0.005	< 0.005	—	45.4
Energy	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	5,392	5,392	0.49	0.03	—	5,414
Water	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Waste	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Total	6.31	17.1	15.3	56.2	0.19	0.42	4.52	4.94	0.41	0.84	1.26	475	23,582	24,056	48.9	2.09	26.7	25,929
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.75	0.67	2.30	7.90	0.03	0.04	0.82	0.86	0.04	0.15	0.19	—	2,895	2,895	0.06	0.25	4.43	2,975

Area	0.35	2.42	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.30	7.30	< 0.005	< 0.005	—	7.51
Energy	0.05	0.03	0.47	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	893	893	0.08	0.01	—	896
Water	—	—	—	—	—	—	—	—	—	—	—	36.7	109	146	3.77	0.09	—	267
Waste	—	—	—	—	—	—	—	—	—	—	—	41.9	0.00	41.9	4.19	0.00	—	147
Total	1.15	3.11	2.79	10.2	0.03	0.08	0.82	0.90	0.08	0.15	0.23	78.6	3,904	3,983	8.10	0.35	4.43	4,293

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	4.83	4.36	3.01	58.6	0.11	0.05	0.44	0.49	0.04	0.13	0.17	—	11,178	11,178	0.40	0.28	43.2	11,313
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
User Defined Industrial	0.37	0.31	10.6	3.40	0.10	0.20	0.72	0.92	0.19	0.23	0.42	—	10,304	10,304	0.03	1.46	29.5	10,769
Total	5.20	4.67	13.6	62.0	0.21	0.25	1.16	1.41	0.24	0.36	0.60	—	21,482	21,482	0.43	1.73	72.7	22,082

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	4.45	3.98	3.35	43.3	0.10	0.05	0.44	0.49	0.04	0.13	0.17	—	9,948	9,948	0.41	0.30	1.12	10,048
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
User Defined Industrial	0.35	0.29	11.2	3.41	0.10	0.20	0.72	0.92	0.19	0.23	0.42	—	10,309	10,309	0.03	1.46	0.77	10,746
Total	4.80	4.27	14.6	46.7	0.20	0.25	1.16	1.41	0.24	0.36	0.60	—	20,257	20,257	0.44	1.76	1.89	20,794
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.70	0.62	0.55	7.38	0.02	0.01	0.07	0.08	0.01	0.02	0.03	—	1,442	1,442	0.06	0.04	2.63	1,459
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
User Defined Industrial	0.06	0.05	1.76	0.52	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	1,453	1,453	< 0.005	0.21	1.80	1,516
Total	0.75	0.67	2.30	7.90	0.03	0.04	0.18	0.22	0.04	0.06	0.09	—	2,895	2,895	0.06	0.25	4.43	2,975

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,205	2,205	0.21	0.03	—	2,217
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	143	143	0.01	< 0.005	—	144
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,348	2,348	0.22	0.03	—	2,361
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	2,205	2,205	0.21	0.03	—	2,217
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	143	143	0.01	< 0.005	—	144
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	2,348	2,348	0.22	0.03	—	2,361
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	365	365	0.03	< 0.005	—	367
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	23.7	23.7	< 0.005	< 0.005	—	23.9
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	389	389	0.04	< 0.005	—	391

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Parking Lot	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

Other Non-Asphalt Surfaces	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
User Defined Industrial	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
Total	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Parking Lot	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
Other Non-Asphalt Surfaces	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
User Defined Industrial	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
Total	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.03	0.47	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	504	504	0.04	< 0.005	—	505
Parking Lot	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
Other Non-Asphalt Surfaces	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

User Defined Industrial	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
Total	0.05	0.03	0.47	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	504	504	0.04	< 0.005	—	505

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	10.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.86	3.56	0.18	21.7	< 0.005	0.03	—	0.03	0.04	—	0.04	—	89.4	89.4	< 0.005	0.01	—	92.0
Total	3.86	15.1	0.18	21.7	< 0.005	0.03	—	0.03	0.04	—	0.04	—	89.4	89.4	< 0.005	0.01	—	92.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	10.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	11.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.35	0.32	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.30	7.30	< 0.005	< 0.005	—	7.51
Total	0.35	2.42	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.30	7.30	< 0.005	< 0.005	—	7.51

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	221	658	880	22.8	0.55	—	1,612
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	36.7	109	146	3.77	0.09	—	267
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	36.7	109	146	3.77	0.09	—	267

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	41.9	0.00	41.9	4.19	0.00	—	147
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	41.9	0.00	41.9	4.19	0.00	—	147

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	790	391	369	245,576	14,380	7,113	6,713	4,469,970
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	115	57.0	53.5	35,722	3,502	1,736	1,629	1,088,464

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

0	0.00	786,896	262,299	49,795

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	2,307,966	349	0.0330	0.0040	9,499,636
Parking Lot	149,963	349	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	349	0.0330	0.0040	0.00
User Defined Industrial	0.00	349	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	115,555,625	5,645,327
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	470	0.00
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit

Temperature and Extreme Heat	33.6	annual days of extreme heat
Extreme Precipitation	4.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	22.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	32.2
AQ-DPM	57.9
Drinking Water	29.7
Lead Risk Housing	13.8

Pesticides	0.00
Toxic Releases	25.0
Traffic	83.1
Effect Indicators	—
CleanUp Sites	73.4
Groundwater	0.00
Haz Waste Facilities/Generators	65.9
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	84.6
Cardio-vascular	99.5
Low Birth Weights	5.81
Socioeconomic Factor Indicators	—
Education	67.1
Housing	11.2
Linguistic	19.9
Poverty	67.2
Unemployment	82.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	66.22610035
Employed	25.70255357
Education	—

Bachelor's or higher	31.64378288
High school enrollment	2.258437059
Preschool enrollment	41.10098807
Transportation	—
Auto Access	89.83703323
Active commuting	14.92364943
Social	—
2-parent households	97.98537149
Voting	43.48774541
Neighborhood	—
Alcohol availability	89.68304889
Park access	26.5622995
Retail density	22.41755422
Supermarket access	25.03528808
Tree canopy	7.25009624
Housing	—
Homeownership	84.70422174
Housing habitability	80.57230848
Low-inc homeowner severe housing cost burden	56.2941101
Low-inc renter severe housing cost burden	70.48633389
Uncrowded housing	64.30129603
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.6
Asthma ER Admissions	14.5
High Blood Pressure	1.1
Cancer (excluding skin)	0.9

Asthma	37.3
Coronary Heart Disease	1.0
Chronic Obstructive Pulmonary Disease	1.6
Diagnosed Diabetes	6.3
Life Expectancy at Birth	28.4
Cognitively Disabled	58.3
Physically Disabled	16.0
Heart Attack ER Admissions	1.2
Mental Health Not Good	58.7
Chronic Kidney Disease	1.3
Obesity	41.7
Pedestrian Injuries	90.6
Physical Health Not Good	24.5
Stroke	2.9
Health Risk Behaviors	—
Binge Drinking	95.3
Current Smoker	59.6
No Leisure Time for Physical Activity	48.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8
Elderly	53.1
English Speaking	52.3
Foreign-born	39.5
Outdoor Workers	27.8
Climate Change Adaptive Capacity	—

Impervious Surface Cover	86.5
Traffic Density	80.1
Traffic Access	23.0
Other Indices	—
Hardship	53.1
Other Decision Support	—
2016 Voting	53.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Client indicated construction schedule

Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases Standard 8-hour work day
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Construction: Dust From Material Movement	Ex
Operations: Vehicle Data	Trip Characteristics based on information provided in the Traffic Analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle
Operations: Refrigerants	Unrefrigerated warehouse modeled with no refrigerant emissions

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APPENDIX 3.3:

CALEEMOD ANNUAL OPERATIONAL EMISSIONS MODEL OUTPUTS (WITH REGULATORY REQUIREMENTS)

14848-Palmetto Industrial (Operations Without Regulatory Requirements)) Detailed Report

Table of Contents

1. Basic Project Information

1.1. Basic Project Information

1.2. Land Use Types

1.3. User-Selected Emission Reduction Measures by Emissions Sector

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

2.5. Operations Emissions by Sector, Unmitigated

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

4.3. Area Emissions by Source

4.3.2. Unmitigated

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

5.10.3. Landscape Equipment

5.11. Operational Energy Consumption

5.11.1. Unmitigated

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

5.13. Operational Waste Generation

5.13.1. Unmitigated

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

5.16.2. Process Boilers

5.17. User Defined

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

6.2. Initial Climate Risk Scores

6.3. Adjusted Climate Risk Scores

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

7.2. Healthy Places Index Scores

7.3. Overall Health & Equity Scores

7.4. Health & Equity Measures

7.5. Evaluation Scorecard

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	14848-Palmetto Industrial (Operations Without Regulatory Requirements))
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	2.80
Precipitation (days)	1.40
Location	34.436795901992426, -117.37836806854374
County	San Bernardino-Mojave Desert
City	Hesperia
Air District	Mojave Desert AQMD
Air Basin	Mojave Desert
TAZ	5106
EDFZ	10
Electric Utility	Southern California Edison
Gas Utility	Southwest Gas Corp.

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
Unrefrigerated Warehouse-No Rail	500	1000sqft	11.5	499,700	255,000	—	—	—
Parking Lot	508	Space	3.93	0.00	0.00	—	—	—

Other Non-Asphalt Surfaces	659	1000sqft	15.1	0.00	0.00	—	—	—
User Defined Industrial	500	User Defined Unit	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.34	19.9	16.4	85.9	0.23	0.47	5.30	5.78	0.47	0.99	1.46	475	30,669	31,143	49.0	2.34	72.7	33,137
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.08	15.9	17.1	48.9	0.21	0.44	5.30	5.75	0.43	0.99	1.42	475	29,354	29,829	49.0	2.35	1.89	31,757
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	6.31	17.1	15.3	56.2	0.19	0.42	4.52	4.94	0.41	0.84	1.26	475	29,000	29,475	48.9	2.11	26.7	31,352
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.15	3.11	2.79	10.2	0.03	0.08	0.82	0.90	0.08	0.15	0.23	78.6	4,801	4,880	8.10	0.35	4.43	5,191

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.20	4.67	13.6	62.0	0.21	0.25	5.30	5.55	0.24	0.99	1.22	—	21,482	21,482	0.43	1.73	72.7	22,082
Area	3.86	15.1	0.18	21.7	< 0.005	0.03	—	0.03	0.04	—	0.04	—	89.4	89.4	< 0.005	0.01	—	92.0
Energy	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	7,772	7,772	0.46	0.05	—	7,797
Water	—	—	—	—	—	—	—	—	—	—	—	221	1,326	1,547	22.8	0.55	—	2,280
Waste	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Total	9.34	19.9	16.4	85.9	0.23	0.47	5.30	5.78	0.47	0.99	1.46	475	30,669	31,143	49.0	2.34	72.7	33,137
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.80	4.27	14.6	46.7	0.20	0.25	5.30	5.55	0.24	0.99	1.22	—	20,257	20,257	0.44	1.76	1.89	20,794
Area	—	11.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	7,772	7,772	0.46	0.05	—	7,797
Water	—	—	—	—	—	—	—	—	—	—	—	221	1,326	1,547	22.8	0.55	—	2,280
Waste	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Total	5.08	15.9	17.1	48.9	0.21	0.44	5.30	5.75	0.43	0.99	1.42	475	29,354	29,829	49.0	2.35	1.89	31,757
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	4.13	3.67	12.6	43.3	0.17	0.21	4.52	4.73	0.20	0.84	1.04	—	19,859	19,859	0.38	1.50	26.7	20,344
Area	1.90	13.2	0.09	10.7	< 0.005	0.01	—	0.01	0.02	—	0.02	—	44.1	44.1	< 0.005	< 0.005	—	45.4
Energy	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	7,772	7,772	0.46	0.05	—	7,797
Water	—	—	—	—	—	—	—	—	—	—	—	221	1,326	1,547	22.8	0.55	—	2,280
Waste	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Total	6.31	17.1	15.3	56.2	0.19	0.42	4.52	4.94	0.41	0.84	1.26	475	29,000	29,475	48.9	2.11	26.7	31,352
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.75	0.67	2.30	7.90	0.03	0.04	0.82	0.86	0.04	0.15	0.19	—	3,288	3,288	0.06	0.25	4.43	3,368

Area	0.35	2.42	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.30	7.30	< 0.005	< 0.005	—	7.51
Energy	0.05	0.03	0.47	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,287	1,287	0.08	0.01	—	1,291
Water	—	—	—	—	—	—	—	—	—	—	—	36.7	219	256	3.77	0.09	—	378
Waste	—	—	—	—	—	—	—	—	—	—	—	41.9	0.00	41.9	4.19	0.00	—	147
Total	1.15	3.11	2.79	10.2	0.03	0.08	0.82	0.90	0.08	0.15	0.23	78.6	4,801	4,880	8.10	0.35	4.43	5,191

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	4.83	4.36	3.01	58.6	0.11	0.05	0.44	0.49	0.04	0.13	0.17	—	11,178	11,178	0.40	0.28	43.2	11,313
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
User Defined Industrial	0.37	0.31	10.6	3.40	0.10	0.20	0.72	0.92	0.19	0.23	0.42	—	10,304	10,304	0.03	1.46	29.5	10,769
Total	5.20	4.67	13.6	62.0	0.21	0.25	1.16	1.41	0.24	0.36	0.60	—	21,482	21,482	0.43	1.73	72.7	22,082

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	4.45	3.98	3.35	43.3	0.10	0.05	0.44	0.49	0.04	0.13	0.17	—	9,948	9,948	0.41	0.30	1.12	10,048
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
User Defined Industrial	0.35	0.29	11.2	3.41	0.10	0.20	0.72	0.92	0.19	0.23	0.42	—	10,309	10,309	0.03	1.46	0.77	10,746
Total	4.80	4.27	14.6	46.7	0.20	0.25	1.16	1.41	0.24	0.36	0.60	—	20,257	20,257	0.44	1.76	1.89	20,794
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.70	0.62	0.55	7.38	0.02	0.01	0.07	0.08	0.01	0.02	0.03	—	1,835	1,835	0.06	0.04	2.63	1,852
Parking Lot	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	0.00
Other Non-Asphalt Surfaces	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	0.00
User Defined Industrial	0.06	0.05	1.76	0.52	0.02	0.03	0.11	0.14	0.03	0.04	0.07	—	1,453	1,453	< 0.005	0.21	1.80	1,516
Total	0.75	0.67	2.30	7.90	0.03	0.04	0.18	0.22	0.04	0.06	0.09	—	3,288	3,288	0.06	0.25	4.43	3,368

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	4,439	4,439	0.18	0.04	—	4,455
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	288	288	0.01	< 0.005	—	289
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	4,727	4,727	0.20	0.04	—	4,744
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	4,439	4,439	0.18	0.04	—	4,455
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	288	288	0.01	< 0.005	—	289
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00

User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	4,727	4,727	0.20	0.04	—	4,744
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	—	735	735	0.03	0.01	—	738
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	47.8	47.8	< 0.005	< 0.005	—	47.9
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	783	783	0.03	0.01	—	785

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Parking Lot	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

Other Non-Asphalt Surfaces	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
User Defined Industrial	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
Total	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Parking Lot	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
Other Non-Asphalt Surfaces	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
User Defined Industrial	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
Total	0.28	0.14	2.55	2.14	0.02	0.19	—	0.19	0.19	—	0.19	—	3,044	3,044	0.27	0.01	—	3,053
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	0.05	0.03	0.47	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	504	504	0.04	< 0.005	—	505
Parking Lot	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
Other Non-Asphalt Surfaces	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

User Defined Industrial	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
Total	0.05	0.03	0.47	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	504	504	0.04	< 0.005	—	505

4.3. Area Emissions by Source

4.3.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	10.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	3.86	3.56	0.18	21.7	< 0.005	0.03	—	0.03	0.04	—	0.04	—	89.4	89.4	< 0.005	0.01	—	92.0
Total	3.86	15.1	0.18	21.7	< 0.005	0.03	—	0.03	0.04	—	0.04	—	89.4	89.4	< 0.005	0.01	—	92.0
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	10.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	11.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.96	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.35	0.32	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.30	7.30	< 0.005	< 0.005	—	7.51
Total	0.35	2.42	0.02	1.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.30	7.30	< 0.005	< 0.005	—	7.51

4.4. Water Emissions by Land Use

4.4.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	221	1,326	1,547	22.8	0.55	—	2,280
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Total	—	—	—	—	—	—	—	—	—	—	—	221	1,326	1,547	22.8	0.55	—	2,280
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	221	1,326	1,547	22.8	0.55	—	2,280
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	221	1,326	1,547	22.8	0.55	—	2,280
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	36.7	219	256	3.77	0.09	—	378
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	36.7	219	256	3.77	0.09	—	378

4.5. Waste Emissions by Land Use

4.5.2. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	253	0.00	253	25.3	0.00	—	886
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-No Rail	—	—	—	—	—	—	—	—	—	—	—	41.9	0.00	41.9	4.19	0.00	—	147
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
User Defined Industrial	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	41.9	0.00	41.9	4.19	0.00	—	147

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	TOG	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-No Rail	790	391	369	245,576	14,380	7,113	6,713	4,469,970
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
User Defined Industrial	115	57.0	53.5	35,722	3,502	1,736	1,629	1,088,464

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)

0	0.00	786,896	262,299	49,795

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-No Rail	2,307,966	702	0.0290	0.0060	9,499,636
Parking Lot	149,963	702	0.0290	0.0060	0.00
Other Non-Asphalt Surfaces	0.00	702	0.0290	0.0060	0.00
User Defined Industrial	0.00	702	0.0290	0.0060	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-No Rail	115,555,625	5,645,327
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-No Rail	470	0.00
Parking Lot	0.00	0.00
Other Non-Asphalt Surfaces	0.00	0.00
User Defined Industrial	0.00	0.00

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced

5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor

5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)

5.17. User Defined

Equipment Type	Fuel Type
—	—

5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres

5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)

6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit

Temperature and Extreme Heat	33.6	annual days of extreme heat
Extreme Precipitation	4.95	annual days with precipitation above 20 mm
Sea Level Rise	0.00	meters of inundation depth
Wildfire	22.7	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider different increments of sea level rise coupled with extreme storm events. Users may select from four model simulations to view the range in potential inundation depth for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 50 meters (m) by 50 m, or about 164 feet (ft) by 164 ft.
Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	0	0	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	0	0	0	N/A
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	4	1	1	4
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	N/A	N/A	N/A	N/A
Wildfire	N/A	N/A	N/A	N/A
Flooding	N/A	N/A	N/A	N/A
Drought	1	1	1	2
Snowpack	N/A	N/A	N/A	N/A
Air Quality	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	91.1
AQ-PM	32.2
AQ-DPM	57.9
Drinking Water	29.7
Lead Risk Housing	13.8

Pesticides	0.00
Toxic Releases	25.0
Traffic	83.1
Effect Indicators	—
CleanUp Sites	73.4
Groundwater	0.00
Haz Waste Facilities/Generators	65.9
Impaired Water Bodies	0.00
Solid Waste	0.00
Sensitive Population	—
Asthma	84.6
Cardio-vascular	99.5
Low Birth Weights	5.81
Socioeconomic Factor Indicators	—
Education	67.1
Housing	11.2
Linguistic	19.9
Poverty	67.2
Unemployment	82.7

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	66.22610035
Employed	25.70255357
Education	—

Bachelor's or higher	31.64378288
High school enrollment	2.258437059
Preschool enrollment	41.10098807
Transportation	—
Auto Access	89.83703323
Active commuting	14.92364943
Social	—
2-parent households	97.98537149
Voting	43.48774541
Neighborhood	—
Alcohol availability	89.68304889
Park access	26.5622995
Retail density	22.41755422
Supermarket access	25.03528808
Tree canopy	7.25009624
Housing	—
Homeownership	84.70422174
Housing habitability	80.57230848
Low-inc homeowner severe housing cost burden	56.2941101
Low-inc renter severe housing cost burden	70.48633389
Uncrowded housing	64.30129603
Health Outcomes	—
Insured adults	59.70742974
Arthritis	0.6
Asthma ER Admissions	14.5
High Blood Pressure	1.1
Cancer (excluding skin)	0.9

Asthma	37.3
Coronary Heart Disease	1.0
Chronic Obstructive Pulmonary Disease	1.6
Diagnosed Diabetes	6.3
Life Expectancy at Birth	28.4
Cognitively Disabled	58.3
Physically Disabled	16.0
Heart Attack ER Admissions	1.2
Mental Health Not Good	58.7
Chronic Kidney Disease	1.3
Obesity	41.7
Pedestrian Injuries	90.6
Physical Health Not Good	24.5
Stroke	2.9
Health Risk Behaviors	—
Binge Drinking	95.3
Current Smoker	59.6
No Leisure Time for Physical Activity	48.5
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	0.0
Children	33.8
Elderly	53.1
English Speaking	52.3
Foreign-born	39.5
Outdoor Workers	27.8
Climate Change Adaptive Capacity	—

Impervious Surface Cover	86.5
Traffic Density	80.1
Traffic Access	23.0
Other Indices	—
Hardship	53.1
Other Decision Support	—
2016 Voting	53.1

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	52.0
Healthy Places Index Score for Project Location (b)	42.0
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	No
Project Located in a Low-Income Community (Assembly Bill 1550)	No
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	No

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health and Equity Evaluation Scorecard not completed.

8. User Changes to Default Data

Screen	Justification
Land Use	Taken from site plan
Construction: Construction Phases	Client indicated construction schedule

Construction: Off-Road Equipment	T/L/B replaced with Crawler Tractor to accurately calculate disturbance for Site Preparation and Grading phases Standard 8-hour work day
Construction: Trips and VMT	Vendor Trips adjusted based on CalEEMod defaults for Building Construction and number of days for Demolition, Site Preparation, Grading, and Building Construction
Construction: Dust From Material Movement	Ex
Operations: Vehicle Data	Trip Characteristics based on information provided in the Traffic Analysis
Operations: Fleet Mix	Passenger Car Mix estimated based on CalEEMod default fleet mix and the ratio of the vehicle classes (LDA, LDT1, LDT2, MDV, MCY). Truck Fleet Mix based on 2, 3 and 4 axle
Operations: Refrigerants	Unrefrigerated warehouse modeled with no refrigerant emissions
Characteristics: Utility Information	CO2 intensity factors prior to Renewable portfolio Standards (RPS) regulatory requirements (obtained from CalEEMod 2016)
Operations: Vehicle EF	CO2 emission factors per CalEEMod 2022 using 2010 EF

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APPENDIX H
Hesperia Spec. Industrial Preliminary Hydrology Report

July 2022
2021-196

Hesperia Spec. Industrial
Industrial Buildings
City of Hesperia, CA

Preliminary Hydrology Report

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Table of Contents

I. Purpose and Scope 1

II. Project Site and Drainage Area Overview 3

III. Methodology 4

IV. Hydrology 4

V. Conclusion 7

Appendix

A. Rational Method
   a. Post-Development Condition
      i. 100-Year Storm

B. Exhibits

C. Reference Documents
   a. NOAA Atlas 14 Rainfall Data
   b. Soil Map
   c. SCG Memo
   d. Infiltration Study

I. Purpose and Scope

The purpose of this preliminary study is to identify the mitigation measures that must be implemented during final design in order to ensure that the project does not have adverse impacts to downstream properties. The project will develop a conceptual storm drain infrastructure plan that will demonstrate how the project will flood protect the project as required by the City of Hesperia, San Bernardino County, and FEMA regulations and policies.

This study evaluates the Post-Development Hydrological Conditions and provides the criteria for the design of the on-site storm drain systems for flood protection of the proposed structures. In the design of the storm drain system, the project performed storm drain alternative assessments and evaluated the following:

1. The ultimate storm drain solution identified as part of the Victorville Master Drainage Plan prepared by the County of San Bernardino
2. A project stand-alone solution due to the timing to implement the solution from the Victorville Master Drainage Plan

When evaluating the solution identified in the Victorville Master Drainage Plan, the following challenges were identified that make it impractical:

1. Availability of Right of Ways
2. The viability of constructing the regional basin
3. Design coordination with DWR
4. Impacts to timing and financial impacts to the project

Therefore, in the case of downstream infrastructure being absent, the guidelines established in the San Bernardino County Basin Design criteria must be met for this project.

The scope of the study includes the following:

1. Evaluate three alternatives to satisfying drainage requirements.
    a. Alternative 1 is to implement the solution identified in the Victorville MDP. However, this is not feasible due to the challenges listed previously.
    b. Alternative 2 is to release runoff from the site at a rate that does not exceed the allowable flow rate, which is equivalent to the 90% of the pre-development flow rate for a 100-year storm. To obtain the allowable flow rate, the 100-year storm for pre-development conditions is modelled as a 25-year storm per the San Bernardino County Detention Basin Guidelines.
    c. Alternative 3 is to retain the entire post-development runoff volume for a 100-year storm onsite.
2. Perform 100-year rational method calculations as outlined in the San Bernardino County Flood Control Hydrology Manual.
3. Determine peak flow rates tributary to the mainline systems.
4. Size the infiltration/retention basin using the volumes determined from the unit hydrograph calculations.
5. Preparation of a report, which consists of hydrological and hydraulic results, as well as supporting exhibits.

II. Project Site and Drainage Area Overview

The proposed site is an industrial development located near the northwest corner of Palmeto Way and Amargosa Rd in Hesperia, California. The project site is bounded by roads and can be located with the provided information below:

- South of Avenal St
- East of Amargosa Rd
- North of Palmeto Way

The site consists of several parcels both irregular and rectangular in shape which approximate to 31 acres, and part of the project will include offsite street improvements along the frontage of the project on Yucca Terrace, Phelan Road, and a portion of Highway 395. The site is entirely vacant and undeveloped and surrounded by mostly paved/dirt roads. The existing natural cover consists primarily of shrubs, native bushes and trees throughout the site. The highest elevation per survey data is located on the south westerly corner of the project site. The majority of the site will sheet flow towards the northerly east corner of the project site. Overall, the site depicts slopes of approximately 2± percent towards the northerly east corner of the project site. Existing drainage patterns can be seen in the “Pre-Developed Condition Exhibit” in Appendix C.

The proposed site is considered an industrial development, and flows will be collected through nearby catch basins and conveyed to either an above ground or underground infiltration/retention basin via a storm drain system.

The project proposes to construct one building that will be used for industrial and commercial purposes. The project will have its dedicated parking areas and truck docking areas. In addition, for water quality purposes, the project proposes a storm drain system to convey stormwater to infiltration/retention basins. Since infiltration is a priority for water quality purposes and is needed to meet the WQMP hierarchy, the project will use a combination of an above ground infiltration basin and underground CMP infiltration basin to treat the stormwater runoff for water quality purposes.

As discussed previously, there are three alternatives to managing stormwater runoff. The first alternative is to follow the solution identified in the Victorville MDP and discharge to the regional basin. However, due to challenges such as the regional basin not yet being constructed along with the Right of Way issues mentioned previously, there are timing and financial impacts that makes this alternative infeasible.

Therefore, the second alternative of releasing runoff at a rate no greater than the 25-year pre-project flow rate is evaluated. However, if this alternative were to be implemented, the flow condition in the post-development conditions will be altered from sheet flow to concentrated flow. This will result in the potential for erosion downstream of the project site and will not comply with California Drainage Law which states that there cannot be a net increase in flow and velocity. In addition, there are additional challenges such as a lack of Right of Way to discharge the flows, future liability from downstream property owners that may experience flooding due to the project discharging runoff, and the creation of future environmental habitat on offsite properties due to the concentration of flows. As a result of these challenges, the project proposes to retain the entire runoff volume for up to a 100-year storm event.

III. Methodology

The San Bernardino County Hydrology Manual, was used to develop the hydrological parameters for the hydrology analysis. The rational method was used in order to perform a hydrological analysis for the proposed project conditions. The proposed development will be designed to prevent flooding for the 100-year storm.

Peak flow rate was calculated using the Rational Method calculation as outlined in the San Bernardino County Hydrology Manual (Equation D.4)

$$Q= 0.90(I-F_m)*A$$

- 100-year AMC III
- Soil Type B
- Manning's Values Used:
    - o Existing Surface n=0.030
- Project is located in the "Desert" area

IV. Hydrology

The rainfall depths used in the hydrology calculations are as follows:

Storm Event & Duration	Rainfall (inches)
2-Year, 1-Hour	0.433
2-Year, 6-Hour	1.01
2-Year, 24-Hour	1.89
10-Year, 1-Hour	0.747
100-Year, 1-Hour	1.25
100-Year, 6-Hour	2.81
100-Year, 24-Hour	5.90

The rainfall depths were obtained from NOAA Atlas 14, which is included as part of Appendix F.

As discussed previously, the project evaluated three alternatives. However, the alternative to implement the solution identified in the Victorville MDP was eliminated due to the timing required to implement the solution due to the right of way constraints, regional hydrology studies, multi-agency coordination and financial burdens on the project. This resulted in the project to focus on the following alternatives:

1. Release runoff from the site at a rate that does not exceed 90% of the pre-development flow rate for a 25-year storm per the San Bernardino County Detention Basin Guidelines.
2. Retain the entire post-development runoff volume for a 100-year storm onsite.

For alternative 1 to be viable, the following needs to be met:

1. California Drainage Law which states that there cannot be a net increase in flow and velocity
2. The maximum outflow cannot be exceeded
3. The drainage infrastructures must be located within easements or right of ways

If alternative 1 were to be chosen, runoff would be released at a concentrated flow rate which increases the flow velocity and may cause erosion at the ditch downstream of the project site. This would therefore go against the California Drainage Law. In addition, since runoff would be discharged offsite into an adjacent property, there are additional concerns regarding easements and right of way that would allow us to discharge the runoff onto an adjacent property. Due to the concerns regarding the California Drainage Law and the easement and right of way issues, alternative 1 was deemed to be infeasible.

After assessing alternative 1 and the issues regarding timing, liability, and risk, alternative 2 was evaluated since it is easily demonstrated that this has lower risk and liability, and the client understands that there is a higher cost to implement. This alternative proposes to retain the entire post-development runoff onsite and is the option that the project will be using to satisfy the drainage requirements.

The proposed site was divided in subareas based on the proposed drainage patterns in order to better analyze the runoff produced throughout each area. Below is a summary of the results.

HYDROLOGY SUMMARY						
AREA ID	AREA (AC)	TC (MIN)	Q_{100} (CFS)	V_{100} (CF)	Retention Provided (CF)	Total V Provided (CF)
A	6.29	10	16.5	117,301	600,000	600,000 min
B	19.08	10	50.2	379,213		
C	6.22	10	15.9	81,068		
TOTAL	31.59		82.9	582,327		

BASIN SUMMARY TABLE		
BASIN ID	**RETENTION VOLUME**	**TOTAL VOLUME**
ABOVE GROUND BASIN	295,000 CF	295,000 CF min
UNDERGROUND INFILTRATION BASIN	305,000 CF	305,000 CF min
TOTAL	**600,000 CF**	**600,000 CF min**

Regarding the subsurface design, the project includes a CDS hydrodynamic separator to eliminate sediments, debris, and trash from entering the infiltration chambers to help ensure long term infiltration of the systems and reduce the risk of infiltration degradation. Runoff will be collected through nearby catch basins and first pretreated through inlet filters placed on each catch basin. Further downstream, the runoff will be further pretreated through the CDS hydrodynamic separator, and ultimately be discharged into either an above ground or underground infiltration system. For more information, please see the exhibit for Post-Developed conditions in Appendix C.

Per the infiltration study provided by Southern California Geotechnical, Inc, the site has sufficient infiltration rates to drawdown within 24 hours after the storm event. In particular, the infiltration rate was measured to be 17 in/hr. Applying a safety factor of 2 results in an effective infiltration rate of 8.5 in/hr which will be enough to completely drain the 144in CMP systems within 24 hours. A safety factor of 2 was selected due to in situ testing having been performed by Southern California Geotechnical, Inc. Southern California Geotechnical, Inc. has also been contacted to verify that the infiltration rates measured are accurate. For more information, please see the memo in Appendix D.

V. Conclusion

The project evaluated three alternatives to satisfying drainage requirements.

1. Alternative 1 is to implement the solution identified in the Victorville MDP. However, this is not feasible due to the challenges with timing.
2. Alternative 2 is to release runoff from the site at a rate that does not exceed the allowable flow rate, which is equivalent to the 90% of the pre-development flow rate for a 100-year storm. To obtain the allowable flow rate, the 100-year storm for pre-development conditions is modelled as a 25-year storm per the San Bernardino County Detention Basin Guidelines.
3. Alternative 3 is to retain the entire post-development runoff volume for a 100-year storm onsite.

As previously discussed, alternative 1 is not viable due to the timing of the regional basin. Therefore, only alternative 2 and 3 are considered to be viable solutions. However, for alternative 2, there are risks and impacts that also make it an inviable solution. In particular, runoff would be released at a concentrated flow rate which increases the flow velocity and may cause erosion at the ditch downstream of the project site. This would therefore go against the California Drainage Law. In addition, since runoff would be discharged offsite into an adjacent property, there are additional concerns regarding easements and right of way that would allow us to discharge the runoff onto an adjacent property.

Due to these concerns, the most viable option was evaluated to be alternative 3, which is to provide full retention onsite. Therefore, proposed development will provide enough volume to capture the entire runoff volume generated from a 100-year storm event and will not release any runoff off-site for up to a 100-year storm event. To store the volume, the development proposes a combination of above ground and underground infiltration/retention basins. Since the development will not release runoff off-site, the development will not negatively impact downstream conditions. The results demonstrate that the proposed on-site storm drain system and above ground and underground infiltration/retention basins will comply with the flood protection and WQMP requirements of the City of Hesperia and County of San Bernardino.

Appendix A

HYDROLOGY SUMMARY				
ID	**AREA A**	**AREA B**	**AREA C**	**TOTAL SITE**
AREA, SF	273992	831125	270943	1376060
ACRES	6.29	19.08	6.22	31.59
PERVIOUS	0.19	0.10	0.52	0.20
IMPERVIOUS	0.81	0.90	0.48	0.80
TIME OF CONCENTRATION, MIN	10	10	10	10
P_{24}	5.9	5.9	5.9	5.9
CN	79	84	60	78
AMC III CN	93	96	79	93
S	0.70	0.37	2.66	0.76
I_a	0.14	0.07	0.53	0.15
Y	0.87	0.93	0.61	0.86
I_{25}, IN/HR	2.21	2.21	2.21	2.21
I_{100}, IN/HR	2.93	2.93	2.93	2.93
Fp	0.04	0.02	0.16	0.05
Fm	0.01	0.00	0.08	0.01
Ybar	0.13	0.07	0.39	0.14
Q-25, CFS	12.5	38.0	11.9	62.6
Q-100, CFS	16.5	50.2	15.9	82.9
VOLUME (P=4.28IN 25YR-24HR), CF	85093	275090	58809	422434
VOLUME (P=5.90IN 100YR-24HR), CF	117301	379213	81068	582327

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005
Version 7.1

Rational Hydrology Study Date: 07/15/22

2021-196 Hesperia Spec Industrial
Rational Method
25-year

Program License Serial Number 6277

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 25.0
Computed rainfall intensity:
Storm year = 25.00 1 hour rainfall = 0.942 (In.)
Slope used for rainfall intensity curve b = 0.7000
Soil antecedent moisture condition (AMC) = 2

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        1.100 to Point/Station
1.200
      **** INITIAL AREA EVALUATION ****
      ____________________________________________________________________
____
      Soil classification AP and SCS  values input by user
      USER INPUT of soil data for subarea
      SCS curve number for soil(AMC 2)  = 56.00
      Pervious ratio(Ap) = 0.1900     Max loss rate(Fm)=
0.139(In/Hr)
      Initial subarea data:
      Initial area flow distance =   548.000(Ft.)
      Top (of initial area) elevation =    52.200(Ft.)
      Bottom (of initial area) elevation =    44.000(Ft.)
      Difference in elevation =     8.200(Ft.)
      Slope =    0.01496  s(%)=       1.50
      TC = k(0.321)*[(length^3)/(elevation change)]^0.2
      Initial area time of concentration =    9.279 min.
      Rainfall intensity =      3.479(In/Hr) for a    25.0 year storm
      Effective runoff coefficient used for area (Q=KCIA) is C = 0.864
      Subarea runoff =     18.908(CFS)
      Total initial stream area =        6.290(Ac.)
      Pervious area fraction = 0.190
      Initial area Fm value =    0.139(In/Hr)
```

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      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        1.200 to Point/Station
2.200
      **** PIPEFLOW TRAVEL TIME (Program estimated size) ****
      ------------------------------------------------------------------------
____
      Upstream point/station elevation =    44.000(Ft.)
      Downstream point/station elevation =    34.000(Ft.)
      Pipe length  =  1386.00(Ft.)   Manning's N = 0.013
      No. of pipes = 1  Required pipe flow  =    18.908(CFS)
      Nearest computed pipe diameter  =     24.00(In.)
      Calculated individual pipe flow  =    18.908(CFS)
      Normal flow depth in pipe =   19.31(In.)
      Flow top width inside pipe =   19.03(In.)
      Critical Depth =   18.77(In.)
      Pipe flow velocity =      6.97(Ft/s)
      Travel time through pipe =    3.31 min.
      Time of concentration (TC) =    12.59 min.
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        2.100 to Point/Station
2.200
      **** SUBAREA FLOW ADDITION ****
      ____________________________________________________________________
____
      Soil classification AP and SCS  values input by user
      USER INPUT of soil data for subarea
      SCS curve number for soil(AMC 2)  = 56.00
      Pervious ratio(Ap) = 0.1000     Max loss rate(Fm)=
0.073(In/Hr)
      Time of concentration =    12.59 min.
      Rainfall intensity =      2.810(In/Hr) for a    25.0 year storm
      Effective runoff coefficient used for area,(total area with
modified
      rational method)(Q=KCIA) is C = 0.871
      Subarea runoff =     43.201(CFS) for   19.080(Ac.)
      Total runoff =     62.109(CFS)
      Effective area this stream =       25.37(Ac.)
      Total Study Area (Main Stream No. 1) =       25.37(Ac.)
      Area averaged Fm value =    0.090(In/Hr)
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        2.200 to Point/Station
3.200
      **** PIPEFLOW TRAVEL TIME (Program estimated size) ****
      ------------------------------------------------------------------------
____
      Upstream point/station elevation =    34.100(Ft.)
      Downstream point/station elevation =    23.400(Ft.)
      Pipe length  =   675.00(Ft.)   Manning's N = 0.013
      No. of pipes = 1  Required pipe flow  =    62.109(CFS)
      Nearest computed pipe diameter  =     33.00(In.)
      Calculated individual pipe flow  =    62.109(CFS)
      Normal flow depth in pipe =   25.27(In.)
      Flow top width inside pipe =   27.96(In.)
      Critical Depth =   30.18(In.)
      Pipe flow velocity =     12.74(Ft/s)
      Travel time through pipe =    0.88 min.
      Time of concentration (TC) =    13.47 min.
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        3.100 to Point/Station
3.200
      **** SUBAREA FLOW ADDITION ****
      ____________________________________________________________________
____
      Soil classification AP and SCS  values input by user
      USER INPUT of soil data for subarea
      SCS curve number for soil(AMC 2)  = 56.00
      Pervious ratio(Ap) = 0.5200     Max loss rate(Fm)=
0.382(In/Hr)
      Time of concentration =    13.47 min.
      Rainfall intensity =      2.680(In/Hr) for a    25.0 year storm
      Effective runoff coefficient used for area,(total area with
modified
      rational method)(Q=KCIA) is C = 0.851
      Subarea runoff =      9.891(CFS) for    6.220(Ac.)
      Total runoff =     72.000(CFS)
      Effective area this stream =       31.59(Ac.)
      Total Study Area (Main Stream No. 1) =       31.59(Ac.)
      Area averaged Fm value =    0.147(In/Hr)
      End of computations, Total Study Area =           31.59 (Ac.)
      The following figures may
      be used for a unit hydrograph study of the same area.
      Note: These figures do not consider reduced effective area
      effects caused by confluences in the rational equation.

      Area averaged pervious area fraction(Ap) = 0.201
      Area averaged SCS curve number =  56.0
```

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005
Version 7.1

Rational Hydrology Study Date: 07/15/22

2021-196 Hesperia Spec Industrial
Rational Method
100-year

Program License Serial Number 6277

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Computed rainfall intensity:
Storm year = 100.00 1 hour rainfall = 1.250 (In.)
Slope used for rainfall intensity curve b = 0.7000
Soil antecedent moisture condition (AMC) = 3

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        1.100 to Point/Station
1.200
      **** INITIAL AREA EVALUATION ****
      ____________________________________________________________________
____
      Soil classification AP and SCS  values input by user
      USER INPUT of soil data for subarea
      SCS curve number for soil(AMC 2)  = 56.00
      Adjusted SCS curve number for AMC 3 = 75.80
      Pervious ratio(Ap) = 0.1900     Max loss rate(Fm)=
0.084(In/Hr)
      Initial subarea data:
      Initial area flow distance =   548.000(Ft.)
      Top (of initial area) elevation =    52.200(Ft.)
      Bottom (of initial area) elevation =    44.000(Ft.)
      Difference in elevation =     8.200(Ft.)
      Slope =    0.01496  s(%)=       1.50
      TC = k(0.321)*[(length^3)/(elevation change)]^0.2
      Initial area time of concentration =    9.279 min.
      Rainfall intensity =      4.617(In/Hr) for a   100.0 year storm
      Effective runoff coefficient used for area (Q=KCIA) is C = 0.884
      Subarea runoff =     25.664(CFS)
      Total initial stream area =        6.290(Ac.)
      Pervious area fraction = 0.190
      Initial area Fm value =    0.084(In/Hr)
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        1.200 to Point/Station
2.200
      **** PIPEFLOW TRAVEL TIME (Program estimated size) ****
      ------------------------------------------------------------------------
____
      Upstream point/station elevation =    44.000(Ft.)
      Downstream point/station elevation =    34.000(Ft.)
      Pipe length  =  1386.00(Ft.)   Manning's N = 0.013
      No. of pipes = 1  Required pipe flow  =    25.664(CFS)
      Nearest computed pipe diameter  =     27.00(In.)
      Calculated individual pipe flow  =    25.664(CFS)
      Normal flow depth in pipe =   21.56(In.)
      Flow top width inside pipe =   21.66(In.)
      Critical Depth =   21.24(In.)
      Pipe flow velocity =      7.54(Ft/s)
      Travel time through pipe =    3.06 min.
      Time of concentration (TC) =    12.34 min.
```

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      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        2.100 to Point/Station
2.200
      **** SUBAREA FLOW ADDITION ****
      ____________________________________________________________________
____
      Soil classification AP and SCS  values input by user
      USER INPUT of soil data for subarea
      SCS curve number for soil(AMC 2)  = 56.00
      Adjusted SCS curve number for AMC 3 = 75.80
      Pervious ratio(Ap) = 0.1000     Max loss rate(Fm)=
0.044(In/Hr)
      Time of concentration =    12.34 min.
      Rainfall intensity =      3.781(In/Hr) for a   100.0 year storm
      Effective runoff coefficient used for area,(total area with
modified
      rational method)(Q=KCIA) is C = 0.887
      Subarea runoff =     59.445(CFS) for   19.080(Ac.)
      Total runoff =     85.109(CFS)
      Effective area this stream =       25.37(Ac.)
      Total Study Area (Main Stream No. 1) =       25.37(Ac.)
      Area averaged Fm value =    0.054(In/Hr)
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        2.200 to Point/Station
3.200
      **** PIPEFLOW TRAVEL TIME (Program estimated size) ****
      ------------------------------------------------------------------------
____
      Upstream point/station elevation =    34.100(Ft.)
      Downstream point/station elevation =    23.400(Ft.)
      Pipe length  =   675.00(Ft.)   Manning's N = 0.013
      No. of pipes = 1  Required pipe flow  =    85.109(CFS)
      Nearest computed pipe diameter  =     39.00(In.)
      Calculated individual pipe flow  =    85.109(CFS)
      Normal flow depth in pipe =   26.86(In.)
      Flow top width inside pipe =   36.12(In.)
      Critical Depth =   34.49(In.)
      Pipe flow velocity =     13.98(Ft/s)
      Travel time through pipe =    0.80 min.
      Time of concentration (TC) =    13.15 min.
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        3.100 to Point/Station
3.200
      **** SUBAREA FLOW ADDITION ****
      ____________________________________________________________________
____
      Soil classification AP and SCS  values input by user
      USER INPUT of soil data for subarea
      SCS curve number for soil(AMC 2)  = 56.00
      Adjusted SCS curve number for AMC 3 = 75.80
      Pervious ratio(Ap) = 0.5200     Max loss rate(Fm)=
0.229(In/Hr)
      Time of concentration =    13.15 min.
      Rainfall intensity =      3.618(In/Hr) for a   100.0 year storm
      Effective runoff coefficient used for area,(total area with
modified
      rational method)(Q=KCIA) is C = 0.878
      Subarea runoff =     15.238(CFS) for    6.220(Ac.)
      Total runoff =    100.347(CFS)
      Effective area this stream =       31.59(Ac.)
      Total Study Area (Main Stream No. 1) =       31.59(Ac.)
      Area averaged Fm value =    0.088(In/Hr)
      End of computations, Total Study Area =           31.59 (Ac.)
      The following figures may
      be used for a unit hydrograph study of the same area.
      Note: These figures do not consider reduced effective area
      effects caused by confluences in the rational equation.

      Area averaged pervious area fraction(Ap) = 0.201
      Area averaged SCS curve number =  56.0
```

U n i t H y d r o g r a p h A n a l y s i s

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Study date 07/15/22

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San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6277

2021-196 Hesperia Spec Industrial
Unit Hydrograph
100-year

Storm Event Year = 100

Antecedent Moisture Condition = 3

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 10		
0.01	1	0.75
Rainfall data for year 2		
0.01	6	1.01
Rainfall data for year 2		
0.01	24	1.89

```
--
      Rainfall data for year 100
                0.01           1           1.25
      ------------------------------------------------------------------
--
      Rainfall data for year 100
                0.01           6           2.81
      ------------------------------------------------------------------
--
      Rainfall data for year 100
                0.01          24           5.90
      ------------------------------------------------------------------
--
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++

      ******** Area-averaged max loss rate, Fm ********


      SCS curve  SCS curve     Area     Area     Fp(Fig C6)    Ap
Fm
      No.(AMCII) NO.(AMC 3)    (Ac.)    Fraction     (In/Hr)  (dec.)
(In/Hr)
       56.0      75.8         31.59      1.000     0.440    0.200
0.088

      Area-averaged adjusted loss rate Fm (In/Hr) =  0.088

      ********* Area-Averaged low loss rate fraction, Yb **********

      Area       Area          SCS CN    SCS CN      S     Pervious
       (Ac.)      Fract         (AMC2)    (AMC3)           Yield Fr
           6.32   0.200         56.0      75.8       3.19     0.555
          25.27   0.800         98.0      98.0       0.20     0.960

      Area-averaged catchment yield fraction, Y =  0.879
      Area-averaged low loss fraction, Yb =  0.121
      User entry of time of concentration  =   0.227 (hours)
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++
      Watershed area =      31.59(Ac.)
      Catchment Lag time =   0.182 hours
      Unit interval =   5.000 minutes
      Unit interval percentage of lag time = 45.8884
      Hydrograph baseflow =     0.00(CFS)
      Average maximum watershed loss rate(Fm) =  0.088(In/Hr)
      Average low loss rate fraction (Yb) = 0.121 (decimal)
      MOUNTAIN S-Graph Selected
      Computed peak 5-minute rainfall =  0.593(In)
      Computed peak 30-minute rainfall =  1.015(In)
      Specified peak 1-hour rainfall =  1.250(In)
      Computed peak 3-hour rainfall =  2.054(In)
      Specified peak 6-hour rainfall =  2.810(In)
      Specified peak 24-hour rainfall =  5.900(In)
```

```
      Rainfall depth area reduction factors:
      Using a total area of      31.59(Ac.) (Ref: fig. E-4)

      5-minute factor = 0.999     Adjusted rainfall =  0.592(In)
      30-minute factor = 0.999    Adjusted rainfall =  1.014(In)
      1-hour factor = 0.999       Adjusted rainfall =  1.248(In)
      3-hour factor = 1.000       Adjusted rainfall =  2.054(In)
      6-hour factor = 1.000       Adjusted rainfall =  2.810(In)
      24-hour factor = 1.000      Adjusted rainfall =  5.900(In)
      ------------------------------------------------------------------
---

                     U n i t  H y d r o g r a p h
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+++
      Interval          'S' Graph          Unit Hydrograph
      Number            Mean values             ((CFS))
      ------------------------------------------------------------------
---
                (K =       382.04 (CFS))

        1                6.828                  26.086
        2               34.241                 104.729
        3               53.812                  74.769
        4               63.412                  36.675
        5               69.929                  24.899
        6               74.936                  19.129
        7               78.803                  14.773
        8               81.823                  11.537
        9               84.264                   9.327
       10               86.308                   7.807
       11               88.171                   7.119
       12               89.787                   6.173
       13               91.208                   5.430
       14               92.506                   4.960
       15               93.668                   4.438
       16               94.719                   4.017
       17               95.623                   3.454
       18               96.455                   3.176
       19               97.281                   3.156
       20               98.107                   3.156
       21               98.933                   3.156
       22              100.000                   1.578
      ------------------------------------------------------------------
---
      ------------------------------------------------------------------
--
      ------------------------------------------------------------------
--
      Total soil rain loss =      0.64(In)
      Total effective rainfall =      5.26(In)
      Peak flow rate in flood hydrograph =     81.24(CFS)
      ------------------------------------------------------------------
---
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++
```

24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	22.5	45.0	67.5	90.0
0+ 5	0.0017	0.25	Q				
0+10	0.0104	1.26	Q				
0+15	0.0241	1.98	Q				
0+20	0.0402	2.34	VQ				
0+25	0.0581	2.59	VQ				
0+30	0.0772	2.78	VQ				
0+35	0.0974	2.93	VQ				
0+40	0.1184	3.05	VQ				
0+45	0.1400	3.14	VQ				
0+50	0.1622	3.23	VQ				
0+55	0.1850	3.30	VQ				
1+ 0	0.2082	3.37	VQ				
1+ 5	0.2319	3.43	VQ				
1+10	0.2559	3.49	VQ				
1+15	0.2803	3.54	VQ				
1+20	0.3050	3.59	VQ				
1+25	0.3300	3.63	VQ				
1+30	0.3553	3.67	|Q				
1+35	0.3809	3.71	|Q				
1+40	0.4067	3.75	|Q				
1+45	0.4328	3.79	|Q				
1+50	0.4591	3.82	|Q				

1+55	0.4855	3.83	|Q	|	|	|
2+ 0	0.5119	3.84	|Q	|	|	|
2+ 5	0.5384	3.85	|Q	|	|	|
2+10	0.5650	3.86	|Q	|	|	|
2+15	0.5917	3.87	|Q	|	|	|
2+20	0.6184	3.88	|Q	|	|	|
2+25	0.6452	3.89	|Q	|	|	|
2+30	0.6721	3.90	|Q	|	|	|
2+35	0.6990	3.91	|QV	|	|	|
2+40	0.7260	3.92	|QV	|	|	|
2+45	0.7531	3.93	|QV	|	|	|
2+50	0.7803	3.95	|QV	|	|	|
2+55	0.8076	3.96	|QV	|	|	|
3+ 0	0.8349	3.97	|QV	|	|	|
3+ 5	0.8623	3.98	|QV	|	|	|
3+10	0.8898	3.99	|QV	|	|	|
3+15	0.9174	4.00	|QV	|	|	|
3+20	0.9450	4.02	|QV	|	|	|
3+25	0.9728	4.03	|QV	|	|	|
3+30	1.0006	4.04	|QV	|	|	|
3+35	1.0285	4.05	|QV	|	|	|
3+40	1.0565	4.06	|Q V	|	|	|
3+45	1.0845	4.08	|Q V	|	|	|
3+50	1.1127	4.09	|Q V	|	|	|
3+55	1.1410	4.10	|Q V	|	|	|
4+ 0	1.1693	4.11	|Q V	|	|	|
4+ 5	1.1977	4.13	|Q V	|	|	|
4+10	1.2262	4.14	|Q V	|	|	|

4+15	1.2548	4.15	|Q V	|	|	|
4+20	1.2835	4.17	|Q V	|	|	|
4+25	1.3123	4.18	|Q V	|	|	|
4+30	1.3412	4.19	|Q V	|	|	|
4+35	1.3702	4.21	|Q V	|	|	|
4+40	1.3993	4.22	|Q V	|	|	|
4+45	1.4284	4.24	|Q V	|	|	|
4+50	1.4577	4.25	|Q V	|	|	|
4+55	1.4871	4.26	|Q V	|	|	|
5+ 0	1.5165	4.28	|Q V	|	|	|
5+ 5	1.5461	4.29	|Q V	|	|	|
5+10	1.5758	4.31	|Q V	|	|	|
5+15	1.6055	4.32	|Q V	|	|	|
5+20	1.6354	4.34	|Q V	|	|	|
5+25	1.6654	4.35	|Q V	|	|	|
5+30	1.6955	4.37	|Q V	|	|	|
5+35	1.7257	4.38	|Q V	|	|	|
5+40	1.7560	4.40	|Q V	|	|	|
5+45	1.7864	4.42	|Q V	|	|	|
5+50	1.8169	4.43	|Q V	|	|	|
5+55	1.8475	4.45	|Q V	|	|	|
6+ 0	1.8783	4.47	|Q V	|	|	|
6+ 5	1.9092	4.48	|Q V	|	|	|
6+10	1.9401	4.50	|Q V	|	|	|
6+15	1.9712	4.52	| Q V	|	|	|
6+20	2.0025	4.53	| Q V	|	|	|
6+25	2.0338	4.55	| Q V	|	|	|
6+30	2.0653	4.57	| Q V	|	|	|

6+35	2.0969	4.59	Q	V		
6+40	2.1286	4.60	Q	V		
6+45	2.1604	4.62	Q	V		
6+50	2.1924	4.64	Q	V		
6+55	2.2245	4.66	Q	V		
7+ 0	2.2567	4.68	Q	V		
7+ 5	2.2891	4.70	Q	V		
7+10	2.3216	4.72	Q	V		
7+15	2.3542	4.74	Q	V		
7+20	2.3870	4.76	Q	V		
7+25	2.4199	4.78	Q	V		
7+30	2.4530	4.80	Q	V		
7+35	2.4862	4.82	Q	V		
7+40	2.5195	4.84	Q	V		
7+45	2.5530	4.86	Q	V		
7+50	2.5867	4.89	Q	V		
7+55	2.6205	4.91	Q	V		
8+ 0	2.6544	4.93	Q	V		
8+ 5	2.6886	4.95	Q	V		
8+10	2.7228	4.98	Q	V		
8+15	2.7573	5.00	Q	V		
8+20	2.7919	5.03	Q	V		
8+25	2.8267	5.05	Q	V		
8+30	2.8616	5.07	Q	V		
8+35	2.8967	5.10	Q	V		
8+40	2.9320	5.12	Q	V		
8+45	2.9675	5.15	Q	V		
8+50	3.0032	5.18	Q	V		

8+55	3.0390	5.20	Q	V		
9+ 0	3.0750	5.23	Q	V		
9+ 5	3.1112	5.26	Q	V		
9+10	3.1476	5.29	Q	V		
9+15	3.1842	5.31	Q	V		
9+20	3.2211	5.34	Q	V		
9+25	3.2581	5.37	Q	V		
9+30	3.2953	5.40	Q	V		
9+35	3.3327	5.43	Q	V		
9+40	3.3704	5.47	Q	V		
9+45	3.4082	5.50	Q	V		
9+50	3.4463	5.53	Q	V		
9+55	3.4846	5.56	Q	V		
10+ 0	3.5232	5.60	Q	V		
10+ 5	3.5619	5.63	Q	V		
10+10	3.6010	5.67	Q	V		
10+15	3.6402	5.70	Q	V		
10+20	3.6797	5.74	Q	V		
10+25	3.7195	5.77	Q	V		
10+30	3.7595	5.81	Q	V		
10+35	3.7998	5.85	Q	V		
10+40	3.8404	5.89	Q	V		
10+45	3.8813	5.93	Q	V		
10+50	3.9224	5.97	Q	V		
10+55	3.9638	6.01	Q	V		
11+ 0	4.0055	6.06	Q	V		
11+ 5	4.0476	6.10	Q	V		
11+10	4.0899	6.15	Q	V		

11+15	4.1326	6.19	Q	V		
11+20	4.1755	6.24	Q	V		
11+25	4.2188	6.29	Q	V		
11+30	4.2625	6.34	Q	V		
11+35	4.3065	6.39	Q	V		
11+40	4.3509	6.44	Q	V		
11+45	4.3956	6.49	Q	V		
11+50	4.4407	6.55	Q	V		
11+55	4.4862	6.61	Q	V		
12+ 0	4.5321	6.67	Q	V		
12+ 5	4.5779	6.65	Q	V		
12+10	4.6221	6.42	Q	V		
12+15	4.6653	6.27	Q	V		
12+20	4.7082	6.23	Q	V		
12+25	4.7510	6.22	Q	V		
12+30	4.7940	6.24	Q	V		
12+35	4.8372	6.27	Q	V		
12+40	4.8806	6.31	Q	V		
12+45	4.9244	6.36	Q	V		
12+50	4.9686	6.42	Q	V		
12+55	5.0133	6.48	Q	V		
13+ 0	5.0584	6.55	Q	V		
13+ 5	5.1040	6.62	Q	V		
13+10	5.1501	6.70	Q	V		
13+15	5.1969	6.78	Q	V		
13+20	5.2442	6.88	Q	V		
13+25	5.2922	6.97	Q	V		
13+30	5.3409	7.07	Q	V		

13+35	5.3903	7.18	Q	V		
13+40	5.4406	7.29	Q	V		
13+45	5.4916	7.41	Q	V		
13+50	5.5435	7.54	Q	V		
13+55	5.5963	7.67	Q	V		
14+ 0	5.6502	7.83	Q	V		
14+ 5	5.7052	7.98	Q	V		
14+10	5.7613	8.16	Q	V		
14+15	5.8187	8.33	Q	V		
14+20	5.8774	8.53	Q	V		
14+25	5.9375	8.72	Q	V		
14+30	5.9991	8.94	Q	V		
14+35	6.0623	9.17	Q	V		
14+40	6.1272	9.43	Q	V		
14+45	6.1939	9.69	Q	V		
14+50	6.2627	9.99	Q	V		
14+55	6.3336	10.30	Q	V		
15+ 0	6.4071	10.66	Q	V		
15+ 5	6.4831	11.04	Q	V		
15+10	6.5623	11.49	Q	V		
15+15	6.6447	11.97	Q	V		
15+20	6.7311	12.54	Q	V		
15+25	6.8192	12.79	Q	V		
15+30	6.9024	12.08	Q	V		
15+35	6.9840	11.84	Q	V		
15+40	7.0691	12.36	Q	V		
15+45	7.1603	13.25	Q	V		
15+50	7.2622	14.79	Q	V		

```
   15+55     7.3815    17.32  |      Q  |         |V        |
|
   16+ 0     7.5389    22.85  |         Q         |V        |
|
   16+ 5     7.8297    42.23  |         |       Q | V       |
|
   16+10     8.3892    81.24  |         |         |  V      |     Q
|
   16+15     8.8238    63.10  |         |         |   V  Q  |
|
   16+20     9.1005    40.18  |         |      Q  |    V    |
|
   16+25     9.3166    31.37  |         |  Q      |     V   |
|
   16+30     9.5058    27.48  |         | Q       |     V   |
|
   16+35     9.6734    24.33  |         Q         |      V  |
|
   16+40     9.8218    21.55  |        Q|         |      V  |
|
   16+45     9.9556    19.43  |       Q |         |      V  |
|
   16+50    10.0782    17.80  |      Q  |         |       V|
|
   16+55    10.1930    16.67  |      Q  |         |       V|
|
   17+ 0    10.2997    15.49  |     Q   |         |       V|
|
   17+ 5    10.3993    14.47  |     Q   |         |        V
|
   17+10    10.4934    13.65  |     Q   |         |        V
|
   17+15    10.5821    12.88  |    Q    |         |        V
|
   17+20    10.6661    12.20  |    Q    |         |        |V
|
   17+25    10.7452    11.49  |    Q    |         |        |V
|
   17+30    10.8208    10.97  |   Q     |         |        |V
|
   17+35    10.8937    10.59  |   Q     |         |        |V
|
   17+40    10.9639    10.19  |   Q     |         |        |V
|
   17+45    11.0306     9.69  |   Q     |         |        | V
|
   17+50    11.0887     8.43  |  Q      |         |        | V
|
   17+55    11.1388     7.28  |  Q      |         |        | V
|
   18+ 0    11.1869     7.00  |  Q      |         |        | V
|
   18+ 5    11.2342     6.85  |  Q      |         |        | V
|
   18+10    11.2820     6.95  |  Q      |         |        | V
|
```

18+15	11.3300	6.96	Q			V	
18+20	11.3774	6.89	Q			V	
18+25	11.4242	6.80	Q			V	
18+30	11.4704	6.70	Q			V	
18+35	11.5158	6.60	Q			V	
18+40	11.5606	6.50	Q			V	
18+45	11.6048	6.41	Q			V	
18+50	11.6483	6.32	Q			V	
18+55	11.6912	6.23	Q			V	
19+ 0	11.7335	6.15	Q			V	
19+ 5	11.7753	6.06	Q			V	
19+10	11.8165	5.99	Q			V	
19+15	11.8572	5.91	Q			V	
19+20	11.8974	5.84	Q			V	
19+25	11.9372	5.77	Q			V	
19+30	11.9764	5.70	Q			V	
19+35	12.0153	5.64	Q			V	
19+40	12.0537	5.58	Q			V	
19+45	12.0917	5.52	Q			V	
19+50	12.1293	5.46	Q			V	
19+55	12.1665	5.40	Q			V	
20+ 0	12.2032	5.34	Q			V	
20+ 5	12.2396	5.28	Q			V	
20+10	12.2756	5.22	Q			V	
20+15	12.3112	5.17	Q			V	
20+20	12.3464	5.12	Q			V	
20+25	12.3813	5.07	Q			V	
20+30	12.4158	5.02	Q			V	

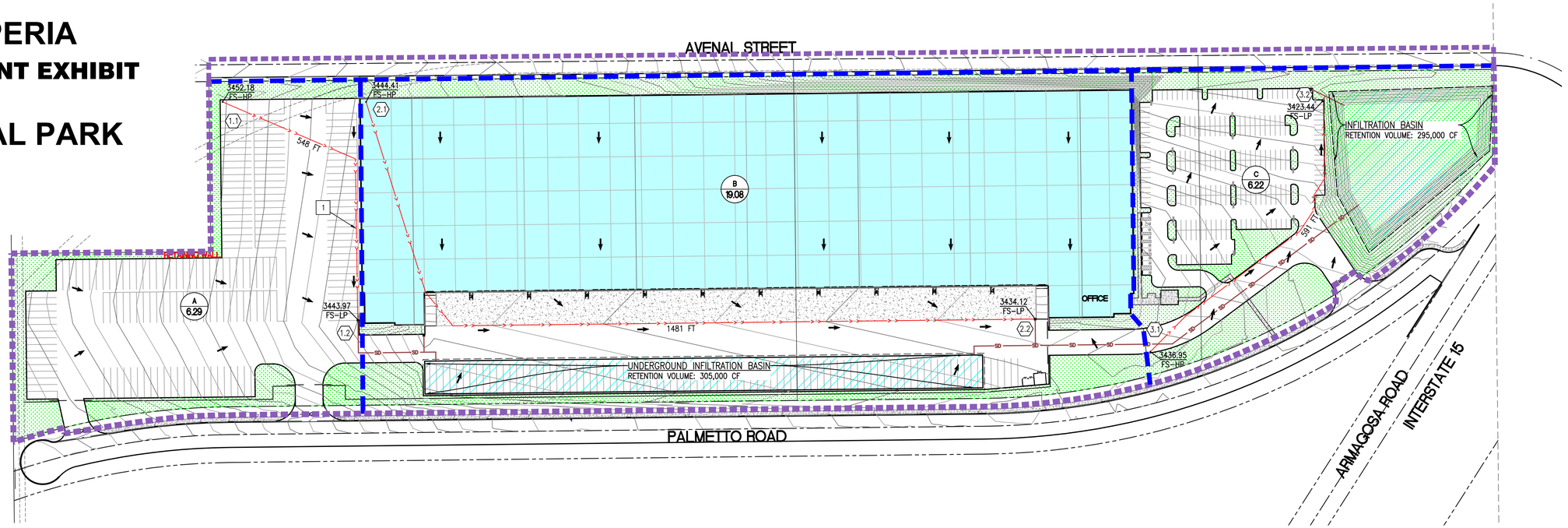
20+35	12.4500	4.97	Q				V
20+40	12.4839	4.92	Q				V
20+45	12.5175	4.88	Q				V
20+50	12.5508	4.83	Q				V
20+55	12.5838	4.79	Q				V
21+ 0	12.6165	4.75	Q				V
21+ 5	12.6490	4.71	Q				V
21+10	12.6812	4.67	Q				V
21+15	12.7131	4.63	Q				V
21+20	12.7447	4.60	Q				V
21+25	12.7761	4.56	Q				V
21+30	12.8073	4.52	Q				V
21+35	12.8382	4.49	Q				V
21+40	12.8689	4.46	Q				V
21+45	12.8994	4.42	Q				V
21+50	12.9296	4.39	Q				V
21+55	12.9596	4.36	Q				V
22+ 0	12.9894	4.33	Q				V
22+ 5	13.0191	4.30	Q				V
22+10	13.0485	4.27	Q				V
22+15	13.0777	4.24	Q				V
22+20	13.1067	4.21	Q				V
22+25	13.1355	4.19	Q				V
22+30	13.1642	4.16	Q				V
22+35	13.1926	4.13	Q				V
22+40	13.2209	4.11	Q				V
22+45	13.2490	4.08	Q				V
22+50	13.2770	4.06	Q				V

```
   22+55      13.3047      4.03  |Q        |         |         |        V
|
   23+ 0      13.3323      4.01  |Q        |         |         |        V
|
   23+ 5      13.3598      3.98  |Q        |         |         |        V
|
   23+10      13.3871      3.96  |Q        |         |         |        V
|
   23+15      13.4142      3.94  |Q        |         |         |        V
|
   23+20      13.4412      3.92  |Q        |         |         |
V|
   23+25      13.4680      3.89  |Q        |         |         |
V|
   23+30      13.4947      3.87  |Q        |         |         |
V|
   23+35      13.5212      3.85  |Q        |         |         |
V|
   23+40      13.5476      3.83  |Q        |         |         |
V|
   23+45      13.5738      3.81  |Q        |         |         |
V|
   23+50      13.5999      3.79  |Q        |         |         |
V|
   23+55      13.6259      3.77  |Q        |         |         |
V|
   24+ 0      13.6518      3.75  |Q        |         |         |
V|
   24+ 5      13.6757      3.48  |Q        |         |         |
V|
   24+10      13.6926      2.46  |Q        |         |         |
V|
   24+15      13.7045      1.72  Q         |         |         |
V|
   24+20      13.7139      1.36  Q         |         |         |
V|
   24+25      13.7216      1.12  Q         |         |         |
V|
   24+30      13.7280      0.93  Q         |         |         |
V|
   24+35      13.7333      0.78  Q         |         |         |
V|
   24+40      13.7379      0.66  Q         |         |         |
V|
   24+45      13.7418      0.57  Q         |         |         |
V|
   24+50      13.7452      0.49  Q         |         |         |
V|
   24+55      13.7481      0.42  Q         |         |         |
V|
   25+ 0      13.7506      0.36  Q         |         |         |
V|
   25+ 5      13.7527      0.31  Q         |         |         |
V|
   25+10      13.7545      0.26  Q         |         |         |
V|
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   25+15      13.7559      0.21  Q         |         |         |
V|
   25+20      13.7571      0.17  Q         |         |         |
V|
   25+25      13.7581      0.14  Q         |         |         |
V|
   25+30      13.7588      0.11  Q         |         |         |
V|
   25+35      13.7594      0.08  Q         |         |         |
V|
   25+40      13.7597      0.05  Q         |         |         |
V|
   25+45      13.7598      0.02  Q         |         |         |
V
------------------------------------------------------------------------
```

Appendix B

CITY OF HESPERIA
POST DEVELOPMENT EXHIBIT
FOR
SPEC INDUSTRIAL PARK



HYDROLOGY INFORMATION

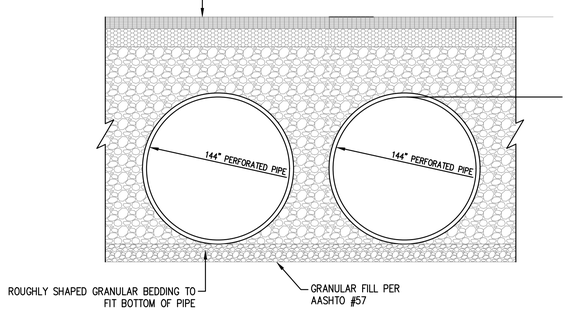
SITE AREA:	31± ACRES	
SOIL GROUP:	B	(PER USDA WEB SOIL SURVEY)
IMPERVIOUS:	80%	(PER CALCULATIONS)
ISOHYETALS:	0.433" 1.25"	(2-YEAR 1 HOUR) (100-YEAR 1 HOUR)
CN NUMBER:	78	(SOIL GROUP B)
FREQUENCY:	100 YEAR 2/10 YEAR	(FOR STORM DRAIN DESIGN) (FOR WATER QUALITY)
METHOD:	SAN BERNARDINO COUNTY HYDROLOGY MANUAL	

LEGEND:

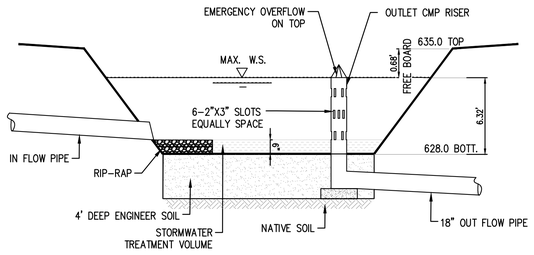
- DRAINAGE AREA/SITE BOUNDARY
- DRAINAGE SUB-AREA BOUNDARY
- STORM WATER FLOW PATH
- PROPOSED STORM DRAIN PIPE
- PROPOSED FLOW DIRECTION ARROW
- DRAINAGE AREA DESIGNATION (X = AREA(AC), XXX)
- NODE (US/DS) (X.X)
- STREAM # (3)
- PROPOSED UNDERGROUND INFILTRATION/DETENTION
- PROPOSED BUILDING
- PROPOSED LANDSCAPING

DRAINAGE NOTES:

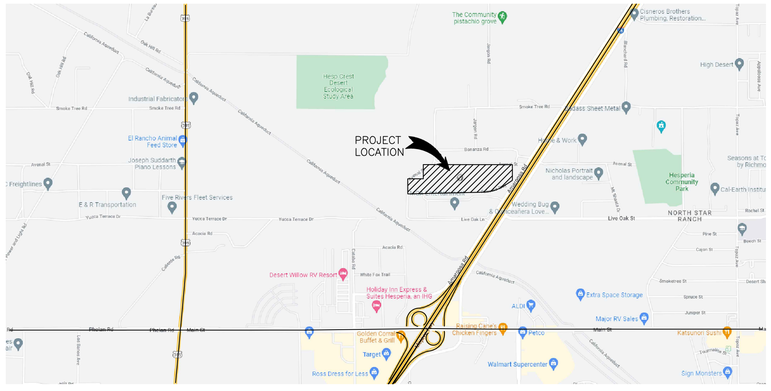
1. PROPOSED STORM DRAIN INLET
2. PROPOSED STORM DRAIN
3. PROPOSED INFILTRATION/DETENTION BASIN
4. PROPOSED UNDERGROUND INFILTRATION CMP



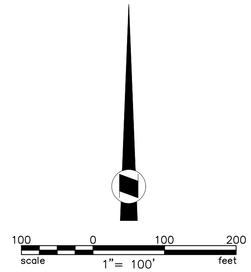
TYPICAL CMP UNDERGROUND INFILTRATION DETAIL
N.T.S



INFILTRATION/DETENTION BASIN-3 DETAIL
N.T.S



VICINITY MAP
N.T.S



PREPARED BY:
WestLAND Group, Inc. Land Surveyors • Civil Engineers • GIS
4150 CONCOURS, ONTARIO, CA 91764
PHONE: (909) 989-9789 FAX: (909) 989-9660
JOB NO: 2019-185

HCCII INDUSTRIAL PARK HYDROLOGY EXHIBIT

CITY OF HESPERIA

DATE: DEC 2021
SHEET 1 OF 1

Drawing Name: P:\Year_2021\2021-196 Hesperia Industrial - RDA - Chris Sovage\06 Engineering\Reports\Hydrology\3_Exhibits\2021-196_Hydro_Exhibit_Post.dwg
Last Opened: Jul 06, 2022 - 9:28pm by: lucas.glauser

Appendix C

NOAA Atlas 14, Volume 6, Version 2
Location name: Hesperia, California, USA*
Latitude: 34.4371°, Longitude: -117.3766°
Elevation: 3440.77 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.083** (0.068-0.101)	**0.118** (0.098-0.145)	**0.166** (0.136-0.203)	**0.204** (0.167-0.252)	**0.257** (0.203-0.329)	**0.299** (0.231-0.390)	**0.341** (0.257-0.456)	**0.385** (0.283-0.529)	**0.445** (0.314-0.638)	**0.493** (0.335-0.731)
10-min	**0.118** (0.098-0.145)	**0.170** (0.140-0.207)	**0.237** (0.196-0.291)	**0.293** (0.239-0.362)	**0.369** (0.292-0.471)	**0.428** (0.331-0.558)	**0.488** (0.369-0.653)	**0.552** (0.405-0.759)	**0.638** (0.449-0.915)	**0.706** (0.481-1.05)
15-min	**0.143** (0.119-0.175)	**0.205** (0.170-0.251)	**0.287** (0.236-0.352)	**0.354** (0.289-0.437)	**0.446** (0.353-0.570)	**0.517** (0.400-0.675)	**0.591** (0.446-0.790)	**0.667** (0.490-0.917)	**0.772** (0.544-1.11)	**0.854** (0.581-1.27)
30-min	**0.217** (0.180-0.265)	**0.311** (0.257-0.380)	**0.435** (0.359-0.533)	**0.537** (0.439-0.664)	**0.677** (0.535-0.865)	**0.785** (0.608-1.02)	**0.896** (0.677-1.20)	**1.01** (0.743-1.39)	**1.17** (0.824-1.68)	**1.30** (0.881-1.92)
60-min	**0.302** (0.250-0.369)	**0.433** (0.358-0.530)	**0.606** (0.499-0.743)	**0.747** (0.611-0.924)	**0.942** (0.744-1.20)	**1.09** (0.846-1.43)	**1.25** (0.942-1.67)	**1.41** (1.03-1.94)	**1.63** (1.15-2.34)	**1.80** (1.23-2.68)
2-hr	**0.434** (0.359-0.530)	**0.590** (0.488-0.722)	**0.802** (0.661-0.983)	**0.979** (0.800-1.21)	**1.23** (0.971-1.57)	**1.43** (1.11-1.86)	**1.64** (1.24-2.19)	**1.86** (1.36-2.55)	**2.17** (1.53-3.11)	**2.42** (1.64-3.58)
3-hr	**0.548** (0.453-0.669)	**0.733** (0.605-0.895)	**0.985** (0.812-1.21)	**1.20** (0.981-1.48)	**1.51** (1.19-1.92)	**1.75** (1.36-2.29)	**2.01** (1.52-2.69)	**2.29** (1.68-3.15)	**2.69** (1.89-3.85)	**3.01** (2.05-4.47)
6-hr	**0.766** (0.634-0.935)	**1.01** (0.838-1.24)	**1.36** (1.12-1.67)	**1.66** (1.35-2.05)	**2.09** (1.65-2.66)	**2.44** (1.89-3.18)	**2.81** (2.12-3.76)	**3.22** (2.37-4.43)	**3.81** (2.69-5.46)	**4.30** (2.93-6.38)
12-hr	**0.980** (0.811-1.20)	**1.34** (1.11-1.64)	**1.84** (1.51-2.25)	**2.27** (1.85-2.80)	**2.88** (2.28-3.69)	**3.39** (2.63-4.43)	**3.93** (2.97-5.26)	**4.53** (3.32-6.23)	**5.38** (3.79-7.72)	**6.09** (4.15-9.04)
24-hr	**1.34** (1.19-1.54)	**1.89** (1.68-2.18)	**2.66** (2.35-3.08)	**3.33** (2.91-3.88)	**4.28** (3.63-5.16)	**5.06** (4.20-6.22)	**5.90** (4.78-7.43)	**6.80** (5.36-8.81)	**8.11** (6.13-11.0)	**9.20** (6.72-12.8)
2-day	**1.50** (1.33-1.72)	**2.11** (1.87-2.44)	**2.98** (2.63-3.44)	**3.72** (3.26-4.34)	**4.81** (4.08-5.80)	**5.71** (4.74-7.03)	**6.69** (5.42-8.42)	**7.75** (6.10-10.0)	**9.30** (7.03-12.6)	**10.6** (7.74-14.8)
3-day	**1.60** (1.42-1.84)	**2.25** (1.99-2.60)	**3.17** (2.80-3.66)	**3.96** (3.47-4.62)	**5.13** (4.35-6.18)	**6.10** (5.06-7.50)	**7.15** (5.79-9.01)	**8.31** (6.54-10.8)	**10.00** (7.56-13.5)	**11.4** (8.34-15.9)
4-day	**1.73** (1.53-1.99)	**2.42** (2.15-2.79)	**3.40** (3.00-3.93)	**4.26** (3.73-4.96)	**5.51** (4.67-6.63)	**6.55** (5.43-8.05)	**7.67** (6.22-9.67)	**8.91** (7.02-11.5)	**10.7** (8.11-14.5)	**12.3** (8.96-17.1)
7-day	**1.92** (1.70-2.21)	**2.66** (2.36-3.07)	**3.71** (3.28-4.29)	**4.62** (4.05-5.38)	**5.95** (5.04-7.16)	**7.05** (5.85-8.66)	**8.24** (6.67-10.4)	**9.54** (7.52-12.4)	**11.4** (8.65-15.4)	**13.0** (9.53-18.2)
10-day	**2.05** (1.82-2.36)	**2.84** (2.52-3.27)	**3.94** (3.48-4.55)	**4.89** (4.28-5.70)	**6.27** (5.31-7.55)	**7.41** (6.15-9.11)	**8.64** (7.00-10.9)	**9.99** (7.87-12.9)	**12.0** (9.04-16.1)	**13.6** (9.93-19.0)
20-day	**2.49** (2.21-2.87)	**3.42** (3.03-3.94)	**4.71** (4.16-5.44)	**5.82** (5.10-6.78)	**7.43** (6.30-8.95)	**8.76** (7.27-10.8)	**10.2** (8.25-12.8)	**11.7** (9.25-15.2)	**14.0** (10.6-18.9)	**15.9** (11.6-22.2)
30-day	**2.94** (2.60-3.38)	**4.00** (3.54-4.61)	**5.48** (4.84-6.33)	**6.75** (5.91-7.87)	**8.59** (7.28-10.3)	**10.1** (8.39-12.4)	**11.7** (9.50-14.8)	**13.5** (10.6-17.5)	**16.1** (12.2-21.7)	**18.3** (13.4-25.5)
45-day	**3.48** (3.08-4.00)	**4.68** (4.14-5.39)	**6.34** (5.60-7.33)	**7.78** (6.81-9.06)	**9.85** (8.35-11.9)	**11.5** (9.59-14.2)	**13.4** (10.8-16.9)	**15.4** (12.1-20.0)	**18.3** (13.9-24.8)	**20.8** (15.2-29.1)
60-day	**3.95** (3.50-4.55)	**5.24** (4.64-6.03)	**7.01** (6.19-8.11)	**8.55** (7.48-9.96)	**10.8** (9.12-13.0)	**12.6** (10.4-15.5)	**14.6** (11.8-18.3)	**16.7** (13.2-21.7)	**19.9** (15.1-26.9)	**22.6** (16.5-31.6)

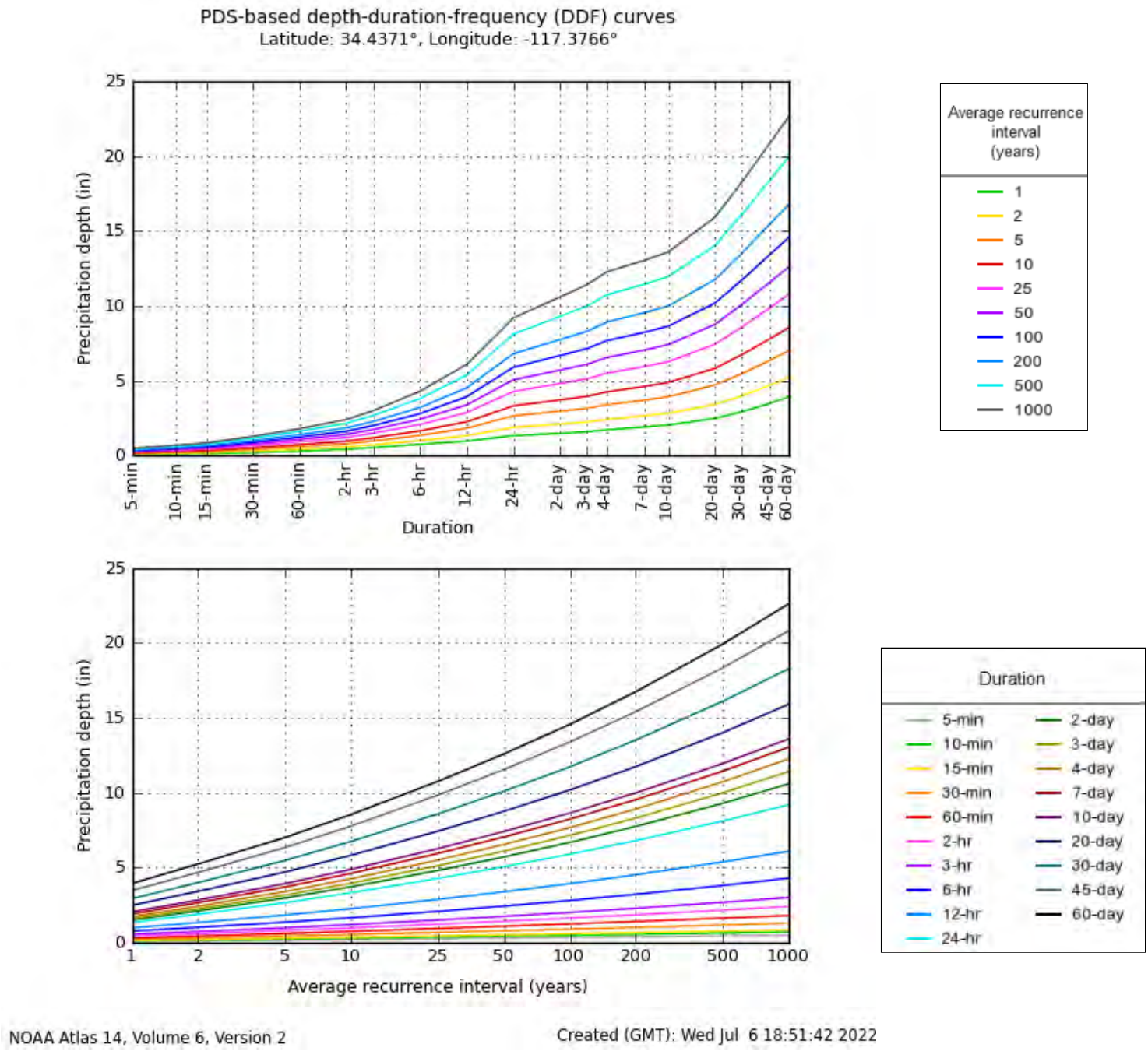
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical



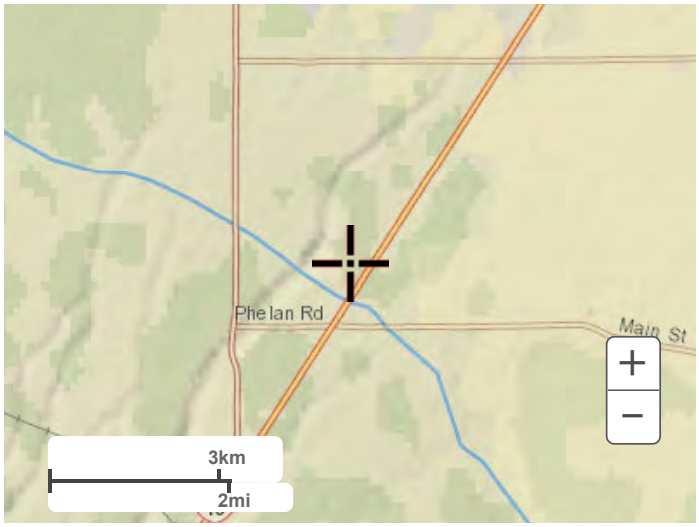
NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Wed Jul 6 18:51:42 2022

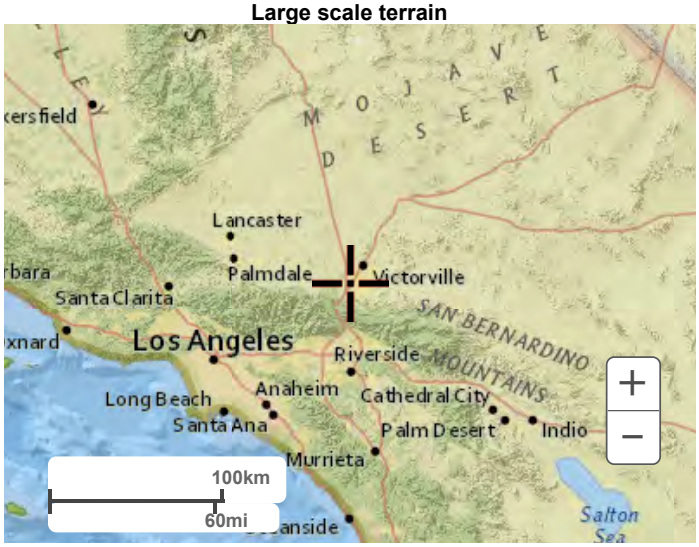
Back to Top

Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



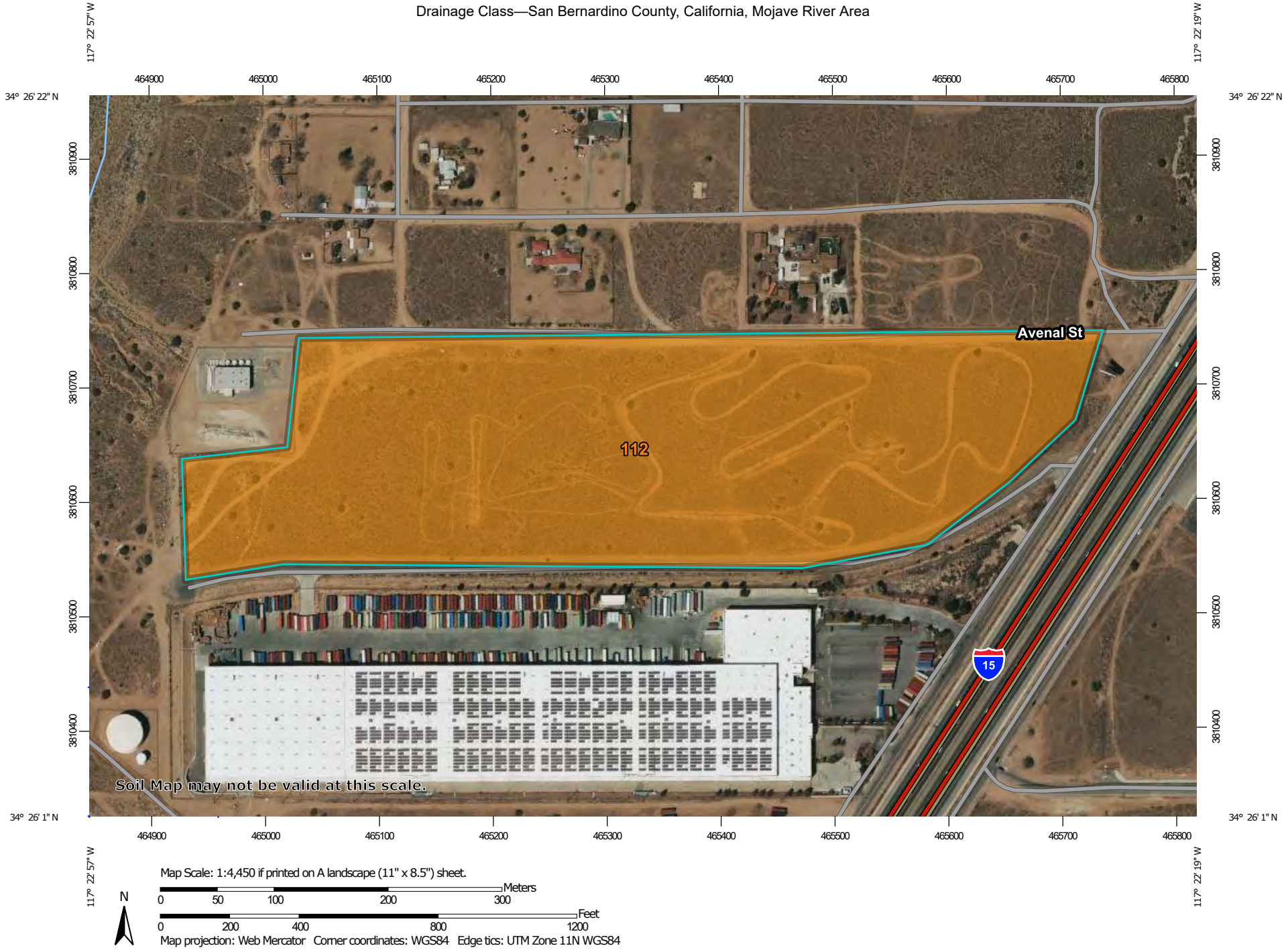
Large scale aerial



Back to Top

US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer



Map Scale: 1:4,450 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 50 100 200 300

Feet
0 200 400 800 1200

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

Soil Rating Polygons

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

Soil Rating Lines

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

Soil Rating Points

- Excessively drained
- Somewhat excessively drained
- Well drained
- Moderately well drained
- Somewhat poorly drained
- Poorly drained
- Very poorly drained
- Subaqueous
- Not rated or not available

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County, California, Mojave River Area
Survey Area Data: Version 13, Sep 13, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 27, 2021—May 24, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Drainage Class

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
112	CAJON SAND, 0 TO 2 PERCENT SLOPES	Somewhat excessively drained	34.8	100.0%
Totals for Area of Interest			**34.8**	**100.0%**

Description

"Drainage class (natural)" refers to the frequency and duration of wet periods under conditions similar to those under which the soil formed. Alterations of the water regime by human activities, either through drainage or irrigation, are not a consideration unless they have significantly changed the morphology of the soil. Seven classes of natural soil drainage are recognized-excessively drained, somewhat excessively drained, well drained, moderately well drained, somewhat poorly drained, poorly drained, and very poorly drained. These classes are defined in the "Soil Survey Manual."

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

APPENDIX I
Conceptual Water Quality Management Plan for Hesperia Spec Industrial

MOJAVE RIVER WATERSHED

Conceptual Water Quality Management Plan

For:

HESPERIA SPEC INDUSTRIAL

WHERE APPLICABLE, INSERT GRADING PERMIT NO., BUILDING PERMIT NO., TRACT NUMBER, LAND DEVELOPMENT FILE NO., CUP, SUP AND/OR APN (SPECIFY LOT NUMBERS IF SITE IS A PORTION OF A TRACT)

Prepared for:

Rachamin 5, LLC

6001 E Slauson Ave

Commerce, CA 90040

(213) 769-4222

Prepared by:

4150 Concours, Suite 100

Ontario, CA 91764

(909) 989-9789

Job Number: 2019-164

Submittal Date: 07-13-20212

Revision No. and Date: Insert No and Current Revision Date

Revision No. and Date: Insert No and Current Revision Date

Revision No. and Date: Insert No and Current Revision Date

Final Approval Date:_____

Project Owner's Certification

This Mojave River Watershed Water Quality Management Plan (WQMP) has been prepared for **Rachamin 5, LLC** by **Westland Group, Inc**. The WQMP is intended to comply with the requirements of the **City of Hesperia** and the Phase II Small MS4 General Permit for the Mojave River Watershed. The undersigned, while it owns the subject property, is responsible for the implementation of the provisions of this plan and will ensure that this plan is amended as appropriate to reflect up-to-date conditions on the site consistent with the Phase II Small MS4 Permit and the intent of San Bernardino County (unincorporated areas of Phelan, Oak Hills, Spring Valley Lake and Victorville) and the incorporated cities of Hesperia and Victorville and the Town of Apple Valley. Once the undersigned transfers its interest in the property, its successors in interest and the city/county/town shall be notified of the transfer. The new owner will be informed of its responsibility under this WQMP. A copy of the approved WQMP shall be available on the subject site in perpetuity.

"I certify under a penalty of law that the provisions (implementation, operation, maintenance, and funding) of the WQMP have been accepted and that the plan will be transferred to future successors."

Project Data			
Permit/Application Number(s):		Grading Permit Number(s):	
Tract/Parcel Map Number(s):	Parcel Map No.	Building Permit Number(s):	
CUP, SUP, and/or APN (Specify Lot Numbers if Portions of Tract):			

Owner's Signature		
Owner Name: Brandon Gallup		
Title	Project Manager	
Company	Rachamin 5, LLC	
Address	6001 E Slauson Ave., Commerce, CA 90040	
Email		
Telephone #	(213) 769-4222	
Signature	Date	

Preparer's Certification

Project Data			
Permit/Application Number(s):		Grading Permit Number(s):	
Tract/Parcel Map Number(s):	Parcel Map No. 18615	Building Permit Number(s):	
CUP, SUP, and/or APN (Specify Lot Numbers if Portions of Tract):			

"The selection, sizing and design of stormwater treatment and other stormwater quality and quantity control measures in this plan were prepared under my oversight and meet the requirements of the California State Water Resources Control Board Order No. 2013-0001-DWQ.

Engineer: Glenn Chung		PE Stamp Below
Title	Executive Vice President/Principal	
Company	Westland Group, Inc.	
Address	4150 Concours, Suite 100, Ontario, CA 91764	
Email	gchung@westlandgroup.net	
Telephone #	(909) 989-9789	
Signature		
Date		

Table of Contents

Section I Introduction

Section 1 Discretionary Permits 1-1

Section 2 Project Description 2-1

2.1 Project Information 2-1
2.2 Property Ownership / Management 2-2
2.3 Potential Stormwater Pollutants 2-3
2.4 Water Quality Credits 2-4

Section 3 Site and Watershed Description 3-1

Section 4 Best Management Practices 4-1

4.1 Source Control and Site Design BMPs 4-1
4.1.1 Source Control BMPs 4-1
4.1.2 Site Design BMPs 4-6
4.2 Treatment BMPs 4-7
4.3 Project Conformance Analysis 4-12
4.3.1 Site Design BMP 4-14
4.3.2 Infiltration BMP 4-16
4.3.4 Biotreatment BMP 4-19
4.3.5 Conformance Summary 4-23
4.3.6 Hydromodification Control BMP 4-24
4.4 Alternative Compliance Plan (if applicable) 4-25

Section 5 Inspection & Maintenance Responsibility Post Construction BMPs 5-1

Section 6 Site Plan and Drainage Plan 6-1

6.1. Site Plan and Drainage Plan 6-1
6.2 Electronic Data Submittal 6-1

Forms

Form 1-1 Project Information 1-1
Form 2.1-1 Description of Proposed Project 2-1
Form 2.2-1 Property Ownership/Management 2-2
Form 2.3-1 Pollutants of Concern 2-3
Form 2.4-1 Water Quality Credits 2-4
Form 3-1 Site Location and Hydrologic Features 3-1
Form 3-2 Hydrologic Characteristics 3-2
Form 3-3 Watershed Description 3-3
Form 4.1-1 Non-Structural Source Control BMP 4-2
Form 4.1-2 Structural Source Control BMP 4-4
Form 4.1-3 Site Design Practices Checklist 4-6
Form 4.2-1 LID BMP Performance Criteria for Design Capture Volume 4-7
Form 4.2-2 Summary of Hydromodification Assessment 4-8
Form 4.2-3 Hydromodification Assessment for Runoff Volume 4-9
Form 4.2-4 Hydromodification Assessment for Time of Concentration 4-10

Form 4.2-5 Hydromodification Assessment for Peak Runoff 4-11
Form 4.3-1 Infiltration BMP Feasibility 4-13
Form 4.3-2 Site Design BMP 4-14
Form 4.3-3 Infiltration LID BMP 4-17
Form 4.3-4 Selection and Evaluation of Biotreatment BMP 4-19
Form 4.3-5 Volume Based Biotreatment – Bioretention and Planter Boxes w/Underdrains .. 4-20
Form 4.3-6 Volume Based Biotreatment- Constructed Wetlands and Extended Detention ... 4-21
Form 4.3-7 Flow Based Biotreatment 4-22
Form 4.3-8 Conformance Summary and Alternative Compliance Volume Estimate 4-23
Form 4.3-9 Hydromodification Control BMP 4-24
Form 5-1 BMP Inspection and Maintenance 5-1

A. Appendix A – Rational Method
B. Appendix B – Exhibits
C. Appendix C – Basin Summary
D. Appendix D – Reference Documents

Section I – Introduction

This WQMP template has been prepared specifically for the Phase II Small MS4 General Permit in the Mojave River Watershed. This location is within the jurisdiction of the Lahontan Regional Water Quality Control Board (LRWQCB). This document should not be confused with the WQMP template for the Santa Ana Phase I area of San Bernardino County.

WQMP preparers must refer to the MS4 Permit for the Mojave Watershed WQMP template and Technical Guidance (TGD) document found at: http://cms.sbcounty.gov/dpw/Land/NPDES.aspx to find pertinent arid region and Mojave River Watershed specific references and requirements.

Section 1 Discretionary Permit(s)

Form 1-1 Project Information					
Project Name	Hesperia Spec Industrial Center				
Project Owner Contact Name:	Mr. Ramin Namvar				
Mailing Address:	6001 E Slauson Ave	E-mail Address:		Telephone:	(213) 769-4222
Permit/Application Number(s):		Tract/Parcel Map Number(s):	Parcel Map No.		
Additional Information/ Comments:					
Description of Project:	The proposed site is an industrial development located near the northwest corner of Palmeto Way and Amargosa Rd in Hesperia, California. There are no erosive site conditions with a relatively flat topography. The project is currently vacant and undeveloped with the topography displays a drainage pattern via surface flow to the northeast. As runoff is draining northeast via surface flow, it will then flow into the roadside drainage swale and flow north along Amargosa Road. The flows would then eventually lead into the Oro Grande Wash. The proposed site will be considered an industrial development. The flows shall be collected through the nearest catch basin which is conveyed to infiltration/retention basins via a storm drain system. The storm drain system was designed to efficiently direct flow into infiltration/detention basins, as well as a single underground infiltration basin. The proposed project will convey flows into the underground infiltration system and when filled, flows will be conveyed into the infiltration/retention basin. The project proposes to construct a building that will be used for industrial and commercial purposes. The site will have dedicated parking areas and truck docking areas. In addition, for water quality the project proposes to have its own storm drain system that will use the combination of underground and above ground infiltration to treat the stormwater runoff. Part of the project will include offsite improvements that include constructing the parkway along the frontage of the project on Avenal Street.				

Provide summary of Conceptual WQMP conditions (if previously submitted and approved). Attach complete copy.	Not Applicable

Section 2 Project Description

2.1 Project Information

The WQMP shall provide the information listed below. The information provided for Conceptual/ Preliminary WQMP should give sufficient detail to identify the major proposed site design and LID BMPs and other anticipated water quality features that impact site planning. Final Project WQMP must specifically identify all BMP incorporated into the final site design and provide other detailed information as described herein.

The purpose of this information is to help determine the applicable development category, pollutants of concern, watershed description, and long term maintenance responsibilities for the project, and any applicable water quality credits. This information will be used in conjunction with the information in Section 3, Site Description, to establish the performance criteria and to select the LID BMP or other BMP for the project or other alternative programs that the project will participate in, which are described in Section 4.

2.1.1 Project Sizing Categorization

If the Project is greater than 5,000 square feet, and not on the excluded list as found on Section 1.4 of the TGD, the Project is a Regulated Development Project.

If the Project is creating and/or replacing greater than 2,500 square feet but less than 5,000 square feet of impervious surface area, then it is considered a Site Design Only project. This criterion is applicable to all development types including detached single family homes that create and/or replace greater than 2,500 square feet of impervious area and are not part of a larger plan of development.

Form 2.1-1 Description of Proposed Project

1 Regulated Development Project Category (Select all that apply):

☒ #1 New development involving the creation of 5,000 ft^2 or more of impervious surface collectively over entire site	☐ #2 Significant re-development involving the addition or replacement of 5,000 ft^2 or more of impervious surface on an already developed site	☐ #3 Road Project – any road, sidewalk, or bicycle lane project that creates greater than 5,000 square feet of contiguous impervious surface	☐ #4 LUPs – linear underground/overhead projects that has a discrete location with 5,000 sq. ft. or more new constructed impervious surface

☐ Site Design Only (Project Total Square Feet > 2,500 but < 5,000 sq.ft.) *Will require source control Site Design Measures. Use the "PCMP" Template. Do not use this WQMP Template.*

2 Project Area (ft2):	1,376,060	**3** Number of Dwelling Units:		**4** SIC Code:	1541

5 Is Project going to be phased? Yes ☐ No ☒ *If yes, ensure that the WQMP evaluates each phase as a distinct DA, requiring LID BMPs to address runoff at time of completion.*

2.2 Property Ownership/Management

Describe the ownership/management of all portions of the project and site. State whether any infrastructure will transfer to public agencies (City, County, Caltrans, etc.) after project completion. State if a homeowners or property owners association will be formed and be responsible for the long-term maintenance of project stormwater facilities. Describe any lot-level stormwater features that will be the responsibility of individual property owners.

Form 2.2-1 Property Ownership/Management

Describe property ownership/management responsible for long-term maintenance of WQMP stormwater facilities:

Maintenance of the WQMP facilities will be the sole responsibility of the property owner:

Rachamin 5, LLC
6001 E Slauson Ave
Commerce, CA 90040
Contact: Mr. Ramin Namvar
Phone: (213) 769-4222

The owner may choose to contract the appropriate employers for the maintenance of stormwater to whom will provide the proper equipment if the current owners to not have the proper equipment and/or knowledge to do so.
Any future property owner(s) whom will succeed Rachamin 5 as the entity responsible for long term maintenance.
No infrastructure will be transferred to a public agency after completion. Refer to Section 5 of this WQMP report for detailed maintenance activities.

2.3 Potential Stormwater Pollutants

Best Management Practices (BMP) measures for pollutant generating activities and sources shall be designed consistent with recommendations from the CASQA Stormwater BMP Handbook for New Development and Redevelopment (or an equivalent manual). Pollutant generating activities must be considered when determining the overall pollutants of concern for the Project as presented in Form 2.3-1.

Determine and describe expected stormwater pollutants of concern based on land uses and site activities (refer to Table 3-2 in the TGD for WQMP).

Form 2.3-1 Pollutants of Concern

Pollutant	Please check: E=Expected, N=Not Expected		Additional Information and Comments
Pathogens (Bacterial / Virus)	E ☒	N ☐	Wild Bird and Pet Waste, Garbage
Nutrients - Phosphorous	E ☒	N ☐	Fertilizers, Food Waste, & Garbage
Nutrients - Nitrogen	E ☒	N ☐	Fertilizer & Waste
Noxious Aquatic Plants	E ☐	N ☒	The proposed development does not include any areas where water will be standing long enough to allow the growth of aquatic plants.
Sediment	E ☒	N ☐	Driveways, Rooftops, Sidewalks, Paved areas & landscape
Metals	E ☒	N ☐	Cars, Trucks & Parking Areas
Oil and Grease	E ☒	N ☐	Leaking Vehicles & Parking Areas
Trash/Debris	E ☒	N ☐	Poorly managed Trash Container & Parking area
Pesticides / Herbicides	E ☒	N ☐	Landscape Area
Organic Compounds	E ☒	N ☐	Cars & Trucks
Other:	E ☐	N ☐	
Other:	E ☐	N ☐	
Other:	E ☐	N ☐	

Section 3 Site and Watershed Description

Describe the project site conditions that will facilitate the selection of BMPs through an analysis of the physical conditions and limitations of the site and its receiving waters. Identify distinct drainage areas (DA) that collect flow from a portion of the site and describe how runoff from each DA (and sub-watershed Drainage Management Areas (DMAs)) is conveyed to the site outlet(s). Refer to Section 3.2 in the TGD for WQMP. The form below is provided as an example. Then complete Forms 3.2 and 3.3 for each DA on the project site. ***If the project has more than one drainage area for stormwater management, then complete additional versions of these forms for each DA / outlet. A map presenting the DMAs must be included as an appendix to the WQMP document.***

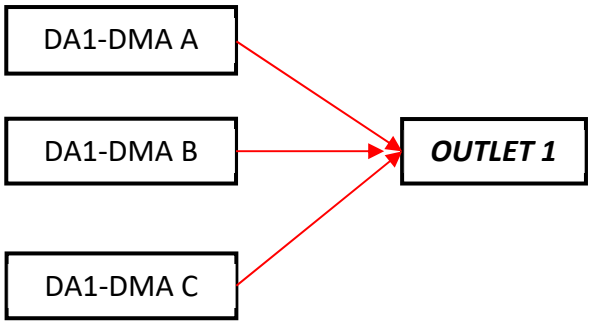
Form 3-1 Site Location and Hydrologic Features

Site coordinates *take GPS measurement at approximate center of site*	Latitude 34°26'11.5"N	Longitude 117°22'36.6"W	Thomas Bros Map page

1 San Bernardino County climatic region: ☒ Desert

2 Does the site have more than one drainage area (DA): Yes☐ No☒ *If no, proceed to Form 3-2. If yes, then use this form to show a conceptual schematic describing DMAs and hydrologic feature connecting DMAs to the site outlet(s). An example is provided below that can be modified for proposed project or a drawing clearly showing DMA and flow routing may be attached*

c



Conveyance	Briefly describe on-site drainage features to convey runoff that is not retained within a DMA
	Ex. Bioretention overflow to vegetated bioswale with 4' bottom width, 5:1 side slopes and bed slope of 0.01. Conveys runoff for 1000' through DMA 1 to existing catch basin on SE corner of property
	*Runoff sheet flows into the nearest catch basin which is then routed into a combination of an "**Underground CMP Infiltration System**" and "**Retention Basin-1**".*
	*Runoff sheet flows into the nearest catch basin which is then routed into a combination of an "**Retention Basin-2**" and the remaining flow is then directed into "**Retention Basin-4**".*
	*Runoff sheet flows into the nearest catch basin which is then routed into a combination of an "**Retention Basin-3**" and the remaining flow is then directed into "**Retention Basin-4**".*

Form 3-2 Existing Hydrologic Characteristics for Drainage Area 1				
For Drainage Area 1's sub-watershed DMA, provide the following characteristics	DMA A			
1 DMA drainage area (ft^2)	1,376,060			
2 Existing site impervious area (ft^2)	0			
3 Antecedent moisture condition *For desert areas, use http://www.sbcounty.gov/dpw/floodcontrol/pdf/20100412_map.pdf*	AMC II			
4 Hydrologic soil group *Refer to County Hydrology Manual Addendum for Arid Regions – http://www.sbcounty.gov/dpw/floodcontrol/pdf/20100412_addendum.pdf*	B			
5 Longest flowpath length (ft)	2,695			
6 Longest flowpath slope (ft/ft)	0.014			
7 Current land cover type(s) *Select from Fig C-3 of Hydrology Manual*	Chaparral			
8 Pre-developed pervious area condition: *Based on the extent of wet season vegetated cover good >75%; Fair 50-75%; Poor <50%* ***Attach photos of site to support rating***	Poor			

Form 3-3 Watershed Description for Drainage Area

Receiving waters Refer to SWRCB site: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml	Mojave River (Mojave Forks Reservoir outlet to Upper Narrows) Oro Grande Owner: SBCFCD
Applicable TMDLs *http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml*	Boron, Chloride, Dissolved oxygen saturation, Nitrate, Nitrite, Dissolved Oxygen, Total Kjeldahl Nitrogen, Total Dissolved Solids, Water Temperature, Sulfates, Specific Conductance, Phosphorus, Phosphate, pH,
303(d) listed impairments *http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml*	Fluoride
Environmentally Sensitive Areas (ESA) *Refer to Watershed Mapping Tool – http://sbcounty.permitrack.com/WAP*	Not Applicable
Hydromodification Assessment	☐ Yes *Complete Hydromodification Assessment. Include Forms 4.2-2 through Form 4.2-5 and Hydromodification BMP Form 4.3-9 in submittal* ☒ No

Section 4 Best Management Practices (BMP)

4.1 Source Control BMPs and Site Design BMP Measures

The information and data in this section are required for both Regulated Development and Site Design Only Projects. Source Control BMPs and Site Design BMP Measures are the basis of site-specific pollution management.

4.1.1 Source Control BMPs

Non-structural and structural source control BMP are required to be incorporated into all new development and significant redevelopment projects. Form 4.1-1 and 4.1-2 are used to describe specific source control BMPs used in the WQMP or to explain why a certain BMP is not applicable. Table 7-3 of the TGD for WQMP provides a list of applicable source control BMP for projects with specific types of potential pollutant sources or activities. The source control BMP in this table must be implemented for projects with these specific types of potential pollutant sources or activities.

The preparers of this WQMP have reviewed the source control BMP requirements for new development and significant redevelopment projects. The preparers have also reviewed the specific BMP required for project as specified in Forms 4.1-1 and 4.1-2. All applicable non-structural and structural source control BMP shall be implemented in the project.

The identified list of source control BMPs correspond to the CASQA Stormwater BMP Handbook for New Development and Redevelopment.

Form 4.1-1 Non-Structural Source Control BMPs

Identifier	Name	Check One		Describe BMP Implementation OR, if not applicable, state reason
		Included	Not Applicable	
N1	Education of Property Owners, Tenants and Occupants on Stormwater BMPs	☒	☐	The current owner/developer and future owners and their POA shall be familiar with the contents of this WQMP and County & City ordinances and brochures and furnish copies of these documents to all future property owners.
N2	Activity Restrictions	☒	☐	Property owners and their tenants or occupants shall not be allowed to discharge chemicals, chemical residues, wastewater or other prohibited discharges listed in the City stormwater Ordinance, to the outside, paved areas of the site; or store chemicals or other pollutant sources in a non-spill contained or covered facilities as stipulated in the CC&Rs.
N3	Landscape Management BMPs	☒	☐	The POA and their landscape maintenance contractor shall inspect the irrigation system plant health and erosion problems after each landscape procedure and shall report all repairs and problems to the POA. All routine landscaping maintenance.
N4	BMP Maintenance	☒	☐	The POA shall inspect for standing water in the water retention/infiltration basins, 48 hours after storm events. BMP maintenance shall be performed per the schedule in Form 5-1, as needed to restore free drainage.
N5	Title 22 CCR Compliance (How development will comply)	☐	☒	The POA will file appropriate hazardous material disclosures, if any storage is conducted, and must comply with all Title 22 CCR, Chapter 29 regulations.
N6	Local Water Quality Ordinances	☐	☒	The POA shall ensure that all maintenance activities at the site comply with the City of Ontario's Stormwater Ordinance, through the implementation of BMPs.
N7	Spill Contingency Plan	☒	☐	Building operators shall prepare specific plans based on materials on site for the cleanup of spills. Plans shall mandate stock piling of cleanup materials, notification of agencies, disposal, documentation, ect.
N8	Underground Storage Tank Compliance	☐	☒	There are no underground storage tanks at this site.
N9	Hazardous Materials Disclosure Compliance	☐	☒	The current owner and the future POA shall prohibit the storage of hazardous materials.

Form 4.1-1 Non-Structural Source Control BMPs

Identifier	Name	Check One		Describe BMP Implementation OR, if not applicable, state reason
		Included	Not Applicable	
N10	Uniform Fire Code Implementation	☒	☐	The current owners or the future POA shall require all fire code requirements to be implemented at this project site.
N11	Litter/Debris Control Program	☒	☐	The property owners, POA and their contractor shall pick up litter and sweep and clean the existing trash enclosure weekly. The trash enclosure is designed to divert all flows around the dumpsters and shall be roofed. The HOA shall contract with a refuse company to have the dumpsters emptied on a weekly basis, at a minimum.
N12	Employee Training	☒	☐	The POA shall require all maintenance contractors to train their employees in stormwater BMP implementation.
N13	Housekeeping of Loading Docks	☒	☐	Dock areas shall be swept regularly with litter control and cleanup procedures eliminating the use of water.
N14	Catch Basin Inspection Program	☒	☐	The on-site catch basins shall be inspected monthly during the rainy season (October-May) and before and after each storm to ensure proper operation. The HOA shall contract with a qualified landscape contractor to inspect and clean out accumulation of trash, litter and sediment and check for evidence of illegal dumping of waste materials into on-site drains.
N15	Vacuum Sweeping of Private Streets and Parking Lots	☒	☐	The paved areas and common open areas of the project site shall be swept and cleaned weekly by the POA's contractor
N16	Other Non-structural Measures for Public Agency Projects	☐	☒	This development is not part of a Public Agency Project.
N17	Comply with all other applicable NPDES permits	☒	☐	The developer of this site shall comply with all BMP implementation requirements of the City of Ontario for Stormwater discharges during construction of this project and shall file for a permit coverage under the Statewide General Construction Stormwater Permit, prior to beginning construction/grading activities at this site. Following occupancy, owners, tenants, and POA shall comply with SB County MS4 Permit requirements, enforced by the City of Ontario.

Form 4.1-2 Structural Source Control BMPs

Identifier	Name	Check One		Describe BMP Implementation OR, If not applicable, state reason
		Included	Not Applicable	
S1	Provide storm drain system stencilling and signage (CASQA New Development BMP Handbook SD-13)	☒	☐	A painted message "No Dumping-Drains to River" shall be placed on each catch basin by developer. The message shall be inspected annually & repainted as necessary by the POA.
S2	Design and construct outdoor material storage areas to reduce pollution introduction (CASQA New Development BMP Handbook SD-34)	☐	☒	This development does not include the storage of materials outdoors.
S3	Design and construct trash and waste storage areas to reduce pollution introduction (CASQA New Development BMP Handbook SD-32)	☒	☐	Stormwater flows are diverted away from the trash enclosure. All dumpsters shall have working lids which shall be kept closed, at all times. Trash enclosure shall comply with CASQA SD-32 and shall have doors and a solid roof.
S4	Use efficient irrigation systems & landscape design, water conservation, smart controllers, and source control (Statewide Model Landscape Ordinance; CASQA New Development BMP Handbook SD-12)	☒	☐	The irrigation system will include devices to prevent low head drainage, overspray and run off through the use of pressure regulating devices, check valves, rain shutoff valves, flow sensors, pressure drop sensors, proper spacing, low precipitation emission devices and ET or weather-based controllers. Landscape and irrigation shall be consistent with the State Model Water Efficient landscape Ordinance and the City of Ontario landscape Development Standards. Plants installed will be arranged according to similar hydrozones and meet the required water budget for the site. Shade trees shall be used to intercept rainwater and reduce heat gain on paving.
S5	Finish grade of landscaped areas at a minimum of 1-2 inches below top of curb, sidewalk, or pavement	☒	☐	All landscaped areas shall comply with depressed grading requirements by finish grading to a minimum of 1" below pavement grades or top-of-curb.
S6	Protect slopes and channels and provide energy dissipation (CASQA New Development BMP Handbook SD-10)	☐	☐	All slopes shall be hard lined, rip-rapped or vegetated to provide erosion protection and prevent sediment transport
S7	Covered dock areas (CASQA New Development BMP Handbook SD-31)	☐	☒	Unloading of truck trailers at docks will occur under cover of the building. It is not feasible to cover the entire loading area as it would be cost prohibitive. Project will incorporate dock high rollup doors and sweeping activities at the outside of the building.
S8	Covered maintenance bays with spill containment plans (CASQA New Development BMP Handbook SD-31)	☐	☒	Maintenance bays are not proposed as a part of this development, and no maintenance activities will be allowed on site.

Form 4.1-2 Structural Source Control BMPs

Identifier	Name	Check One		Describe BMP Implementation OR, If not applicable, state reason
		Included	Not Applicable	
S9	Vehicle wash areas with spill containment plans (CASQA New Development BMP Handbook SD-33)	☐	☒	Vehicle wash areas are not provided as part of this development.
S10	Covered outdoor processing areas (CASQA New Development BMP Handbook SD-36)	☐	☒	Outdoor processing is not associated with the proposed development.
S11	Equipment wash areas with spill containment plans (CASQA New Development BMP Handbook SD-33)	☐	☒	Outdoor equipment is not associated with the proposed development.
S12	Fueling areas (CASQA New Development BMP Handbook SD-30)	☐	☒	Fueling areas are not included as part of this development.
S13	Hillside landscaping (CASQA New Development BMP Handbook SD-10)	☒	☐	No hillsides will require re-vegetation as part of the proposed development.
S14	Wash water control for food preparation areas	☐	☒	The proposed development does not include food preparation areas.
S15	Community car wash racks (CASQA New Development BMP Handbook SD-33)	☐	☒	The proposed development does not include community car wash areas

4.1.2 Site Design BMPs

As part of the planning phase of a project, the site design practices associated with new LID requirements in the Phase II Small MS4 Permit must be considered. Site design BMP measures can result in smaller Design Capture Volume (DCV) to be managed by both LID and hydromodification control BMPs by reducing runoff generation.

As is stated in the Permit, it is necessary to evaluate site conditions such as soil type(s), existing vegetation and flow paths will influence the overall site design.

Describe site design and drainage plan including:

- A narrative of site design practices utilized or rationale for not using practices
- A narrative of how site plan incorporates preventive site design practices
- Include an attached Site Plan layout which shows how preventative site design practices are included in WQMP

Refer to Section 5.2 of the TGD for WQMP for more details.

Form 4.1-3 Site Design Practices Checklist
Site Design Practices *If yes, explain how preventative site design practice is addressed in project site plan. If no, other LID BMPs must be selected to meet targets*
Minimize impervious areas: Yes ☒ No ☐ Explanation: Impervious areas will be minimized to the maximum extent practicable. The proposed development requires large areas for loading docks and building foot prints.
Maximize natural infiltration capacity; Including improvement and maintenance of soil: Yes ☒ No ☐ Explanation: All pervious areas will be below adjacent impervious areas to maximize natural infiltration, and the project site utilizes subsurface infiltration basins.
Preserve existing drainage patterns and time of concentration: Yes ☐ No ☒ Explanation: Post-development has different travel distance, surface roughness and time concentration from the existing condition.
Disconnect impervious areas. Including rerouting of rooftop drainage pipes to drain stormwater to storage or infiltration BMPs instead of to storm drain : Yes ☒ No ☐ Explanation: Most areas are run through landscape areas prior to entering the storm drain system. Roof area will be conveyed through adjacent landscaping, where feasible.
Use of Porous Pavement.: Yes ☐ No ☒ Explanation: Any areas that are disturbed will be stabilized prior to project completion.
Protect existing vegetation and sensitive areas: Yes ☐ No ☒ Explanation: Native vegetation has been mostly removed by agricultural activities, and the existing undeveloped area will not be preserved.
Re-vegetate disturbed areas. Including planting and preservation of drought tolerant vegetation. : Yes ☒ No ☐ Explanation: Any areas that are disturbed will be stabilized prior to project completion.

Minimize unnecessary compaction in stormwater retention/infiltration basin/trench areas: Yes ☒ No ☐ Explanation: Landscaping areas will be staked off after rough grading has been completed to prevent excessive compaction, the areas in which the subsurface basins are to be constructed will minimize compaction.
Utilize naturalized/rock-lined drainage swales in place of underground piping or imperviously lined swales: Yes ☐ No ☒ Explanation: The project does not incorporate naturalized/ rock-lined drainage swales in place of underground piping.
Stake off areas that will be used for landscaping to minimize compaction during construction : Yes ☒ No ☐ Explanation: Landscaping areas will be staked off after rough grading has been completed to prevent excessive compaction.
Use of Rain Barrels and Cisterns, Including the use of on-site water collection systems.: Yes ☐ No ☒ Explanation: The project does not incorporate rain barrels and cisterns.
Stream Setbacks. Includes a specified distance from an adjacent steam: Yes ☐ No ☒ Explanation: There are no adjacent to the property.

It is noted that, in the Phase II Small MS4 Permit, site design elements for green roofs and vegetative swales are required. Due to the local climatology in the Mojave River Watershed, proactive measures are taken to maximize the amount of drought tolerant vegetation. It is not practical in this region to have green roofs or vegetative swales. As part of site design the project proponent should utilize locally recommended vegetation types for landscaping. Typical landscaping recommendations are found in following local references:

San Bernardino County Special Districts:

Guide to High Desert Landscaping -
http://www.specialdistricts.org/Modules/ShowDocument.aspx?documentid=795

Recommended High-Desert Plants -
http://www.specialdistricts.org/modules/showdocument.aspx?documentid=553

Mojave Water Agency:

Desert Ranch: http://www.mojavewater.org/files/desertranchgardenprototype.pdf

Summertree: http://www.mojavewater.org/files/Summertree-Native-Plant-Brochure.pdf

Thornless Garden: http://www.mojavewater.org/files/thornlessgardenprototype.pdf

Mediterranean Garden: http://www.mojavewater.org/files/mediterraneangardenprototype.pdf

Lush and Efficient Garden: http://www.mojavewater.org/files/lushandefficientgardenprototype.pdf

Alliance for Water Awareness and Conservation (AWAC) outdoor tips – http://hdawac.org/save-outdoors.html

4.2 Treatment BMPs

After implementation and design of both Source Control BMPs and Site Design BMP measures, any remaining runoff from impervious DMAs must be directed to one or more on-site, treatment BMPs (LID or biotreatment) designed to infiltrate, evaportranspire, and/or bioretain the amount of runoff specified in Permit Section E.12.e (ii)(c) Numeric Sizing Criteria for Storm Water Retention and Treatment.

4.2.1 Project Specific Hydrology Characterization

The purpose of this section of the Project WQMP is to establish targets for post-development hydrology based on performance criteria specified in Section E.12.e.ii.c and Section E.12.f of the Phase II Small MS4 Permit. These targets include runoff volume for water quality control (referred to as LID design capture volume), and runoff volume, time of concentration, and peak runoff for protection from hydromodification.

If the project has more than one outlet for stormwater runoff, then complete additional versions of these forms for each DA / outlet.

It is noted that in the Phase II Small MS4 Permit jurisdictions, the LID BMP Design Capture Volume criteria is based on the 2-year rain event. The hydromodification performance criterion is based on the 10-year rain event.

Methods applied in the following forms include:

- For LID BMP Design Capture Volume (DCV), San Bernardino County requires use of the P_6 method (Form 4.2-1) For pre- and post-development hydrologic calculation, San Bernardino County requires the use of the Rational Method (San Bernardino County Hydrology Manual Section D). Forms 4.2-2 through Form 4.2-5 calculate hydrologic variables including runoff volume, time of concentration, and peak runoff from the project site pre- and post-development using the Hydrology Manual Rational Method approach. For projects greater than 640 acres (1.0 mi^2), the Rational Method and these forms should not be used. For such projects, the Unit Hydrograph Method (San Bernardino County Hydrology Manual Section E) shall be applied for hydrologic calculations for hydromodification performance criteria.

Refer to Section 4 in the TGD for WQMP for detailed guidance and instructions.

Form 4.2-1 LID BMP Performance Criteria for Design Capture Volume (DA1 DMA A)		
1 Project area DA1 DMA A (ft^2): 273,992	**2** Imperviousness after applying preventative site design practices (Imp%): 81	**3** Runoff Coefficient (Rc): 0.61 *$R_c = 0.858(Imp\%)^{\wedge 3} - 0.78(Imp\%)^{\wedge 2} + 0.774(Imp\%) + 0.04$*
4 Determine 1-hour rainfall depth for a 2-year return period $P_{2yr\text{-}1hr}$ (in): 0.43 *http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html*		
5 Compute P_6, Mean 6-hr Precipitation (inches): 0.54 *P_6 = Item 4 * C_1, where C_1 is a function of site climatic region specified in Form 3-1 Item 1 (Desert = 1.2371)*		
6 Drawdown Rate *Use 48 hours as the default condition. Selection and use of the 24 hour drawdown time condition is subject to approval by the local jurisdiction. The necessary BMP footprint is a function of drawdown time. While shorter drawdown times reduce the performance criteria for LID BMP design capture volume, the depth of water that can be stored is also reduced.*		24-hrs ☐ 48-hrs ☒
7 Compute design capture volume, DCV (ft^3): 14,742 *DCV = 1/12 * [Item 1* Item 3 *Item 5 * C_2], where C_2 is a function of drawdown rate (24-hr = 1.582; 48-hr = 1.963)* *Compute separate DCV for each outlet from the project site per schematic drawn in Form 3-1 Item 2*		

Form 4.2-1 LID BMP Performance Criteria for Design Capture Volume (DA1 DMA B)		
1 Project area DA1 DMA B (ft^2): 831,125	**2** Imperviousness after applying preventative site design practices (Imp%): 90	**3** Runoff Coefficient (Rc): 0.73 *$R_c = 0.858(Imp\%)^{\wedge 3} - 0.78(Imp\%)^{\wedge 2} + 0.774(Imp\%) + 0.04$*
4 Determine 1-hour rainfall depth for a 2-year return period $P_{2yr\text{-}1hr}$ (in): 0.43 *http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html*		
5 Compute P_6, Mean 6-hr Precipitation (inches): 0.54 *P_6 = Item 4 * C_1, where C_1 is a function of site climatic region specified in Form 3-1 Item 1 (Desert = 1.2371)*		
6 Drawdown Rate *Use 48 hours as the default condition. Selection and use of the 24 hour drawdown time condition is subject to approval by the local jurisdiction. The necessary BMP footprint is a function of drawdown time. While shorter drawdown times reduce the performance criteria for LID BMP design capture volume, the depth of water that can be stored is also reduced.*		24-hrs ☐ 48-hrs ☒
7 Compute design capture volume, DCV (ft^3): 52,842 *DCV = 1/12 * [Item 1* Item 3 *Item 5 * C_2], where C_2 is a function of drawdown rate (24-hr = 1.582; 48-hr = 1.963)* *Compute separate DCV for each outlet from the project site per schematic drawn in Form 3-1 Item 2*		

Form 4.2-1 LID BMP Performance Criteria for Design Capture Volume (DA1 DMA C)		
1 Project area DA1 DMA C (ft^2): 270,943	**2** Imperviousness after applying preventative site design practices (Imp%): 48	**3** Runoff Coefficient (Rc): 0.33 *$R_c = 0.858(Imp\%)^{\wedge 3} - 0.78(Imp\%)^{\wedge 2} + 0.774(Imp\%) + 0.04$*
4 Determine 1-hour rainfall depth for a 2-year return period $P_{2yr\text{-}1hr}$ (in): 0.43 *http://hdsc.nws.noaa.gov/hdsc/pfds/sa/sca_pfds.html*		
5 Compute P_6, Mean 6-hr Precipitation (inches): 0.54 *P_6 = Item 4 * C_1, where C_1 is a function of site climatic region specified in Form 3-1 Item 1 (Desert = 1.2371)*		
6 Drawdown Rate *Use 48 hours as the default condition. Selection and use of the 24 hour drawdown time condition is subject to approval by the local jurisdiction. The necessary BMP footprint is a function of drawdown time. While shorter drawdown times reduce the performance criteria for LID BMP design capture volume, the depth of water that can be stored is also reduced.*		24-hrs ☐ 48-hrs ☒
7 Compute design capture volume, DCV (ft^3): 7,720 *DCV = 1/12 * [Item 1* Item 3 *Item 5 * C_2], where C_2 is a function of drawdown rate (24-hr = 1.582; 48-hr = 1.963)* *Compute separate DCV for each outlet from the project site per schematic drawn in Form 3-1 Item 2*		

4.3 BMP Selection and Sizing

Complete the following forms for each project site DA to document that the proposed treatment (LID/Bioretention) BMPs conform to the project DCV developed to meet performance criteria specified in the Phase II Small MS4 Permit (WQMP Template Section 4.2). For the LID DCV, the forms are ordered according to hierarchy of BMP selection as required by the Phase II Small MS4 Permit (see Section 5.3 in the TGD for WQMP). The forms compute the following for on-site LID BMP:

- Site Design Measures (Form 4.3-2)
- Retention and Infiltration BMPs (Form 4.3-3) or
- Biotreatment BMPs (Form 4.3-4).

> Please note that the selected BMPs may also be used as dual purpose for on-site, hydromodification mitigation and management.

At the end of each form, additional fields facilitate the determination of the extent of mitigation provided by the specific BMP category, allowing for use of the next category of BMP in the hierarchy, if necessary.

The first step in the analysis, using Section 5.3.2 of the TGD for WQMP, is to complete Forms 4.3-1 and 4.3-3) to determine if retention and infiltration BMPs are infeasible for the project. For each feasibility criterion in Form 4.3-1, if the answer is "Yes," provide all study findings that includes relevant calculations, maps, data sources, etc. used to make the determination of infeasibility.

Next, complete Form 4.3-2 to determine the feasibility of applicable Site Design BMPs, and, if their implementation is feasible, the extent of mitigation of the DCV.

If no site constraints exist that would limit the type of BMP to be implemented in a DA, evaluate the use of combinations of LID BMPs, including all applicable Site Design BMPs to maximize on-site retention of the DCV. If no combination of BMP can mitigate the entire DCV, implement the single BMP type, or combination of BMP types, that maximizes on-site retention of the DCV within the minimum effective area.

If the combination of site design, retention and/or infiltration BMPs is unable to mitigate the entire DCV, then the remainder of the volume-based performance criteria that cannot be achieved with site design, retention and/or infiltration BMPs must be managed through biotreatment BMPs. If biotreatment BMPs are used, then they must be sized to provide equivalent effectiveness based on Template Section 4.3.4.

4.3.1 Exceptions to Requirements for Bioretention Facilities

Contingent on a demonstration that use of bioretention or a facility of equivalent effectiveness is infeasible, other types of biotreatment or media filters (such as tree-box-type biofilters or in-vault media filters) may be used for the following categories of Regulated Projects:

1) Projects creating or replacing an acre or less of impervious area, and located in a designated pedestrian-oriented commercial district (i.e., smart growth projects), and having at least 85% of the entire project site covered by permanent structures;

2) Facilities receiving runoff solely from existing (pre-project) impervious areas; and

3) Historic sites, structures or landscapes that cannot alter their original configuration in order to maintain their historic integrity.

Form 4.3-1 Infiltration BMP Feasibility (DA 1)

Feasibility Criterion – Complete evaluation for each DA on the Project Site

[1] Would infiltration BMP pose significant risk for groundwater related concerns? Yes ☐ No ☒
Refer to Section 5.3.2.1 of the TGD for WQMP

If Yes, Provide basis: (attach)

[2] Would installation of infiltration BMP significantly increase the risk of geotechnical hazards? Yes ☐ No ☒
(Yes, if the answer to any of the following questions is yes, as established by a geotechnical expert):

- The location is less than 50 feet away from slopes steeper than 15 percent
- The location is less than ten feet from building foundations or an alternative setback.
- A study certified by a geotechnical professional or an available watershed study determines that stormwater infiltration would result in significantly increased risks of geotechnical hazards.

If Yes, Provide basis: (attach)

[3] Would infiltration of runoff on a Project site violate downstream water rights? Yes ☐ No ☒

If Yes, Provide basis: (attach)

[4] Is proposed infiltration facility located on hydrologic soil group (HSG) D soils or does the site geotechnical investigation indicate presence of soil characteristics, which support categorization as D soils? Yes ☐ No ☒

If Yes, Provide basis: (attach)

[5] Is the design infiltration rate, after accounting for safety factor of 2.0, below proposed facility less than 0.3 in/hr (accounting for soil amendments)? Yes ☐ No ☒

If Yes, Provide basis: (attach)

[6] Would on-site infiltration or reduction of runoff over pre-developed conditions be partially or fully inconsistent with watershed management strategies as defined in the WAP, or impair beneficial uses? Yes ☐ No ☒
See Section 3.5 of the TGD for WQMP and WAP

If Yes, Provide basis: (attach)

[7] Any answer from Item 1 through Item 3 is "Yes": Yes ☐ No ☒
If yes, infiltration of any volume is not feasible onsite. Proceed to Form 4.3-4, Selection and Evaluation of Biotreatment BMP.
If no, then proceed to Item 8 below.

[8] Any answer from Item 4 through Item 6 is "Yes": Yes ☐ No ☒
If yes, infiltration is permissible but is not required to be considered. Proceed to Form 4.3-2, Site Design BMP.
If no, then proceed to Item 9, below.

[9] All answers to Item 1 through Item 6 are "No":
Infiltration of the full DCV is potentially feasible, LID infiltration BMP must be designed to infiltrate the full DCV to the MEP.
Proceed to Form 4.3-2, Site Design BMPs.

4.3.2 Site Design BMP

Section E.12.e. of the Small Phase II MS4 Permit emphasizes the use of LID preventative measures; and the use of Site Design Measures reduces the portion of the DCV that must be addressed in downstream BMPs. Therefore, all applicable Site Design Measures shall be provided except where they are mutually exclusive with each other, or with other BMPs. Mutual exclusivity may result from overlapping BMP footprints such that either would be potentially feasible by itself, but both could not be implemented. Please note that while there are no numeric standards regarding the use of Site Design BMPs. If a project cannot feasibly meet BMP sizing requirements or cannot fully address hydromodification, feasibility of all applicable Site Design BMPs must be part of demonstrating that the BMP system has been designed to retain the maximum feasible portion of the DCV. Refer to Section 5.4 in the TGD for more detailed guidance.

Form 4.3-2 Site Design BMPs (DA 1)

1 Implementation of Impervious Area Dispersion BMP (i.e. routing runoff from impervious to pervious areas), excluding impervious areas planned for routing to on-lot infiltration BMP: Yes ☐ No ☒ *If yes, complete Items 2-5; If no, proceed to Item 6*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
2 Total impervious area draining to pervious area (ft^2)			
3 Ratio of pervious area receiving runoff to impervious area			
4 Retention volume achieved from impervious area dispersion (ft^3) *V = Item2 * Item 3 * (0.5/12), assuming retention of 0.5 inches of runoff*			
5 Sum of retention volume achieved from impervious area dispersion (ft^3):	$V_{retention}$ *=Sum of Item 4 for all BMPs*		
6 Implementation of Localized On-lot Infiltration BMPs (e.g. on-lot rain gardens): Yes ☐ No ☒ *If yes, complete Items 7-13 for aggregate of all on-lot infiltration BMP in each DA; If no, proceed to Item 14*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
7 Ponding surface area (ft^2)			
8 Ponding depth (ft) (min. 0.5 ft.)			
9 Surface area of amended soil/gravel (ft^2)			
10 Average depth of amended soil/gravel (ft) (min. 1 ft.)			
11 Average porosity of amended soil/gravel			
12 Retention volume achieved from on-lot infiltration (ft^3) $V_{retention}$ *= (Item 7 *Item 8) + (Item 9 * Item 10 * Item 11)*			
13 Runoff volume retention from on-lot infiltration (ft^3):	$V_{retention}$ *=Sum of Item 12 for all BMPs*		

Form 4.3-2 cont. Site Design BMPs (DA 1)

14 Implementation of Street Trees: Yes ☐ No ☒ *If yes, complete Items 14-18. If no, proceed to Item 19*	DA DMA BMP Type	DA DMA BMP Type	DA DMA BMP Type *(Use additional forms for more BMPs)*
15 Number of Street Trees			
16 Average canopy cover over impervious area (ft^2)			
17 Runoff volume retention from street trees (ft^3) $V_{retention}$ *= Item 15 * Item 16 * (0.05/12) assume runoff retention of 0.05 inches*			
18 Runoff volume retention from street tree BMPs (ft^3):	$V_{retention}$ *= Sum of Item 17 for all BMPs*		
19 Total Retention Volume from Site Design BMPs:	*Sum of Items 5, 13 and 18*		

4.3.3 Infiltration BMPs

Use Form 4.3-3 to compute on-site retention of runoff from proposed retention and infiltration BMPs. Volume retention estimates are sensitive to the percolation rate used, which determines the amount of runoff that can be infiltrated within the specified drawdown time. The infiltration safety factor reduces field measured percolation to account for potential inaccuracy associated with field measurements, declining BMP performance over time, and compaction during construction. Appendix C of the TGD for WQMP provides guidance on estimating an appropriate safety factor to use in Form 4.3-3.

If site constraints limit the use of BMPs to a single type and implementation of retention and infiltration BMPs mitigate no more than 40% of the DCV, then they are considered infeasible and the Project Proponent may evaluate the effectiveness of BMPs lower in the LID hierarchy of use (Section 5.5 of the TGD for WQMP)

If implementation of infiltrations BMPs is feasible as determined using Form 4.3-1, then LID infiltration BMPs shall be implemented to the MEP (section 4.1 of the TGD for WQMP).

4.3.3.1 Allowed Variations for Special Site Conditions

The bioretention system design parameters of this Section may be adjusted for the following special site conditions:

1) Facilities located within 10 feet of structures or other potential geotechnical hazards established by the geotechnical expert for the project may incorporate an impervious cutoff wall between the bioretention facility and the structure or other geotechnical hazard.

2) Facilities with documented high concentrations of pollutants in underlying soil or groundwater, facilities located where infiltration could contribute to a geotechnical hazard, and facilities located on elevated plazas or other structures may incorporate an impervious liner and may locate the underdrain discharge at the bottom of the subsurface drainage/storage layer (this configuration is commonly known as a “flow-through planter”).

3) Facilities located in areas of high groundwater, highly infiltrative soils or where connection of underdrain to a surface drain or to a subsurface storm drain are infeasible, may omit the underdrain.

4) Facilities serving high-risk areas such as fueling stations, truck stops, auto repairs, and heavy industrial sites may be required to provide adequate pretreatment to address pollutants of concern unless these high-risk areas are isolated from storm water runoff or bioretention areas with no chance of spill migration.

.

Form 4.3-3 Infiltration LID BMP - including underground BMPs (DA 1)

1 Remaining LID DCV not met by site design BMP (ft^3): 75,304 *V_{unmet} = Form 4.2-1 Item 7 - Form 4.3-2 Item19*

BMP Type *Use columns to the right to compute runoff volume retention from proposed infiltration BMP (select BMP from Table 5-4 in TGD for WQMP) - Use additional forms for more BMPs*	DA 1 BMP Type Infiltration/Retention Basin		
2 Infiltration rate of underlying soils (in/hr) *See Section 5.4.2 and Appendix C of the TGD for WQMP for minimum requirements for assessment methods*	TBD		
3 Infiltration safety factor *See TGD Section 5.4.2 and Appendix D*	2		
4 Design percolation rate (in/hr) *P_{design} = Item 2 / Item 3*	5		
5 Ponded water drawdown time (hr) *Copy Item 6 in Form 4.2-1*	48		
6 Maximum ponding depth (ft) *BMP specific, see Table 5-4 of the TGD for WQMP for BMP design details*			
7 Ponding Depth (ft) *d_{BMP} = Minimum of (1/12*Item 4*Item 5) or Item 6*	1.5		
8 Infiltrating surface area, SA_{BMP} (ft^2) *the lesser of the area needed for infiltration of full DCV or minimum space requirements from Table 5.7 of the TGD for WQMP*	50,203		
9 Amended soil depth, d_{media} (ft) *Only included in certain BMP types, see Table 5-4 in the TGD for WQMP for reference to BMP design details*	4		
10 Amended soil porosity	0.35		
11 Gravel depth, d_{media} (ft) *Only included in certain BMP types, see Table 5-4 of the TGD for WQMP for BMP design details*	0		
12 Gravel porosity	0		
13 Duration of storm as basin is filling (hrs) *Typical ~ 3hrs*	3		
14 Above Ground Retention Volume (ft^3) *$V_{retention}$ = Item 8 * [Item7 + (Item 9 * Item 10) + (Item 11 * Item 12) + (Item 13 * (Item 4 / 12))]*	295,000(Basin 1)		
15 Underground Retention Volume (ft^3) *Volume determined using manufacturer's specifications and calculations*	305,000		

16 Total Retention Volume from LID Infiltration BMPs: 600,000 *(Sum of Items 14 and 15 for all infiltration BMP included in plan)*

17 Fraction of DCV achieved with infiltration BMP: 797% *Retention% = Item 16 / Form 4.2-1 Item 7*

18 Is full LID DCV retained onsite with combination of hydrologic source control and LID retention/infiltration BMPs? Yes ☒ No ☐

If yes, demonstrate conformance using Form 4.3-10; If no, then reduce Item 3, Factor of Safety to 2.0 and increase Item 8, Infiltrating Surface Area, such that the portion of the site area used for retention and infiltration BMPs equals or exceeds the minimum effective area thresholds (Table 5-7 of the TGD for WQMP) for the applicable category of development and repeat all above calculations.

4.3.4 Biotreatment BMP

Biotreatment BMPs may be considered if the full LID DCV cannot be met by maximizing retention and infiltration. A key consideration when using biotreatment BMP is the effectiveness of the proposed BMP in addressing the pollutants of concern for the project (see Table 5-5 of the TGD for WQMP).

Use Form 4.3-4 to summarize the potential for volume based and/or flow based biotreatment options to biotreat the remaining unmet LID DCV. Biotreatment computations are included as follows:

- Use Form 4.3-5 to compute biotreatment in small volume based biotreatment BMP (e.g. bioretention w/underdrains);
- Use Form 4.3-6 to compute biotreatment in large volume based biotreatment BMP (e.g. constructed wetlands);
- Use Form 4.3-7 to compute sizing criteria for flow-based biotreatment BMP (e.g. bioswales)

Form 4.3-4 Selection and Evaluation of Biotreatment BMP (DA 1)

1 Remaining LID DCV not met by site design , or infiltration, BMP for potential biotreatment (ft^3): 0 *Form 4.2-1 Item 7 - Form 4.3-2 Item 19 – Form 4.3-3 Item 16*	List pollutants of concern *Copy from Form 2.3-1.* Pathogen, Phosphorous, Nitrogen, Sediment, Metals, Oil Grease, Trash/Debris, Pesticides/ Herbicides, Organic Compounds	
2 Biotreatment BMP Selected *(Select biotreatment BMP(s) necessary to ensure all pollutants of concern are addressed through Unit Operations and Processes, described in Table 5-5 of the TGD for WQMP)*	Volume-based biotreatment *Use Forms 4.3-5 and 4.3-6 to compute treated volume*	Flow-based biotreatment *Use Form 4.3-7 to compute treated flow*
	☐ Bioretention with underdrain ☐ Planter box with underdrain ☐ Constructed wetlands ☐ Wet extended detention ☐ Dry extended detention	☐ Vegetated swale ☐ Vegetated filter strip ☐ Proprietary biotreatment
3 Volume biotreated in volume based biotreatment BMP (ft^3): *Form 4.3-5 Item 15 + Form 4.3-6 Item 13*	**4** Compute remaining LID DCV with implementation of volume based biotreatment BMP (ft^3): *Item 1 – Item 3*	**5** Remaining fraction of LID DCV for sizing flow based biotreatment BMP: % *Item 4 / Item 1*
6 Flow-based biotreatment BMP capacity provided (cfs): 0 *Use Figure 5-2 of the TGD for WQMP to determine flow capacity required to provide biotreatment of remaining percentage of unmet LID DCV (Item 5), for the project's precipitation zone (Form 3-1 Item 1)*		
7 Metrics for MEP determination: • Provided a WQMP with the portion of site area used for suite of LID BMP equal to minimum thresholds in Table 5-7 of the TGD for WQMP for the proposed category of development: ☐ *If maximized on-site retention BMPs is feasible for partial capture, then LID BMP implementation must be optimized to retain and infiltrate the maximum portion of the DCV possible within the prescribed minimum effective area. The remaining portion of the DCV shall then be mitigated using biotreatment BMP.*		

4.3.5 Conformance Summary

Complete Form 4.3-8 to demonstrate how on-site LID DCV is met with proposed site design, infiltration, and/or biotreatment BMP. The bottom line of the form is used to describe the basis for infeasibility determination for on-site LID BMP to achieve full LID DCV, and provides methods for computing remaining volume to be addressed in an alternative compliance plan. If the project has more than one outlet, then complete additional versions of this form for each outlet.

Form 4.3-8 Conformance Summary and Alternative Compliance Volume Estimate (DA 1)

1 Total LID DCV for the Project DA-1 (ft^3): 75,304 *Copy Item 7 in Form 4.2-1*

2 On-site retention with site design BMP (ft^3): 0 *Copy Item18 in Form 4.3-2*

3 On-site retention with LID infiltration BMP (ft^3): 600,000 *Copy Item 16 in Form 4.3-3*

4 On-site biotreatment with volume based biotreatment BMP (ft^3): 0 *Copy Item 3 in Form 4.3-4*

5 Flow capacity provided by flow based biotreatment BMP (cfs): 0 *Copy Item 6 in Form 4.3-4*

6 LID BMP performance criteria are achieved if answer to any of the following is "Yes":

- Full retention of LID DCV with site design or infiltration BMP: Yes ☒ No ☐
  If yes, sum of Items 2, 3, and 4 is greater than Item 1
- Combination of on-site retention BMPs for a portion of the LID DCV and volume-based biotreatment BMP that address all pollutants of concern for the remaining LID DCV: Yes ☐ No ☒
  If yes, a) sum of Items 2, 3, 4, and 5 is greater than Item 1, and Items 2, 3 and 4 are maximized; or b) Item 6 is greater than Form 4.3--5 Item 6 and Items 2, 3 and 4 are maximized
- On-site retention and infiltration is determined to be infeasible; therefore biotreatment BMP provides biotreatment for all pollutants of concern for full LID DCV: Yes ☐ No ☒
  If yes, Form 4.3-1 Items 7 and 8 were both checked yes

7 If the LID DCV is not achieved by any of these means, then the project may be allowed to develop an alternative compliance plan. Check box that describes the scenario which caused the need for alternative compliance:

- Combination of Site Design, retention and infiltration, , and biotreatment BMPs provide less than full LID DCV capture: ☐
  Checked yes if Form 4.3-4 Item 7is checked yes, Form 4.3-4 Item 6 is zero, and sum of Items 2, 3, 4, and 5 is less than Item 1. If so, apply water quality credits and calculate volume for alternative compliance, V_{alt} *= (Item 1 – Item 2 – Item 3 – Item 4 – Item 5) * (100 - Form 2.4-1 Item 2)%*

- Facilities, or a combination of facilities, of a different design than in Section E.12.e.(ii)(f) may be permitted if all of the following Phase II Small MS4 General Permit 2013-0001-DWQ 55 February 5, 2013 measures of equivalent effectiveness are demonstrated:
  1) Equal or greater amount of runoff infiltrated or evapotranspired; ☐
  2) Equal or lower pollutant concentrations in runoff that is discharged after biotreatment; ☐
  3) Equal or greater protection against shock loadings and spills; ☐
  4) Equal or greater accessibility and ease of inspection and maintenance. ☐

4.3.6 Hydromodification Control BMP

Use Form 4.3-9 to compute the remaining runoff volume retention, after Site Design BMPs are implemented, needed to address hydromodification, and the increase in time of concentration and decrease in peak runoff necessary to meet targets for protection of waterbodies with a potential hydromodification. Describe the proposed hydromodification treatment control BMP. Section 5.6 of the TGD for WQMP provides additional details on selection and evaluation of hydromodification control BMP.

4.4 Alternative Compliance Plan (if applicable)

Describe an alternative compliance plan (if applicable) for projects not fully able to infiltrate, or biotreat the DCV via on-site LID practices. A project proponent must develop an alternative compliance plan to address the remainder of the LID DCV. Depending on project type some projects may qualify for water quality credits that can be applied to reduce the DCV that must be treated prior to development of an alternative compliance plan (see Form 2.4-1, Water Quality Credits). Form 4.3-9 Item 8 includes instructions on how to apply water quality credits when computing the DCV that must be met through alternative compliance.

Alternative Designs — Facilities, or a combination of facilities, of a different design than in Permit Section E.12.e.(ii)(f) may be permitted if all of the following measures of equivalent effectiveness are demonstrated:

1) Equal or greater amount of runoff infiltrated or evapotranspired;

2) Equal or lower pollutant concentrations in runoff that is discharged after biotreatment;

3) Equal or greater protection against shock loadings and spills;

4) Equal or greater accessibility and ease of inspection and maintenance.

The Project Proponent will need to obtain written approval for an alternative design from the Lahontan Regional Water Board Executive Officer (see Section 6 of the TGD for WQMP).

Section 5 Inspection and Maintenance Responsibility for Post Construction BMP

All BMPs included as part of the project WQMP are required to be maintained through regular scheduled inspection and maintenance (refer to Section 8, Post Construction BMP Requirements, in the TGD for WQMP). Fully complete Form 5-1 summarizing all BMP included in the WQMP. Attach additional forms as needed. The WQMP shall also include a detailed Operation and Maintenance Plan for all BMP and a Maintenance Agreement. The Maintenance Agreement must also be attached to the WQMP.

Note that at time of Project construction completion, the Maintenance Agreement must be completed, signed, notarized and submitted to the County Stormwater Department

Form 5-1 BMP Inspection and Maintenance (use additional forms as necessary)

BMP	Reponsible Party(s)	Inspection/ Maintenance Activities Required	Minimum Frequency of Activities
Underground Infiltration System	Property Owner	Regular inspections of system to observe sediment build up and infiltration capacity. Cleaning of accumulated trash, debris, and sediment as determined by inspections. Cleaning is recommended during dry weather. See manufacturer recommendations for additional maintenance activities.	Monthly and within 48 hours following a significant storm event to verify there is no standing water in the chambers.
Onsite storm drain catch basins and piping	Property Owner	Onsite catch basins shall be inspected quarterly for debris buildup and evidence of illegal dumping and shall be cleaned whenever debris/sediment accumulates. Removal can be accomplished by vac-truck or other equally effective method.	Quarterly
Hydrodynamic Separator	Property Owner	Visual inspection and debris removed quarterly per manufactures recommendations	Quarterly
Above ground infiltration/ detention Basins	Property Owner	Inspections and maintenance by owners contracted maintenance staff to ensure that water infiltrates into the subsurface completely in 48 hours or less. Visual inspection, landscape maintenance, debris removal and erosion damage repair.	Monthly and within 48 hours following a significant storm event to verify there is no standing water in the chambers.
Landscape Maintenance	Property Owner	Maintain landscape area vegetation, slope protection and grades, adjacent to hardscape and prevent discharges of landscape maintenance waste into storm drains.	Weekly
Litter Control	Property Owner	Maintain roofed waste collection areas and vacuum-sweep drive aisles and parking areas to remove potential stormwater contamination before anticipated storm events.	Weekly/Monthly

Anti-Dumping Stenciling & Signage	Property Owner	Visual inspection and replacement of damaged or illegible stenciling and signage over on-site catch basins	Annually
Irrigation System	Property Owner	Check and repair the irrigation system. Verify there are no leaks or runoff from landscaped areas. Adjust irrigation heads and system run times as necessary to percent overwater of vegetation, overspray or run-off from landscape areas and to ensure the health and aesthetic quality of the landscape.	Weekly
Loading Docks	Property Owner	Sweep and clear debris from dock areas to remove potential stormwater contaminates prior to anticipated storms.	Weekly
Catch Basin Filter Inserts	Property Owner	Visual inspect filter for debris buildup. Removal can be accomplished by vac-truck or other equally effective method. See manufacturer recommendations for additional maintenance activities.	Quarterly and within 48 hours following a significant storm event to verify there is no standing water in the chambers

Section 6 WQMP Attachments

6.1. Site Plan and Drainage Plan

Include a site plan and drainage plan sheet set containing the following minimum information:

- Project location
- Site boundary
- Land uses and land covers, as applicable
- Suitability/feasibility constraints
- Structural Source Control BMP locations
- Site Design Hydrologic Source Control BMP locations
- LID BMP details
- Drainage delineations and flow information
- Drainage connections

6.2 Electronic Data Submittal

Minimum requirements include submittal of PDF exhibits in addition to hard copies. Format must not require specialized software to open. If the local jurisdiction requires specialized electronic document formats (as described in their Local Implementation Plan), this section will describe the contents (e.g., layering, nomenclature, geo-referencing, etc.) of these documents so that they may be interpreted efficiently and accurately.

6.3 Post Construction

Attach all O&M Plans and Maintenance Agreements for BMP to the WQMP.

6.4 Other Supporting Documentation

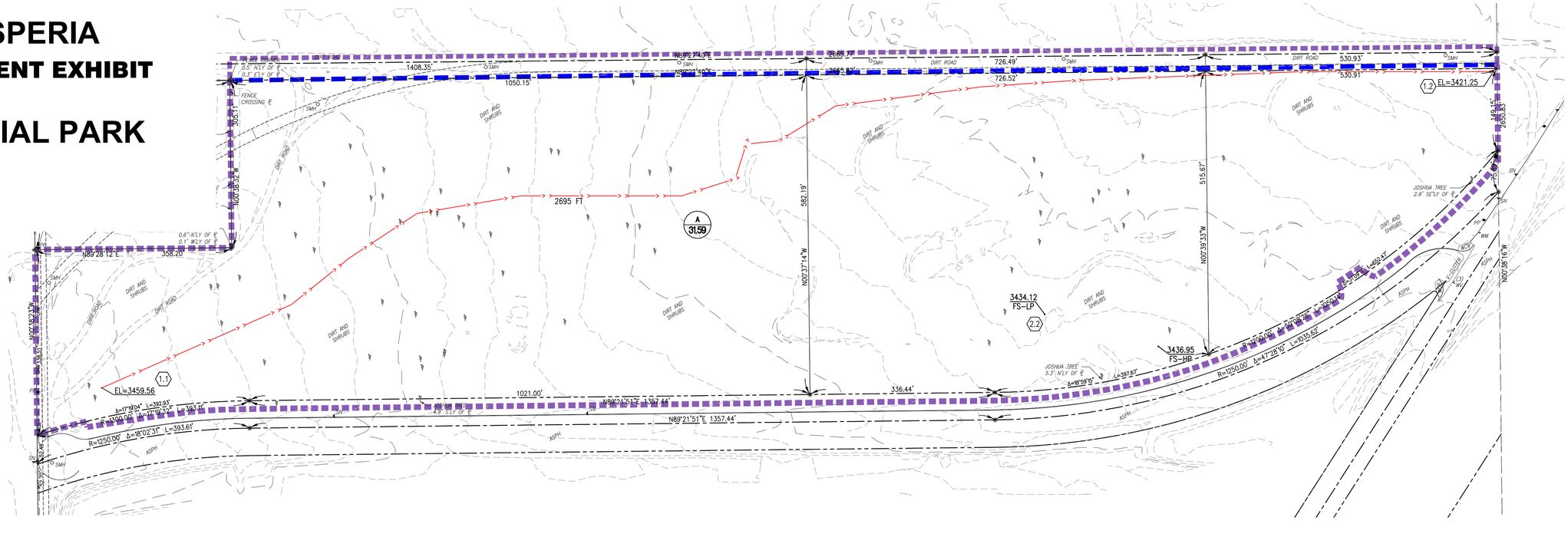
- BMP Educational Materials
- Activity Restriction – C,C&R's & Lease Agreements

CITY OF HESPERIA

PRE DEVELOPMENT EXHIBIT

FOR

SPEC INDUSTRIAL PARK



HYDROLOGY INFORMATION

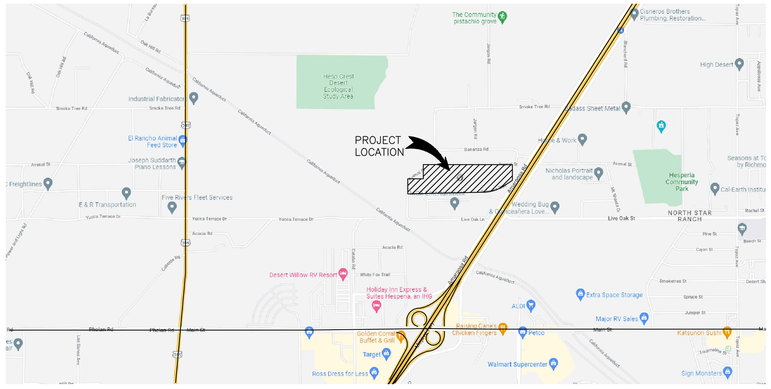
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SOIL GROUP:	B	(PER USDA WEB SOIL SURVEY)
IMPERVIOUS:	80%	(PER CALCULATIONS)
ISOHYETALS:	0.433" 1.25"	(2-YEAR 1 HOUR) (100-YEAR 1 HOUR)
CN NUMBER:	78	(SOIL GROUP B)
FREQUENCY:	100 YEAR 2/10 YEAR	(FOR STORM DRAIN DESIGN) (FOR WATER QUALITY)
METHOD:	SAN BERNARDINO COUNTY HYDROLOGY MANUAL	

LEGEND:

- DRAINAGE AREA/SITE BOUNDARY
- DRAINAGE SUB-AREA BOUNDARY
- STORM WATER FLOW PATH
- PROPOSED STORM DRAIN PIPE
- PROPOSED FLOW DIRECTION ARROW
- DRAINAGE AREA DESIGNATION (X / XXX) AREA(AC)
- NODE (US/DS) (X.X)
- STREAM # (3)
- PROPOSED UNDERGROUND INFILTRATION/DETENTION
- PROPOSED BUILDING
- PROPOSED LANDSCAPING

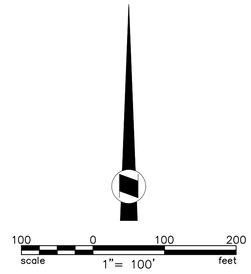
DRAINAGE NOTES:

1. PROPOSED STORM DRAIN INLET
2. PROPOSED STORM DRAIN
3. PROPOSED INFILTRATION/DETENTION BASIN
4. PROPOSED UNDERGROUND INFILTRATION CMP



VICINITY MAP

N.T.S



PREPARED BY:

WestLAND Group, Inc. Land Surveyors • Civil Engineers • GIS

4150 CONCOURS, ONTARIO, CA 91764

PHONE: (909) 989-9789 FAX: (909) 989-9660

JOB NO: 2019-185

HCCII INDUSTRIAL PARK
WQMP PRE EXHIBIT

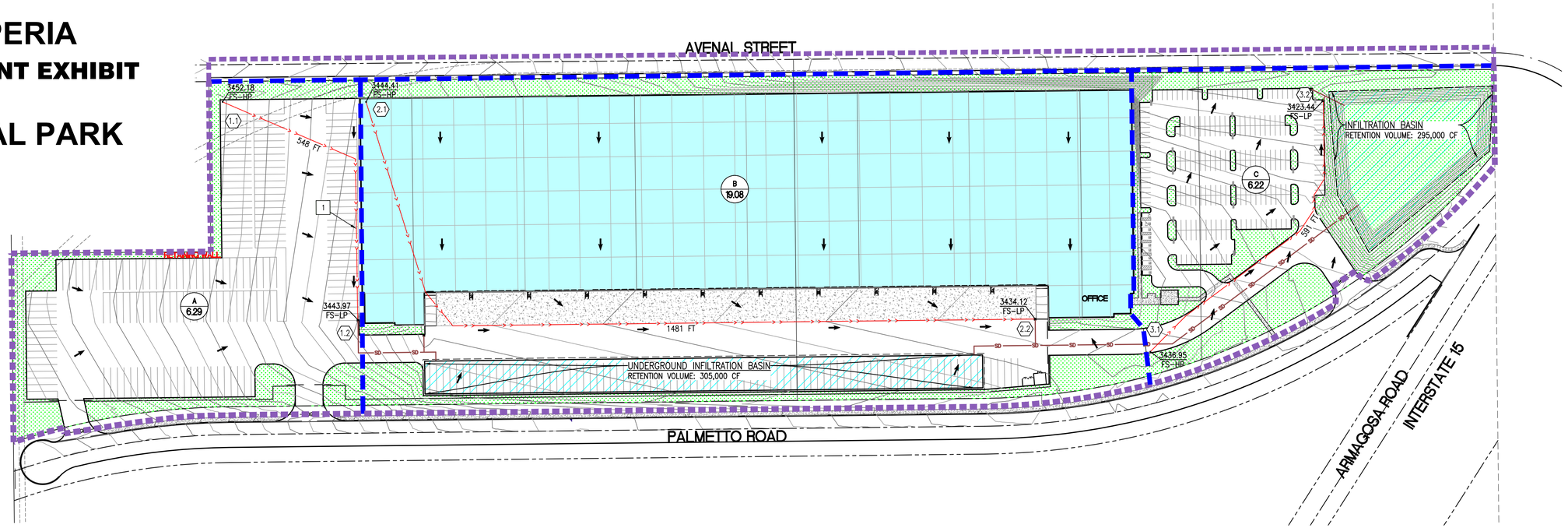
CITY OF HESPERIA

DATE: DEC 2021

SHEET 1 OF 1

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Last Opened: Jul 10, 2022 - 7:48pm by: lucas.glauser

CITY OF HESPERIA
POST DEVELOPMENT EXHIBIT
FOR
SPEC INDUSTRIAL PARK



HYDROLOGY INFORMATION

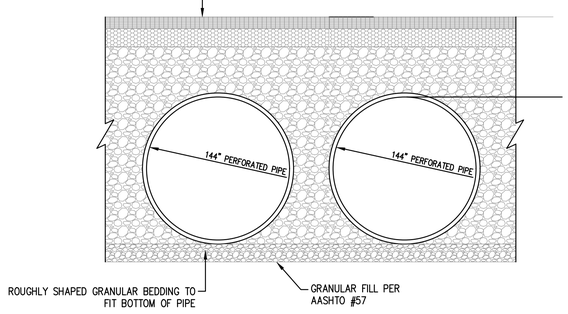
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METHOD:	SAN BERNARDINO COUNTY HYDROLOGY MANUAL	

LEGEND:

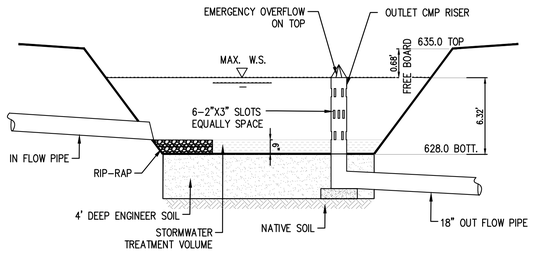
- DRAINAGE AREA/SITE BOUNDARY
- DRAINAGE SUB-AREA BOUNDARY
- STORM WATER FLOW PATH
- PROPOSED STORM DRAIN PIPE
- PROPOSED FLOW DIRECTION ARROW
- DRAINAGE AREA DESIGNATION (X = AREA(AC), XXX)
- NODE (US/DS) (X.X)
- STREAM # (3)
- PROPOSED UNDERGROUND INFILTRATION/DETENTION
- PROPOSED BUILDING
- PROPOSED LANDSCAPING

DRAINAGE NOTES:

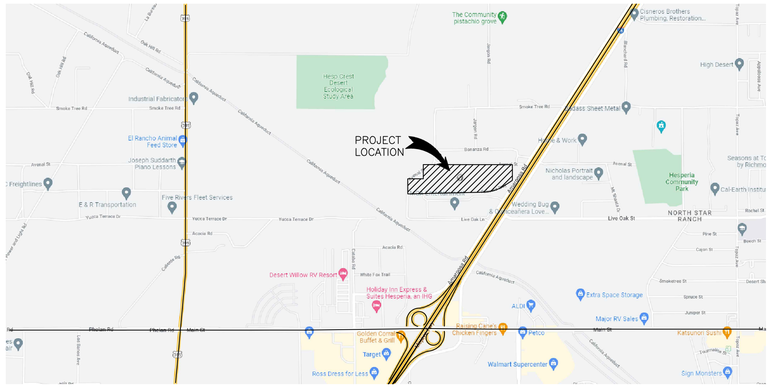
1. PROPOSED STORM DRAIN INLET
2. PROPOSED STORM DRAIN
3. PROPOSED INFILTRATION/DETENTION BASIN
4. PROPOSED UNDERGROUND INFILTRATION CMP



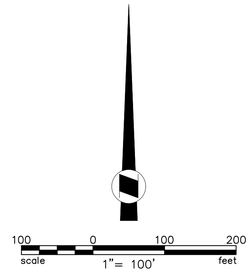
TYPICAL CMP UNDERGROUND INFILTRATION DETAIL
N.T.S



INFILTRATION/DETENTION BASIN-3 DETAIL
N.T.S



VICINITY MAP
N.T.S



PREPARED BY:
WestLAND Group, Inc. Land Surveyors • Civil Engineers • GIS
4150 CONCOURS, ONTARIO, CA 91764
PHONE: (909) 989-9789 FAX: (909) 989-9660
JOB NO: 2019-185

HCCII INDUSTRIAL PARK HYDROLOGY EXHIBIT

CITY OF HESPERIA

DATE: DEC 2021
SHEET 1 OF 1

Drawing Name: P:\Year_2021\2021-196 Hesperia Industrial - RDA - Chris Sovage\06 Engineering\Reports\Hydrology\3_Exhibits\2021-196_Hydro_Exhibit_Post.dwg
Last Opened: Jul 06, 2022 - 9:28pm by: lucas.glauser

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005
Version 7.1

Rational Hydrology Study Date: 07/15/22

2021-196 Hesperia Spec Industrial
Rational Method
25-year

Program License Serial Number 6277

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 25.0
Computed rainfall intensity:
Storm year = 25.00 1 hour rainfall = 0.942 (In.)
Slope used for rainfall intensity curve b = 0.7000
Soil antecedent moisture condition (AMC) = 2

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        1.100 to Point/Station
1.200
      **** INITIAL AREA EVALUATION ****
      ____________________________________________________________________
____
      Soil classification AP and SCS  values input by user
      USER INPUT of soil data for subarea
      SCS curve number for soil(AMC 2)  = 56.00
      Pervious ratio(Ap) = 0.1900     Max loss rate(Fm)=
0.139(In/Hr)
      Initial subarea data:
      Initial area flow distance =   548.000(Ft.)
      Top (of initial area) elevation =    52.200(Ft.)
      Bottom (of initial area) elevation =    44.000(Ft.)
      Difference in elevation =     8.200(Ft.)
      Slope =    0.01496  s(%)=       1.50
      TC = k(0.321)*[(length^3)/(elevation change)]^0.2
      Initial area time of concentration =    9.279 min.
      Rainfall intensity =      3.479(In/Hr) for a    25.0 year storm
      Effective runoff coefficient used for area (Q=KCIA) is C = 0.864
      Subarea runoff =     18.908(CFS)
      Total initial stream area =        6.290(Ac.)
      Pervious area fraction = 0.190
      Initial area Fm value =    0.139(In/Hr)
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        1.200 to Point/Station
2.200
      **** PIPEFLOW TRAVEL TIME (Program estimated size) ****
      ------------------------------------------------------------------------
____
      Upstream point/station elevation =    44.000(Ft.)
      Downstream point/station elevation =    34.000(Ft.)
      Pipe length  =  1386.00(Ft.)   Manning's N = 0.013
      No. of pipes = 1  Required pipe flow  =    18.908(CFS)
      Nearest computed pipe diameter  =     24.00(In.)
      Calculated individual pipe flow  =    18.908(CFS)
      Normal flow depth in pipe =   19.31(In.)
      Flow top width inside pipe =   19.03(In.)
      Critical Depth =   18.77(In.)
      Pipe flow velocity =      6.97(Ft/s)
      Travel time through pipe =    3.31 min.
      Time of concentration (TC) =    12.59 min.
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        2.100 to Point/Station
2.200
      **** SUBAREA FLOW ADDITION ****
      ____________________________________________________________________
____
      Soil classification AP and SCS  values input by user
      USER INPUT of soil data for subarea
      SCS curve number for soil(AMC 2)  = 56.00
      Pervious ratio(Ap) = 0.1000     Max loss rate(Fm)=
0.073(In/Hr)
      Time of concentration =    12.59 min.
      Rainfall intensity =      2.810(In/Hr) for a    25.0 year storm
      Effective runoff coefficient used for area,(total area with
modified
      rational method)(Q=KCIA) is C = 0.871
      Subarea runoff =     43.201(CFS) for   19.080(Ac.)
      Total runoff =     62.109(CFS)
      Effective area this stream =       25.37(Ac.)
      Total Study Area (Main Stream No. 1) =       25.37(Ac.)
      Area averaged Fm value =    0.090(In/Hr)
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        2.200 to Point/Station
3.200
      **** PIPEFLOW TRAVEL TIME (Program estimated size) ****
      ------------------------------------------------------------------------
____
      Upstream point/station elevation =    34.100(Ft.)
      Downstream point/station elevation =    23.400(Ft.)
      Pipe length  =   675.00(Ft.)   Manning's N = 0.013
      No. of pipes = 1  Required pipe flow  =    62.109(CFS)
      Nearest computed pipe diameter  =     33.00(In.)
      Calculated individual pipe flow  =    62.109(CFS)
      Normal flow depth in pipe =   25.27(In.)
      Flow top width inside pipe =   27.96(In.)
      Critical Depth =   30.18(In.)
      Pipe flow velocity =     12.74(Ft/s)
      Travel time through pipe =    0.88 min.
      Time of concentration (TC) =    13.47 min.
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        3.100 to Point/Station
3.200
      **** SUBAREA FLOW ADDITION ****
      ____________________________________________________________________
____
      Soil classification AP and SCS  values input by user
      USER INPUT of soil data for subarea
      SCS curve number for soil(AMC 2)  = 56.00
      Pervious ratio(Ap) = 0.5200     Max loss rate(Fm)=
0.382(In/Hr)
      Time of concentration =    13.47 min.
      Rainfall intensity =      2.680(In/Hr) for a    25.0 year storm
      Effective runoff coefficient used for area,(total area with
modified
      rational method)(Q=KCIA) is C = 0.851
      Subarea runoff =      9.891(CFS) for    6.220(Ac.)
      Total runoff =     72.000(CFS)
      Effective area this stream =       31.59(Ac.)
      Total Study Area (Main Stream No. 1) =       31.59(Ac.)
      Area averaged Fm value =    0.147(In/Hr)
      End of computations, Total Study Area =           31.59 (Ac.)
      The following figures may
      be used for a unit hydrograph study of the same area.
      Note: These figures do not consider reduced effective area
      effects caused by confluences in the rational equation.

      Area averaged pervious area fraction(Ap) = 0.201
      Area averaged SCS curve number =  56.0
```

San Bernardino County Rational Hydrology Program

(Hydrology Manual Date - August 1986)

CIVILCADD/CIVILDESIGN Engineering Software, (c) 1989-2005
Version 7.1

Rational Hydrology Study Date: 07/15/22

2021-196 Hesperia Spec Industrial
Rational Method
100-year

Program License Serial Number 6277

********* Hydrology Study Control Information **********

Rational hydrology study storm event year is 100.0
Computed rainfall intensity:
Storm year = 100.00 1 hour rainfall = 1.250 (In.)
Slope used for rainfall intensity curve b = 0.7000
Soil antecedent moisture condition (AMC) = 3

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        1.100 to Point/Station
1.200
      **** INITIAL AREA EVALUATION ****
      ____________________________________________________________________
____
      Soil classification AP and SCS  values input by user
      USER INPUT of soil data for subarea
      SCS curve number for soil(AMC 2)  = 56.00
      Adjusted SCS curve number for AMC 3 = 75.80
      Pervious ratio(Ap) = 0.1900     Max loss rate(Fm)=
0.084(In/Hr)
      Initial subarea data:
      Initial area flow distance =   548.000(Ft.)
      Top (of initial area) elevation =    52.200(Ft.)
      Bottom (of initial area) elevation =    44.000(Ft.)
      Difference in elevation =     8.200(Ft.)
      Slope =    0.01496  s(%)=       1.50
      TC = k(0.321)*[(length^3)/(elevation change)]^0.2
      Initial area time of concentration =    9.279 min.
      Rainfall intensity =      4.617(In/Hr) for a   100.0 year storm
      Effective runoff coefficient used for area (Q=KCIA) is C = 0.884
      Subarea runoff =     25.664(CFS)
      Total initial stream area =        6.290(Ac.)
      Pervious area fraction = 0.190
      Initial area Fm value =    0.084(In/Hr)
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        1.200 to Point/Station
2.200
      **** PIPEFLOW TRAVEL TIME (Program estimated size) ****
      ------------------------------------------------------------------------
____
      Upstream point/station elevation =    44.000(Ft.)
      Downstream point/station elevation =    34.000(Ft.)
      Pipe length  =  1386.00(Ft.)   Manning's N = 0.013
      No. of pipes = 1  Required pipe flow  =    25.664(CFS)
      Nearest computed pipe diameter  =     27.00(In.)
      Calculated individual pipe flow  =    25.664(CFS)
      Normal flow depth in pipe =   21.56(In.)
      Flow top width inside pipe =   21.66(In.)
      Critical Depth =   21.24(In.)
      Pipe flow velocity =      7.54(Ft/s)
      Travel time through pipe =    3.06 min.
      Time of concentration (TC) =    12.34 min.
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        2.100 to Point/Station
2.200
      **** SUBAREA FLOW ADDITION ****
      ____________________________________________________________________
____
      Soil classification AP and SCS  values input by user
      USER INPUT of soil data for subarea
      SCS curve number for soil(AMC 2)  = 56.00
      Adjusted SCS curve number for AMC 3 = 75.80
      Pervious ratio(Ap) = 0.1000     Max loss rate(Fm)=
0.044(In/Hr)
      Time of concentration =    12.34 min.
      Rainfall intensity =      3.781(In/Hr) for a   100.0 year storm
      Effective runoff coefficient used for area,(total area with
modified
      rational method)(Q=KCIA) is C = 0.887
      Subarea runoff =     59.445(CFS) for   19.080(Ac.)
      Total runoff =     85.109(CFS)
      Effective area this stream =       25.37(Ac.)
      Total Study Area (Main Stream No. 1) =       25.37(Ac.)
      Area averaged Fm value =    0.054(In/Hr)
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        2.200 to Point/Station
3.200
      **** PIPEFLOW TRAVEL TIME (Program estimated size) ****
      ------------------------------------------------------------------------
____
      Upstream point/station elevation =    34.100(Ft.)
      Downstream point/station elevation =    23.400(Ft.)
      Pipe length  =   675.00(Ft.)   Manning's N = 0.013
      No. of pipes = 1  Required pipe flow  =    85.109(CFS)
      Nearest computed pipe diameter  =     39.00(In.)
      Calculated individual pipe flow  =    85.109(CFS)
      Normal flow depth in pipe =   26.86(In.)
      Flow top width inside pipe =   36.12(In.)
      Critical Depth =   34.49(In.)
      Pipe flow velocity =     13.98(Ft/s)
      Travel time through pipe =    0.80 min.
      Time of concentration (TC) =    13.15 min.
```

```
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++++
      Process from Point/Station        3.100 to Point/Station
3.200
      **** SUBAREA FLOW ADDITION ****
      ____________________________________________________________________
____
      Soil classification AP and SCS  values input by user
      USER INPUT of soil data for subarea
      SCS curve number for soil(AMC 2)  = 56.00
      Adjusted SCS curve number for AMC 3 = 75.80
      Pervious ratio(Ap) = 0.5200     Max loss rate(Fm)=
0.229(In/Hr)
      Time of concentration =    13.15 min.
      Rainfall intensity =      3.618(In/Hr) for a   100.0 year storm
      Effective runoff coefficient used for area,(total area with
modified
      rational method)(Q=KCIA) is C = 0.878
      Subarea runoff =     15.238(CFS) for    6.220(Ac.)
      Total runoff =    100.347(CFS)
      Effective area this stream =       31.59(Ac.)
      Total Study Area (Main Stream No. 1) =       31.59(Ac.)
      Area averaged Fm value =    0.088(In/Hr)
      End of computations, Total Study Area =           31.59 (Ac.)
      The following figures may
      be used for a unit hydrograph study of the same area.
      Note: These figures do not consider reduced effective area
      effects caused by confluences in the rational equation.

      Area averaged pervious area fraction(Ap) = 0.201
      Area averaged SCS curve number =  56.0
```

U n i t H y d r o g r a p h A n a l y s i s

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Study date 07/15/22

++

San Bernardino County Synthetic Unit Hydrology Method
Manual date - August 1986

Program License Serial Number 6277

2021-196 Hesperia Spec Industrial
Unit Hydrograph
100-year

Storm Event Year = 100

Antecedent Moisture Condition = 3

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 10		
0.01	1	0.75
Rainfall data for year 2		
0.01	6	1.01
Rainfall data for year 2		
0.01	24	1.89

```
--
      Rainfall data for year 100
                0.01           1           1.25
      ------------------------------------------------------------------
--
      Rainfall data for year 100
                0.01           6           2.81
      ------------------------------------------------------------------
--
      Rainfall data for year 100
                0.01          24           5.90
      ------------------------------------------------------------------
--
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++

      ******** Area-averaged max loss rate, Fm ********


      SCS curve  SCS curve     Area     Area     Fp(Fig C6)    Ap
Fm
      No.(AMCII) NO.(AMC 3)    (Ac.)    Fraction     (In/Hr)  (dec.)
(In/Hr)
       56.0      75.8         31.59      1.000     0.440    0.200
0.088

      Area-averaged adjusted loss rate Fm (In/Hr) =  0.088

      ********* Area-Averaged low loss rate fraction, Yb **********

      Area       Area          SCS CN    SCS CN      S     Pervious
       (Ac.)      Fract         (AMC2)    (AMC3)           Yield Fr
           6.32   0.200         56.0      75.8       3.19     0.555
          25.27   0.800         98.0      98.0       0.20     0.960

      Area-averaged catchment yield fraction, Y =  0.879
      Area-averaged low loss fraction, Yb =  0.121
      User entry of time of concentration  =   0.227 (hours)
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++
      Watershed area =      31.59(Ac.)
      Catchment Lag time =   0.182 hours
      Unit interval =   5.000 minutes
      Unit interval percentage of lag time = 45.8884
      Hydrograph baseflow =     0.00(CFS)
      Average maximum watershed loss rate(Fm) =  0.088(In/Hr)
      Average low loss rate fraction (Yb) = 0.121 (decimal)
      MOUNTAIN S-Graph Selected
      Computed peak 5-minute rainfall =  0.593(In)
      Computed peak 30-minute rainfall =  1.015(In)
      Specified peak 1-hour rainfall =  1.250(In)
      Computed peak 3-hour rainfall =  2.054(In)
      Specified peak 6-hour rainfall =  2.810(In)
      Specified peak 24-hour rainfall =  5.900(In)
```

```
      Rainfall depth area reduction factors:
      Using a total area of      31.59(Ac.) (Ref: fig. E-4)

      5-minute factor = 0.999     Adjusted rainfall =  0.592(In)
      30-minute factor = 0.999    Adjusted rainfall =  1.014(In)
      1-hour factor = 0.999       Adjusted rainfall =  1.248(In)
      3-hour factor = 1.000       Adjusted rainfall =  2.054(In)
      6-hour factor = 1.000       Adjusted rainfall =  2.810(In)
      24-hour factor = 1.000      Adjusted rainfall =  5.900(In)
      ------------------------------------------------------------------
---

                     U n i t  H y d r o g r a p h
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
+++
      Interval          'S' Graph          Unit Hydrograph
      Number            Mean values             ((CFS))
      ------------------------------------------------------------------
---
                (K =       382.04 (CFS))

        1                6.828                  26.086
        2               34.241                 104.729
        3               53.812                  74.769
        4               63.412                  36.675
        5               69.929                  24.899
        6               74.936                  19.129
        7               78.803                  14.773
        8               81.823                  11.537
        9               84.264                   9.327
       10               86.308                   7.807
       11               88.171                   7.119
       12               89.787                   6.173
       13               91.208                   5.430
       14               92.506                   4.960
       15               93.668                   4.438
       16               94.719                   4.017
       17               95.623                   3.454
       18               96.455                   3.176
       19               97.281                   3.156
       20               98.107                   3.156
       21               98.933                   3.156
       22              100.000                   1.578
      ------------------------------------------------------------------
---
      ------------------------------------------------------------------
--
      ------------------------------------------------------------------
--
      Total soil rain loss =      0.64(In)
      Total effective rainfall =      5.26(In)
      Peak flow rate in flood hydrograph =     81.24(CFS)
      ------------------------------------------------------------------
---
      ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
++
```

24 - H O U R S T O R M
R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	22.5	45.0	67.5	90.0
0+ 5	0.0017	0.25	Q				
0+10	0.0104	1.26	Q				
0+15	0.0241	1.98	Q				
0+20	0.0402	2.34	VQ				
0+25	0.0581	2.59	VQ				
0+30	0.0772	2.78	VQ				
0+35	0.0974	2.93	VQ				
0+40	0.1184	3.05	VQ				
0+45	0.1400	3.14	VQ				
0+50	0.1622	3.23	VQ				
0+55	0.1850	3.30	VQ				
1+ 0	0.2082	3.37	VQ				
1+ 5	0.2319	3.43	VQ				
1+10	0.2559	3.49	VQ				
1+15	0.2803	3.54	VQ				
1+20	0.3050	3.59	VQ				
1+25	0.3300	3.63	VQ				
1+30	0.3553	3.67	|Q				
1+35	0.3809	3.71	|Q				
1+40	0.4067	3.75	|Q				
1+45	0.4328	3.79	|Q				
1+50	0.4591	3.82	|Q				

1+55	0.4855	3.83	|Q	|	|	|
2+ 0	0.5119	3.84	|Q	|	|	|
2+ 5	0.5384	3.85	|Q	|	|	|
2+10	0.5650	3.86	|Q	|	|	|
2+15	0.5917	3.87	|Q	|	|	|
2+20	0.6184	3.88	|Q	|	|	|
2+25	0.6452	3.89	|Q	|	|	|
2+30	0.6721	3.90	|Q	|	|	|
2+35	0.6990	3.91	|QV	|	|	|
2+40	0.7260	3.92	|QV	|	|	|
2+45	0.7531	3.93	|QV	|	|	|
2+50	0.7803	3.95	|QV	|	|	|
2+55	0.8076	3.96	|QV	|	|	|
3+ 0	0.8349	3.97	|QV	|	|	|
3+ 5	0.8623	3.98	|QV	|	|	|
3+10	0.8898	3.99	|QV	|	|	|
3+15	0.9174	4.00	|QV	|	|	|
3+20	0.9450	4.02	|QV	|	|	|
3+25	0.9728	4.03	|QV	|	|	|
3+30	1.0006	4.04	|QV	|	|	|
3+35	1.0285	4.05	|QV	|	|	|
3+40	1.0565	4.06	|Q V	|	|	|
3+45	1.0845	4.08	|Q V	|	|	|
3+50	1.1127	4.09	|Q V	|	|	|
3+55	1.1410	4.10	|Q V	|	|	|
4+ 0	1.1693	4.11	|Q V	|	|	|
4+ 5	1.1977	4.13	|Q V	|	|	|
4+10	1.2262	4.14	|Q V	|	|	|

4+15	1.2548	4.15	|Q V	|	|	|
4+20	1.2835	4.17	|Q V	|	|	|
4+25	1.3123	4.18	|Q V	|	|	|
4+30	1.3412	4.19	|Q V	|	|	|
4+35	1.3702	4.21	|Q V	|	|	|
4+40	1.3993	4.22	|Q V	|	|	|
4+45	1.4284	4.24	|Q V	|	|	|
4+50	1.4577	4.25	|Q V	|	|	|
4+55	1.4871	4.26	|Q V	|	|	|
5+ 0	1.5165	4.28	|Q V	|	|	|
5+ 5	1.5461	4.29	|Q V	|	|	|
5+10	1.5758	4.31	|Q V	|	|	|
5+15	1.6055	4.32	|Q V	|	|	|
5+20	1.6354	4.34	|Q V	|	|	|
5+25	1.6654	4.35	|Q V	|	|	|
5+30	1.6955	4.37	|Q V	|	|	|
5+35	1.7257	4.38	|Q V	|	|	|
5+40	1.7560	4.40	|Q V	|	|	|
5+45	1.7864	4.42	|Q V	|	|	|
5+50	1.8169	4.43	|Q V	|	|	|
5+55	1.8475	4.45	|Q V	|	|	|
6+ 0	1.8783	4.47	|Q V	|	|	|
6+ 5	1.9092	4.48	|Q V	|	|	|
6+10	1.9401	4.50	|Q V	|	|	|
6+15	1.9712	4.52	| Q V	|	|	|
6+20	2.0025	4.53	| Q V	|	|	|
6+25	2.0338	4.55	| Q V	|	|	|
6+30	2.0653	4.57	| Q V	|	|	|

6+35	2.0969	4.59	Q	V		
6+40	2.1286	4.60	Q	V		
6+45	2.1604	4.62	Q	V		
6+50	2.1924	4.64	Q	V		
6+55	2.2245	4.66	Q	V		
7+ 0	2.2567	4.68	Q	V		
7+ 5	2.2891	4.70	Q	V		
7+10	2.3216	4.72	Q	V		
7+15	2.3542	4.74	Q	V		
7+20	2.3870	4.76	Q	V		
7+25	2.4199	4.78	Q	V		
7+30	2.4530	4.80	Q	V		
7+35	2.4862	4.82	Q	V		
7+40	2.5195	4.84	Q	V		
7+45	2.5530	4.86	Q	V		
7+50	2.5867	4.89	Q	V		
7+55	2.6205	4.91	Q	V		
8+ 0	2.6544	4.93	Q	V		
8+ 5	2.6886	4.95	Q	V		
8+10	2.7228	4.98	Q	V		
8+15	2.7573	5.00	Q	V		
8+20	2.7919	5.03	Q	V		
8+25	2.8267	5.05	Q	V		
8+30	2.8616	5.07	Q	V		
8+35	2.8967	5.10	Q	V		
8+40	2.9320	5.12	Q	V		
8+45	2.9675	5.15	Q	V		
8+50	3.0032	5.18	Q	V		

8+55	3.0390	5.20	Q	V		
9+ 0	3.0750	5.23	Q	V		
9+ 5	3.1112	5.26	Q	V		
9+10	3.1476	5.29	Q	V		
9+15	3.1842	5.31	Q	V		
9+20	3.2211	5.34	Q	V		
9+25	3.2581	5.37	Q	V		
9+30	3.2953	5.40	Q	V		
9+35	3.3327	5.43	Q	V		
9+40	3.3704	5.47	Q	V		
9+45	3.4082	5.50	Q	V		
9+50	3.4463	5.53	Q	V		
9+55	3.4846	5.56	Q	V		
10+ 0	3.5232	5.60	Q	V		
10+ 5	3.5619	5.63	Q	V		
10+10	3.6010	5.67	Q	V		
10+15	3.6402	5.70	Q	V		
10+20	3.6797	5.74	Q	V		
10+25	3.7195	5.77	Q	V		
10+30	3.7595	5.81	Q	V		
10+35	3.7998	5.85	Q	V		
10+40	3.8404	5.89	Q	V		
10+45	3.8813	5.93	Q	V		
10+50	3.9224	5.97	Q	V		
10+55	3.9638	6.01	Q	V		
11+ 0	4.0055	6.06	Q	V		
11+ 5	4.0476	6.10	Q	V		
11+10	4.0899	6.15	Q	V		

11+15	4.1326	6.19	Q	V		
11+20	4.1755	6.24	Q	V		
11+25	4.2188	6.29	Q	V		
11+30	4.2625	6.34	Q	V		
11+35	4.3065	6.39	Q	V		
11+40	4.3509	6.44	Q	V		
11+45	4.3956	6.49	Q	V		
11+50	4.4407	6.55	Q	V		
11+55	4.4862	6.61	Q	V		
12+ 0	4.5321	6.67	Q	V		
12+ 5	4.5779	6.65	Q	V		
12+10	4.6221	6.42	Q	V		
12+15	4.6653	6.27	Q	V		
12+20	4.7082	6.23	Q	V		
12+25	4.7510	6.22	Q	V		
12+30	4.7940	6.24	Q	V		
12+35	4.8372	6.27	Q	V		
12+40	4.8806	6.31	Q	V		
12+45	4.9244	6.36	Q	V		
12+50	4.9686	6.42	Q	V		
12+55	5.0133	6.48	Q	V		
13+ 0	5.0584	6.55	Q	V		
13+ 5	5.1040	6.62	Q	V		
13+10	5.1501	6.70	Q	V		
13+15	5.1969	6.78	Q	V		
13+20	5.2442	6.88	Q	V		
13+25	5.2922	6.97	Q	V		
13+30	5.3409	7.07	Q	V		

13+35	5.3903	7.18	Q	V		
13+40	5.4406	7.29	Q	V		
13+45	5.4916	7.41	Q	V		
13+50	5.5435	7.54	Q	V		
13+55	5.5963	7.67	Q	V		
14+ 0	5.6502	7.83	Q	V		
14+ 5	5.7052	7.98	Q	V		
14+10	5.7613	8.16	Q	V		
14+15	5.8187	8.33	Q	V		
14+20	5.8774	8.53	Q	V		
14+25	5.9375	8.72	Q	V		
14+30	5.9991	8.94	Q	V		
14+35	6.0623	9.17	Q	V		
14+40	6.1272	9.43	Q	V		
14+45	6.1939	9.69	Q	V		
14+50	6.2627	9.99	Q	V		
14+55	6.3336	10.30	Q	V		
15+ 0	6.4071	10.66	Q	V		
15+ 5	6.4831	11.04	Q	V		
15+10	6.5623	11.49	Q	V		
15+15	6.6447	11.97	Q	V		
15+20	6.7311	12.54	Q	V		
15+25	6.8192	12.79	Q	V		
15+30	6.9024	12.08	Q	V		
15+35	6.9840	11.84	Q	V		
15+40	7.0691	12.36	Q	V		
15+45	7.1603	13.25	Q	V		
15+50	7.2622	14.79	Q	V		

```
  15+55       7.3815     17.32  |      Q  |         |V        |
|
  16+ 0       7.5389     22.85  |         Q         |V        |
|
  16+ 5       7.8297     42.23  |         |       Q | V       |
|
  16+10       8.3892     81.24  |         |         |   V     |     Q
|
  16+15       8.8238     63.10  |         |         |    V  Q |
|
  16+20       9.1005     40.18  |         |      Q  |     V   |
|
  16+25       9.3166     31.37  |         |  Q      |      V  |
|
  16+30       9.5058     27.48  |         | Q       |      V  |
|
  16+35       9.6734     24.33  |         Q         |       V |
|
  16+40       9.8218     21.55  |        Q|         |       V |
|
  16+45       9.9556     19.43  |       Q |         |       V |
|
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|
  16+55      10.1930     16.67  |      Q  |         |        V|
|
  17+ 0      10.2997     15.49  |     Q   |         |        V|
|
  17+ 5      10.3993     14.47  |     Q   |         |         V
|
  17+10      10.4934     13.65  |     Q   |         |         V
|
  17+15      10.5821     12.88  |    Q    |         |         V
|
  17+20      10.6661     12.20  |    Q    |         |         |V
|
  17+25      10.7452     11.49  |    Q    |         |         |V
|
  17+30      10.8208     10.97  |   Q     |         |         |V
|
  17+35      10.8937     10.59  |   Q     |         |         |V
|
  17+40      10.9639     10.19  |   Q     |         |         |V
|
  17+45      11.0306      9.69  |   Q     |         |         | V
|
  17+50      11.0887      8.43  |  Q      |         |         | V
|
  17+55      11.1388      7.28  |  Q      |         |         | V
|
  18+ 0      11.1869      7.00  |  Q      |         |         | V
|
  18+ 5      11.2342      6.85  |  Q      |         |         | V
|
  18+10      11.2820      6.95  |  Q      |         |         | V
|
```

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18+20	11.3774	6.89	Q			V	
18+25	11.4242	6.80	Q			V	
18+30	11.4704	6.70	Q			V	
18+35	11.5158	6.60	Q			V	
18+40	11.5606	6.50	Q			V	
18+45	11.6048	6.41	Q			V	
18+50	11.6483	6.32	Q			V	
18+55	11.6912	6.23	Q			V	
19+ 0	11.7335	6.15	Q			V	
19+ 5	11.7753	6.06	Q			V	
19+10	11.8165	5.99	Q			V	
19+15	11.8572	5.91	Q			V	
19+20	11.8974	5.84	Q			V	
19+25	11.9372	5.77	Q			V	
19+30	11.9764	5.70	Q			V	
19+35	12.0153	5.64	Q			V	
19+40	12.0537	5.58	Q			V	
19+45	12.0917	5.52	Q			V	
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20+20	12.3464	5.12	Q			V	
20+25	12.3813	5.07	Q			V	
20+30	12.4158	5.02	Q			V	

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20+40	12.4839	4.92	Q				V
20+45	12.5175	4.88	Q				V
20+50	12.5508	4.83	Q				V
20+55	12.5838	4.79	Q				V
21+ 0	12.6165	4.75	Q				V
21+ 5	12.6490	4.71	Q				V
21+10	12.6812	4.67	Q				V
21+15	12.7131	4.63	Q				V
21+20	12.7447	4.60	Q				V
21+25	12.7761	4.56	Q				V
21+30	12.8073	4.52	Q				V
21+35	12.8382	4.49	Q				V
21+40	12.8689	4.46	Q				V
21+45	12.8994	4.42	Q				V
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21+55	12.9596	4.36	Q				V
22+ 0	12.9894	4.33	Q				V
22+ 5	13.0191	4.30	Q				V
22+10	13.0485	4.27	Q				V
22+15	13.0777	4.24	Q				V
22+20	13.1067	4.21	Q				V
22+25	13.1355	4.19	Q				V
22+30	13.1642	4.16	Q				V
22+35	13.1926	4.13	Q				V
22+40	13.2209	4.11	Q				V
22+45	13.2490	4.08	Q				V
22+50	13.2770	4.06	Q				V

```
   22+55      13.3047      4.03  |Q        |         |         |        V
|
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|
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|
   23+10      13.3871      3.96  |Q        |         |         |        V
|
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|
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V|
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V|
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V|
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V|
   23+40      13.5476      3.83  |Q        |         |         |
V|
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V|
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V|
   23+55      13.6259      3.77  |Q        |         |         |
V|
   24+ 0      13.6518      3.75  |Q        |         |         |
V|
   24+ 5      13.6757      3.48  |Q        |         |         |
V|
   24+10      13.6926      2.46  |Q        |         |         |
V|
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V|
   24+20      13.7139      1.36  Q         |         |         |
V|
   24+25      13.7216      1.12  Q         |         |         |
V|
   24+30      13.7280      0.93  Q         |         |         |
V|
   24+35      13.7333      0.78  Q         |         |         |
V|
   24+40      13.7379      0.66  Q         |         |         |
V|
   24+45      13.7418      0.57  Q         |         |         |
V|
   24+50      13.7452      0.49  Q         |         |         |
V|
   24+55      13.7481      0.42  Q         |         |         |
V|
   25+ 0      13.7506      0.36  Q         |         |         |
V|
   25+ 5      13.7527      0.31  Q         |         |         |
V|
   25+10      13.7545      0.26  Q         |         |         |
V|
```

```
   25+15      13.7559      0.21  Q         |         |         |
V|
   25+20      13.7571      0.17  Q         |         |         |
V|
   25+25      13.7581      0.14  Q         |         |         |
V|
   25+30      13.7588      0.11  Q         |         |         |
V|
   25+35      13.7594      0.08  Q         |         |         |
V|
   25+40      13.7597      0.05  Q         |         |         |
V|
   25+45      13.7598      0.02  Q         |         |         |
V
------------------------------------------------------------------------
```

3.1 INFILTRATION BASIN

Type of BMP	LID - Infiltration
Treatment Mechanisms	Infiltration, Evapotranspiration (when vegetated), Evaporation, and Sedimentation
Maximum Treatment Area	50 acres
Other Names	Bioinfiltration Basin

Description

An Infiltration Basin is a flat earthen basin designed to capture the design capture volume, V_{BMP}. The stormwater infiltrates through the bottom of the basin into the underlying soil over a 72 hour drawdown period. Flows exceeding V_{BMP} must discharge to a downstream conveyance system. Trash and sediment accumulate within the forebay as stormwater passes into the basin. Infiltration basins are highly effective in removing all targeted pollutants from stormwater runoff.



Figure 1 – Infiltration Basin

See Appendix A, and Appendix C, Section 1 of *Basin Guidelines*, for additional requirements.

Siting Considerations

The use of infiltration basins may be restricted by concerns over ground water contamination, soil permeability, and clogging at the site. See the applicable WQMP for any specific feasibility considerations for using infiltration BMPs. Where this BMP is being used, the soil beneath the basin must be thoroughly evaluated in a geotechnical report since the underlying soils are critical to the basin's long term performance. To protect the basin from erosion, the sides and bottom of the basin must be vegetated, preferably with native or low water use plant species.

In addition, these basins may not be appropriate for the following site conditions:

- Industrial sites or locations where spills of toxic materials may occur
- Sites with very low soil infiltration rates
- Sites with high groundwater tables or excessively high soil infiltration rates, where pollutants can affect ground water quality
- Sites with unstabilized soil or construction activity upstream
- On steeply sloping terrain
- Infiltration basins located in a fill condition should refer to Appendix A of this Handbook for details on special requirements/restrictions

Setbacks

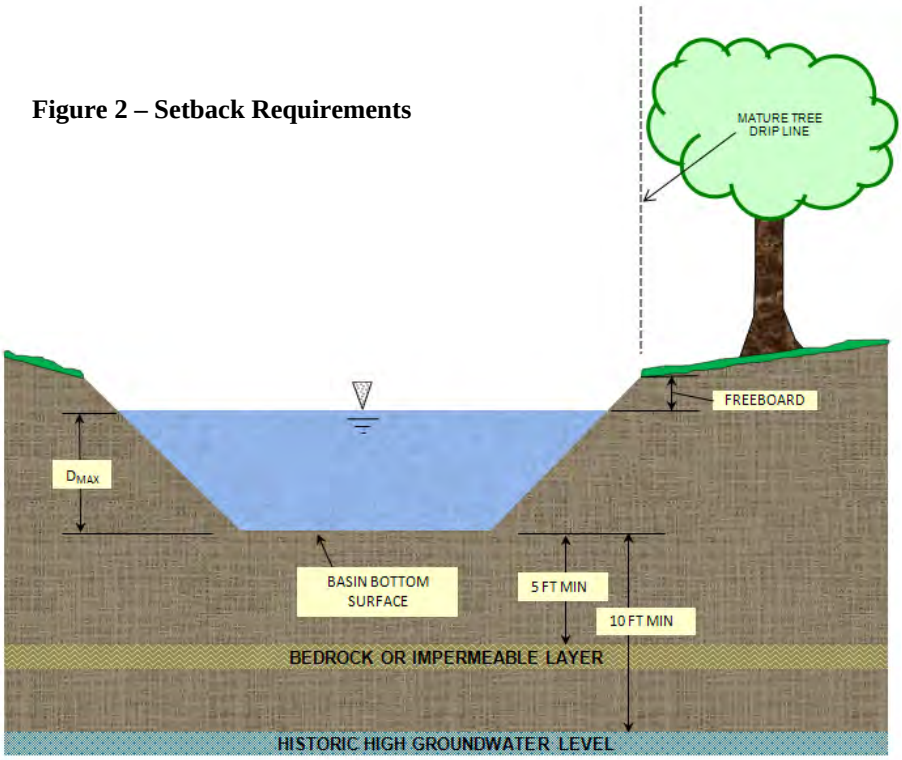
Always consult your geotechnical engineer for site specific recommendations regarding setbacks for infiltration trenches. Recommended setbacks are needed to protect buildings, existing trees, walls, onsite or nearby wells, streams, and tanks. Setbacks should be considered early in the design process since they can affect where infiltration facilities may be placed and how deep they are allowed to be. For instance, depth setbacks can dictate fairly shallow facilities that will have a larger footprint and, in some cases, may make an infiltration basin infeasible. In that instance, another BMP must be selected.

Infiltration basins typically must be set back:

- 10 feet from the historic high groundwater (measured vertically from the bottom of the basin, as shown in Figure 2)
- 5 feet from bedrock or impermeable surface layer (measured vertically from the bottom of the basin, as shown in Figure 2)
- From all existing mature tree drip lines as indicated in Figure 2 (to protect their root structure)
- 100 feet horizontally from wells, tanks or springs

Setbacks to walls and foundations must be included as part of the Geotechnical Report. All other setbacks shall be in accordance with applicable standards of the District's *Basin Guidelines* (Appendix C).

Figure 2 – Setback Requirements



Forebay

A concrete forebay shall be provided to reduce sediment clogging and to reduce erosion. The forebay shall have a design volume of at least 0.5% V_{BMP} and a minimum 1 foot high concrete splashwall / berm. Full height notch-type weir(s), offset from the line of flow from the basin inlet to prevent short circuiting, shall be used to outlet the forebay. It is recommended that two weirs be used and that they be located on opposite sides of the forebay (see Figure 2).

Overflow

Flows exceeding V_{BMP} must discharge to an acceptable downstream conveyance system. Where an adequate outlet is present, an overflow structure may be used. Where an embankment is present, an emergency spillway may be used instead. Overflows must be placed just above the design water surface for V_{BMP} and be near the outlet of the system. The overflow structure shall be similar to the District's Standard Drawing CB 110. Additional details may be found in the District's *Basin Guidelines* (Appendix C).

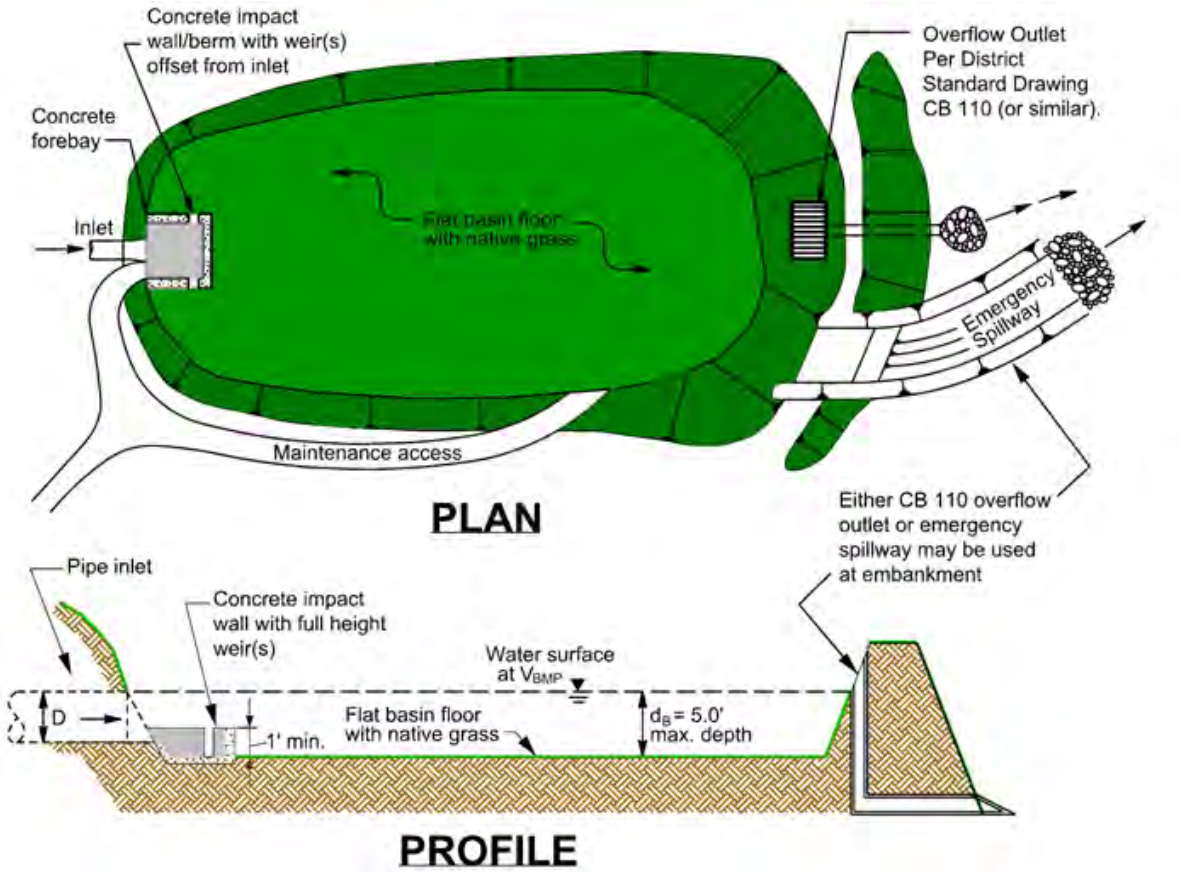


Figure 3 – Infiltration Basin

Landscaping Requirements

Basin vegetation provides erosion protection, improves sediment removal and assists in allowing infiltration to occur. The basin surface and side slopes shall be planted with native grasses. Proper landscape management is also required to ensure that the vegetation does not contribute to water pollution through pesticides, herbicides, or fertilizers. Landscaping shall be in accordance with County of Riverside Ordinance 859 and the District's *Basin Guidelines* (Appendix C), or other guidelines issued by the Engineering Authority.

Maintenance

Normal maintenance of an infiltration basin includes the maintenance of landscaping, debris and trash removal from the surface of the basin, and tending to problems associated with standing water (vectors, odors, etc.). Significant ponding, especially more than 72 hours after an event, may indicate that the basin surface is no longer providing sufficient infiltration and requires aeration. See the District's *Basin Guidelines* (Appendix C) for additional requirements (i.e., fencing, maintenance access, etc.).

Table 1 - Inspection and Maintenance

Schedule	Inspection and Maintenance Activity
Ongoing including just before annual storm seasons and following rainfall events.	• Maintain vegetation as needed. Use of fertilizers, pesticides and herbicides should be strenuously avoided to ensure they don't contribute to water pollution. If appropriate native plant selections and other IPM methods are used, such products shouldn't be needed. If such projects are used, o Products shall be applied in accordance with their labeling, especially in relation to application to water, and in areas subjected to flooding. o Fertilizers should not be applied within 15 days before, after, or during the rain season. • Remove debris and litter from the entire basin to minimize clogging and improve aesthetics. • Check for obvious problems and repair as needed. Address odor, insects, and overgrowth issues associated with stagnant or standing water in the basin bottom. There should be no long-term ponding water. • Check for erosion and sediment laden areas in the basin. Repair as needed. Clean forebay if needed. • Revegetate side slopes where needed.
Annually. If possible, schedule these inspections within 72 hours after a significant rainfall.	• Inspection of hydraulic and structural facilities. Examine the inlet for blockage, the embankment and spillway integrity, as well as damage to any structural element. • Check for erosion, slumping and overgrowth. Repair as needed. • Check basin depth for sediment build up and reduced total capacity. Scrape bottom as needed and remove sediment. Restore to original cross-section and infiltration rate. Replant basin vegetation. • Verify the basin bottom is allowing acceptable infiltration. Use a disc or other method to aerate basin bottom only if there is actual significant loss of infiltrative capacity, rather than on a routine basis[1]. • No water should be present 72 hours after an event. No long term standing water should be present at all. No algae formation should be visible. Correct problem as needed.

1. **CA Stormwater BMP Handbook for New Development and Significant Redevelopment**

Table 2 - Design and Sizing Criteria for Infiltration Basins

Design Parameter	Infiltration Basin
Design Volume	V_{BMP}
Forebay Volume	0.5% V_{BMP}
Drawdown time (maximum)	72 hours
Maximum tributary area	50 acres [2]
Minimum infiltration rate	Must be sufficient to drain the basin within the required Drawdown time over the life of the BMP. The WQMP may include specific requirements for minimum tested infiltration rates.
Maximum Depth	5 feet
Spillway erosion control	Energy dissipators to reduce velocities[1]
Basin Slope	0%
Freeboard (minimum)	1 foot [1]
Historic High Groundwater Setback (max)	10 feet
Bedrock/impermeable layer setback (max)	5 feet
Tree setbacks	Mature tree drip line must not overhang the basin
Set back from wells, tanks or springs	100 feet
Set back from foundations	As recommended in Geotechnical Report

1. **Ventura County's Technical Guidance Manual for Stormwater Quality Control Measures**
2. **CA Stormwater BMP Handbook for New Development and Significant Redevelopment**

Note: The information contained in this BMP Factsheet is intended to be a summary of design considerations and requirements. Additional information which applies to all detention basins may be found in the District's Basin Guidelines (Appendix C). In addition, information herein may be superseded by other guidelines issued by the co-permittee.

INFILTRATION BASIN SIZING PROCEDURE

1. Find the Design Volume, V_{BMP}.
   a) Enter the Tributary Area, $A_{T.}$
   b) Enter the Design Volume, V_{BMP}, determined from Section 2.1 of this Handbook.
2. Determine the Maximum Depth.
   a) Enter the infiltration rate. The infiltration rate shall be established as described in Appendix A: "Infiltration Testing".
   b) Enter the design Factor of Safety from Table 1 in Appendix A: "Infiltration Testing".
   c) The spreadsheet will determine D_1, the maximum allowable depth of the basin based on the infiltration rate along with the maximum drawdown time (72 hours) and the Factor of Safety.

$$D_1 = [(t) \times (I)] / 12s$$

Where I = site infiltration rate (in/hr)
s = safety factor
t = drawdown time (maximum 72 hours)

d) Enter the depth of freeboard.

e) Enter the depth to the historic high groundwater level measured from the top of the basin.

f) Enter the depth to the top of bedrock or other impermeable layer measured from the finished grade.

g) The spreadsheet will determine D_2, the total basin depth (including freeboard, if used) of the basin, based on restrictions to the depth by groundwater and an impermeable layer.

D_2 = Depth to groundwater – (10 + freeboard) (ft);

or

D_2 = Depth to impermeable layer – (5 + freeboard) (ft)

Whichever is least.

h) The spreadsheet will determine the maximum allowable effective depth of basin, D_{MAX}, based on the smallest value between D_1 and D_2. D_{MAX} is the maximum depth of water only and does not include freeboard. D_{MAX} shall not exceed 5 feet.

3. Basin Geometry

a) Enter the basin side slopes, z (no steeper than 4:1).

b) Enter the proposed basin depth, d_B excluding freeboard.

c) The spreadsheet will determine the minimum required surface area of the basin:

$$A_s = V_{BMP} / d_B$$

Where A_s = minimum area required (ft^2)
V_{BMP} = volume of the infiltration basin (ft^3)
d_B= proposed depth not to exceed maximum allowable depth, D_{MAX} (ft)

d) Enter the proposed bottom surface area. This area shall not be less than the minimum required surface area.

4. Forebay

A concrete forebay with a design volume of at least 0.5% V_{BMP} and a minimum 1 foot high concrete splashwall shall be provided. Full-height rectangular weir(s) shall be used to outlet the forebay. The weir(s) must be offset from the line of flow from the basin inlet. It is recommended that two weirs be used and that they be located on opposite sides of the forebay (see Figure 2).

a) The spreadsheet will determine the minimum required forebay volume based on 0.5% V_{BMP}.

b) Enter the proposed depth of the forebay berm/splashwall (1foot minimum).

c) The spreadsheet will determine the minimum required forebay surface area.

d) Enter the width of rectangular weir to be used (minimum 1.5 inches). Weir width should be established based on a 5 minute drawdown time.

NOAA Atlas 14, Volume 6, Version 2
Location name: Hesperia, California, USA*
Latitude: 34.4371°, Longitude: -117.3766°
Elevation: 3440.77 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.083** (0.068-0.101)	**0.118** (0.098-0.145)	**0.166** (0.136-0.203)	**0.204** (0.167-0.252)	**0.257** (0.203-0.329)	**0.299** (0.231-0.390)	**0.341** (0.257-0.456)	**0.385** (0.283-0.529)	**0.445** (0.314-0.638)	**0.493** (0.335-0.731)
10-min	**0.118** (0.098-0.145)	**0.170** (0.140-0.207)	**0.237** (0.196-0.291)	**0.293** (0.239-0.362)	**0.369** (0.292-0.471)	**0.428** (0.331-0.558)	**0.488** (0.369-0.653)	**0.552** (0.405-0.759)	**0.638** (0.449-0.915)	**0.706** (0.481-1.05)
15-min	**0.143** (0.119-0.175)	**0.205** (0.170-0.251)	**0.287** (0.236-0.352)	**0.354** (0.289-0.437)	**0.446** (0.353-0.570)	**0.517** (0.400-0.675)	**0.591** (0.446-0.790)	**0.667** (0.490-0.917)	**0.772** (0.544-1.11)	**0.854** (0.581-1.27)
30-min	**0.217** (0.180-0.265)	**0.311** (0.257-0.380)	**0.435** (0.359-0.533)	**0.537** (0.439-0.664)	**0.677** (0.535-0.865)	**0.785** (0.608-1.02)	**0.896** (0.677-1.20)	**1.01** (0.743-1.39)	**1.17** (0.824-1.68)	**1.30** (0.881-1.92)
60-min	**0.302** (0.250-0.369)	**0.433** (0.358-0.530)	**0.606** (0.499-0.743)	**0.747** (0.611-0.924)	**0.942** (0.744-1.20)	**1.09** (0.846-1.43)	**1.25** (0.942-1.67)	**1.41** (1.03-1.94)	**1.63** (1.15-2.34)	**1.80** (1.23-2.68)
2-hr	**0.434** (0.359-0.530)	**0.590** (0.488-0.722)	**0.802** (0.661-0.983)	**0.979** (0.800-1.21)	**1.23** (0.971-1.57)	**1.43** (1.11-1.86)	**1.64** (1.24-2.19)	**1.86** (1.36-2.55)	**2.17** (1.53-3.11)	**2.42** (1.64-3.58)
3-hr	**0.548** (0.453-0.669)	**0.733** (0.605-0.895)	**0.985** (0.812-1.21)	**1.20** (0.981-1.48)	**1.51** (1.19-1.92)	**1.75** (1.36-2.29)	**2.01** (1.52-2.69)	**2.29** (1.68-3.15)	**2.69** (1.89-3.85)	**3.01** (2.05-4.47)
6-hr	**0.766** (0.634-0.935)	**1.01** (0.838-1.24)	**1.36** (1.12-1.67)	**1.66** (1.35-2.05)	**2.09** (1.65-2.66)	**2.44** (1.89-3.18)	**2.81** (2.12-3.76)	**3.22** (2.37-4.43)	**3.81** (2.69-5.46)	**4.30** (2.93-6.38)
12-hr	**0.980** (0.811-1.20)	**1.34** (1.11-1.64)	**1.84** (1.51-2.25)	**2.27** (1.85-2.80)	**2.88** (2.28-3.69)	**3.39** (2.63-4.43)	**3.93** (2.97-5.26)	**4.53** (3.32-6.23)	**5.38** (3.79-7.72)	**6.09** (4.15-9.04)
24-hr	**1.34** (1.19-1.54)	**1.89** (1.68-2.18)	**2.66** (2.35-3.08)	**3.33** (2.91-3.88)	**4.28** (3.63-5.16)	**5.06** (4.20-6.22)	**5.90** (4.78-7.43)	**6.80** (5.36-8.81)	**8.11** (6.13-11.0)	**9.20** (6.72-12.8)
2-day	**1.50** (1.33-1.72)	**2.11** (1.87-2.44)	**2.98** (2.63-3.44)	**3.72** (3.26-4.34)	**4.81** (4.08-5.80)	**5.71** (4.74-7.03)	**6.69** (5.42-8.42)	**7.75** (6.10-10.0)	**9.30** (7.03-12.6)	**10.6** (7.74-14.8)
3-day	**1.60** (1.42-1.84)	**2.25** (1.99-2.60)	**3.17** (2.80-3.66)	**3.96** (3.47-4.62)	**5.13** (4.35-6.18)	**6.10** (5.06-7.50)	**7.15** (5.79-9.01)	**8.31** (6.54-10.8)	**10.00** (7.56-13.5)	**11.4** (8.34-15.9)
4-day	**1.73** (1.53-1.99)	**2.42** (2.15-2.79)	**3.40** (3.00-3.93)	**4.26** (3.73-4.96)	**5.51** (4.67-6.63)	**6.55** (5.43-8.05)	**7.67** (6.22-9.67)	**8.91** (7.02-11.5)	**10.7** (8.11-14.5)	**12.3** (8.96-17.1)
7-day	**1.92** (1.70-2.21)	**2.66** (2.36-3.07)	**3.71** (3.28-4.29)	**4.62** (4.05-5.38)	**5.95** (5.04-7.16)	**7.05** (5.85-8.66)	**8.24** (6.67-10.4)	**9.54** (7.52-12.4)	**11.4** (8.65-15.4)	**13.0** (9.53-18.2)
10-day	**2.05** (1.82-2.36)	**2.84** (2.52-3.27)	**3.94** (3.48-4.55)	**4.89** (4.28-5.70)	**6.27** (5.31-7.55)	**7.41** (6.15-9.11)	**8.64** (7.00-10.9)	**9.99** (7.87-12.9)	**12.0** (9.04-16.1)	**13.6** (9.93-19.0)
20-day	**2.49** (2.21-2.87)	**3.42** (3.03-3.94)	**4.71** (4.16-5.44)	**5.82** (5.10-6.78)	**7.43** (6.30-8.95)	**8.76** (7.27-10.8)	**10.2** (8.25-12.8)	**11.7** (9.25-15.2)	**14.0** (10.6-18.9)	**15.9** (11.6-22.2)
30-day	**2.94** (2.60-3.38)	**4.00** (3.54-4.61)	**5.48** (4.84-6.33)	**6.75** (5.91-7.87)	**8.59** (7.28-10.3)	**10.1** (8.39-12.4)	**11.7** (9.50-14.8)	**13.5** (10.6-17.5)	**16.1** (12.2-21.7)	**18.3** (13.4-25.5)
45-day	**3.48** (3.08-4.00)	**4.68** (4.14-5.39)	**6.34** (5.60-7.33)	**7.78** (6.81-9.06)	**9.85** (8.35-11.9)	**11.5** (9.59-14.2)	**13.4** (10.8-16.9)	**15.4** (12.1-20.0)	**18.3** (13.9-24.8)	**20.8** (15.2-29.1)
60-day	**3.95** (3.50-4.55)	**5.24** (4.64-6.03)	**7.01** (6.19-8.11)	**8.55** (7.48-9.96)	**10.8** (9.12-13.0)	**12.6** (10.4-15.5)	**14.6** (11.8-18.3)	**16.7** (13.2-21.7)	**19.9** (15.1-26.9)	**22.6** (16.5-31.6)

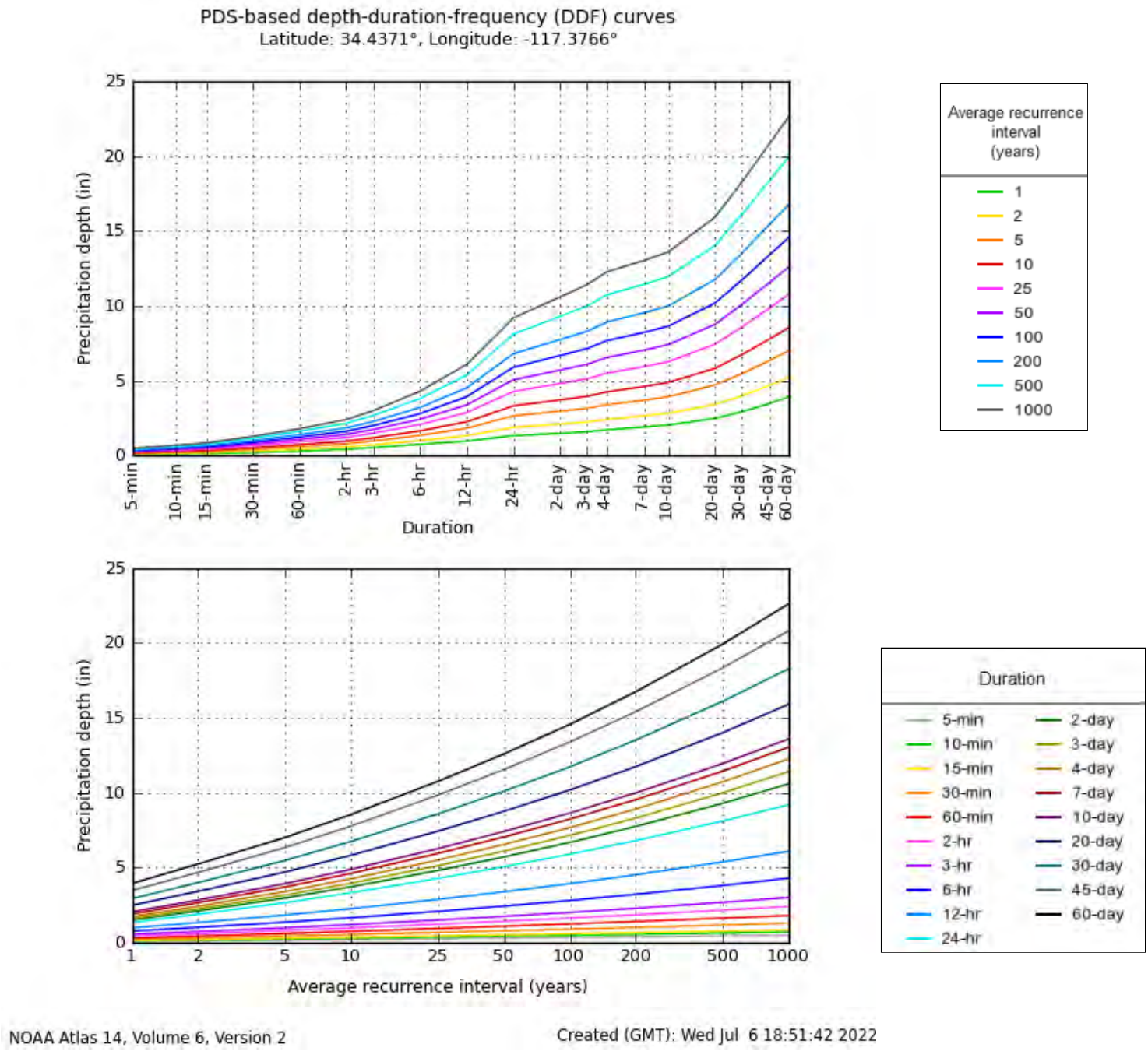
[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

Back to Top

PF graphical



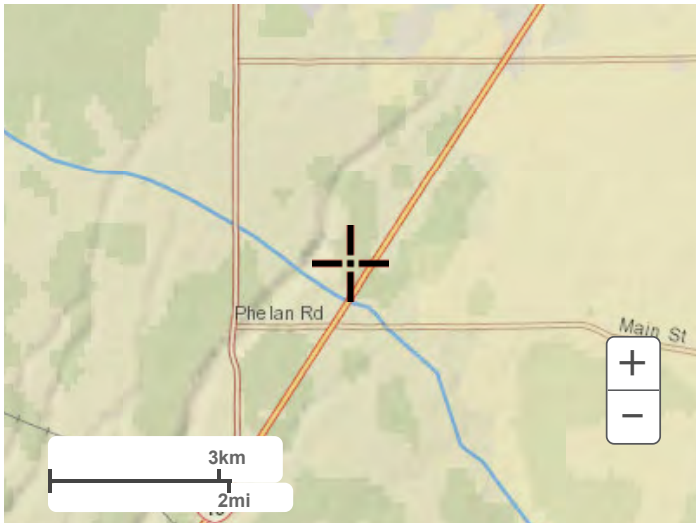
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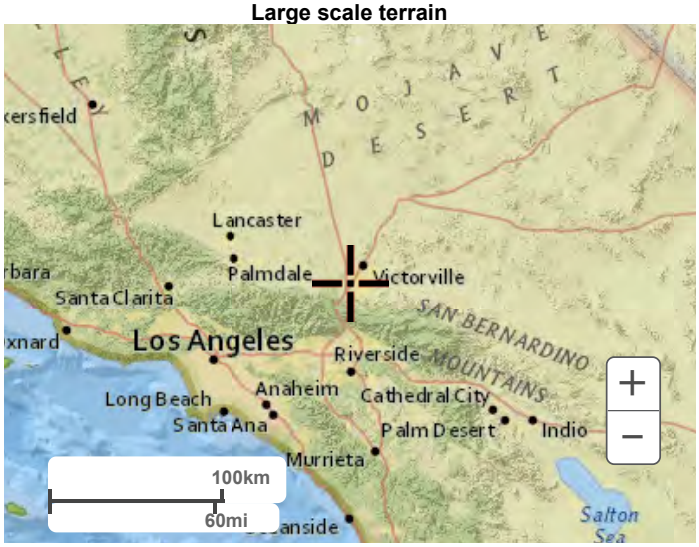
Back to Top

Maps & aerials

Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



Back to Top

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Disclaimer

APPENDIX J
Amargosa and Palmetto High-Cube Warehouse Noise Impact and Vibration Analysis

Amargosa and Palmetto High-Cube Warehouse

NOISE IMPACT AND VIBRATION ANALYSIS

CITY OF HESPERIA

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JANUARY 27, 2023

TABLE OF CONTENTS

TABLE OF CONTENTS ..... **III**
APPENDICES ..... **IV**
LIST OF EXHIBITS ..... **IV**
LIST OF TABLES ..... **V**
LIST OF ABBREVIATED TERMS ..... **VI**
EXECUTIVE SUMMARY **1**
1 INTRODUCTION **3**
1.1 Site Location 3
1.2 Project Description 3
2 FUNDAMENTALS **7**
2.1 Range of Noise 7
2.2 Noise Descriptors 8
2.3 Sound Propagation 8
2.4 Noise Control 9
2.5 Noise Barrier Attenuation 9
2.6 Land Use Compatibility With Noise 10
2.7 Community Response to Noise 10
2.8 Vibration 11
3 REGULATORY SETTING **13**
3.1 State of California Noise Requirements 13
3.2 City of Hesperia General Plan Noise Element 13
3.3 Operational Noise Standards 15
3.4 Construction Noise Standards 16
3.5 Vibration Standards 17
4 SIGNIFICANCE CRITERIA **19**
4.1 Noise Level Increases (Threshold A) 19
4.2 Vibration (Threshold B) 20
4.3 CEQA Guidelines Not Further Analyzed (Threshold C) 21
4.4 Significance Criteria Summary 21
5 EXISTING NOISE LEVEL MEASUREMENTS **23**
5.1 Measurement Procedure and Criteria 23
5.2 Noise Measurement Locations 23
5.3 Noise Measurement Results 24
6 TRAFFIC NOISE METHODS AND PROCEDURES **27**
6.1 FHWA Traffic Noise Prediction Model 27
7 OFF-SITE TRAFFIC NOISE ANALYSIS **31**
7.1 Traffic Noise Contours 31
7.3 Opening Year (2024) Traffic Noise Level Increases 33
7.4 General Plan Buildout (2040) Traffic Noise Level Increases 34
8 RECEIVER LOCATIONS **37**
9 OPERATIONAL NOISE ANALYSIS **39**

9.1 Operational Noise Sources 39
9.2 Reference Noise Levels 39
9.3 CadnaA Noise Prediction Model 43
9.4 Project Operational Noise Levels 43
9.5 Project Operational Noise Level Compliance 44
9.6 Project Operational Noise Level Increases 45
10 CONSTRUCTION ANALYSIS 47
10.1 Construction Noise Levels 47
10.2 Construction Reference Noise Levels 47
10.3 Construction Noise Analysis 49
10.4 Construction Noise Level Compliance 50
10.5 Nighttime Concrete Pour Noise Analysis 51
10.6 Construction Vibration Analysis 53
11 REFERENCES 55
12 CERTIFICATIONS 57

APPENDICES

APPENDIX 3.1: CITY OF HESPERIA MUNICIPAL CODE
APPENDIX 5.1: STUDY AREA PHOTOS
APPENDIX 5.2: NOISE LEVEL MEASUREMENT WORKSHEETS
APPENDIX 7.1: OFF-SITE TRAFFIC NOISE CONTOURS
APPENDIX 9.1: CADNAA OPERATIONAL NOISE MODEL INPUTS
APPENDIX 10.1: CADNAA CONSTRUCTION NOISE MODEL INPUTS
APPENDIX 10.2: CADNAA CONCRETE POUR NOISE MODEL INPUTS

LIST OF EXHIBITS

EXHIBIT 1-A: LOCATION MAP 4
EXHIBIT 1-B: SITE PLAN 5
EXHIBIT 2-A: TYPICAL NOISE LEVELS 7
EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION 10
EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION 12
EXHIBIT 3-A: LAND USE NOISE COMPATIBILITY CRITERIA 15
EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS 25
EXHIBIT 8-A: RECEIVER LOCATIONS 38
EXHIBIT 9-A: OPERATIONAL NOISE SOURCE LOCATIONS 40
EXHIBIT 10-A: CONSTRUCTION NOISE SOURCE LOCATIONS 48
EXHIBIT 10-B: NIGHTTIME CONCRETE POUR NOISE SOURCE AND RECEIVER LOCATIONS 52

LIST OF TABLES

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS 1
TABLE 3-1: OPERATIONAL NOISE STANDARDS 16
TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY 21
TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS 24
TABLE 6-1: OFF-SITE ROADWAY PARAMETERS 28
TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES 29
TABLE 6-3: TIME OF DAY VEHICLE SPLITS 29
TABLE 6-4: WITHOUT PROJECT VEHICLE MIX 29
TABLE 6-5: OPENING YEAR (2024) WITH PROJECT VEHICLE MIX 30
TABLE 6-6: GENERAL PLAN BUILDOUT (2040) WITH PROJECT VEHICLE MIX 30
TABLE 7-1: EXISTING WITHOUT PROJECT CONTOURS 31
TABLE 7-2: OPENING YEAR (2024) WITHOUT PROJECT CONTOURS 32
TABLE 7-3: OPENING YEAR (2024) WITH PROJECT CONTOURS 32
TABLE 7-4: GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT CONTOURS 33
TABLE 7-5: GENERAL PLAN BUILDOUT (2040) WITH PROJECT CONTOURS 33
TABLE 7-6: OPENING YEAR (2024) WITH PROJECT TRAFFIC NOISE LEVEL INCREASES 35
TABLE 7-7: GENERAL PLAN BUILDOUT (2040) WITH PROJECT TRAFFIC NOISE LEVEL INCREASES 36
TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS 41
TABLE 9-2: DAYTIME PROJECT OPERATIONAL NOISE LEVELS 44
TABLE 9-3: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS 44
TABLE 9-4: OPERATIONAL NOISE LEVEL COMPLIANCE 45
TABLE 9-5: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES 46
TABLE 9-6: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES 46
TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS 49
TABLE 10-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY 50
TABLE 10-3: CONSTRUCTION NOISE LEVEL COMPLIANCE 50
TABLE 10-4: NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE 53
TABLE 10-5: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT 54
TABLE 10-6: PROJECT CONSTRUCTION VIBRATION LEVELS 54

LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
INCE	Institute of Noise Control Engineering
L_{eq}	Equivalent continuous (average) sound level
L_{max}	Maximum level measured over the time interval
L_{min}	Minimum level measured over the time interval
mph	Miles per hour
OPR	Office of Planning and Research
PPV	Peak particle velocity
Project	Amargosa and Palmetto High-Cube Warehouse
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels

EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the potential noise impacts and the necessary noise mitigation measures, if any, for the proposed Amargosa and Palmetto High-Cube Warehouse development ("Project"). The proposed Project is to consist of 499,850 square high-cube fulfillment center warehouse building in a single building. This study has been prepared to satisfy applicable City of Hesperia standards and thresholds of significance based on guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines (1).

The results of this Amargosa and Palmetto High-Cube Warehouse Noise Impact and Vibration Analysis are summarized below based on the significance criteria in Section 4 of this report. Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA before and after any required mitigation measures.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Off-Site Traffic Noise	7	*Less Than Significant*	-
Operational Noise	9	*Less Than Significant*	-
Construction Noise	10	*Less Than Significant*	-
Nighttime Concrete Pour Noise		*Less Than Significant*	-
Construction Vibration		*Less Than Significant*	-

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1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Amargosa and Palmetto High-Cube Warehouse ("Project"). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, sets out the local regulatory setting, presents the study methods and procedures for transportation related CNEL traffic noise analysis, and evaluates the future exterior noise environment. In addition, this study includes an analysis of the potential Project-related long-term stationary-source operational noise and short-term construction noise and vibration impacts.

1.1 SITE LOCATION

The proposed project is located on the northwest corner of Amargosa Road and Palmetto Way in the City of Hesperia as shown on Exhibit 1-A.

1.2 PROJECT DESCRIPTION

The proposed Project is to consist of 499,850 square high-cube fulfillment center warehouse building as shown on Exhibit 1-B. the proposed project is anticipated to be constructed and fully operational by year 2024.

The on-site Project-related noise sources are expected to include: loading dock activity, trailer parking activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements. This noise analysis is intended to describe noise level impacts associated with the expected typical operational activities at the Project site.

EXHIBIT 1-A: LOCATION MAP

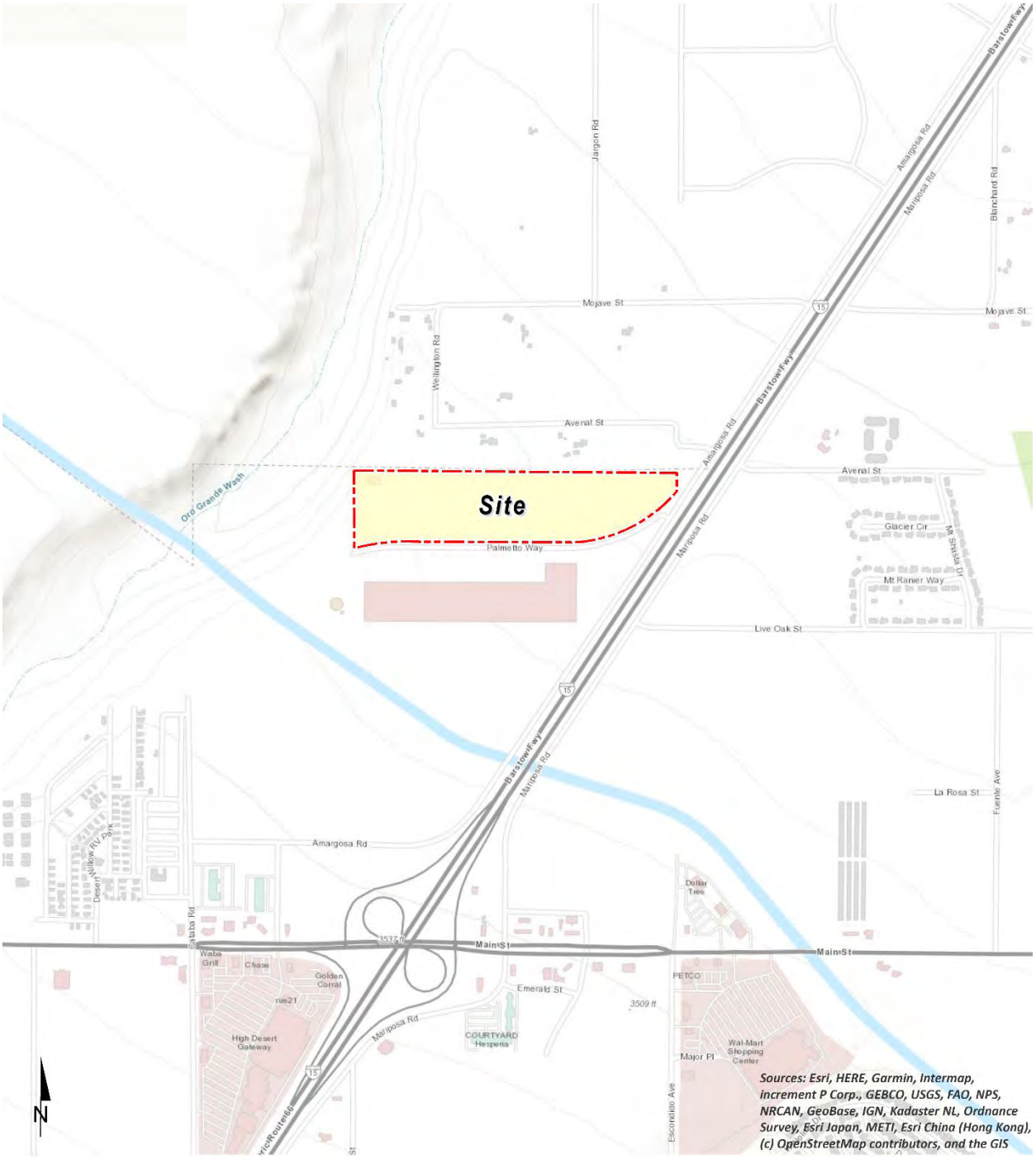
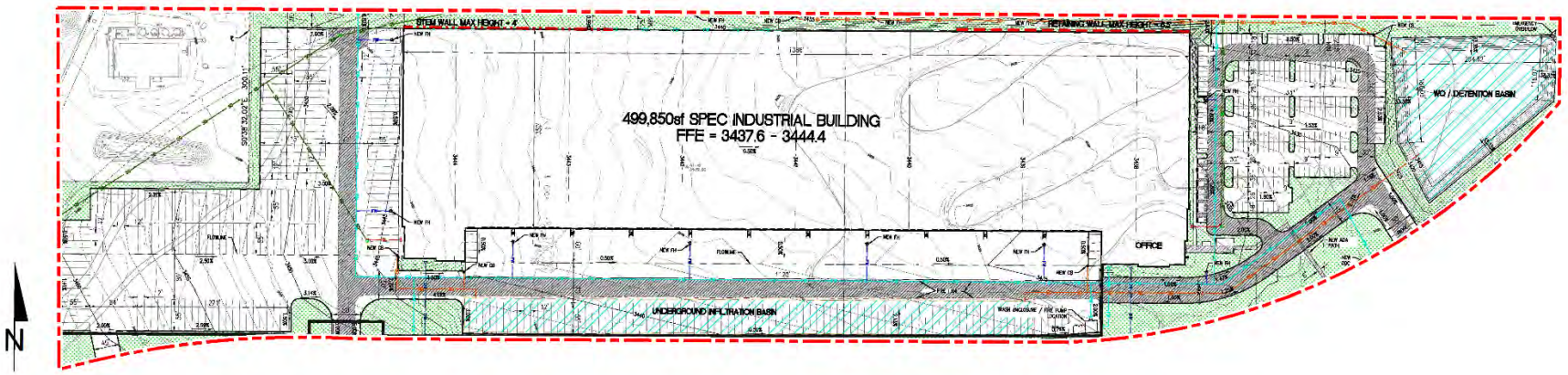


EXHIBIT 1-B: SITE PLAN



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2 FUNDAMENTALS

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. (2) The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

at approximately 1,000 feet, which can cause serious discomfort. (3) Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used metric is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the "average" noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when noise can become more intrusive. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Hesperia relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors.

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source. (2)

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually

sufficiently accurate for distances of less than 200 ft. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source. (4)

2.3.3 ATMOSPHERIC EFFECTS

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects. (2)

2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of-sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The Federal Highway Administration (FHWA) does not consider the planting of vegetation to be a noise abatement measure. (5)

2.4 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements.

2.5 NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must block the line-of-sight path of sound from the noise source.

2.6 LAND USE COMPATIBILITY WITH NOISE

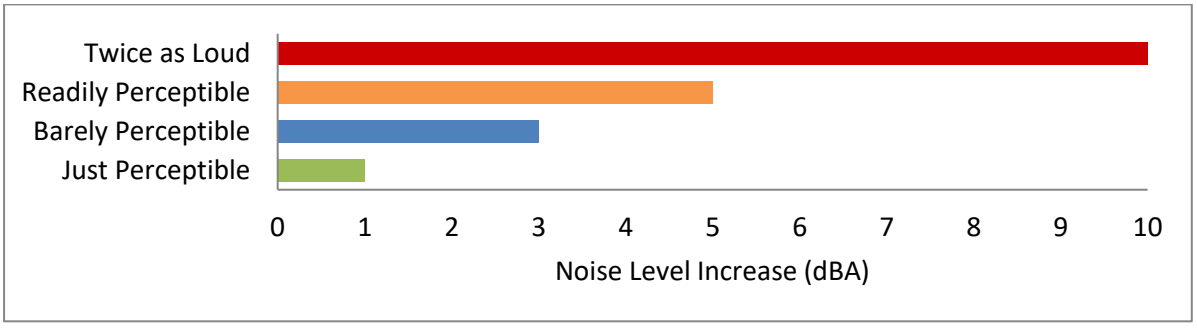
Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized. (6)

2.7 COMMUNITY RESPONSE TO NOISE

Approximately sixteen percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints may occur. Twenty to thirty percent of the population will not complain even in very severe noise environments. (7 pp. 8-6) Thus, a variety of reactions can be expected from people exposed to any given noise environment.

Surveys have shown that community response to noise varies from no reaction to vigorous action for newly introduced noises averaging from 10 dB below existing to 25 dB above existing. (8) According to research originally published in the Noise Effects Handbook (7), the percentage of high annoyance ranges from approximately 0 percent at 45 dB or less, 10 percent are highly annoyed around 60 dB, and increases rapidly to approximately 70 percent being highly annoyed at approximately 85 dB or greater. Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. A change of 3 dBA is considered barely perceptible, and changes of 5 dBA are considered readily perceptible. (4)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION



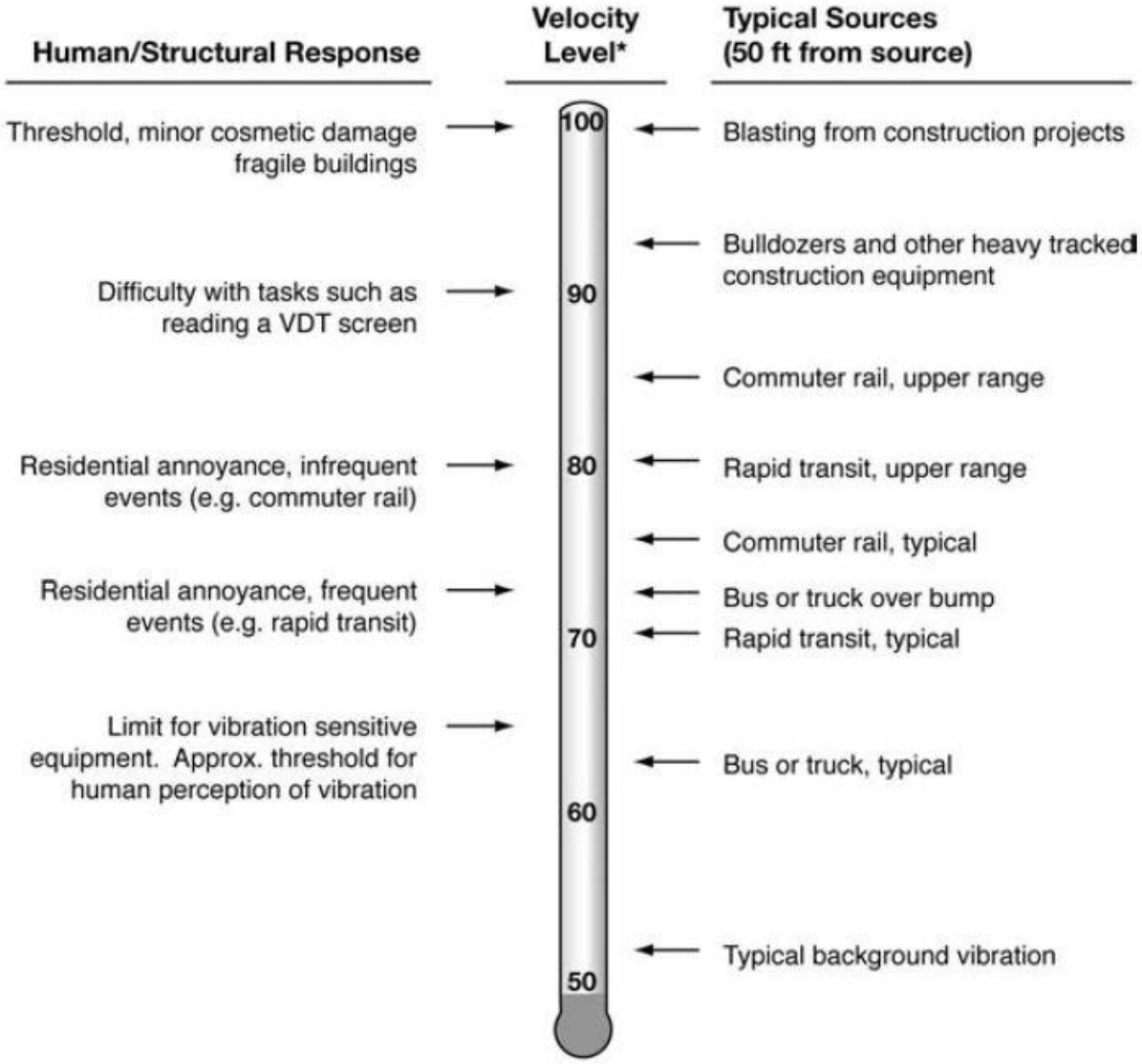
2.8 VIBRATION

Per the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Impact Assessment Manual* (8) , vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings but is not always suitable for evaluating human response (annoyance) because it takes some time for the human body to respond to vibration signals. Instead, the human body responds to average vibration amplitude often described as the root mean square (RMS). The RMS amplitude is defined as the average of the squared amplitude of the signal and is most frequently used to describe the effect of vibration on the human body. Decibel notation (VdB) is commonly used to measure RMS. Decibel notation (VdB) serves to reduce the range of numbers used to describe human response to vibration. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment and/or activities.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB, which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



** RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second*

Source: Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual.

3 REGULATORY SETTING

The federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research (OPR). (9) The purpose of the Noise Element is to *limit the exposure of the community to excessive noise levels*. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

3.2 CITY OF HESPERIA GENERAL PLAN NOISE ELEMENT

The City of Hesperia has adopted a Noise Element of the General Plan (10) to control and abate environmental noise, and to protect the citizens of the City of Hesperia from excessive exposure to noise. The General Plan Noise Element specifies the maximum allowable unmitigated exterior noise levels for new developments impacted by transportation noise sources such as arterial roads, freeways, airports, and railroads. In addition, the City of Hesperia General Plan Noise Element identifies several goals and policies to minimize the impacts of excessive noise levels throughout the community and establishes noise level requirements for all land uses. To limit the exposure of City residents to excessive noise, the City of Hesperia General Plan Noise Element contains the following two goals:

NS-1 *To achieve and maintain an environment which is free from excessive or harmful noise through identification, control, and abatement.*

NS-2 *To achieve and maintain an environment which is free from excessive vibration.*

To satisfy these two overarching goals, the General Plan Noise Element identifies the following implementation policies to reduce noise levels associated with the development of the Project.

NS-1.2 *Control and abate undesirable sounds through the use of the land use compatibility criteria shown in Exhibit NS-1, Table NS-3, and the Municipal Code Section 16.20.125(B).*

NS-1.5 Require the design and construction of commercial, industrial, office and mixed-use structures developments with noise attenuation methods to minimize excessive noise upon noise-sensitive land uses.

NS-1.9 Encourage commercial, industrial, office and mixed-use developments to locate loading areas, parking lots, driveways, trash enclosures, mechanical equipment, and other noisier components away from noise-sensitive land uses.

NS-1.10 Limit the hours of construction activity in, and around, residential areas in order to reduce the intrusion of noise in the early morning and late evening hours and on weekends and holidays.

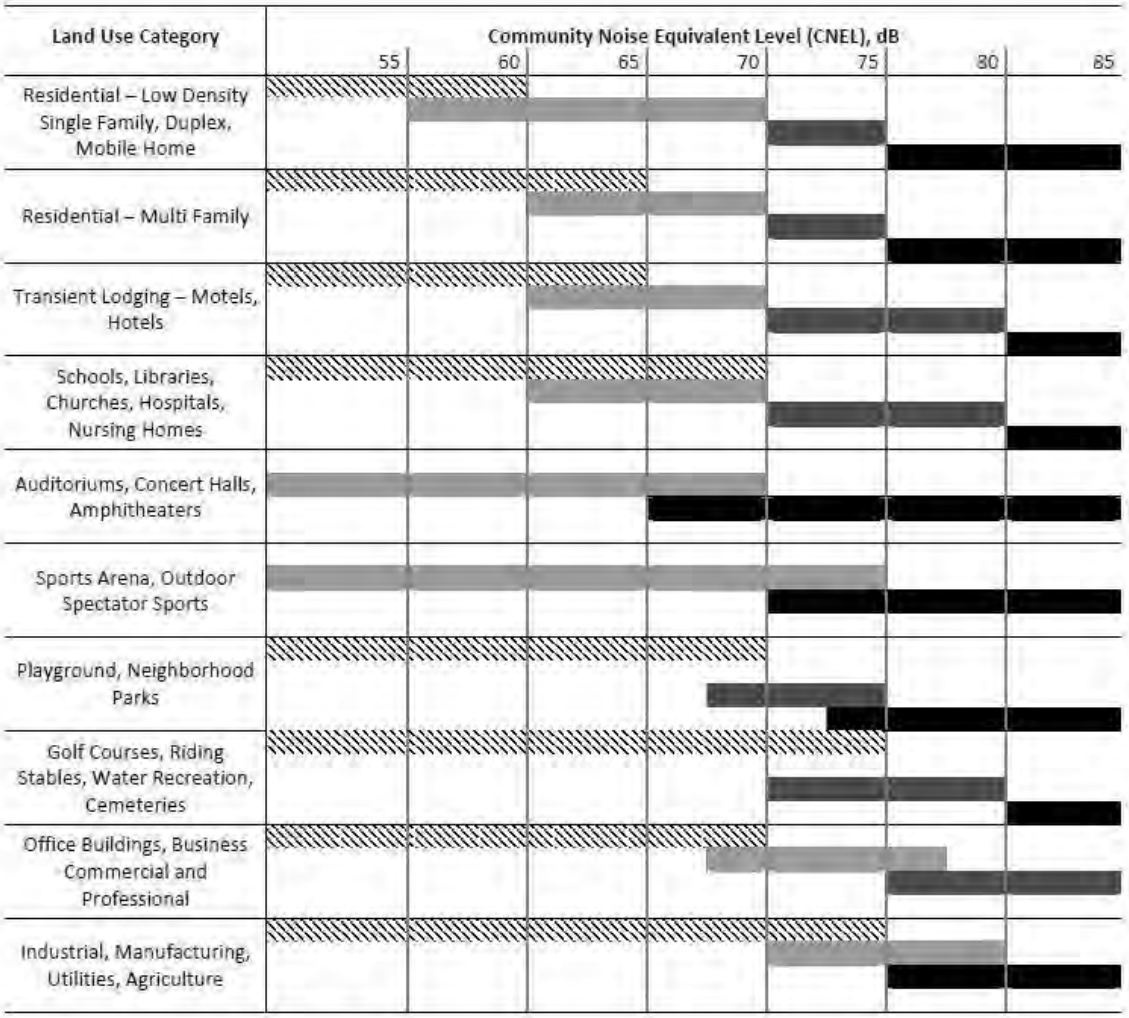
NS-1.11 Limit delivery hours for businesses with loading areas or docks fronting, siding, or bordering or gaining access on driveways adjacent to noise-sensitive areas.

NS-1.12 Implement nighttime and daytime on-site noise level limits to address noise generated by commercial and industrial uses where it affects abutting residential and other noise-sensitive land uses.

The State of California Land Use Compatibility Plan (Exhibit NS-1) in the City of Hesperia General Plan Noise Element lists land use categories and the acceptable and unacceptable levels of community noise exposure. The compatibility criteria shown on Table NS-1 (and Exhibit 3-A of this report) provides the City with a planning tool to gauge the compatibility of land uses relative to existing and future exterior noise levels.

The State of California Land Use Compatibility Plan describes categories of compatibility, but not specific noise standards. According to these categories of transportation-related noise compatibility, the Amargosa and Palmetto High-Cube Warehouse industrial land uses are considered *normally acceptable* with unmitigated exterior noise levels below 75 dBA CNEL and *conditionally acceptable* with noise levels between 70 and 80 dBA CNEL. For *conditionally acceptable* land use, *"new construction or development should be undertaken only after a detailed analysis of noise reduction requirements are made* (10).

EXHIBIT 3-A: LAND USE NOISE COMPATIBILITY CRITERIA



Source: State of California General Plan Guidelines (2003)

3.3 OPERATIONAL NOISE STANDARDS

To analyze noise impacts originating from a designated fixed location or private property such as the Amargosa and Palmetto High-Cube Warehouse, stationary-source (operational) noise such as the expected loading dock activity, trailer parking activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements are typically evaluated against standards established under a jurisdiction's Municipal Code.

Section 16.20.125 of the City of Hesperia Municipal Code included in Appendix 3.1, establishes the noise level standards for stationary noise sources and establishes noise level limits for affected land uses. Since the Project land use will potentially impact a combination of non-noise-sensitive and noise sensitive uses in the Project study area, this noise study relies on the exterior noise level standards for all land uses identified by the City of Hesperia Municipal Code.

For non-noise sensitive industrial uses, the maximum exterior noise level shall not exceed 70 dBA L_{eq} at any time, while the maximum exterior noise level exterior noise levels at non-noise sensitive commercial uses shall not exceed 65 dBA L_{eq} at any time. For noise sensitive residential properties, the maximum exterior noise level shall not exceed 60 dBA L_{eq} during the daytime hours (7:00 a.m. to 10:00 p.m.) and 50 dBA L_{eq} during the nighttime hours (10:00 p.m. to 7:00 a.m.). (11) In addition, except for the nighttime hours from 10:00 p.m. to 7:00 a.m.) the maximum permissible noise levels due to wind noise may be adjusted so that it is no greater than five dB(A) above the ambient noise level. The Municipal Code operational noise level standards are summarized on Table 3-1.

TABLE 3-1: OPERATIONAL NOISE STANDARDS

Jurisdiction	Receiving Land Use	Time Period	Exterior Noise Level Standard (dBA L_{eq})[2]
City of Hesperia[1]	A-1, A-2, R-1, R-3, and RR Zone Districts	Daytime (7:00 a.m. - 10:00 p.m.)	60
		Nighttime (10:00 p.m. - 7:00 a.m.)	55
	C-1, C-2, C-3, C-4, C-R, AP, and P-I Zone Districts	Anytime	65
	I-1 and I-2 Zone	Anytime	70

[1] City of Hesperia Municipal Code, Section 16.20.125 (Appendix 3.1).
[2] L_{eq} represents a steady state sound level containing the same total energy as a time varying signal over a given sample period.

3.4 CONSTRUCTION NOISE STANDARDS

The City of Hesperia Municipal Code, Section 16.20.125.E.3 exempts construction noise from its stationary-source noise level limits between seven a.m. and seven p.m. and at any time on Sundays and federal holidays. (11) In addition, neither the City of Hesperia General Plan or Municipal Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below.

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for

construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold for noise sensitive residential land use (8 p. 179).

3.5 VIBRATION STANDARDS

The City of Hesperia Municipal Code, Section 16.20.130, identifies an operational vibration level threshold of 0.2 in/sec PPV which is used in this report to evaluate potential impacts due to on-site Project related operational vibration level activities at nearby receiver locations. (11) According to Section 16.20.130.C.2, temporary construction, maintenance, or demolition activities are considered exempt provided that construction vibration activity is limited the hours between seven a.m. and seven p.m. including Sundays and federal holidays.

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4 SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1) For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

A. 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?

B. Generation of excessive ground-borne vibration or ground-borne 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?

4.1 NOISE LEVEL INCREASES (THRESHOLD A)

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines. Under CEQA, consideration must be given to the magnitude of the increase, the existing baseline ambient noise levels, and the location of receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes *that there is no single noise increase that renders the noise impact significant.* (12) This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged.

4.1.1 NOISE-SENSITIVE RECEIVERS

The Federal Interagency Committee on Noise (FICON) (13) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (L_{eq}).

As previously stated, the approach used in this noise study recognizes *that there is no single noise increase that renders the noise impact significant*, based on a 2008 California Court of Appeal ruling on Gray v. County of Madera. (12) For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for this analysis, a *readily perceptible* 5 dBA or greater project-related noise level increase is considered a significant impact when the without project noise levels are below 60 dBA. Per the FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA *barely perceptible* noise level increase appears to be

appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance. The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in baseline ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project (baseline) noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or *readily perceptible*, 3 dBA or *barely perceptible*, and 1.5 dBA depending on the underlying without Project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance are consistent with guidance provided by both the Federal Highway Administration (4 p. 9) and Caltrans (14 p. 2_48).

4.1.2 NON-NOISE-SENSITIVE RECEIVERS

The City of Hesperia General Plan Noise Element, Exhibit NS-1, *Land Use Compatibility Criteria* was used to establish the satisfactory noise levels of significance for non-noise-sensitive land uses in the Project study area. As previously shown on Exhibit 3-A, the *normally acceptable* exterior noise level for non-noise-sensitive land uses is 75 dBA CNEL. Noise levels greater than 70 dBA CNEL are considered *conditionally acceptable* per the *Land Use Compatibility for Community Noise Exposure*. (10) To determine if Project-related traffic noise level increases are significant at off-site non-noise-sensitive land uses, a *barely perceptible* 3 dBA criteria is used. When the without Project noise levels are greater than the *normally acceptable* 75 dBA CNEL land use compatibility criteria, a *barely perceptible* 3 dBA or greater noise level increase is considered a significant impact since the noise level criteria is already exceeded. The noise level increases used to determine significant impacts for non-noise-sensitive land uses is generally consistent with the FICON noise level increase thresholds for noise-sensitive land uses but instead rely on the City of Hesperia General Plan Noise Element, Table N-1, *Land Use Compatibility for Community Noise Exposure normally acceptable* 70 dBA CNEL exterior noise level criteria.

4.2 VIBRATION (THRESHOLD B)

As described in Section 3.5, the vibration impacts originating from the construction of the Amargosa and Palmetto High-Cube Warehouse, vibration-generating activities are appropriately evaluated using the City of Hesperia threshold to assess potential temporary construction-related impacts at nearby receiver locations. The City of Hesperia Municipal Code identifies an operational vibration level threshold of 0.2 in/sec PPV.

4.3 CEQA GUIDELINES NOT FURTHER ANALYZED (THRESHOLD C)

CEQA Noise Threshold C applies when there are nearby public and private airports and/or air strips and focuses on land use compatibility of the Project to nearby airports and airstrips. The Project site is not located within two miles of an airport or airstrip. The closest airport is the Hesperia Airport located roughly 5.5 miles southeast of the Project site. As such, the Project site would not be exposed to excessive noise levels from airport operations, and therefore, impacts are considered *less than significant,* and no further noise analysis is conducted in relation to Appendix G to the CEQA Guidelines, Noise Threshold C.

4.4 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed Project. Table 4-1 shows the significance criteria summary matrix that includes the allowable criteria used to identify potentially significant incremental noise level increases.

TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site Traffic	Noise-Sensitive[1]	If ambient is < 60 dBA Leq	≥ 5 dBA L_{eq} Project increase	
		If ambient is 60 - 65 dBA Leq	≥ 3 dBA L_{eq} Project increase	
		If ambient is > 65 dBA Leq	≥ 1.5 dBA L_{eq} Project increase	
	Non-Noise-Sensitive[2]	if ambient is > 75 dBA CNEL	≥ 3 dBA CNEL Project increase	
Operational	Multiple	Exterior Noise Level Standards	See Table 3-1.	
	Noise-Sensitive[1]	If ambient is < 60 dBA Leq	≥ 5 dBA L_{eq} Project increase	
		If ambient is 60 - 65 dBA Leq	≥ 3 dBA L_{eq} Project increase	
		If ambient is > 65 dBA Leq	≥ 1.5 dBA L_{eq} Project increase	
		Vibration Level Threshold[3]	0.2 in/sec PPV	
Construction	All	Permitted hours of 7:00 a.m. to7:00 p.m. except Sunday or a federal holiday[4]		
		Noise Level Threshold[5]	80 dBA L_{eq}	n/a
		Vibration Level Threshold[3]	0.2 in/sec PPV	n/a

[1] FICON, 1992.
[2] City of Hesperia General Plan Noise Element Exhibit NS-1 Land Use Compatibility Criteria.
[3] City of Hesperia Municipal Code, Section 16.20.130.A (Appendix 3.1).
[4] City of Hesperia Municipal Code, Section 16.20.125.E.3 (Appendix 3.1).
[5] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "PPV" = peak particle velocity.

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5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at five locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Tuesday, June 21th, 2022. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the equivalent daytime and nighttime hourly noise levels. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (15)

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources*. (2) Further, FTA guidance states, t*hat it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community*. (8)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (8) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after Project noise levels

and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the average or equivalent sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location.

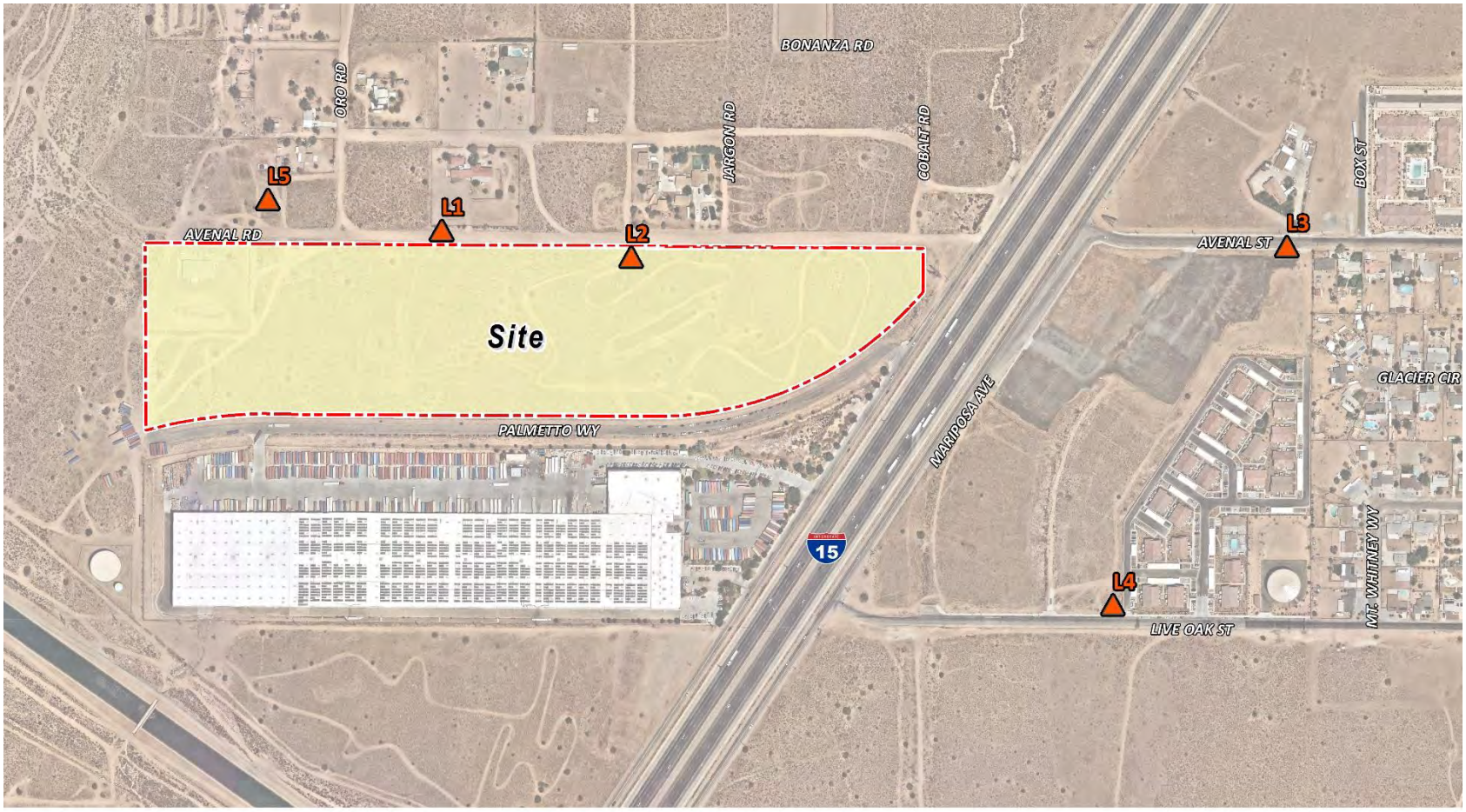
TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

Location[1]	Description	Energy Average Noise Level (dBA L_{eq})[2]	
		Daytime	Nighttime
L1	Located north of the Project Site near the existing noise sensitive residence at 13030 Avenal Street.	61.0	58.2
L2	Located south of the existing noise sensitive residence at 13164 Avenal Road with the Project Site.	55.6	55.2
L3	Located east of the Project site near the existing noise sensitive residence at 10445 Avenal Street.	58.6	58.4
L4	Located southeast of the Project site near the existing noise sensitive residence at 10122 Mt. Whitney Way.	62.7	61.7
L5	Located south of the existing noise sensitive residence at 10376 Wellington Road.	52.3	51.5

[1] See Exhibit 5-A for the noise level measurement locations.
[2] Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Table 5-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L_1, L_2, L_5, L_8, L_{25}, L_{50}, L_{90}, L_{95}, and L_{99} percentile noise levels observed during the daytime and nighttime periods.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS



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6 TRAFFIC NOISE METHODS AND PROCEDURES

The following section outlines the methods and procedures used to estimate and analyze the future traffic noise environment. Consistent with the State of California Land Use Compatibility Plan (see Exhibit 3-A), all transportation related noise levels are presented in terms of the 24-hour CNEL's.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (16) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (17) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (18)

6.1.1 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 6-1 identifies the seven off-site study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Hesperia General Plan Circulation Element, and the posted vehicle speeds. The ADT volumes used in this study area presented on Table 6-2 are based on *Amargosa and Palmetto High-Cube Warehouse Traffic Impact Analysis*, prepared by the Ganddini Group, Inc.. (19)

- Existing Conditions
- Opening Year (2024) Without Project Conditions (OYC).
- Opening Year (2024) With Project Conditions (OYCP).
- General Plan Buildout (2040) Without Project Conditions (HY).
- General Plan Buildout (2040) With Project Conditions (HYP).

The ADT volumes vary for each roadway segment based on the existing traffic volumes and the combination of project traffic distributions. This analysis relies on a comparative evaluation of the off-site traffic noise impacts at the boundary of the right-of-way of the receiving adjacent land use, without and with project ADT traffic volumes from the Project traffic study.

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Classification[1]	Receiving Land Use[2]	Distance from Centerline to Receiving Land Use (Feet)[3]	Vehicle Speed (mph)
1	Key Pointe Dr.	s/o Amargosa Rd.	Secondary	Non-Sensitive	40'	45
2	Amargosa Rd.	n/o Palmetto Wy.	Arterial	Sensitive	50'	50
3	Amargosa Rd.	w/o Key Pointe Dr.	Arterial	Sensitive	50'	50
4	Amargosa Rd.	e/o Key Pointe Dr.	Arterial	Non-Sensitive	50'	50
5	Main St.	w/o Key Pointe Dr.	Major Arterial	Sensitive	60'	55
6	Main St.	e/o Key Pointe Dr.	Major Arterial	Non-Sensitive	60'	55
7	Main St.	e/o I-15 NB Ramps	Major Arterial	Non-Sensitive	60'	55

[1] City of Hesperia General Plan Circulation Element.
[2] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[3] Distance to receiving land use is based upon the right-of-way distances.

To quantify the off-site noise levels, the Project related truck trips were added to the heavy truck category in the FHWA noise prediction model. The addition of the Project related truck trips increases the percentage of heavy trucks in the vehicle mix. This approach recognizes that the FHWA noise prediction model is significantly influenced by the number of heavy trucks in the vehicle mix.

Table 6-3 provides the time of day (daytime, evening, and nighttime) vehicle splits. The daily Project truck trip-ends were assigned to the individual off-site study area roadway segments based on the Project truck trip distribution percentages documented in the *Amargosa and Palmetto High-Cube Warehouse Traffic Analysis*. Using the Project truck trips in combination with the Project trip distribution, Urban Crossroads, Inc. calculated the number of additional Project truck trips and vehicle mix percentages for each of the study area roadway segments. Table 6-4 shows the traffic flow by vehicle type (vehicle mix) used for all without Project traffic scenarios, and Tables 6-5 to 6-6 show the vehicle mixes used for the with Project traffic scenarios.

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Average Daily Traffic Volumes[1]				
			Existing	OY 2024		GP 2040	
				Without Project	With Project	Without Project	With Project
1	Key Pointe Dr.	s/o Amargosa Rd.	430	1,000	1,692	4,700	5,392
2	Amargosa Rd.	n/o Palmetto Wy.	8,610	9,130	9,328	13,110	13,308
3	Amargosa Rd.	w/o Key Pointe Dr.	6,530	7,380	7,396	11,280	11,296
4	Amargosa Rd.	e/o Key Pointe Dr.	6,340	6,620	7,328	7,360	8,068
5	Main St.	w/o Key Pointe Dr.	20,470	39,240	39,264	41,730	41,754
6	Main St.	e/o Key Pointe Dr.	11,910	29,510	30,178	27,250	27,918
7	Main St.	e/o I-15 NB Ramps	41,530	46,730	46,967	51,280	51,517

[1] Amargosa and Palmetto High-Cube Warehouse Traffic Impact Analysis, Ganddini Group, Inc.

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Vehicle Type	Time of Day Splits[1]			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	77.50%	12.90%	9.60%	100.00%
Medium Trucks	84.80%	4.90%	10.30%	100.00%
Heavy Trucks	86.50%	2.70%	10.80%	100.00%

[1] Typical Southern California vehicle mix. Values rounded to the nearest one-hundredth.
"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

TABLE 6-4: WITHOUT PROJECT VEHICLE MIX

Classification	Total % Traffic Flow			Total
	Autos	Medium Trucks	Heavy Trucks	
All Segments	93.94%	1.74%	4.32%	100.00%

Based on an existing vehicle count taken at US Highway 395 and Phelan Road/Main Street (Hesperia Industrial Center Traffic Analysis, Urban Crossroads, Inc.). Vehicle mix percentage values rounded to the nearest one-hundredth.

Due to the added Project truck trips, the increase in Project traffic volumes and the distributions of trucks on the study area road segments, the percentage of autos, medium trucks and heavy trucks will vary for each of the traffic scenarios. This explains why the existing and future traffic volumes and vehicle mixes vary between seemingly identical study area roadway segments.

TABLE 6-5: OPENING YEAR (2024) WITH PROJECT VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Key Pointe Dr.	s/o Amargosa Rd.	89.62%	2.18%	8.20%	100.00%
2	Amargosa Rd.	n/o Palmetto Wy.	94.07%	1.70%	4.23%	100.00%
3	Amargosa Rd.	w/o Key Pointe Dr.	93.95%	1.73%	4.31%	100.00%
4	Amargosa Rd.	e/o Key Pointe Dr.	92.95%	1.84%	5.21%	100.00%
5	Main St.	w/o Key Pointe Dr.	93.94%	1.74%	4.32%	100.00%
6	Main St.	e/o Key Pointe Dr.	93.69%	1.76%	4.54%	100.00%
7	Main St.	e/o I-15 NB Ramps	93.97%	1.73%	4.30%	100.00%

[1] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

TABLE 6-6: GENERAL PLAN BUILDOUT (2040) WITH PROJECT VEHICLE MIX

ID	Roadway	Segment	With Project[1]			
			Autos	Medium Trucks	Heavy Trucks	Total[2]
1	Key Pointe Dr.	s/o Amargosa Rd.	92.58%	1.88%	5.54%	100.00%
2	Amargosa Rd.	n/o Palmetto Wy.	94.03%	1.71%	4.26%	100.00%
3	Amargosa Rd.	w/o Key Pointe Dr.	93.95%	1.74%	4.32%	100.00%
4	Amargosa Rd.	e/o Key Pointe Dr.	93.04%	1.83%	5.13%	100.00%
5	Main St.	w/o Key Pointe Dr.	93.94%	1.74%	4.32%	100.00%
6	Main St.	e/o Key Pointe Dr.	93.67%	1.77%	4.56%	100.00%
7	Main St.	e/o I-15 NB Ramps	93.97%	1.73%	4.30%	100.00%

[1] Total of vehicle mix percentage values rounded to the nearest one-hundredth.

7 OFF-SITE TRAFFIC NOISE ANALYSIS

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed Project, noise contours were developed based on the *Amargosa and Palmetto High-Cube Warehouse Traffic Impact Analysis* prepared by the Ganddini Group, Inc. (19) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

7.1 TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Tables 7-1 to 7-5 present a summary of the exterior traffic noise levels for each traffic condition. Appendix 7.1 includes the traffic noise level contours worksheets for each traffic condition.

TABLE 7-1: EXISTING WITHOUT PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Key Pointe Dr.	s/o Amargosa Rd.	Non-Sensitive	57.2	RW	RW	RW
2	Amargosa Rd.	n/o Palmetto Wy.	Sensitive	70.2	52	112	241
3	Amargosa Rd.	w/o Key Pointe Dr.	Sensitive	69.0	RW	93	200
4	Amargosa Rd.	e/o Key Pointe Dr.	Non-Sensitive	68.9	RW	91	197
5	Main St.	w/o Key Pointe Dr.	Sensitive	74.6	122	262	565
6	Main St.	e/o Key Pointe Dr.	Non-Sensitive	72.3	85	183	394
7	Main St.	e/o I-15 NB Ramps	Non-Sensitive	77.7	195	420	906

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-2: OPENING YEAR (2024) WITHOUT PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Key Pointe Dr.	s/o Amargosa Rd.	Non-Sensitive	60.9	RW	RW	46
2	Amargosa Rd.	n/o Palmetto Wy.	Sensitive	70.5	54	116	251
3	Amargosa Rd.	w/o Key Pointe Dr.	Sensitive	69.6	RW	101	217
4	Amargosa Rd.	e/o Key Pointe Dr.	Non-Sensitive	69.1	RW	94	202
5	Main St.	w/o Key Pointe Dr.	Sensitive	77.4	188	405	872
6	Main St.	e/o Key Pointe Dr.	Non-Sensitive	76.2	155	335	721
7	Main St.	e/o Key Pointe Dr.	Non-Sensitive	78.2	211	455	980

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-3: OPENING YEAR (2024) WITH PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Key Pointe Dr.	s/o Amargosa Rd.	Non-Sensitive	65.0	RW	40	86
2	Amargosa Rd.	n/o Palmetto Wy.	Sensitive	70.5	54	117	252
3	Amargosa Rd.	w/o Key Pointe Dr.	Sensitive	69.6	RW	101	218
4	Amargosa Rd.	e/o Key Pointe Dr.	Non-Sensitive	70.0	50	108	232
5	Main St.	w/o Key Pointe Dr.	Sensitive	77.4	188	405	872
6	Main St.	e/o Key Pointe Dr.	Non-Sensitive	76.4	160	346	745
7	Main St.	e/o Key Pointe Dr.	Non-Sensitive	78.2	211	455	981

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-4: GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Key Pointe Dr.	s/o Amargosa Rd.	Non-Sensitive	67.6	RW	60	129
2	Amargosa Rd.	n/o Palmetto Wy.	Sensitive	72.1	69	148	319
3	Amargosa Rd.	w/o Key Pointe Dr.	Sensitive	71.4	62	134	289
4	Amargosa Rd.	e/o Key Pointe Dr.	Non-Sensitive	69.6	RW	101	217
5	Main St.	w/o Key Pointe Dr.	Sensitive	77.7	196	422	909
6	Main St.	e/o Key Pointe Dr.	Non-Sensitive	75.9	147	317	684
7	Main St.	e/o Key Pointe Dr.	Non-Sensitive	78.6	225	484	1043

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-5: GENERAL PLAN BUILDOUT (2040) WITH PROJECT CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Key Pointe Dr.	s/o Amargosa Rd.	Non-Sensitive	68.9	RW	72	156
2	Amargosa Rd.	n/o Palmetto Wy.	Sensitive	72.1	69	149	320
3	Amargosa Rd.	w/o Key Pointe Dr.	Sensitive	71.4	62	134	289
4	Amargosa Rd.	e/o Key Pointe Dr.	Non-Sensitive	70.4	53	114	246
5	Main St.	w/o Key Pointe Dr.	Sensitive	77.7	196	422	909
6	Main St.	e/o Key Pointe Dr.	Non-Sensitive	76.1	153	329	708
7	Main St.	e/o Key Pointe Dr.	Non-Sensitive	78.6	225	485	1044

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

7.3 OPENING YEAR (2024) TRAFFIC NOISE LEVEL INCREASES

Table 7-2 presents the Opening Year (2024) without Project conditions CNEL noise levels. The Opening Year (2024) without Project exterior noise levels range from 60.9 to 78.2 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-3 shows that the Opening Year (2024) with Project conditions will range from 65.0 to 78.2 dBA CNEL. Table 7-6 shows that the Project off-site traffic noise level increases range from 0.0 to 4.1 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to the Project-related traffic.

7.4 GENERAL PLAN BUILDOUT (2040) TRAFFIC NOISE LEVEL INCREASES

Table 7-4 presents the General Plan Buildout (2040) without Project conditions CNEL noise levels. The General Plan Buildout (2040) without Project exterior noise levels range from 67.6 to 78.6 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-5 shows that the General Plan Buildout (2040) with Project conditions will range from 77.1 to 80.5 dBA CNEL. Table 7-7 shows that the Project off-site traffic noise level increases range from 0.0 to 1.3 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to the Project-related traffic.

TABLE 7-6: OPENING YEAR (2024) WITH PROJECT TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]			Incremental Noise Level Increase Threshold[2]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Key Pointe Dr.	s/o Amargosa Rd.	Non-Sensitive	60.9	65.0	4.1	n/a	No
2	Amargosa Rd.	n/o Palmetto Wy.	Sensitive	70.5	70.5	0.0	1.5	No
3	Amargosa Rd.	w/o Key Pointe Dr.	Sensitive	69.6	69.6	0.0	1.5	No
4	Amargosa Rd.	e/o Key Pointe Dr.	Non-Sensitive	69.1	70.0	0.9	n/a	No
5	Main St.	w/o Key Pointe Dr.	Sensitive	77.4	77.4	0.0	1.5	No
6	Main St.	e/o Key Pointe Dr.	Non-Sensitive	76.2	76.4	0.2	3.0	No
7	Main St.	e/o I-15 NB Ramps	Non-Sensitive	78.2	78.2	0.0	3.0	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?
n/a" Per the City of Hesperia General Plan Noise Element Exhibit NS-1, a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the ambient non-noise sensitive noise level is greater than the normally acceptable 75 dBA CNEL land use compatibility criteria

TABLE 7-7: GENERAL PLAN BUILDOUT (2040) WITH PROJECT TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[1]			Incremental Noise Level Increase Threshold[2]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Key Pointe Dr.	s/o Amargosa Rd.	Non-Sensitive	67.6	68.9	1.3	n/a	No
2	Amargosa Rd.	n/o Palmetto Wy.	Sensitive	72.1	72.1	0.0	1.5	No
3	Amargosa Rd.	w/o Key Pointe Dr.	Sensitive	71.4	71.4	0.0	1.5	No
4	Amargosa Rd.	e/o Key Pointe Dr.	Non-Sensitive	69.6	70.4	0.8	n/a	No
5	Main St.	w/o Key Pointe Dr.	Sensitive	77.7	77.7	0.0	1.5	No
6	Main St.	e/o Key Pointe Dr.	Non-Sensitive	75.9	76.1	0.2	3.0	No
7	Main St.	e/o I-15 NB Ramps	Non-Sensitive	78.6	78.6	0.0	3.0	No

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.

[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

n/a" Per the City of Hesperia General Plan Noise Element Exhibit NS-1, a barely perceptible 3 dBA or greater noise level increase is considered a significant impact when the ambient non-noise sensitive noise level is greater than the normally acceptable 75 dBA CNEL land use compatibility criteria

8 RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

To describe the potential off-site Project noise levels, five receiver locations in the vicinity of the Project site were identified. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location.

R1: Location R1 represents the existing noise sensitive residence at 13030 Avenal Street, approximately 71 feet north of the Project site. Receiver R1 is placed at the private outdoor living areas (backyards) facing the Project site. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.

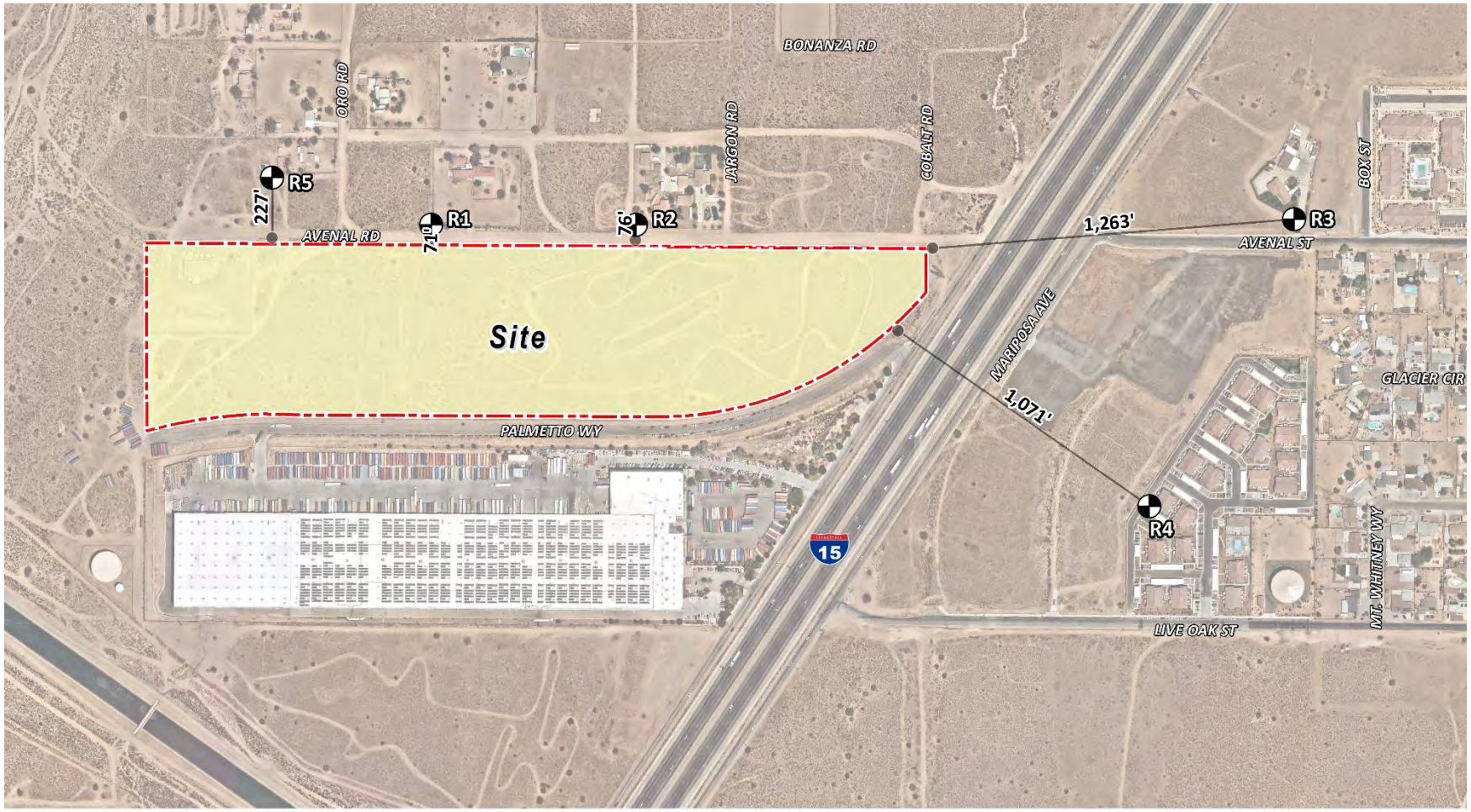
R2: Location R2 represents the existing noise sensitive residence at 13164 Avenal Road, approximately 76 feet north of the Project site. Receiver R2 is placed at the private outdoor living areas (backyards) facing the Project site. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.

R3: Location R3 represents the existing noise sensitive residence at 10445 Avenal Street, approximately 1,263 feet east of the Project site. Receiver R3 is placed at the private outdoor living areas (backyards) facing the Project site. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.

R4: Location R4 represents the existing noise sensitive residence at 10122 Mt. Whitney Way, approximately 1,071 feet southeast of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R4 is placed at the residential building façade. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.

R5: Location R5 represents the existing noise sensitive residence at 10376 Wellington Road, approximately 227 feet north of the Project site Receiver R5 is placed at the private outdoor living areas (backyards) facing the Project site. A 24-hour noise measurement was taken near this location, L5, to describe the existing ambient noise environment.

EXHIBIT 8-A: RECEIVER LOCATIONS



9 OPERATIONAL NOISE ANALYSIS

This section analyzes the potential stationary-source operational noise impacts at the nearby receiver locations, identified in Section 8, resulting from the operation of the proposed Amargosa and Palmetto High-Cube Warehouse Project. Exhibit 9-A identifies the noise source locations used to assess the operational noise levels.

9.1 OPERATIONAL NOISE SOURCES

This operational noise analysis is intended to describe noise level impacts associated with the expected typical of daytime and nighttime activities at the Project site. To present the potential worst-case noise conditions, this analysis assumes the Project would be operational 24 hours per day, seven days per week. Consistent with similar warehouse and industrial uses, the Project business operations would primarily be conducted within the enclosed buildings, except for traffic movement, parking, as well as loading and unloading of trucks at designated loading bays. The on-site Project-related noise sources are expected to include: loading dock activity, trailer parking activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements.

9.2 REFERENCE NOISE LEVELS

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project. This section provides a detailed description of the reference noise level measurements shown on Table 9-1 used to estimate the Project operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the loading dock activity, trailer parking activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements all operating at the same time. These sources of noise activity will likely vary throughout the day.

9.2.1 MEASUREMENT PROCEDURES

The reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precisions sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013. (15)

EXHIBIT 9-A: OPERATIONAL NOISE SOURCE LOCATIONS

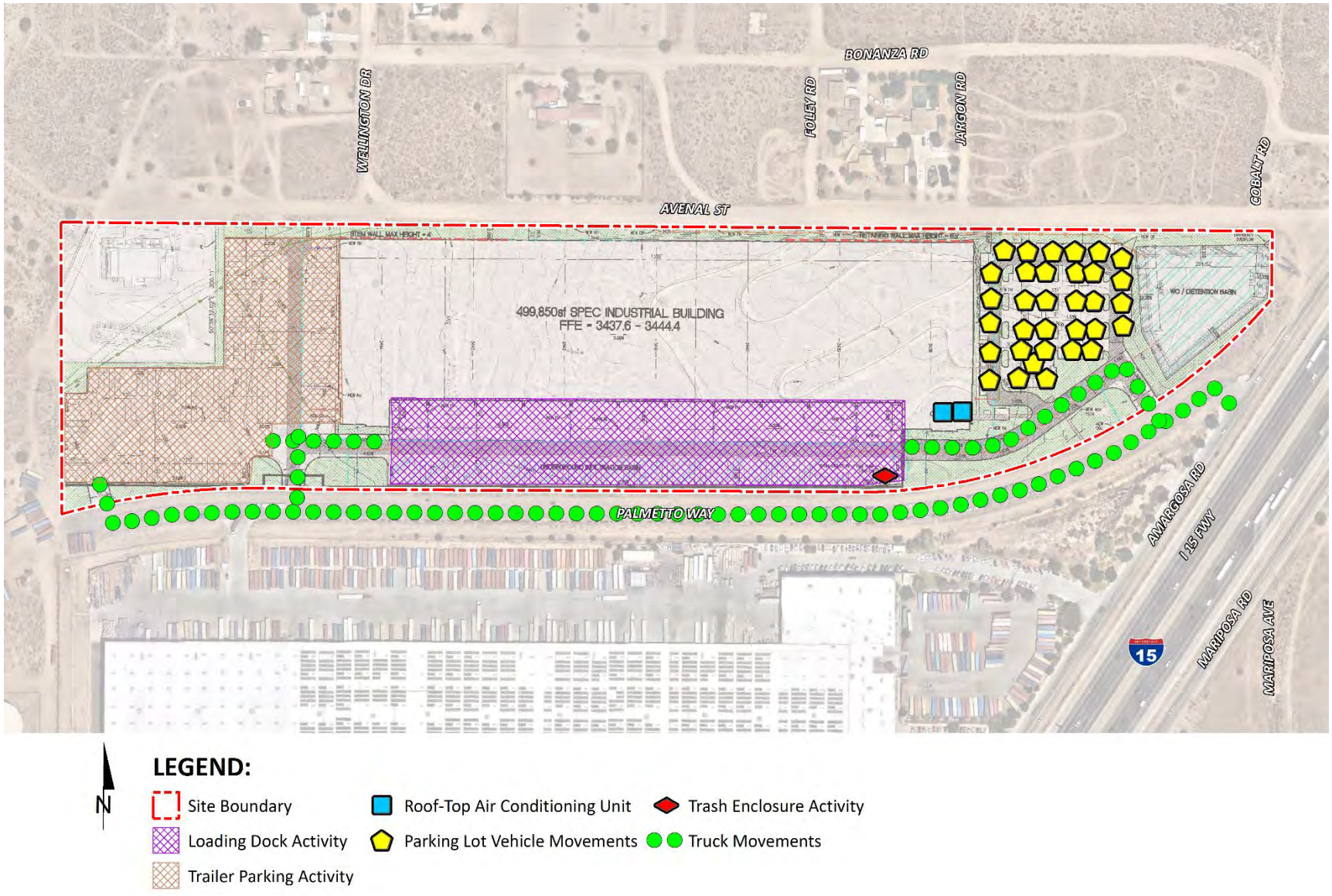


TABLE 9-1: REFERENCE NOISE LEVEL MEASUREMENTS

Noise Source[1]	Noise Source Height (Feet)	Min./ Hour[2]		Reference Noise Level (dBA L_{eq}) @ 50 Feet	Sound Power Level (dBA)[3]
		Day	Night		
Loading Dock Activity	8'	60	60	65.7	111.5
Trailer Parking Activity	8'	60	60	62.8	103.4
Roof-Top Air Conditioning Units	5'	39	28	57.2	88.9
Trash Enclosure Activity	5'	10	10	57.3	89.0
Parking Lot Vehicle Movements	5'	60	60	52.6	81.1
Truck Movements	8'	60	60	59.8	93.2

[1] As measured by Urban Crossroads, Inc.
[2] Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.
[3] Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source. Numbers may vary due to size differences between point and area noise sources.

9.2.2 LOADING DOCK ACTIVITY

The reference loading dock activities are intended to describe the typical outdoor operational noise activities associated with the Project. This includes truck idling, reefer activity (refrigerator truck/cold storage), deliveries, backup alarms, trailer docking including a combination of tractor trailer semi-trucks, two-axle delivery trucks, and background operation activities. Since the noise levels generated by cold storage loading dock activity can be slightly higher due to the use of refrigerated trucks or reefers.

The reference noise level measurement was taken in the center of the loading dock activity area and represents multiple concurrent noise sources resulting in a combined noise level of 65.7 dBA L_{eq} at a uniform distance of 50 feet. Specifically, the reference noise level measurement represents one truck located approximately 30 feet from the noise level meter with another truck passing by to park roughly 20 feet away, both with their engines idling. Throughout the reference noise level measurement, a separate docked and running reefer truck was located approximately 50 feet east of the measurement location. Additional background noise sources included truck pass-by noise, truck drivers talking to each other next to docked trucks, and air brake release noise when trucks parked.

9.2.3 TRAILER PARKING ACTIVITY

To evaluate the noise levels associated with truck idling, backup alarms, trailer movements and storage activities, Urban Crossroads collected a reference noise level measurement at an existing parcel hub facility to describe the potential operational noise levels associated with Project operational activities. The measured reference noise level at 50 feet from activity was measured at 62.8 dBA L_{eq}.

The reference noise level measurement includes a semi-truck with trailer pass-by event, background switcher cab trailer towing, drop-off, idling, and backup alarm events. Noise associated with trailer storage activity is expected to operate for the entire hour (60 minutes).

9.2.4 ROOF-TOP AIR CONDITIONING UNITS

The noise level measurements describe a single mechanical roof-top air conditioning unit. The reference noise level represents a Lennox SCA120 series 10-ton model packaged air conditioning unit. At the uniform reference distance of 50 feet, the reference noise levels are 57.2 dBA L_{eq}. Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for and average 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. These operating conditions reflect peak summer cooling requirements with measured temperatures approaching 96 degrees Fahrenheit (°F) with average daytime temperatures of 82°F. For this noise analysis, the air conditioning units are expected to be located on the roof of the Project building.

9.2.5 TRASH ENCLOSURE ACTIVITY

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, and trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project Site. The measured reference noise level at the uniform 50-foot reference distance is 57.3 dBA L_{eq} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for the Project's proposed building. Typical trash enclosure activities are estimated to occur for 10 minutes per hour.

9.2.6 PARKING LOT VEHICLE MOVEMENTS

To describe the on-site parking lot activity, a long-term 29-hour reference noise level measurement was collected in the center of activity within the staff parking lot of an Amazon warehouse distribution center. At 50 feet from the center of activity, the parking lot produced a reference noise level of 52.6 dBA L_{eq}. Parking activities are expected to take place during the full hour (60 minutes) throughout the daytime and evening hours. The parking lot noise levels are mainly due cars pulling in and out of parking spaces in combination with car doors opening and closing.

9.2.7 TRUCK MOVEMENTS

The truck movements reference noise level measurement was collected over a period of 1 hour and 28 minutes and represents multiple heavy trucks entering and exiting the outdoor loading dock area producing a reference noise level of 59.8 dBA L_{eq} at 50 feet. The noise sources included at this measurement location account for trucks entering and existing the Project driveways and maneuvering in and out of the outdoor loading dock activity area.

9.3 CADNAA NOISE PREDICTION MODEL

To fully describe the exterior operational noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels.

Using the ISO 9613-2 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level (L_w) to describe individual noise sources. While sound pressure levels (e.g., L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

The operational noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the CadnaA noise analysis to account for mixed ground representing a combination of hard and soft surfaces. Appendix 9.1 includes the detailed noise model inputs used to estimate the Project operational noise levels presented in this section.

9.4 PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the proposed Project operations that include loading dock activity, trailer parking activity, roof-top air conditioning units, trash enclosure activity, parking lot vehicle movements, and truck movements, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Table 9-2 shows the Project operational noise levels during the daytime hours of 7:00 a.m. to 10:00 p.m. The daytime hourly noise levels at the off-site receiver locations are expected to range from 37.6 to 47.7 dBA L_{eq}.

TABLE 9-2: DAYTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA Leq)				
	R1	R2	R3	R4	R5
Loading Dock Activity	30.9	30.6	35.1	42.8	29.2
Trailer Parking Activity	45.7	40.1	30.4	31.4	47.3
Roof-Top Air Conditioning Units	17.9	19.9	21.1	23.3	19.7
Trash Enclosure Activity	0.0	0.0	11.3	14.1	0.0
Parking Lot Vehicle Movements	19.9	32.0	27.6	29.5	19.4
Truck Movements	17.9	17.4	28.3	31.8	36.6
Total (All Noise Sources)	**45.9**	**41.2**	**37.6**	**43.6**	**47.7**

[1] See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

Table 9-3 shows the Project operational noise levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. The nighttime hourly noise levels at the off-site receiver locations are expected to range from 37.5 to 47.7 dBA L_{eq}. The differences between the daytime and nighttime noise levels are largely related to the estimated duration of noise activity as outlined in Table 9-1 and Appendix 9.1.

TABLE 9-3: NIGHTTIME PROJECT OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA Leq)				
	R1	R2	R3	R4	R5
Loading Dock Activity	30.9	30.6	35.1	42.8	29.2
Trailer Parking Activity	45.7	40.1	30.4	31.4	47.3
Roof-Top Air Conditioning Units	15.5	17.5	18.7	20.9	17.3
Trash Enclosure Activity	0.0	0.0	10.4	13.1	0.0
Parking Lot Vehicle Movements	19.9	32.0	27.6	29.5	19.4
Truck Movements	17.9	17.4	28.3	31.8	36.6
Total (All Noise Sources)	**45.9**	**41.2**	**37.5**	**43.6**	**47.7**

[1] See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

9.5 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Hesperia exterior noise level standards at nearby noise-sensitive receiver locations. Table 9-4 shows the operational noise levels associated with Amargosa and Palmetto High-Cube Warehouse Project will satisfy the City of Hesperia exterior noise level standards adjusted to reflect the ambient noise conditions.

TABLE 9-4: OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location[1]	Project Operational Noise Levels (dBA Leq)[2]		Noise Level Standards (dBA Leq)[3]		Noise Level Standards Exceeded?[4]	
	Daytime	Nighttime	Daytime	Nighttime	Daytime	Nighttime
R1	45.9	45.9	60	55	No	No
R2	41.2	41.2	60	55	No	No
R3	37.6	37.5	60	55	No	No
R4	43.6	43.6	60	55	No	No
R5	47.7	47.7	60	55	No	No

[1] See Exhibit 8-A for the receiver locations.
[2] Proposed Project operational noise levels as shown on Tables 9-2 and 9-3.
[3] Exterior noise level standards, for residential land use, as shown on Table 3-1.
[4] Do the estimated Project operational noise source activities exceed the noise level standards? "Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

9.6 PROJECT OPERATIONAL NOISE LEVEL INCREASES

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (2) Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \ldots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. As indicated on Tables 9-5, the Project will generate a daytime operational noise level increases ranging from 0.0 to 1.3 dBA L_{eq} at the nearest receiver locations. Table 9-6 shows that the Project will generate a nighttime operational noise level increases ranging from 0.0 to 1.5 dBA L_{eq} at the nearest receiver locations. Project-related operational noise level increases will satisfy the operational noise level increase significance criteria presented on Table 4-1. Therefore, the incremental Project operational noise level increase is considered *less than significant* at all receiver locations.

TABLE 9-5: DAYTIME PROJECT OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	45.9	L1	61.0	61.1	0.1	5.0	No
R2	41.2	L2	55.6	55.8	0.2	5.0	No
R3	37.6	L3	58.6	58.6	0.0	5.0	No
R4	43.6	L4	62.7	62.8	0.1	5.0	No
R5	47.7	L5	52.3	53.6	1.3	5.0	No

[1] See Exhibit 8-A for the receiver locations.
[2] Total Project daytime operational noise levels as shown on Table 9-2.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed daytime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-1.

TABLE 9-6: NIGHTTIME OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria[7]	Increase Criteria Exceeded?
R1	37.9	L1	65.7	65.7	0.0	1.5	No
R2	36.1	L2	55.2	55.3	0.1	5.0	No
R3	39.9	L3	43.2	44.9	1.7	5.0	No
R4	45.5	L4	45.8	48.7	2.9	5.0	No
R5	42.4	L5	50.8	51.4	0.6	5.0	No

[1] See Exhibit 8-A for the receiver locations.
[2] Total Project nighttime operational noise levels as shown on Table 9-4.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed nighttime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.
[7] Significance increase criteria as shown on Table 4-1.

10 CONSTRUCTION ANALYSIS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 10-A shows the construction activity boundaries in relation to the nearest sensitive receiver locations previously described in Section 8. According to Section 16.20.125.E.3 of the Municipal Code states that construction activities are limited to the hours of 7:00 a.m. to 7:00 p.m. on any day and at any time on Sundays and federal holidays.

In addition, since neither the City of Hesperia General Plan or County Code establish numeric maximum acceptable construction source noise levels at potentially affected receivers for CEQA analysis purposes. Therefore, a numerical construction threshold based on Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual is used for analysis of daytime construction impacts. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold for noise sensitive residential land use. (8 p. 179).

10.1 CONSTRUCTION NOISE LEVELS

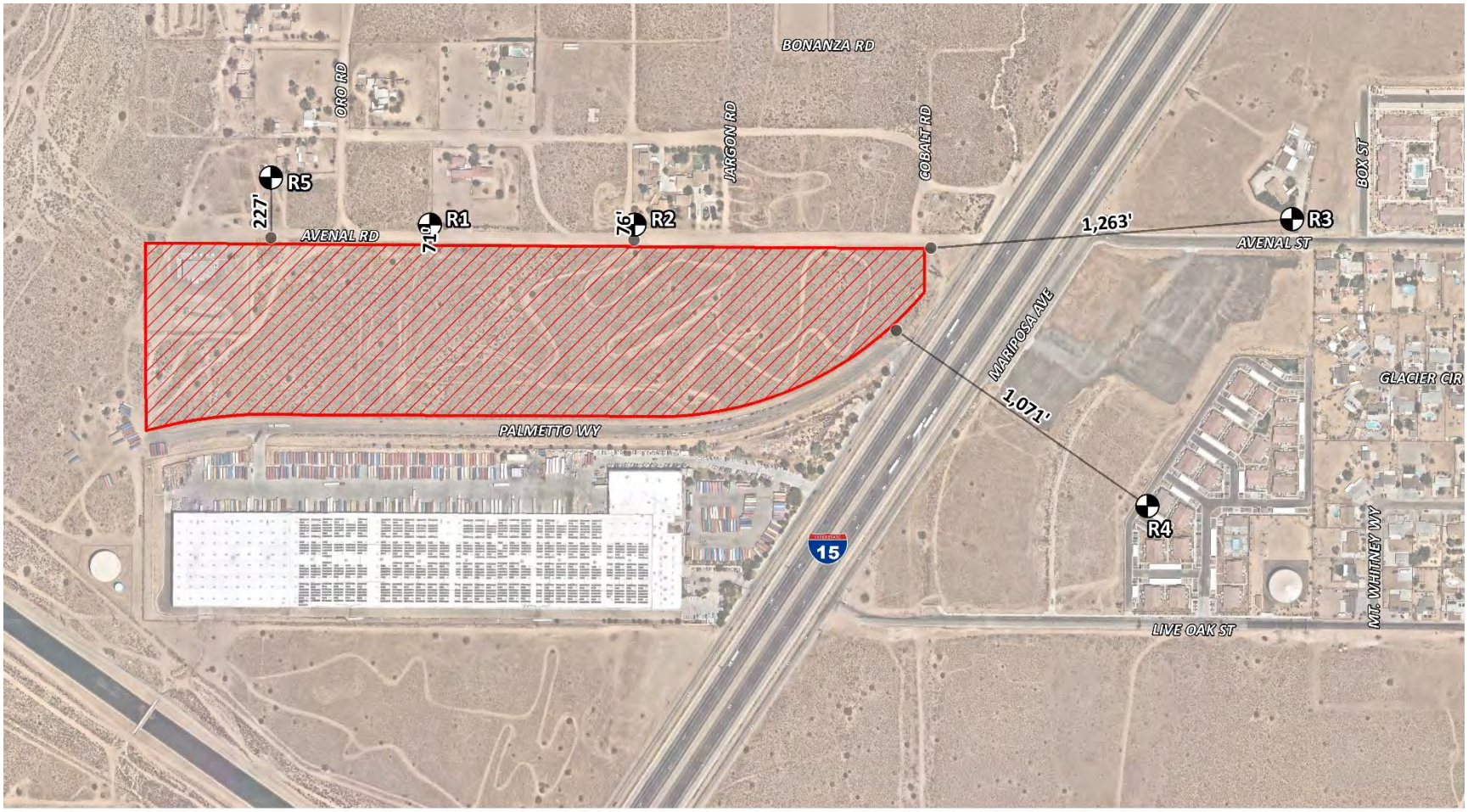
The FTA *Transit Noise and Vibration Impact Assessment Manual* recognizes that construction projects are accomplished in several different stages and outlines the procedures for assessing noise impacts during construction. Each stage has a specific equipment mix, depending on the work to be completed during that stage. As a result of the equipment mix, each stage has its own noise characteristics; some stages have higher continuous noise levels than others, and some have higher impact noise levels than others. The Project construction activities are expected to occur in the following stages:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

10.2 CONSTRUCTION REFERENCE NOISE LEVELS

To describe construction noise activities, this construction noise analysis was prepared using reference construction equipment noise levels from the Federal Highway Administration (FHWA) published the Roadway Construction Noise Model (RCNM), which includes a national database of construction equipment reference noise emission levels. (20) The RCNM equipment database, provides a comprehensive list of the noise generating characteristics for specific types of construction equipment. In addition, the database provides an acoustical usage factor to estimate the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during a construction operation.

EXHIBIT 10-A: CONSTRUCTION NOISE SOURCE LOCATIONS



10.3 CONSTRUCTION NOISE ANALYSIS

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise level impacts at the nearby sensitive receiver locations were completed. Consistent with FTA guidance for general construction noise assessment, Table 10-1 presents the combined noise levels for the loudest construction equipment, assuming they operate at the same time. As shown on Table 10-2, the construction noise levels are expected to range from 39.1 to 59.7 dBA L_{eq} at the nearby receiver locations. Appendix 10.1 includes the detailed CadnaA construction noise model inputs.

TABLE 10-1: CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Reference Construction Activity	Reference Noise Level @ 50 Feet (dBA L_{eq})[1]	Combined Noise Level (dBA L_{eq})[2]	Combined Sound Power Level (PWL)[3]
Site Preparation	Crawler Tractors	78	80	112
	Hauling Trucks	72		
	Rubber Tired Dozers	75		
Grading	Graders	81	83	115
	Excavators	77		
	Compactors	76		
Building Construction	Cranes	73	81	113
	Tractors	80		
	Welders	70		
Paving	Pavers	74	83	115
	Paving Equipment	82		
	Rollers	73		
Architectural Coating	Cranes	73	77	109
	Air Compressors	74		
	Generator Sets	70		

[1] FHWA Roadway Construction Noise Model (RCNM).
[2] Represents the combined noise level for all equipment assuming they operate at the same time consistent with FTA Transit Noise and Vibration Impact Assessment guidance.
[3] Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calibrated using the CadnaA noise model at the reference distance to the noise source.

TABLE 10-2: CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})					
	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]
R1	56.7	59.7	57.7	59.7	53.7	59.7
R2	56.5	59.5	57.5	59.5	53.5	59.5
R3	42.1	45.1	43.1	45.1	39.1	45.1
R4	44.1	47.1	45.1	47.1	41.1	47.1
R5	52.9	55.9	53.9	55.9	49.9	55.9

[1] Noise receiver locations are shown on Exhibit 10-A.
[2] Construction noise level calculations based on distance from the construction activity, which is measured from the Project site boundary to the nearest receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1.

10.4 CONSTRUCTION NOISE LEVEL COMPLIANCE

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA L_{eq} is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA L_{eq} significance threshold during Project construction activities as shown on Table 10-3. Therefore, the noise impacts due to Project construction noise are considered *less than significant* at all receiver locations.

TABLE 10-3: CONSTRUCTION NOISE LEVEL COMPLIANCE

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	59.7	80	No
R2	59.5	80	No
R3	45.1	80	No
R4	47.1	80	No
R5	55.9	80	No

[1] Noise receiver locations are shown on Exhibit 10-A.
[2] Highest construction noise level calculations based on distance from the construction noise source activity to the nearest receiver locations as shown on Table 10-2.
[3] Construction noise level thresholds as shown on Table 4-1.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?

10.5 NIGHTTIME CONCRETE POUR NOISE ANALYSIS

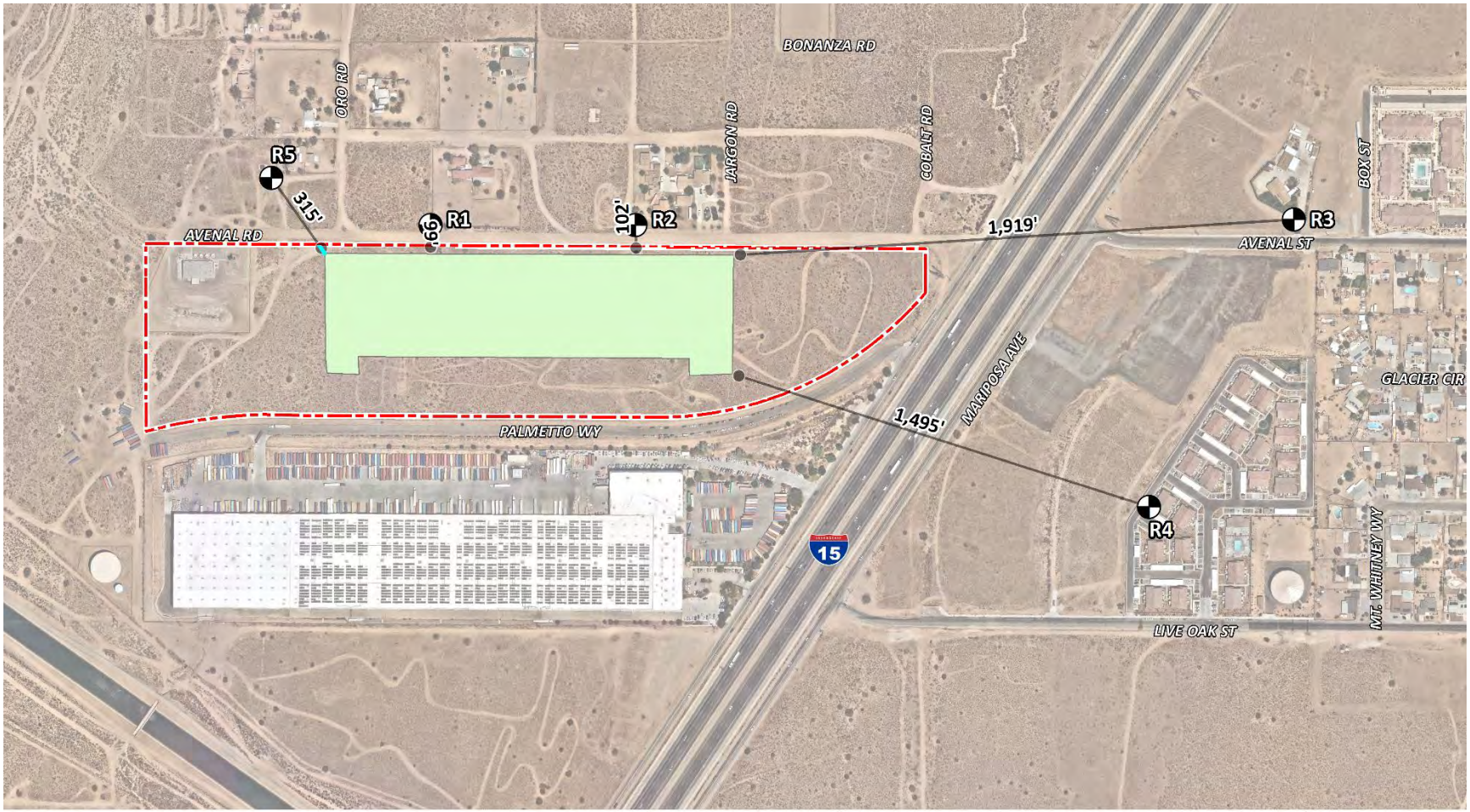
It is our understanding that nighttime concrete pouring activities will occur as a part of Project building construction activities. Nighttime concrete pouring activities are often used to support reduced concrete mixer truck transit times and lower air temperatures than during the daytime hours and are generally limited to the actual building pad area as shown on Exhibit 10-B. Since the nighttime concrete pours will take place outside the permitted City of Hesperia Municipal Code, Section 16.20.125.E.3 hours of *7:00 a.m. to 7:00 p.m. on any day and at any time on Sundays and federal holidays*. The Project Applicant will be required to obtain authorization for nighttime work from the City of Hesperia. Any nighttime construction noise activities shall satisfy the noise limits outlined in Table 3-1.

10.5.1 NIGHTTIME CONCRETE POUR REFERENCE NOISE LEVEL MEASUREMENTS

To estimate the noise levels due to nighttime concrete pour activities, sample reference noise level measurements were taken during a nighttime concrete pour at a construction site. Urban Crossroads, Inc. collected short-term nighttime concrete pour reference noise level measurements during the noise-sensitive nighttime hours between 1:00 a.m. to 2:00 a.m. at 27334 San Bernardino Avenue in the City of Redlands. The reference noise levels describe the expected concrete pour noise sources that may include concrete mixer truck movements and pouring activities, concrete paving equipment, rear mounted concrete mixer truck backup alarms, engine idling, air brakes, generators, and workers communicating/whistling.

To describe the nighttime concrete pour noise levels associated with the construction of the Amargosa and Palmetto High-Cube Warehouse, this analysis relies on reference sound power level of 100.3 dBA L_w. While the Project noise levels will depend on the actual duration of activities and specific equipment fleet in use at the time of construction, the reference sound power level of 100.3 dBA L_w is used to describe the expected Project nighttime concrete pour noise activities.

EXHIBIT 10-B: NIGHTTIME CONCRETE POUR NOISE SOURCE AND RECEIVER LOCATIONS



10.5.2 NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

As shown on Table 10-4, the noise levels associated with the nighttime concrete pour activities are estimated to range from 29.9 to 47.3 dBA L_{eq} and will satisfy the City of Hesperia nighttime stationary-source exterior hourly average L_{eq} residential noise level threshold at all the receiver locations. Based on the results of this analysis, all nearest noise receiver locations will experience *less than significant* impacts due to the Project related nighttime concrete pour activities. Appendix 10.2 includes the CadnaA nighttime concrete pour noise model inputs.

TABLE 10-4: NIGHTTIME CONCRETE POUR NOISE LEVEL COMPLIANCE

Receiver Location[1]	Use	Construction Noise Levels (dBA L_{eq})		
		Paving Construction[2]	Nighttime Threshold[3]	Threshold Exceeded?[4]
R1	Residence	47.3	55	No
R2	Residence	47.2	55	No
R3	Residence	29.9	55	No
R4	Residence	31.7	55	No
R5	Residence	40.3	55	No

[1] Noise receiver locations are shown on Exhibit 10-B.
[2] Paving construction noise level calculations based on distance from the construction noise source activity to nearby receiver locations.
[3] Exterior nighttime noise level standards as shown on Table 3-1.
[4] Do the estimated Project construction noise levels exceed the nighttime construction noise level threshold?

10.6 CONSTRUCTION VIBRATION ANALYSIS

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. Operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Ground vibration levels associated with various types of construction equipment are summarized on Table 10-5. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential for human response (annoyance) and building damage using the following vibration assessment methods defined by the FTA. To describe the vibration impacts the FTA provides the following equation: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

TABLE 10-5: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual

Table 10-6 presents the expected Project related vibration levels at the nearby receiver locations. At distances ranging from 71 to 1,263 feet from Project construction activities, construction vibration velocity levels range from 0.000 to 0.0.19 in/sec PPV. Based on maximum acceptable continuous vibration threshold of 0.2 PPV (in/sec), the typical Project construction vibration levels will fall below the building damage thresholds at all the noise sensitive receiver locations. Therefore, the Project-related vibration impacts are considered *less than significant* during typical construction activities at the Project site.

Moreover, the vibration levels reported at the sensitive receiver locations are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.

TABLE 10-6: PROJECT CONSTRUCTION VIBRATION LEVELS

Receiver[1]	Distance to Const. Activity (Feet)[2]	Typical Construction Vibration Levels PPV (in/sec)[3]					Thresholds PPV (in/sec)[4]	Thresholds Exceeded?[5]
		Small bulldozer	Jackhammer	Loaded Trucks	Large bulldozer	Highest Vibration Level		
R1	71'	0.001	0.007	0.016	0.019	0.019	0.2	No
R2	76'	0.001	0.007	0.014	0.017	0.017	0.2	No
R3	1,263'	0.000	0.000	0.000	0.000	0.000	0.2	No
R4	1,071'	0.000	0.000	0.000	0.000	0.000	0.2	No
R5	227'	0.000	0.001	0.003	0.003	0.003	0.2	No

[1] Receiver locations are shown on Exhibit 8-A.
[2] Distance from receiver location to Project construction boundary (Project site boundary).
[3] Based on the Vibration Source Levels of Construction Equipment (Table 8-4).
[4] City of Hesperia Municipal Code, Section 16.20.130 (Appendix 3.1)
[5] Does the peak vibration exceed the acceptable vibration thresholds?
"PPV" = Peak Particle Velocity

11 REFERENCES

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19. **Ganddini Group, Inc.** *Amargosa and Palmetto High-Cube Warehouse Traffic Impact Analysis.* August 2022.
20. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning.** *FHWA Roadway Construction Noise Model.* January, 2006.

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12 CERTIFICATIONS

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Amargosa and Palmetto High-Cube Warehouse Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (949) 584-3148.

Bill Lawson, P.E., INCE
Principal
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EDUCATION

Master of Science in Civil and Environmental Engineering
California Polytechnic State University, San Luis Obispo • December, 1993

Bachelor of Science in City and Regional Planning
California Polytechnic State University, San Luis Obispo • June, 1992

PROFESSIONAL REGISTRATIONS

PE – Registered Professional Traffic Engineer – TR 2537 • January, 2009
AICP – American Institute of Certified Planners – 013011 • June, 1997–January 1, 2012
PTP – Professional Transportation Planner • May, 2007 – May, 2013
INCE – Institute of Noise Control Engineering • March, 2004

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America
ITE – Institute of Transportation Engineers

PROFESSIONAL CERTIFICATIONS

Certified Acoustical Consultant – County of San Diego • March, 2018
Certified Acoustical Consultant – County of Orange • February, 2011
FHWA-NHI-142051 Highway Traffic Noise Certificate of Training • February, 2013

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APPENDIX 3.1:

CITY OF HESPERIA MUNICIPAL CODE

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16.20.125 - Noise.

A. Noise Measurement. Noise will be measured with a sound level meter, which meets the standards of the American National Standards Institute (ANSI Section S1.4-1979, Type 1 or Type 2). Noise levels shall be measured using the "A" weighted sound pressure level scale in decibels (ref. pressure = 20 micro-newtons per meter squared). The unit of measure shall be designated as dB(A). The building official shall be the noise control officer.

B. Noise Standards.

1. The following table describes the noise standard for emanations from any source, as it affects adjacent properties:

NOISE STANDARDS

Affected Land Use (Receiving Noise)	Maximum Noise Level	Time Period
A-1, A-2, R-1, R-3 and RR Zone Districts	55 dB(A)	10:00 p.m. - 7:00 a.m.
A-1, A-2, R-1, R-3 and RR Zone Districts	60 dB(A)*	7:00 a.m. - 10:00 p.m.
C-1, C-2, C-3, C-4, C-R, AP, and P-I Zone Districts	65 dB(A)*	Anytime
I-1 and I-2 Zone Districts	70 dB(A)*	Anytime

* Due to wind noise, the maximum permissible noise level may be adjusted so that it is no greater than five dB(A) above the ambient noise level.

2. No person shall operate or cause to be operated any source of sound at any location or allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, which causes the noise level, when measured on any other property, either incorporated or unincorporated, to exceed:
   a. The noise standard for that receiving land use (as specified in subsection (B)(1) of this section) for a cumulative period of more than thirty (30) minutes in any hour; or
   b. The noise standard plus five dB(A) for a cumulative period of more than fifteen (15) minutes in any hour; or
   c. The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour; or
   d. The noise standard plus fifteen (15) dB(A) for a cumulative period of more than one minute in any hour; or
   e. The noise standard plus twenty (20) dB(A) for any period of time.

C. If the measured ambient level exceeds any of the first four noise limit categories above, the allowable noise

exposure standard shall be increased to reflect the ambient noise level. If the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.

D. If the alleged offense consists entirely of impact noise or simple tone noise, each of the noise levels in subsection (B)(1) of this section shall be reduced by five dB(A).

E. Exempt Noises. The following sources of noise are exempt:

1. Motor vehicles not under the control of the industrial use;
2. Emergency equipment, vehicles and devices;
3. Temporary construction, repair, or demolition activities between seven a.m. and seven p.m. except Sundays and federal holidays.

(Ord. 2002-07 Exh. A, 2002; Amended during 1997 codification; Ord. 75 § 2 (part), 1990; SBCC § 87.1305)

16.20.130 - Vibration.

A. Vibration Standard. No ground vibration shall be allowed which can be felt without the aid of instruments at or beyond the lot line; nor will any vibration be permitted which produces a particle velocity greater than or equal to 0.2 inches per second measured at or beyond the lot line.

B. Vibration Measurement. Vibration velocity shall be measured with a seismograph or other instrument capable of measuring and recording displacement and frequency, particle velocity or acceleration. Readings are to be made at points of maximum vibration along any lot line next to a residential or commercial district or a community industrial lot.

C. Exempt Vibrations. The following sources of vibration are not regulated by this code:

1. Motor vehicles not under the control of the industrial use;
2. Temporary construction, maintenance or demolition activities between seven a.m. and seven p.m. except Sundays and federal holidays.

(SBCC § 87.1310)

APPENDIX 5.1:

STUDY AREA PHOTOS

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14848_L1_G_1.North
34, 26' 15.580000"117, 22' 42.770000"



14848_L1_G_2.South
34, 26' 15.160000"117, 22' 42.740000"



14848_L1_G_3.East
34, 26' 15.160000"117, 22' 42.710000"



14848_L1_G_4.West
34, 26' 15.190000"117, 22' 42.880000"



14848_L2_S_1.North
34, 26' 14.640000"117, 22' 34.720000"



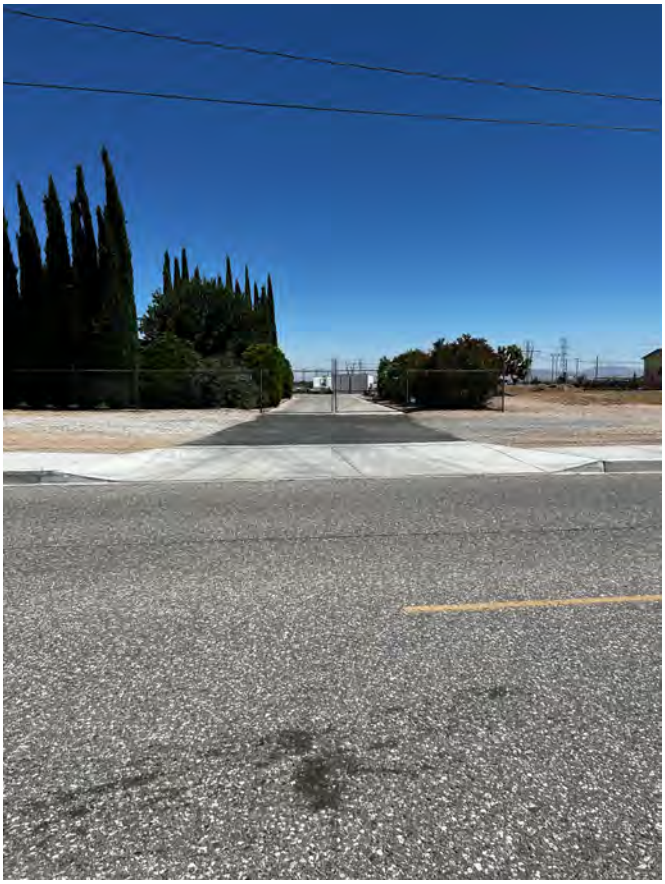
14848_L2_S_2.South
34, 26' 14.640000"117, 22' 34.780000"



14848_L2_S_3.East
34, 26' 14.670000"117, 22' 34.780000"



14848_L2_S_4.West
34, 26' 14.700000"117, 22' 34.780000"



14848_L3_Z_1.North
34, 26' 15.340000"117, 22' 7.860000"



14848_L3_Z_2.South
34, 26' 15.300000"117, 22' 7.970000"



14848_L3_Z_3.East
34, 26' 15.330000"117, 22' 7.940000"



14848_L3_Z_4.West
34, 26' 15.330000"117, 22' 7.970000"



14848_L4_W_1.North
34, 26' 3.110000"117, 22' 14.920000"



14848_L4_W_2.South
34, 26' 2.740000"117, 22' 15.010000"



14848_L4_W_3.East
34, 26' 2.750000"117, 22' 14.890000"



14848_L4_W_4.West
34, 26' 2.820000"117, 22' 14.890000"



14848_L5_A_1.North
34, 26' 16.520000"117, 22' 49.640000"



14848_L5_A_2.South
34, 26' 16.520000"117, 22' 49.670000"



14848_L5_A_3.East
34, 26' 16.520000"117, 22' 49.640000"



14848_L5_A_4.West
34, 26' 16.520000"117, 22' 49.670000"

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APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS

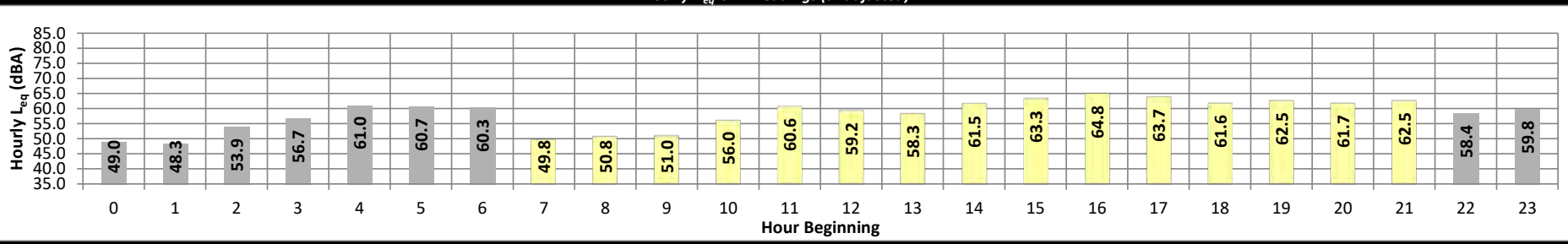
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24-Hour Noise Level Measurement Summary

Date: Tuesday, June 21, 2022 *Location:* L1 - Located north of the Project Site near the existing noise *Meter:* Piccolo II *JN:* 14848

Project: Amargosa and Palmetto High-Cube Warehouse *Source:* sensitive residence at 13030 Avenal Street. *Analyst:* B. Lawson

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	49.0	54.1	46.1	53.8	53.3	52.0	51.3	49.4	48.4	46.9	46.6	46.2	49.0	10.0	59.0
	1	48.3	51.2	45.5	51.0	50.8	50.3	50.0	49.0	48.1	46.5	46.1	45.6	48.3	10.0	58.3
	2	53.9	57.0	51.2	56.8	56.5	56.0	55.7	54.6	53.6	52.1	51.8	51.4	53.9	10.0	63.9
	3	56.7	59.1	54.7	58.9	58.7	58.2	58.0	57.3	56.6	55.4	55.1	54.8	56.7	10.0	66.7
	4	61.0	64.3	58.7	64.0	63.7	63.1	62.8	61.6	60.8	59.4	59.2	58.8	61.0	10.0	71.0
	5	60.7	63.4	58.8	63.1	62.8	62.3	62.0	61.1	60.5	59.3	59.1	58.9	60.7	10.0	70.7
	6	60.3	66.6	58.0	65.4	64.7	63.2	62.2	60.4	59.6	58.5	58.3	58.1	60.3	10.0	70.3
Day	7	49.8	55.0	47.0	54.4	54.0	52.8	52.1	50.3	49.1	47.6	47.4	47.1	49.8	0.0	49.8
	8	50.8	58.6	46.4	58.1	57.5	55.4	53.8	51.1	49.3	47.2	46.9	46.6	50.8	0.0	50.8
	9	51.0	58.7	46.4	58.4	58.0	56.8	55.7	50.6	48.6	47.0	46.8	46.5	51.0	0.0	51.0
	10	56.0	62.2	50.8	61.8	61.5	60.4	59.6	56.8	54.6	51.9	51.5	51.0	56.0	0.0	56.0
	11	60.6	67.2	53.5	66.7	66.3	65.1	64.4	61.5	59.1	55.3	54.6	53.8	60.6	0.0	60.6
	12	59.2	65.3	52.8	64.9	64.5	63.5	62.8	60.2	57.8	54.3	53.7	53.1	59.2	0.0	59.2
	13	58.3	64.9	51.9	64.5	64.0	62.9	62.1	59.3	56.4	53.3	52.8	52.2	58.3	0.0	58.3
	14	61.5	68.5	54.0	68.0	67.6	66.5	65.7	62.4	59.7	55.8	55.0	54.3	61.5	0.0	61.5
	15	63.3	70.2	55.5	69.9	69.5	68.3	67.5	64.3	61.2	57.2	56.5	55.7	63.3	0.0	63.3
	16	64.8	71.6	56.7	71.1	70.7	69.5	68.7	65.9	63.2	58.8	57.9	57.0	64.8	0.0	64.8
	17	63.7	70.3	56.7	69.9	69.6	68.5	67.5	64.5	62.1	58.5	57.7	57.0	63.7	0.0	63.7
	18	61.6	67.3	55.5	66.9	66.5	65.6	64.8	62.6	60.6	57.2	56.6	55.7	61.6	0.0	61.6
	19	62.5	68.7	55.7	68.2	67.8	66.8	66.1	63.6	61.3	57.5	56.8	56.0	62.5	5.0	67.5
	20	61.7	68.0	55.2	67.6	67.1	66.0	65.1	62.6	60.4	57.0	56.3	55.5	61.7	5.0	66.7
	21	62.5	69.1	55.8	68.7	68.2	67.0	66.0	63.6	61.2	57.4	56.8	56.1	62.5	5.0	67.5
Night	22	58.4	63.9	53.6	63.5	63.2	62.2	61.5	59.3	57.4	54.8	54.3	53.7	58.4	10.0	68.4
	23	59.8	66.5	53.6	66.0	65.5	64.3	63.3	60.6	58.4	55.3	54.6	53.9	59.8	10.0	69.8

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	49.8	55.0	46.4	54.4	54.0	52.8	52.1	50.3	48.6	47.0	46.8	46.5
	Max	64.8	71.6	56.7	71.1	70.7	69.5	68.7	65.9	63.2	58.8	57.9	57.0
Energy Average		61.0	Average:		65.3	64.8	63.7	62.8	60.0	57.6	54.4	53.8	53.2
Night	Min	48.3	51.2	45.5	51.0	50.8	50.3	50.0	49.0	48.1	46.5	46.1	45.6
	Max	61.0	66.6	58.8	66.0	65.5	64.3	63.3	61.6	60.8	59.4	59.2	58.9
Energy Average		58.2	Average:		60.3	59.9	59.1	58.5	57.0	55.9	54.3	53.9	53.5

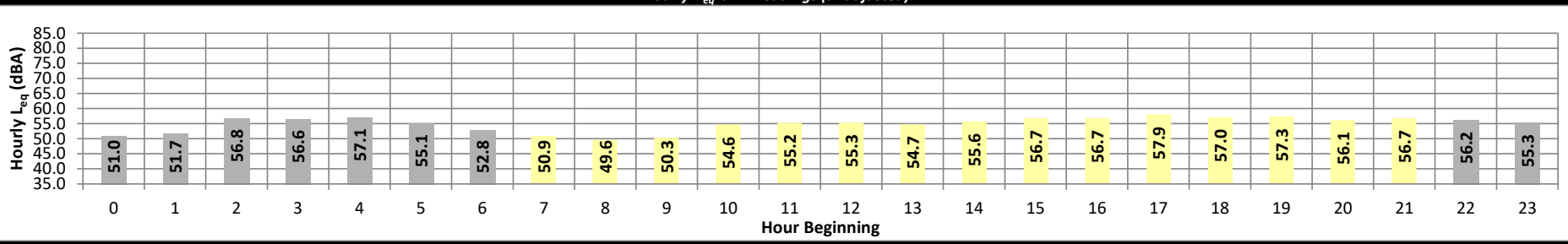
L_{eq} (dBA)		
24-Hour	*Daytime (7am-10pm)*	*Nighttime (10pm-7am)*
60.1	**61.0**	**58.2**

24-Hour Noise Level Measurement Summary

Date: Tuesday, June 21, 2022 *Location:* L2 - Located south of the existing noise sensitive residence at *Meter:* Piccolo II *JN:* 14848

Project: Amargosa and Palmetto High-Cube Warehouse *Source:* 13164 Avenal Road with the Project Site. *Analyst:* B. Lawson

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	51.0	55.0	48.2	54.7	54.2	53.3	52.9	51.7	50.5	49.0	48.6	48.3	51.0	10.0	61.0
	1	51.7	55.1	48.3	54.9	54.6	54.1	53.7	52.5	51.3	49.3	48.9	48.4	51.7	10.0	61.7
	2	56.8	60.2	53.4	60.0	59.7	59.2	58.9	57.6	56.5	54.6	54.1	53.5	56.8	10.0	66.8
	3	56.6	58.9	54.3	58.8	58.6	58.3	58.1	57.2	56.4	55.0	54.7	54.4	56.6	10.0	66.6
	4	57.1	60.0	54.8	59.7	59.5	59.0	58.7	57.7	56.8	55.5	55.3	54.9	57.1	10.0	67.1
	5	55.1	58.0	53.1	57.8	57.6	57.1	56.8	55.6	54.8	53.6	53.4	53.2	55.1	10.0	65.1
	6	52.8	56.5	50.3	56.0	55.7	55.2	54.7	53.5	52.4	50.9	50.7	50.3	52.8	10.0	62.8
Day	7	50.9	54.6	48.5	54.3	54.1	53.5	53.1	51.5	50.4	49.1	48.8	48.6	50.9	0.0	50.9
	8	49.6	54.7	47.1	54.4	53.9	52.6	51.7	50.0	49.1	47.7	47.4	47.2	49.6	0.0	49.6
	9	50.3	55.5	47.1	55.2	54.9	54.0	53.4	50.8	49.2	47.6	47.4	47.2	50.3	0.0	50.3
	10	54.6	59.9	51.6	59.5	59.1	57.8	56.8	54.9	53.9	52.4	52.1	51.7	54.6	0.0	54.6
	11	55.2	59.6	52.1	59.1	58.6	57.9	57.4	55.8	54.7	53.0	52.6	52.2	55.2	0.0	55.2
	12	55.3	58.9	52.5	58.5	58.1	57.5	57.1	56.0	54.9	53.4	53.0	52.6	55.3	0.0	55.3
	13	54.7	58.7	51.9	58.3	58.0	57.2	56.7	55.3	54.2	52.7	52.4	52.1	54.7	0.0	54.7
	14	55.6	60.4	52.7	60.0	59.6	58.4	57.8	56.2	55.1	53.5	53.1	52.8	55.6	0.0	55.6
	15	56.7	60.7	53.8	60.4	60.1	59.3	58.9	57.3	56.3	54.7	54.4	54.0	56.7	0.0	56.7
	16	56.7	61.4	53.8	60.9	60.3	59.2	58.6	57.3	56.3	54.6	54.3	53.9	56.7	0.0	56.7
	17	57.9	63.3	54.3	63.0	62.7	61.9	61.2	58.0	56.8	55.2	54.9	54.5	57.9	0.0	57.9
	18	57.0	60.9	53.9	60.5	60.0	59.4	59.0	57.8	56.6	54.8	54.5	54.1	57.0	0.0	57.0
	19	57.3	62.0	54.1	61.6	61.1	60.0	59.4	57.8	56.7	55.1	54.7	54.3	57.3	5.0	62.3
	20	56.1	60.8	53.3	60.3	59.9	59.0	58.4	56.5	55.5	54.0	53.7	53.4	56.1	5.0	61.1
	21	56.7	60.7	53.8	60.4	60.0	59.1	58.5	57.4	56.4	54.7	54.4	53.9	56.7	5.0	61.7
Night	22	56.2	61.0	53.0	60.6	60.1	58.9	58.4	57.0	55.7	53.9	53.5	53.1	56.2	10.0	66.2
	23	55.3	59.4	51.8	59.0	58.5	57.9	57.5	56.1	54.8	52.9	52.5	52.0	55.3	10.0	65.3

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	49.6	54.6	47.1	54.3	53.9	52.6	51.7	50.0	49.1	47.6	47.4	47.2
	Max	57.9	63.3	54.3	63.0	62.7	61.9	61.2	58.0	56.8	55.2	54.9	54.5
Energy Average		55.6	Average:		59.1	58.7	57.8	57.2	55.5	54.4	52.8	52.5	52.2
Night	Min	51.0	55.0	48.2	54.7	54.2	53.3	52.9	51.7	50.5	49.0	48.6	48.3
	Max	57.1	61.0	54.8	60.6	60.1	59.2	58.9	57.7	56.8	55.5	55.3	54.9
Energy Average		55.2	Average:		57.9	57.6	57.0	56.6	55.4	54.4	52.7	52.4	52.0

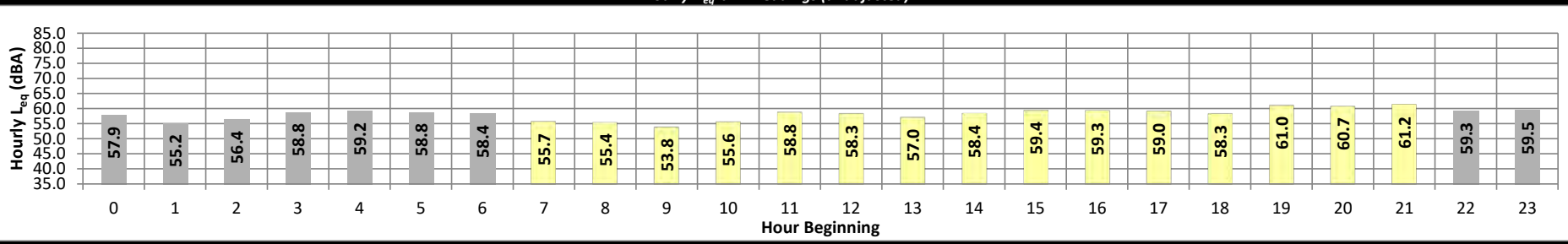
24-Hour	*L_{eq} (dBA) Daytime (7am-10pm)*	*Nighttime (10pm-7am)*
55.4	**55.6**	**55.2**

24-Hour Noise Level Measurement Summary

Date: Tuesday, June 21, 2022 *Location:* L3 - Located east of the Project site near the existing noise *Meter:* Piccolo II *JN:* 14848

Project: Amargosa and Palmetto High-Cube Warehouse *Source:* sensitive residence at 10445 Avenal Street. *Analyst:* B. Lawson

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	57.9	63.7	54.1	63.2	62.5	61.1	60.3	58.5	57.1	55.1	54.7	54.2	57.9	10.0	67.9
	1	55.2	60.7	51.4	60.4	60.0	58.5	57.7	55.8	54.4	52.3	51.9	51.5	55.2	10.0	65.2
	2	56.4	62.5	52.7	62.2	61.7	60.2	59.0	56.9	55.5	53.6	53.3	52.8	56.4	10.0	66.4
	3	58.8	62.7	55.1	62.5	62.2	61.5	60.9	59.6	58.4	56.1	55.7	55.2	58.8	10.0	68.8
	4	59.2	64.5	55.6	64.4	64.0	62.9	61.8	59.6	58.5	56.5	56.1	55.7	59.2	10.0	69.2
	5	58.8	66.5	55.3	66.1	65.4	63.2	61.6	58.5	57.5	56.0	55.7	55.4	58.8	10.0	68.8
	6	58.4	65.8	54.6	65.4	64.8	62.6	61.4	58.5	57.2	55.3	55.0	54.7	58.4	10.0	68.4
Day	7	55.7	64.3	51.1	64.0	63.3	60.9	59.0	55.5	53.7	51.8	51.5	51.2	55.7	0.0	55.7
	8	55.4	65.4	49.2	65.1	64.6	62.3	59.8	54.0	51.9	50.0	49.7	49.3	55.4	0.0	55.4
	9	53.8	64.6	48.2	64.1	63.1	60.0	57.3	52.1	50.7	49.0	48.7	48.3	53.8	0.0	53.8
	10	55.6	65.9	48.6	65.4	64.6	62.2	60.1	54.3	51.8	49.5	49.1	48.7	55.6	0.0	55.6
	11	58.8	68.1	50.0	67.7	67.2	65.5	63.6	58.4	55.5	51.5	50.9	50.3	58.8	0.0	58.8
	12	58.3	68.1	49.8	67.5	66.6	64.1	62.3	58.5	55.3	51.2	50.6	50.0	58.3	0.0	58.3
	13	57.0	67.2	49.2	66.8	66.0	63.8	61.7	56.2	53.2	50.2	49.8	49.3	57.0	0.0	57.0
	14	58.4	68.2	50.8	67.6	66.7	64.1	62.9	58.0	55.5	52.6	51.9	51.0	58.4	0.0	58.4
	15	59.4	67.7	51.3	67.2	66.6	64.8	63.4	60.0	57.1	53.1	52.4	51.5	59.4	0.0	59.4
	16	59.3	67.6	52.1	67.2	66.6	64.8	63.4	59.6	56.9	53.4	52.9	52.3	59.3	0.0	59.3
	17	59.0	67.4	52.7	66.9	66.2	64.1	63.0	59.2	56.9	54.0	53.4	52.9	59.0	0.0	59.0
	18	58.3	66.1	53.4	65.6	64.9	62.7	61.5	58.6	56.6	54.4	54.0	53.6	58.3	0.0	58.3
	19	61.0	67.9	56.7	67.3	66.7	64.9	63.7	61.4	59.9	57.8	57.3	56.9	61.0	5.0	66.0
	20	60.7	67.3	56.6	66.8	66.2	64.5	63.4	61.2	59.7	57.7	57.3	56.8	60.7	5.0	65.7
	21	61.2	67.3	57.4	66.8	66.3	64.5	63.7	61.8	60.4	58.5	58.1	57.6	61.2	5.0	66.2
Night	22	59.3	66.8	55.1	66.3	65.7	63.4	62.0	59.4	58.0	56.1	55.7	55.3	59.3	10.0	69.3
	23	59.5	67.5	54.6	67.1	66.5	64.4	62.9	59.4	57.9	55.8	55.3	54.8	59.5	10.0	69.5

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	53.8	64.3	48.2	64.0	63.1	60.0	57.3	52.1	50.7	49.0	48.7	48.3
	Max	61.2	68.2	57.4	67.7	67.2	65.5	63.7	61.8	60.4	58.5	58.1	57.6
Energy Average		58.6	Average:		66.4	65.7	63.5	61.9	57.9	55.7	53.0	52.5	52.0
Night	Min	55.2	60.7	51.4	60.4	60.0	58.5	57.7	55.8	54.4	52.3	51.9	51.5
	Max	59.5	67.5	55.6	67.1	66.5	64.4	62.9	59.6	58.5	56.5	56.1	55.7
Energy Average		58.4	Average:		64.2	63.7	62.0	60.8	58.5	57.2	55.2	54.8	54.4

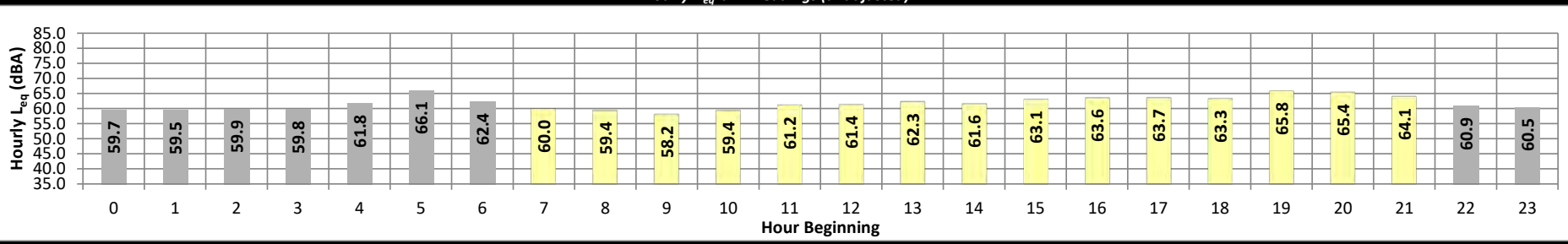
24-Hour	L_{eq} (dBA) Daytime (7am-10pm)	Nighttime (10pm-7am)
58.5	**58.6**	**58.4**

24-Hour Noise Level Measurement Summary

Date: Tuesday, June 21, 2022 *Location:* L4 - Located southeast of the Project site near the existing *Meter:* Piccolo II *JN:* 14848

Project: Amargosa and Palmetto High-Cube Warehouse *Source:* noise sensitive residence at 10122 Mt. Whitney Way. *Analyst:* B. Lawson

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	59.7	67.3	55.7	67.0	66.4	64.6	63.2	59.5	57.9	56.4	56.1	55.8	59.7	10.0	69.7
	1	59.5	66.9	55.5	66.5	66.0	64.0	62.1	59.6	58.3	56.5	56.1	55.7	59.5	10.0	69.5
	2	59.9	66.4	56.4	66.0	65.6	63.7	62.2	60.1	59.1	57.3	56.9	56.5	59.9	10.0	69.9
	3	59.8	69.7	53.9	69.4	68.9	66.3	63.8	58.3	56.6	54.8	54.3	54.0	59.8	10.0	69.8
	4	61.8	71.2	54.5	71.0	70.5	68.3	66.8	61.1	57.5	55.2	54.9	54.6	61.8	10.0	71.8
	5	66.1	77.4	60.0	76.8	75.9	72.2	69.5	64.4	62.4	60.7	60.4	60.1	66.1	10.0	76.1
	6	62.4	72.3	54.8	71.9	71.2	68.8	67.3	61.8	57.7	55.5	55.2	54.9	62.4	10.0	72.4
Day	7	60.0	70.4	48.0	70.1	69.5	67.4	65.9	59.0	52.5	48.8	48.4	48.1	60.0	0.0	60.0
	8	59.4	69.9	46.6	69.6	68.9	66.9	65.4	58.2	51.4	47.5	47.2	46.8	59.4	0.0	59.4
	9	58.2	69.7	45.8	69.4	68.6	65.7	63.3	56.1	50.2	46.7	46.4	46.0	58.2	0.0	58.2
	10	59.4	71.1	47.2	70.6	69.9	66.7	64.3	57.3	52.5	48.5	48.0	47.4	59.4	0.0	59.4
	11	61.2	71.2	50.0	70.8	70.1	67.8	66.0	61.0	57.1	51.9	51.1	50.3	61.2	0.0	61.2
	12	61.4	70.3	51.4	69.9	69.0	67.2	66.0	61.9	58.2	53.6	52.7	51.7	61.4	0.0	61.4
	13	62.3	73.7	50.7	73.4	72.4	69.0	66.7	61.1	57.1	52.5	51.7	50.9	62.3	0.0	62.3
	14	61.6	70.1	51.6	69.7	69.1	67.3	66.2	62.2	58.7	54.1	52.9	51.9	61.6	0.0	61.6
	15	63.1	70.8	53.4	70.4	69.8	68.3	67.4	64.1	60.8	56.0	55.1	53.8	63.1	0.0	63.1
	16	63.6	71.8	54.2	71.4	70.7	68.8	67.8	64.4	61.1	56.5	55.6	54.5	63.6	0.0	63.6
	17	63.7	72.8	53.4	72.3	71.6	69.4	68.1	64.3	60.3	55.4	54.6	53.7	63.7	0.0	63.7
	18	63.3	72.0	53.6	71.6	71.0	69.2	68.1	64.0	59.9	55.1	54.5	53.8	63.3	0.0	63.3
	19	65.8	74.9	57.8	74.7	73.9	71.0	69.8	66.0	63.4	59.6	58.9	58.1	65.8	5.0	70.8
	20	65.4	75.0	57.1	74.6	74.1	71.5	69.6	65.2	62.2	58.6	57.9	57.3	65.4	5.0	70.4
	21	64.1	70.4	58.2	70.1	69.7	68.4	67.7	65.0	62.7	59.6	59.0	58.4	64.1	5.0	69.1
Night	22	60.9	69.8	54.5	69.5	69.0	66.8	65.2	60.5	57.8	55.6	55.2	54.7	60.9	10.0	70.9
	23	60.5	68.1	55.0	67.8	67.3	65.3	64.1	60.8	58.8	56.3	55.9	55.2	60.5	10.0	70.5

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	58.2	69.7	45.8	69.4	68.6	65.7	63.3	56.1	50.2	46.7	46.4	46.0
	Max	65.8	75.0	58.2	74.7	74.1	71.5	69.8	66.0	63.4	59.6	59.0	58.4
Energy Average		62.7	Average:		71.2	70.5	68.3	66.8	62.0	57.9	53.6	52.9	52.2
Night	Min	59.5	66.4	53.9	66.0	65.6	63.7	62.1	58.3	56.6	54.8	54.3	54.0
	Max	66.1	77.4	60.0	76.8	75.9	72.2	69.5	64.4	62.4	60.7	60.4	60.1
Energy Average		61.7	Average:		69.6	69.0	66.7	64.9	60.7	58.4	56.5	56.1	55.7

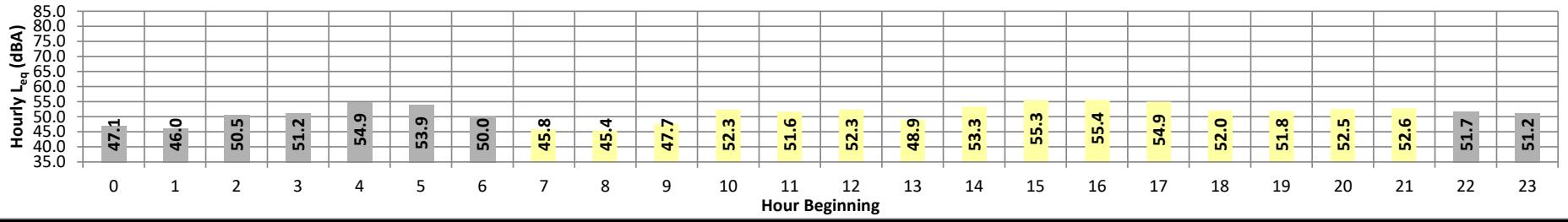
24-Hour	L_{eq} (dBA) Daytime (7am-10pm)	Nighttime (10pm-7am)
62.4	**62.7**	**61.7**

24-Hour Noise Level Measurement Summary

Date: Tuesday, June 21, 2022 *Location:* L5 - Located south of the existing noise sensitive residence at *Meter:* Piccolo II *JN:* 14848

Project: Amargosa and Palmetto High-Cube Warehouse *Source:* 10376 Wellington Road. *Analyst:* B. Lawson

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	47.1	49.8	44.9	49.6	49.3	48.8	48.5	47.6	46.9	45.6	45.3	45.0	47.1	10.0	57.1
	1	46.0	48.6	43.8	48.4	48.2	47.8	47.6	46.6	45.8	44.5	44.2	43.9	46.0	10.0	56.0
	2	50.5	53.7	48.1	53.5	53.2	52.7	52.3	51.2	50.2	48.8	48.6	48.2	50.5	10.0	60.5
	3	51.2	56.9	48.5	56.4	55.8	54.1	53.2	51.6	50.6	49.2	48.9	48.6	51.2	10.0	61.2
	4	54.9	57.3	53.1	57.1	56.9	56.4	56.2	55.4	54.6	53.7	53.5	53.2	54.9	10.0	64.9
	5	53.9	56.2	52.2	56.0	55.8	55.4	55.1	54.3	53.7	52.7	52.5	52.3	53.9	10.0	63.9
	6	50.0	54.3	48.4	53.4	52.6	51.3	51.0	50.4	49.8	48.9	48.7	48.5	50.0	10.0	60.0
Day	7	45.8	50.9	43.9	50.1	49.2	48.0	47.3	46.1	45.3	44.4	44.2	44.0	45.8	0.0	45.8
	8	45.4	52.3	42.4	51.4	50.5	49.2	48.2	45.4	44.4	43.0	42.8	42.5	45.4	0.0	45.4
	9	47.7	56.0	43.0	54.9	54.0	51.8	51.0	48.4	46.0	43.8	43.5	43.1	47.7	0.0	47.7
	10	52.3	60.0	47.0	59.2	58.2	56.4	55.6	53.1	50.9	47.9	47.5	47.2	52.3	0.0	52.3
	11	51.6	59.6	46.7	59.0	58.3	56.0	55.0	51.9	49.6	47.5	47.2	46.8	51.6	0.0	51.6
	12	52.3	60.4	46.8	59.9	59.1	57.4	56.2	52.7	50.2	47.7	47.3	46.9	52.3	0.0	52.3
	13	48.9	53.9	46.2	53.4	52.9	51.8	51.0	49.4	48.3	46.8	46.6	46.3	48.9	0.0	48.9
	14	53.3	61.2	47.8	60.6	59.8	58.1	56.7	53.7	51.6	48.8	48.3	47.9	53.3	0.0	53.3
	15	55.3	63.1	49.0	62.5	61.8	60.4	59.4	55.8	53.2	50.2	49.7	49.2	55.3	0.0	55.3
	16	55.4	63.8	49.4	63.1	62.3	60.6	59.3	55.7	53.3	50.5	50.1	49.5	55.4	0.0	55.4
	17	54.9	63.1	49.9	62.4	61.6	59.8	58.6	54.9	52.9	50.9	50.5	50.0	54.9	0.0	54.9
	18	52.0	59.0	48.6	58.2	57.4	55.5	54.7	52.4	51.0	49.3	49.0	48.7	52.0	0.0	52.0
	19	51.8	57.8	49.0	56.9	56.2	54.6	53.9	52.3	51.2	49.7	49.4	49.1	51.8	5.0	56.8
	20	52.5	57.4	49.4	57.0	56.5	55.7	55.1	53.1	51.8	50.2	49.9	49.5	52.5	5.0	57.5
	21	52.6	57.2	49.9	56.8	56.3	55.4	54.8	53.2	52.0	50.7	50.4	50.0	52.6	5.0	57.6
Night	22	51.7	55.4	48.9	55.1	54.7	54.2	53.8	52.5	51.1	49.8	49.5	49.1	51.7	10.0	61.7
	23	51.2	55.5	48.3	55.1	54.6	53.8	53.3	51.7	50.7	49.1	48.8	48.4	51.2	10.0	61.2

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	45.4	50.9	42.4	50.1	49.2	48.0	47.3	45.4	44.4	43.0	42.8	42.5
	Max	55.4	63.8	49.9	63.1	62.3	60.6	59.4	55.8	53.3	50.9	50.5	50.0
Energy Average		52.3	Average:		57.7	56.9	55.4	54.5	51.9	50.1	48.1	47.8	47.4
Night	Min	46.0	48.6	43.8	48.4	48.2	47.8	47.6	46.6	45.8	44.5	44.2	43.9
	Max	54.9	57.3	53.1	57.1	56.9	56.4	56.2	55.4	54.6	53.7	53.5	53.2
Energy Average		51.5	Average:		53.8	53.5	52.7	52.3	51.3	50.4	49.1	48.9	48.6

24-Hour	L_{eq} (dBA) Daytime (7am-10pm)	Nighttime (10pm-7am)
52.0	**52.3**	**51.5**

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APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE CONTOURS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Key Pointe Dr.
Road Segment: s/o Amargosa Rd.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	430 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	43 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	25 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	40.0 feet		
Centerline Dist. to Observer:	40.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.324
Medium Trucks:	38.093
Heavy Trucks:	38.115

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-15.77	1.63	-1.20	-4.59	0.000	0.000
Medium Trucks:	79.45	-33.10	1.67	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-29.14	1.66	-1.20	-5.56	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.1	51.2	49.5	43.4	52.0	52.6
Medium Trucks:	46.8	45.3	38.9	37.4	45.9	46.1
Heavy Trucks:	55.6	54.2	45.1	46.4	54.7	54.8
Vehicle Noise:	57.9	56.3	51.1	48.5	56.9	57.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	5	12	25	54
CNEL:	6	12	26	56

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY
Road Name: Key Pointe Dr.
Road Segment: s/o Amargosa Rd.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	1,000 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	100 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	25 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	40.0 feet		
Centerline Dist. to Observer:	40.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.324
Medium Trucks:	38.093
Heavy Trucks:	38.115

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-12.11	1.63	-1.20	-4.59	0.000	0.000
Medium Trucks:	79.45	-29.44	1.67	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-25.48	1.66	-1.20	-5.56	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.8	54.9	53.1	47.1	55.7	56.3
Medium Trucks:	50.5	49.0	42.6	41.1	49.5	49.8
Heavy Trucks:	59.2	57.8	48.8	50.0	58.4	58.5
Vehicle Noise:	61.5	60.0	54.8	52.2	60.6	60.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	9	20	44	95
CNEL:	10	21	46	99

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY+P
Road Name: Key Pointe Dr.
Road Segment: s/o Amargosa Rd.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	1,692 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	169 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	25 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	40.0 feet		
Centerline Dist. to Observer:	40.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	89.62%
Medium Trucks:	84.8%	4.9%	10.3%	2.18%
Heavy Trucks:	86.5%	2.7%	10.8%	8.20%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.324
Medium Trucks:	38.093
Heavy Trucks:	38.115

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-10.03	1.63	-1.20	-4.59	0.000	0.000
Medium Trucks:	79.45	-26.16	1.67	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-20.42	1.66	-1.20	-5.56	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	58.9	57.0	55.2	49.1	57.8	58.4
Medium Trucks:	53.8	52.2	45.9	44.3	52.8	53.0
Heavy Trucks:	64.3	62.9	53.8	55.1	63.4	63.6
Vehicle Noise:	65.7	64.2	57.9	56.4	64.8	65.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	18	39	83	179
CNEL:	19	40	86	186

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP
Road Name: Key Pointe Dr.
Road Segment: s/o Amargosa Rd.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	4,700 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	470 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	25 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	40.0 feet		
Centerline Dist. to Observer:	40.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.324
Medium Trucks:	38.093
Heavy Trucks:	38.115

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-5.39	1.63	-1.20	-4.59	0.000	0.000
Medium Trucks:	79.45	-22.72	1.67	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-18.76	1.66	-1.20	-5.56	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	63.5	61.6	59.8	53.8	62.4	63.0
Medium Trucks:	57.2	55.7	49.3	47.8	56.2	56.5
Heavy Trucks:	66.0	64.5	55.5	56.8	65.1	65.2
Vehicle Noise:	68.3	66.7	61.5	58.9	67.3	67.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	27	57	123	265
CNEL:	28	60	129	278

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP+P
Road Name: Key Pointe Dr.
Road Segment: s/o Amargosa Rd.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	5,392 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	539 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	45 mph		
Near/Far Lane Distance:	25 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	40.0 feet		
Centerline Dist. to Observer:	40.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	92.58%
Medium Trucks:	84.8%	4.9%	10.3%	1.88%
Heavy Trucks:	86.5%	2.7%	10.8%	5.54%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	38.324
Medium Trucks:	38.093
Heavy Trucks:	38.115

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	68.46	-4.85	1.63	-1.20	-4.59	0.000	0.000
Medium Trucks:	79.45	-21.78	1.67	-1.20	-4.87	0.000	0.000
Heavy Trucks:	84.25	-17.09	1.66	-1.20	-5.56	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	64.0	62.1	60.4	54.3	62.9	63.5
Medium Trucks:	58.1	56.6	50.3	48.7	57.2	57.4
Heavy Trucks:	67.6	66.2	57.2	58.4	66.8	66.9
Vehicle Noise:	69.5	68.0	62.3	60.2	68.6	68.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	32	70	150	323
CNEL:	34	72	156	336

Thursday, September 15, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Amargosa Rd.
Road Segment: n/o Palmetto Wy.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	8,610 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	861 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	50 mph		
Near/Far Lane Distance:	48 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	50.0 feet		
Centerline Dist. to Observer:	50.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-3.22	0.71	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-20.54	0.74	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-16.59	0.73	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.5	64.6	62.8	56.8	65.4	66.0
Medium Trucks:	60.0	58.5	52.1	50.6	59.0	59.3
Heavy Trucks:	68.3	66.9	57.9	59.1	67.5	67.6
Vehicle Noise:	70.9	69.3	64.3	61.5	69.9	70.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	50	107	230	495
CNEL:	52	112	241	519

Thursday, September 15, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY
Road Name: Amargosa Rd.
Road Segment: n/o Palmetto Wy.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	9,130 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	913 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	50 mph		
Near/Far Lane Distance:	48 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	50.0 feet		
Centerline Dist. to Observer:	50.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-2.96	0.71	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-20.29	0.74	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-16.33	0.73	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.7	64.9	63.1	57.0	65.7	66.3
Medium Trucks:	60.2	58.7	52.4	50.8	59.3	59.5
Heavy Trucks:	68.6	67.2	58.1	59.4	67.7	67.9
Vehicle Noise:	71.1	69.5	64.6	61.7	70.2	70.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	51	111	239	515
CNEL:	54	116	251	540

Thursday, September 15, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY+P
Road Name: Amargosa Rd.
Road Segment: n/o Palmetto Wy.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		**Site Conditions (Hard = 10, Soft = 15)**	
Average Daily Traffic (Adt):	9,328 vehicles	Autos:	15
Peak Hour Percentage:	10.00%	Medium Trucks (2 Axles):	15
Peak Hour Volume:	933 vehicles	Heavy Trucks (3+ Axles):	15
Vehicle Speed:	50 mph		
Near/Far Lane Distance:	48 feet		
Site Data		**Vehicle Mix**	
Barrier Height:	**0.0 feet**		
Barrier Type (0-Wall, 1-Berm):	0.0		
Centerline Dist. to Barrier:	50.0 feet		
Centerline Dist. to Observer:	50.0 feet		
Barrier Distance to Observer:	0.0 feet		
Observer Height (Above Pad):	5.0 feet		
Pad Elevation:	0.0 feet		
Road Elevation:	0.0 feet		
Road Grade:	0.0%		
Left View:	-90.0 degrees		
Right View:	90.0 degrees		

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	94.07%
Medium Trucks:	84.8%	4.9%	10.3%	1.70%
Heavy Trucks:	86.5%	2.7%	10.8%	4.23%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-2.86	0.71	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-20.29	0.74	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-16.33	0.73	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	66.8	64.9	63.2	57.1	65.8	66.4
Medium Trucks:	60.2	58.7	52.4	50.8	59.3	59.5
Heavy Trucks:	68.6	67.2	58.1	59.4	67.7	67.9
Vehicle Noise:	71.2	69.6	64.6	61.8	70.2	70.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	52	112	240	518
CNEL:	54	117	252	543

Thursday, September 15, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP | Project Name: Amargosa and Palmetto
Road Name: Amargosa Rd. | Job Number: 14848
Road Segment: n/o Palmetto Wy.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,110 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,311 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.39	0.71	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-18.72	0.74	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-14.76	0.73	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.3	66.4	64.7	58.6	67.2	67.8
Medium Trucks:	61.8	60.3	53.9	52.4	60.9	61.1
Heavy Trucks:	70.2	68.7	59.7	60.9	69.3	69.4
Vehicle Noise:	72.7	71.1	66.1	63.3	71.8	72.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	66	141	304	655
CNEL:	69	148	319	687

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP+P | Project Name: Amargosa and Palmetto
Road Name: Amargosa Rd. | Job Number: 14848
Road Segment: n/o Palmetto Wy.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,308 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,331 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	94.03%
Medium Trucks:	84.8%	4.9%	10.3%	1.71%
Heavy Trucks:	86.5%	2.7%	10.8%	4.26%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-1.32	0.71	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-18.72	0.74	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-14.76	0.73	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.4	66.5	64.7	58.7	67.3	67.9
Medium Trucks:	61.8	60.3	53.9	52.4	60.9	61.1
Heavy Trucks:	70.2	68.7	59.7	60.9	69.3	69.4
Vehicle Noise:	72.7	71.1	66.2	63.3	71.8	72.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	66	142	305	658
CNEL:	69	149	320	690

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E | Project Name: Amargosa and Palmetto
Road Name: Amargosa Rd. | Job Number: 14848
Road Segment: w/o Key Pointe Dr.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,530 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	653 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-4.42	0.71	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-21.75	0.74	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-17.79	0.73	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.3	63.4	61.6	55.6	64.2	64.8
Medium Trucks:	58.8	57.3	50.9	49.4	57.8	58.1
Heavy Trucks:	67.1	65.7	56.7	57.9	66.3	66.4
Vehicle Noise:	69.7	68.1	63.1	60.3	68.7	69.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	41	89	191	412
CNEL:	43	93	200	432

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY | Project Name: Amargosa and Palmetto
Road Name: Amargosa Rd. | Job Number: 14848
Road Segment: w/o Key Pointe Dr.

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,380 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	738 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	70.20	-3.89	0.71	-1.20	-4.65	0.000	0.000
Medium Trucks:	81.00	-21.21	0.74	-1.20	-4.87	0.000	0.000
Heavy Trucks:	85.38	-17.26	0.73	-1.20	-5.43	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	65.8	63.9	62.2	56.1	64.7	65.3
Medium Trucks:	59.3	57.8	51.5	49.9	58.4	58.6
Heavy Trucks:	67.7	66.2	57.2	58.4	66.8	66.9
Vehicle Noise:	70.2	68.6	63.6	60.8	69.3	69.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	45	96	207	447
CNEL:	47	101	217	469

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY+P
Road Name: Amargosa Rd.
Road Segment: w/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,396	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	740	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	48	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	93.95%
Medium Trucks:	84.8%	4.9%	10.3%	1.73%
Heavy Trucks:	86.5%	2.7%	10.8%	4.31%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	-3.88	0.71	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	81.00	-21.21	0.74	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	85.38	-17.26	0.73	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.8	63.9	62.2	56.1	64.7	65.3
Medium Trucks:	59.3	57.8	51.5	49.9	58.4	58.6
Heavy Trucks:	67.7	66.2	57.2	58.4	66.8	66.9
Vehicle Noise:	70.2	68.6	63.6	60.8	69.3	69.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	45	96	207	447
CNEL:	47	101	218	469

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP
Road Name: Amargosa Rd.
Road Segment: w/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,280	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,128	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	48	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	-2.04	0.71	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	81.00	-19.37	0.74	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	85.38	-15.41	0.73	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.7	65.8	64.0	57.9	66.6	67.2
Medium Trucks:	61.2	59.7	53.3	51.8	60.2	60.4
Heavy Trucks:	69.5	68.1	59.0	60.3	68.6	68.8
Vehicle Noise:	72.1	70.5	65.5	62.7	71.1	71.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	59	128	275	593
CNEL:	62	134	289	622

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP+P
Road Name: Amargosa Rd.
Road Segment: w/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,296	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	1,130	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	48	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	93.95%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	-2.04	0.71	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	81.00	-19.37	0.74	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	85.38	-15.41	0.73	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.7	65.8	64.0	58.0	66.6	67.2
Medium Trucks:	61.2	59.7	53.3	51.8	60.2	60.4
Heavy Trucks:	69.5	68.1	59.0	60.3	68.6	68.8
Vehicle Noise:	72.1	70.5	65.5	62.7	71.1	71.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	59	128	275	593
CNEL:	62	134	289	622

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Amargosa Rd.
Road Segment: e/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,340	vehicles
Peak Hour Percentage:	10.00%	
Peak Hour Volume:	634	vehicles
Vehicle Speed:	50	mph
Near/Far Lane Distance:	48	feet

Site Data

Barrier Height:	**0.0**	**feet**
Barrier Type (0-Wall, 1-Berm):	0.0	
Centerline Dist. to Barrier:	50.0	feet
Centerline Dist. to Observer:	50.0	feet
Barrier Distance to Observer:	0.0	feet
Observer Height (Above Pad):	5.0	feet
Pad Elevation:	0.0	feet
Road Elevation:	0.0	feet
Road Grade:	0.0%	
Left View:	-90.0	degrees
Right View:	90.0	degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	-4.55	0.71	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	81.00	-21.87	0.74	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	85.38	-17.92	0.73	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.2	63.3	61.5	55.4	64.1	64.7
Medium Trucks:	58.7	57.2	50.8	49.3	57.7	57.9
Heavy Trucks:	67.0	65.6	56.5	57.8	66.1	66.3
Vehicle Noise:	69.6	68.0	63.0	60.2	68.6	68.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	40	87	187	404
CNEL:	42	91	197	423

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY
Road Name: Amargosa Rd.
Road Segment: e/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,620 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	662 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	-4.36	0.71	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	81.00	-21.69	0.74	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	85.38	-17.73	0.73	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.4	63.5	61.7	55.6	64.3	64.9
Medium Trucks:	58.9	57.3	51.0	49.4	57.9	58.1
Heavy Trucks:	67.2	65.8	56.7	58.0	66.3	66.5
Vehicle Noise:	69.7	68.1	63.2	60.3	68.8	69.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	42	90	193	416
CNEL:	44	94	202	436

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY+P
Road Name: Amargosa Rd.
Road Segment: e/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,328 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	733 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	92.95%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	5.21%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	-3.96	0.71	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	81.00	-21.00	0.74	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	85.38	-16.48	0.73	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.7	63.9	62.1	56.0	64.7	65.3
Medium Trucks:	59.5	58.0	51.7	50.1	58.6	58.8
Heavy Trucks:	68.4	67.0	58.0	59.2	67.6	67.7
Vehicle Noise:	70.7	69.1	63.8	61.3	69.7	70.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	48	103	222	479
CNEL:	50	108	232	500

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP
Road Name: Amargosa Rd.
Road Segment: e/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,360 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	736 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	-3.90	0.71	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	81.00	-21.23	0.74	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	85.38	-17.27	0.73	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.8	63.9	62.1	56.1	64.7	65.3
Medium Trucks:	59.3	57.8	51.4	49.9	58.4	58.6
Heavy Trucks:	67.6	66.2	57.2	58.4	66.8	66.9
Vehicle Noise:	70.2	68.6	63.6	60.8	69.3	69.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	45	96	207	446
CNEL:	47	101	217	468

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP+P
Road Name: Amargosa Rd.
Road Segment: e/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,068 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	807 vehicles
Vehicle Speed:	50 mph
Near/Far Lane Distance:	48 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	50.0 feet
Centerline Dist. to Observer:	50.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	93.04%
Medium Trucks:	84.8%	4.9%	10.3%	1.83%
Heavy Trucks:	86.5%	2.7%	10.8%	5.13%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	44.147
Medium Trucks:	43.947
Heavy Trucks:	43.966

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	70.20	-3.54	0.71	-1.20	*-4.65*	0.000	0.000
Medium Trucks:	81.00	-20.61	0.74	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	85.38	-16.13	0.73	-1.20	*-5.43*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.2	64.3	62.5	56.5	65.1	65.7
Medium Trucks:	59.9	58.4	52.1	50.5	59.0	59.2
Heavy Trucks:	68.8	67.4	58.3	59.6	67.9	68.1
Vehicle Noise:	71.0	69.5	64.2	61.6	70.1	70.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	51	109	235	507
CNEL:	53	114	246	530

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Main St.
Road Segment: w/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	20,470 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,047 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	0.13	0.46	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-17.20	0.49	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-13.24	0.48	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	71.2	69.3	67.5	61.5	70.1	70.7
Medium Trucks:	64.5	63.0	56.6	55.1	63.5	63.8
Heavy Trucks:	72.4	71.0	62.0	63.2	71.6	71.7
Vehicle Noise:	75.2	73.6	68.8	65.8	74.3	74.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	116	250	538	1,159
CNEL:	122	262	565	1,218

Thursday, September 15, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY
Road Name: Main St.
Road Segment: w/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	39,240 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	3,924 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.96	0.46	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.37	0.49	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-10.41	0.48	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.0	72.1	70.3	64.3	72.9	73.5
Medium Trucks:	67.3	65.8	59.4	57.9	66.4	66.6
Heavy Trucks:	75.3	73.8	64.8	66.1	74.4	74.5
Vehicle Noise:	78.1	76.5	71.7	68.7	77.1	77.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	179	385	830	1,788
CNEL:	188	405	872	1,879

Thursday, September 15, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY+P
Road Name: Main St.
Road Segment: w/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	39,264 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	3,926 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	2.96	0.46	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.37	0.49	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-10.41	0.48	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.0	72.1	70.3	64.3	72.9	73.5
Medium Trucks:	67.3	65.8	59.4	57.9	66.4	66.6
Heavy Trucks:	75.3	73.8	64.8	66.1	74.4	74.5
Vehicle Noise:	78.1	76.5	71.7	68.7	77.1	77.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	179	385	830	1,788
CNEL:	188	405	872	1,879

Thursday, September 15, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP
Road Name: Main St.
Road Segment: w/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	41,730 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	4,173 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.22	0.46	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.10	0.49	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-10.15	0.48	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.3	72.4	70.6	64.5	73.2	73.8
Medium Trucks:	67.6	66.1	59.7	58.2	66.6	66.9
Heavy Trucks:	75.5	74.1	65.1	66.3	74.7	74.8
Vehicle Noise:	78.3	76.7	71.9	68.9	77.4	77.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	186	401	865	1,863
CNEL:	196	422	909	1,958

Thursday, September 15, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP+P
Road Name: Main St.
Road Segment: w/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	41,754 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	4,175 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.23	0.46	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-14.10	0.49	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-10.15	0.48	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.3	72.4	70.6	64.5	73.2	73.8
Medium Trucks:	67.6	66.1	59.7	58.2	66.6	66.9
Heavy Trucks:	75.5	74.1	65.1	66.3	74.7	74.8
Vehicle Noise:	78.3	76.7	71.9	68.9	77.4	77.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	186	401	865	1,863
CNEL:	196	422	909	1,958

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Main St.
Road Segment: e/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,910 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,191 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	-2.22	0.46	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-19.55	0.49	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-15.59	0.48	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	68.8	66.9	65.2	59.1	67.7	68.3
Medium Trucks:	62.1	60.6	54.3	52.7	61.2	61.4
Heavy Trucks:	70.1	68.7	59.6	60.9	69.2	69.4
Vehicle Noise:	72.9	71.3	66.5	63.5	71.9	72.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	81	174	375	808
CNEL:	85	183	394	849

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY
Road Name: Main St.
Road Segment: e/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	29,510 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,951 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	1.72	0.46	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-15.61	0.49	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-11.65	0.48	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.8	70.9	69.1	63.0	71.7	72.3
Medium Trucks:	66.1	64.6	58.2	56.7	65.1	65.4
Heavy Trucks:	74.0	72.6	63.6	64.8	73.2	73.3
Vehicle Noise:	76.8	75.2	70.4	67.4	75.9	76.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	148	319	686	1,479
CNEL:	155	335	721	1,554

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY+P
Road Name: Main St.
Road Segment: e/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	30,178 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	3,018 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.69%
Medium Trucks:	84.8%	4.9%	10.3%	1.76%
Heavy Trucks:	86.5%	2.7%	10.8%	4.54%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	Grade Adjustment:	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	1.80	0.46	-1.20	-4.69	0.000	0.000
Medium Trucks:	82.40	-15.45	0.49	-1.20	-4.88	0.000	0.000
Heavy Trucks:	86.40	-11.34	0.48	-1.20	-5.34	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	72.8	70.9	69.2	63.1	71.7	72.4
Medium Trucks:	66.2	64.7	58.4	56.8	65.3	65.5
Heavy Trucks:	74.3	72.9	63.9	65.1	73.5	73.6
Vehicle Noise:	77.0	75.4	70.6	67.6	76.1	76.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	153	329	709	1,529
CNEL:	160	346	745	1,605

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP
Road Name: Main St.
Road Segment: e/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	27,250 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,725 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	71.78	1.37	0.46	-1.20	*-4.69*	0.000	0.000
Medium Trucks:	82.40	-15.95	0.49	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-12.00	0.48	-1.20	*-5.34*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.4	70.5	68.7	62.7	71.3	71.9
Medium Trucks:	65.7	64.2	57.9	56.3	64.8	65.0
Heavy Trucks:	73.7	72.3	63.2	64.5	72.8	73.0
Vehicle Noise:	76.5	74.9	70.1	67.1	75.5	75.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	140	302	651	1,402
CNEL:	147	317	684	1,474

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP+P
Road Name: Main St.
Road Segment: e/o Key Pointe Dr.
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	27,918 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	2,792 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	93.67%
Medium Trucks:	84.8%	4.9%	10.3%	1.77%
Heavy Trucks:	86.5%	2.7%	10.8%	4.56%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	71.78	1.47	0.46	-1.20	*-4.69*	0.000	0.000
Medium Trucks:	82.40	-15.78	0.49	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-11.66	0.48	-1.20	*-5.34*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	72.5	70.6	68.8	62.8	71.4	72.0
Medium Trucks:	65.9	64.4	58.0	56.5	65.0	65.2
Heavy Trucks:	74.0	72.6	63.6	64.8	73.2	73.3
Vehicle Noise:	76.7	75.1	70.2	67.3	75.8	76.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	145	313	675	1,453
CNEL:	153	329	708	1,526

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: E
Road Name: Main St.
Road Segment: e/o I-15 NB Ramps
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	41,530 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	4,153 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	71.78	3.20	0.46	-1.20	*-4.69*	0.000	0.000
Medium Trucks:	82.40	-14.12	0.49	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-10.17	0.48	-1.20	*-5.34*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	74.2	72.3	70.6	64.5	73.1	73.8
Medium Trucks:	67.6	66.1	59.7	58.2	66.6	66.8
Heavy Trucks:	75.5	74.1	65.1	66.3	74.7	74.8
Vehicle Noise:	78.3	76.7	71.9	68.9	77.4	77.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	186	400	862	1,857
CNEL:	195	420	906	1,951

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY
Road Name: Main St.
Road Segment: e/o I-15 NB Ramps
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	46,730 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	4,673 vehicles
Vehicle Speed:	55 mph
Near/Far Lane Distance:	78 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	71.78	3.72	0.46	-1.20	*-4.69*	0.000	0.000
Medium Trucks:	82.40	-13.61	0.49	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-9.65	0.48	-1.20	*-5.34*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	74.8	72.9	71.1	65.0	73.7	74.3
Medium Trucks:	68.1	66.6	60.2	58.7	67.1	67.4
Heavy Trucks:	76.0	74.6	65.6	66.8	75.2	75.3
Vehicle Noise:	78.8	77.2	72.4	69.4	77.9	78.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	201	433	932	2,009
CNEL:	211	455	980	2,111

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: OY+P
Road Name: Main St.
Road Segment: e/o I-15 NB Ramps
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		***Site Conditions (Hard = 10, Soft = 15)***	
Average Daily Traffic (Adt):	46,967 vehicles	*Autos:*	15
Peak Hour Percentage:	10.00%	*Medium Trucks (2 Axles):*	15
Peak Hour Volume:	4,697 vehicles	*Heavy Trucks (3+ Axles):*	15
Vehicle Speed:	55 mph		
Near/Far Lane Distance:	78 feet		

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.97%
Medium Trucks:	84.8%	4.9%	10.3%	1.73%
Heavy Trucks:	86.5%	2.7%	10.8%	4.30%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	3.74	0.46	-1.20	*-4.69*	0.000	0.000
Medium Trucks:	82.40	-13.61	0.49	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-9.65	0.48	-1.20	*-5.34*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	74.8	72.9	71.1	65.1	73.7	74.3
Medium Trucks:	68.1	66.6	60.2	58.7	67.1	67.4
Heavy Trucks:	76.0	74.6	65.6	66.8	75.2	75.3
Vehicle Noise:	78.8	77.2	72.4	69.4	77.9	78.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	201	433	934	2,012
CNEL:	211	455	981	2,114

Thursday, September 15, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP
Road Name: Main St.
Road Segment: e/o I-15 NB Ramps
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		***Site Conditions (Hard = 10, Soft = 15)***	
Average Daily Traffic (Adt):	51,280 vehicles	*Autos:*	15
Peak Hour Percentage:	10.00%	*Medium Trucks (2 Axles):*	15
Peak Hour Volume:	5,128 vehicles	*Heavy Trucks (3+ Axles):*	15
Vehicle Speed:	55 mph		
Near/Far Lane Distance:	78 feet		

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.94%
Medium Trucks:	84.8%	4.9%	10.3%	1.74%
Heavy Trucks:	86.5%	2.7%	10.8%	4.32%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.12	0.46	-1.20	*-4.69*	0.000	0.000
Medium Trucks:	82.40	-13.21	0.49	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-9.25	0.48	-1.20	*-5.34*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.2	73.3	71.5	65.4	74.1	74.7
Medium Trucks:	68.5	67.0	60.6	59.1	67.5	67.8
Heavy Trucks:	76.4	75.0	66.0	67.2	75.6	75.7
Vehicle Noise:	79.2	77.6	72.8	69.8	78.3	78.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	214	460	992	2,137
CNEL:	225	484	1,043	2,246

Thursday, September 15, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL (9/12/2021)

Scenario: GP+P
Road Name: Main St.
Road Segment: e/o I-15 NB Ramps
Project Name: Amargosa and Palmetto
Job Number: 14848

SITE SPECIFIC INPUT DATA		NOISE MODEL INPUTS	
Highway Data		***Site Conditions (Hard = 10, Soft = 15)***	
Average Daily Traffic (Adt):	51,517 vehicles	*Autos:*	15
Peak Hour Percentage:	10.00%	*Medium Trucks (2 Axles):*	15
Peak Hour Volume:	5,152 vehicles	*Heavy Trucks (3+ Axles):*	15
Vehicle Speed:	55 mph		
Near/Far Lane Distance:	78 feet		

Vehicle Mix

VehicleType	Day	Evening	Night	Daily
Autos:	77.5%	12.9%	9.6%	93.97%
Medium Trucks:	84.8%	4.9%	10.3%	1.73%
Heavy Trucks:	86.5%	2.7%	10.8%	4.30%

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	60.0 feet
Centerline Dist. to Observer:	60.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.004	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	45.869
Medium Trucks:	45.676
Heavy Trucks:	45.695

FHWA Noise Model Calculations

VehicleType	REMEL	Traffic Flow	Distance	Finite Road	Fresnel	Barrier Atten	Berm Atten
Autos:	71.78	4.14	0.46	-1.20	*-4.69*	0.000	0.000
Medium Trucks:	82.40	-13.21	0.49	-1.20	*-4.88*	0.000	0.000
Heavy Trucks:	86.40	-9.25	0.48	-1.20	*-5.34*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	Leq Peak Hour	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	75.2	73.3	71.5	65.5	74.1	74.7
Medium Trucks:	68.5	67.0	60.6	59.1	67.5	67.8
Heavy Trucks:	76.4	75.0	66.0	67.2	75.6	75.7
Vehicle Noise:	79.2	77.6	72.9	69.8	78.3	78.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	65 dBA	60 dBA	55 dBA
Ldn:	214	461	993	2,140
CNEL:	225	485	1,044	2,249

Thursday, September 15, 2022

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APPENDIX 9.1:

CADNAA OPERATIONAL NOISE MODEL INPUTS

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14848 - Amargosa and Palmetto

CadnaA Noise Prediction Model: 14848-02.cna
Date: 16.09.22
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Reference Time Day (min)	**960.00**
Reference Time Night (min)	**480.00**
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	45.9	45.9	52.6	60.0	55.0	0.0				5.00	a	6221305.09	2468653.38	5.00
RECEIVERS		R2	41.2	41.2	47.8	60.0	55.0	0.0				5.00	a	6222005.62	2468653.38	5.00
RECEIVERS		R3	37.6	37.5	44.2	60.0	55.0	0.0				5.00	a	6224255.62	2468671.61	5.00
RECEIVERS		R4	43.7	43.7	50.3	60.0	55.0	0.0				5.00	a	6223760.69	2467691.18	5.00
RECEIVERS		R5	47.8	47.8	54.4	60.0	55.0	0.0				5.00	a	6220761.76	2468813.86	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC01	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6222315.08	2468173.13	50.00
POINTSOURCE		AC02	88.9	88.9	88.9	Lw	88.9		585.00	0.00	252.00	5.00	g	6222272.06	2468172.08	50.00
POINTSOURCE		TRASH01	89.0	89.0	89.0	Lw	89		150.00	0.00	90.00	5.00	a	6222145.08	2468032.52	5.00
POINTSOURCE		CAR01	81.1	81.1	81.1	Lw	81.1					5.00	a	6222438.91	2468247.64	5.00
POINTSOURCE		CAR02	81.1	81.1	81.1	Lw	81.1					5.00	a	6222472.49	2468280.17	5.00
POINTSOURCE		CAR03	81.1	81.1	81.1	Lw	81.1					5.00	a	6222500.82	2468246.59	5.00
POINTSOURCE		CAR04	81.1	81.1	81.1	Lw	81.1					5.00	a	6222607.86	2468355.72	5.00
POINTSOURCE		CAR05	81.1	81.1	81.1	Lw	81.1					5.00	a	6222566.93	2468354.67	5.00
POINTSOURCE		CAR06	81.1	81.1	81.1	Lw	81.1					5.00	a	6222498.72	2468355.72	5.00
POINTSOURCE		CAR07	81.1	81.1	81.1	Lw	81.1					5.00	a	6222451.50	2468354.67	5.00
POINTSOURCE		CAR08	81.1	81.1	81.1	Lw	81.1					5.00	a	6222445.20	2468309.55	5.00
POINTSOURCE		CAR09	81.1	81.1	81.1	Lw	81.1					5.00	a	6222497.67	2468309.55	5.00
POINTSOURCE		CAR10	81.1	81.1	81.1	Lw	81.1					5.00	a	6222557.49	2468309.55	5.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night			X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		CAR11	81.1	81.1	81.1	Lw	81.1					5.00	a	6222599.46	2468309.55	5.00
POINTSOURCE		CAR12	81.1	81.1	81.1	Lw	81.1					5.00	a	6222604.71	2468416.59	5.00
POINTSOURCE		CAR13	81.1	81.1	81.1	Lw	81.1					5.00	a	6222565.88	2468417.64	5.00
POINTSOURCE		CAR14	81.1	81.1	81.1	Lw	81.1					5.00	a	6222499.77	2468418.68	5.00
POINTSOURCE		CAR15	81.1	81.1	81.1	Lw	81.1					5.00	a	6222453.60	2468418.68	5.00
POINTSOURCE		CAR16	81.1	81.1	81.1	Lw	81.1					5.00	a	6222456.75	2468482.70	5.00
POINTSOURCE		CAR17	81.1	81.1	81.1	Lw	81.1					5.00	a	6222498.72	2468481.65	5.00
POINTSOURCE		CAR18	81.1	81.1	81.1	Lw	81.1					5.00	a	6222566.93	2468480.60	5.00
POINTSOURCE		CAR19	81.1	81.1	81.1	Lw	81.1					5.00	a	6222603.66	2468480.60	5.00
POINTSOURCE		CAR20	81.1	81.1	81.1	Lw	81.1					5.00	a	6222374.90	2468243.44	5.00
POINTSOURCE		CAR21	81.1	81.1	81.1	Lw	81.1					5.00	a	6222376.99	2468305.35	5.00
POINTSOURCE		CAR22	81.1	81.1	81.1	Lw	81.1					5.00	a	6222376.99	2468370.41	5.00
POINTSOURCE		CAR23	81.1	81.1	81.1	Lw	81.1					5.00	a	6222379.09	2468422.88	5.00
POINTSOURCE		CAR24	81.1	81.1	81.1	Lw	81.1					5.00	a	6222379.09	2468479.55	5.00
POINTSOURCE		CAR25	81.1	81.1	81.1	Lw	81.1					5.00	a	6222407.43	2468528.87	5.00
POINTSOURCE		CAR26	81.1	81.1	81.1	Lw	81.1					5.00	a	6222458.85	2468526.77	5.00
POINTSOURCE		CAR27	81.1	81.1	81.1	Lw	81.1					5.00	a	6222514.46	2468525.72	5.00
POINTSOURCE		CAR28	81.1	81.1	81.1	Lw	81.1					5.00	a	6222562.73	2468525.72	5.00
POINTSOURCE		CAR29	81.1	81.1	81.1	Lw	81.1					5.00	a	6222616.25	2468525.72	5.00
POINTSOURCE		CAR30	81.1	81.1	81.1	Lw	81.1					5.00	a	6222666.62	2468511.03	5.00
POINTSOURCE		CAR31	81.1	81.1	81.1	Lw	81.1					5.00	a	6222666.62	2468462.76	5.00
POINTSOURCE		CAR32	81.1	81.1	81.1	Lw	81.1					5.00	a	6222666.62	2468413.44	5.00
POINTSOURCE		CAR33	81.1	81.1	81.1	Lw	81.1					5.00	a	6222668.72	2468363.07	5.00

Line Source(s)

Name	M.	ID	Result. PWL			Result. PWL'			Lw / Li			Operating Time			Moving Pt. Src				Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	Number			Speed		
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	Day	Evening	Night	(mph)	(ft)	
LINESOURCE		TRUCK01	93.2	93.2	93.2	74.2	74.2	74.2	Lw	93.2									8	a
LINESOURCE		TRUCK02	93.2	93.2	93.2	64.1	64.1	64.1	Lw	93.2									8	a
LINESOURCE		TRUCK03	93.2	93.2	93.2	75.5	75.5	75.5	Lw	93.2									8	a
LINESOURCE		TRUCK04	93.2	93.2	93.2	69.9	69.9	69.9	Lw	93.2									8	a

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
LINESOURCE	8.00	a			6220795.59	2468109.12	8.00	0.00
					6221058.86	2468106.96	8.00	0.00
LINESOURCE	8.00	a			6220414.67	2468018.87	8.00	0.00
					6220431.71	2467971.88	8.00	0.00
					6220445.48	2467925.91	8.00	0.00
					6220574.79	2467946.60	8.00	0.00
					6220714.56	2467953.62	8.00	0.00
					6221789.31	2467947.40	8.00	0.00
					6222137.72	2467947.09	8.00	0.00
					6222289.45	2467963.50	8.00	0.00
					6222458.91	2468004.71	8.00	0.00
					6222640.56	2468078.75	8.00	0.00
					6222808.40	2468180.29	8.00	0.00
					6222868.70	2468226.49	8.00	0.00
					6222911.12	2468183.63	8.00	0.00
LINESOURCE	8.00	a			6220850.17	2467952.84	8.00	0.00
					6220854.32	2468147.29	8.00	0.00
LINESOURCE	8.00	a			6222188.00	2468095.59	8.00	0.00
					6222356.01	2468093.38	8.00	0.00
					6222411.62	2468104.92	8.00	0.00
					6222669.77	2468279.12	8.00	0.00
					6222754.25	2468143.53	8.00	0.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
AREASOURCE		DOCK01	111.5	111.5	111.5	68.6	68.6	68.6	Lw	111.5					8	a
AREASOURCE		TRAILER01	103.4	103.4	103.4	60.7	60.7	60.7	Lw	103.4					8	a

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
AREASOURCE	8.00	a			6221057.94	2468203.56	8.00	0.00
					6222188.11	2468198.32	8.00	0.00
					6222189.16	2468138.50	8.00	0.00
					6222186.01	2468022.02	8.00	0.00
					6222083.17	2468011.53	8.00	0.00
					6221055.84	2468014.68	8.00	0.00

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
					6221060.03	2468142.70	8.00	0.00
AREASOURCE	8.00	a			6220691.71	2468556.15	8.00	0.00
					6220943.55	2468556.15	8.00	0.00
					6220950.90	2468147.95	8.00	0.00
					6220795.59	2468146.90	8.00	0.00
					6220795.59	2468075.54	8.00	0.00
					6220753.62	2468075.54	8.00	0.00
					6220747.32	2468018.87	8.00	0.00
					6220339.12	2468018.87	8.00	0.00
					6220339.12	2468214.06	8.00	0.00
					6220390.54	2468215.11	8.00	0.00
					6220392.63	2468269.67	8.00	0.00
					6220693.80	2468271.77	8.00	0.00

Building(s)

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING		PROJECT	x	0		45.00	a	6220943.55	2468556.15	45.00	0.00
								6222340.27	2468549.86	45.00	0.00
								6222336.07	2468144.80	45.00	0.00
								6222189.16	2468138.50	45.00	0.00
								6222188.11	2468198.32	45.00	0.00
								6221057.94	2468203.56	45.00	0.00
								6221060.03	2468142.70	45.00	0.00
								6220950.90	2468147.95	45.00	0.00
								6220945.65	2468204.61	45.00	0.00

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APPENDIX 10.1:

CADNAA CONSTRUCTION NOISE MODEL INPUTS

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14848 - Amargosa and Palmetto

CadnaA Noise Prediction Model: 14848-02_Construction.cna
Date: 16.09.22
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Reference Time Day (min)	**960.00**
Reference Time Night (min)	**480.00**
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	59.7	59.7	66.4	60.0	55.0	0.0				5.00	a	6221305.09	2468653.38	5.00
RECEIVERS		R2	59.5	59.5	66.2	60.0	55.0	0.0				5.00	a	6222005.62	2468653.38	5.00
RECEIVERS		R3	45.1	45.1	51.8	60.0	55.0	0.0				5.00	a	6224255.62	2468671.61	5.00
RECEIVERS		R4	47.1	47.1	53.7	60.0	55.0	0.0				5.00	a	6223760.69	2467691.18	5.00
RECEIVERS		R5	55.9	55.9	62.6	60.0	55.0	0.0				5.00	a	6220761.76	2468813.86	5.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL"			Lw / Li			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
SITEBOUNDARY		CONSTRUCTION	115.0	115.0	115.0	63.7	63.7	63.7	Lw	115					8	a

Name	Height			Coordinates			
	Begin		End	x	y	z	Ground
	(ft)		(ft)	(ft)	(ft)	(ft)	(ft)
SITEBOUNDARY	8.00	a		6220330.99	2468589.92	8.00	0.00
				6222996.82	2468570.58	8.00	0.00
				6222995.76	2468420.93	8.00	0.00
				6222959.73	2468380.23	8.00	0.00
				6222921.90	2468341.21	8.00	0.00
				6222882.34	2468303.93	8.00	0.00
				6222841.13	2468268.49	8.00	0.00
				6222798.36	2468234.95	8.00	0.00

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
			6222754.12	2468203.38	8.00	0.00
			6222708.49	2468173.85	8.00	0.00
			6222661.57	2468146.41	8.00	0.00
			6222613.45	2468121.12	8.00	0.00
			6222564.25	2468098.04	8.00	0.00
			6222514.04	2468077.21	8.00	0.00
			6222462.95	2468058.68	8.00	0.00
			6222416.45	2468044.04	8.00	0.00
			6222369.41	2468031.30	8.00	0.00
			6222321.88	2468020.49	8.00	0.00
			6222273.95	2468011.62	8.00	0.00
			6222225.71	2468004.69	8.00	0.00
			6222177.22	2467999.74	8.00	0.00
			6222128.57	2467996.76	8.00	0.00
			6220865.00	2468002.77	8.00	0.00
			6220805.40	2468005.36	8.00	0.00
			6220745.74	2468005.80	8.00	0.00
			6220686.11	2468004.07	8.00	0.00
			6220626.58	2468000.19	8.00	0.00
			6220567.22	2467994.15	8.00	0.00
			6220508.13	2467985.96	8.00	0.00
			6220449.37	2467975.64	8.00	0.00
			6220391.02	2467963.20	8.00	0.00
			6220333.16	2467948.66	8.00	0.00

APPENDIX 10.2:

CADNAA CONCRETE POUR NOISE MODEL INPUTS

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14848 - Amargosa and Palmetto

CadnaA Noise Prediction Model: 14848-02_Concrete.cna
Date: 16.09.22
Analyst: B. Lawson

Calculation Configuration

Configuration	
Parameter	**Value**
General	
Max. Error (dB)	**0.00**
Max. Search Radius (#(Unit,LEN))	**2000.01**
Min. Dist Src to Rcvr	**0.00**
Partition	
Raster Factor	**0.50**
Max. Length of Section (#(Unit,LEN))	**999.99**
Min. Length of Section (#(Unit,LEN))	**1.01**
Min. Length of Section (%)	**0.00**
Proj. Line Sources	**On**
Proj. Area Sources	**On**
Ref. Time	
Reference Time Day (min)	**960.00**
Reference Time Night (min)	**480.00**
Daytime Penalty (dB)	**0.00**
Recr. Time Penalty (dB)	**5.00**
Night-time Penalty (dB)	**10.00**
DTM	
Standard Height (m)	**0.00**
Model of Terrain	**Triangulation**
Reflection	
max. Order of Reflection	**2**
Search Radius Src	**100.00**
Search Radius Rcvr	**100.00**
Max. Distance Source - Rcvr	**1000.00 1000.00**
Min. Distance Rvcr - Reflector	**1.00 1.00**
Min. Distance Source - Reflector	**0.10**
Industrial (ISO 9613)	
Lateral Diffraction	**some Obj**
Obst. within Area Src do not shield	**On**
Screening	**Incl. Ground Att. over Barrier**
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	**3.0 20.0 0.0**
Temperature (#(Unit,TEMP))	**10**
rel. Humidity (%)	**70**
Ground Absorption G	**0.50**
Wind Speed for Dir. (#(Unit,SPEED))	**3.0**
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr			Limit. Value			Land Use			Height		Coordinates		
			Day	Night	CNEL	Day	Night	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	47.3	47.3	54.0	60.0	55.0	0.0				5.00	a	6221305.09	2468653.38	5.00
RECEIVERS		R2	47.2	47.2	53.8	60.0	55.0	0.0				5.00	a	6222005.62	2468653.38	5.00
RECEIVERS		R3	29.9	29.9	36.5	60.0	55.0	0.0				5.00	a	6224255.62	2468671.61	5.00
RECEIVERS		R4	31.7	31.7	38.3	60.0	55.0	0.0				5.00	a	6223760.69	2467691.18	5.00
RECEIVERS		R5	40.3	40.3	47.0	60.0	55.0	0.0				5.00	a	6220761.76	2468813.86	5.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height	
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)	
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)		
BUILDING		PROJECT	100.3	100.3	100.3	53.6	53.6	53.6	Lw	100.3					8	a

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING	8.00	a			6220943.55	2468556.15	8.00	0.00
					6222340.27	2468549.86	8.00	0.00
					6222336.07	2468144.80	8.00	0.00
					6222189.16	2468138.50	8.00	0.00
					6222188.11	2468198.32	8.00	0.00
					6221057.94	2468203.56	8.00	0.00
					6221060.03	2468142.70	8.00	0.00
					6220950.90	2468147.95	8.00	0.00

Name	Height		Coordinates			
	Begin	End	x	y	z	Ground
	(ft)	(ft)	(ft)	(ft)	(ft)	(ft)
			6220945.65	2468204.61	8.00	0.00

APPENDIX K
Amargosa and Palmetto High-Cube Warehouse
Traffic Impact Analysis

AMARGOSA AND PALMETTO HIGH-CUBE WAREHOUSE REVISED TRAFFIC IMPACT ANALYSIS

City of Hesperia

August 21, 2025

Traffic Engineering ● Transportation Planning ● Parking ● Noise & Vibration
Air Quality ● Global Climate Change ● Health Risk Assessment

AMARGOSA AND PALMETTO HIGH-CUBE WAREHOUSE REVISED TRAFFIC IMPACT ANALYSIS

City of Hesperia

August 21, 2025

prepared by

Bryan Crawford
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Project No. 19522

TABLE OF CONTENTS

EXECUTIVE SUMMARY **1**

1. INTRODUCTION **3**

Purpose and Objectives 3
Historical Context 3
Project Description 3
Study Area 4
Analysis Scenarios 4

2. METHODOLOGY **7**

Level of Service/General Plan Conformance (Non-CEQA) 7
Intersection Delay Methodology 7
Performance Standards 8
Requirements for Improvements 8
Vehicle Miles Traveled Methodology (CEQA) 9

3. EXISTING CONDITIONS **10**

Existing Roadway System 10
General Plan Context 10
Transit Service 10
Bicycle Facilities 10
Existing Pedestrian Facilities 10
Truck Routes 10
Existing Roadway Volumes 10
Existing Level of Service 11

4. PROJECT TRIP FORECASTS **22**

Project Trip Generation 22
Truck Trips 22
Review of High-Cube Warehouse Rates 22
Project Trip Distribution and Assignment 23
Alternative Land Use Trip Generation 23
Trip Generation Comparison 24

5. FUTURE VOLUME FORECASTS **34**

Cumulative Trips 34
Ambient Growth Rate 34
Other Development 34
General Plan Buildout (2040) Projections 34
Analysis Scenario Volume Forecasts 34
Opening Year (2027) Without Project 34
Opening Year (2027) With Project 35
General Plan Buildout (2040) Without Project 35
General Plan Buildout (2040) With Project 35

6. FUTURE OPERATIONAL ANALYSIS **49**

Opening Year (2027) Without Project 49
Opening Year (2027) With Project 49
General Plan Buildout (2040) Without Project 49
General Plan Buildout (2040) With Project 49

Project Fair Share Contribution 50
7. SITE ACCESS AND CIRCULATION 57
Project Design Features 57
8. VEHICLES MILES TRAVELED 59
Background 59
Screening Assessment 59
Transit Priority Area (TPA) Screening 59
Low VMT Area Screening 60
Project Type Screening 62
Screening Assessment Finding 62
9. CONCLUSIONS 63
Project Trip Generation 63
Levels of Service 63
VMT Analysis 64

Appendices

Appendix A Glossary
Appendix B Scoping Agreement
Appendix C Volume Count Worksheets
Appendix D Trip Generation Comparison Analysis
Appendix E Level of Service Worksheets
Appendix F SBTAM Model Plots
Appendix G Post-Processing Worksheets

List of Tables

Table 1. Existing Levels of Service 12
Table 2. Project Trip Generation 25
Table 3. Alternative Land Use Trip Generation 26
Table 4. Project Trip Generation Comparison 27
Table 5. Other Development Trip Generation 36
Table 6. Opening Year (2027) Without Project Intersection Level of Service 51
Table 7. Opening Year (2027) With Project Intersection Levels of Service 52
Table 8. General Plan Buildout Year (2040) Without Project Intersection Level of Service 53
Table 9. General Plan Buildout Year (2040) With Project Intersection Level of Service 54
Table 10. Project Fair Share Contribution 55

List of Figures

Figure 1. Project Location Map 5
Figure 2. Site Plan 6
Figure 3. Existing Lane Geometry and Intersection Traffic Controls 13
Figure 4. City of Hesperia General Plan Circulation Element 14
Figure 5. City of Hesperia General Plan Roadway Cross-Sections 15
Figure 6. Victor Valley Transit Routes 16
Figure 7. City of Hesperia General Plan Non-Motorized Transportation Plan Map 17
Figure 8. Existing Pedestrian Facilities 18
Figure 9. City of Hesperia Truck Route Map 19

Figure 10. Existing AM Peak Hour Intersection Turning Movement Volumes 20
Figure 11. Existing PM Peak Hour Intersection Turning Movement Volumes 21
Figure 12. Project Outbound Trip Distribution – Cars 28
Figure 13. Project Inbound Trip Distribution - Cars 29
Figure 14. Project Outbound Trip Distribution - Trucks 30
Figure 15. Project Inbound Trip Distribution - Trucks 31
Figure 16. Project AM Peak Hour Intersection Turning Movement Volumes 32
Figure 17. Project PM Peak Hour Intersection Turning Movement Volumes 33
Figure 18. Other Development Location Map 38
Figure 19. Other Development AM Peak Hour Intersection Turning Movement Volumes 39
Figure 20. Other Development PM Peak Hour Intersection Turning Movement Volumes 40
Figure 21. Opening Year (2027) Without Project AM Peak Hour Intersection Turning Movement Volumes 41
Figure 22. Opening Year (2027) Without Project PM Peak Hour Intersection Turning Movement Volumes 42
Figure 23. Opening Year (2027) With Project AM Peak Hour Intersection Turning Movement Volumes 43
Figure 24. Opening Year (2027) With Project PM Peak Hour Intersection Turning Movement Volumes 44
Figure 25. General Plan Buildout (2040)) Without Project AM Peak Hour Intersection Turning Movement Volumes 45
Figure 26. General Plan Buildout (2040) Without Project PM Peak Hour Intersection Turning Movement Volumes 46
Figure 27. General Plan Buildout (2040) With Project AM Peak Hour Intersection Turning Movement Volumes 47
Figure 28. General Plan Buildout (2040) Project PM Peak Hour Intersection Turning Movement Volumes 48
Figure 29. Conceptual Striping Plan 56

EXECUTIVE SUMMARY

The 30.52-acre project site is located on the northwest corner of Amargosa Road and Palmetto Way in the City of Hesperia. The currently vacant site is proposed to be developed with a 499,850 square foot high-cube fulfillment center warehouse building. For purposes of this analysis, the proposed project is anticipated to be constructed and fully operational by year 2027.

The initial traffic impact analysis (TIA) for this proposed development was completed on August 18, 2022. The TIA was revised on February 10, 2023 to include a trip generation comparison analysis. Comments were received from TKE Engineering based on a review of the August 2022 TIA dated January 9, 2025. The comments can be summarized as stating that the August 2022 TIA needed to be updated to present day conditions. This revised TIA updates the August 2022 and February 2023 TIA's to current conditions based on the review comments from TKE Engineering.

Project Trip Generation

The proposed project is forecast to generate 1,083 daily Passenger Car Equivalents (PCE) trips, including 90 PCE trips during the AM peak hour and 81 PCE trips during the PM peak hour.

Levels of Service

The study intersections currently operate within acceptable Levels of Service during the peak hours for Existing conditions.

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2027) Without Project conditions, except for the following study intersection which is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour:

- Key Pointe Drive (NS) at Main Street (EW) - #3 (PM Peak Hour – LOS F)

The study intersections are projected to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2027) With Project conditions, except for the following study intersection which is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour:

- Key Pointe Drive (NS) at Main Street (EW) - #3 (PM Peak Hour – LOS F)

The following improvements are recommended for Opening Year (2027) With Project conditions to maintain acceptable Level of Service:

- Key Pointe Drive (NS) at Main Street (EW) - #3
  - Construct a second southbound left turn lane.

The proposed project is forecast to result in no substantial operational deficiencies at the study intersections for Opening Year (2027) With Project conditions with implementation of the recommended improvements.

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for General Plan Buildout (2040) Without Project conditions, except for the following study intersection which is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour:

- Key Pointe Drive (NS) at Main Street (EW) - #3 (PM Peak Hour – LOS F)

The study intersections are projected to operate within acceptable Levels of Service (D or better) during the peak hours for General Plan Buildout (2040) With Project conditions, except for the following study intersection which is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour:

- Key Pointe Drive (NS) at Main Street (EW) - #3 (PM Peak Hour – LOS F)

The following improvements are recommended for General Plan Buildout (2040) With Project conditions to maintain acceptable Level of Service:

- Key Pointe Drive (NS) at Main Street (EW) - #3
  - Construct a second southbound left turn lane.

The proposed project is forecast to result in no substantial operational deficiencies at the study intersections for General Plan Buildout (2040) With Project conditions with implementation of the recommended improvements.

Vehicle Miles Traveled (VMT) Analysis

Based on review of the SBCTA VMT Screening Tool, the proposed project does not meet the City of Hesperia screening criteria for either of the three screening types, as written within the City of Hesperia Traffic Study Guidelines.

1. INTRODUCTION

This section describes the purpose of this study and the project description. Although this is a technical report, effort has been made to write the report clearly and concisely. A glossary is provided in Appendix A to assist the reader with technical terms related to transportation engineering and planning.

This section describes the purpose of this traffic impact analysis, project location, proposed development, and study area.

PURPOSE AND OBJECTIVES

The purpose of this traffic impact analysis is to assess potential transportation impacts resulting from development of the proposed project both in the context of the California Environmental Quality Act (CEQA) and City of Hesperia discretionary authority. This study has been prepared in consultation with the City of Hesperia as documented in Appendix B.

For CEQA purposes, this study evaluates the significance of project-related transportation impacts with respect to vehicle miles traveled (VMT) thresholds established by the City of Hesperia, as the lead agency, and identifies the appropriate measures to mitigate such impacts, if any. This study also evaluates non-CEQA impacts and the need for corrective measures, if necessary, relating to General Plan Level of Service standards.

HISTORICAL CONTEXT

The initial traffic impact analysis (TIA) for this proposed development was completed on August 18, 2022. The TIA was revised on February 10, 2023 to include a trip generation comparison analysis. Comments were received from TKE Engineering based on a review of the August 2022 TIA dated January 9, 2025. The comments can be summarized as stating that the August 2022 TIA needed to be updated to present day conditions. This revised TIA updates the August 2022 and February 2023 TIA's to current conditions based on the review comments from TKE Engineering.

PROJECT DESCRIPTION

The 30.52-acre project site is located on the northwest corner of Amargosa Road and Palmetto Way in the City of Hesperia. Figure 1 shows the project location map.

The currently vacant site is proposed to be developed with a 499,714 square foot high-cube fulfillment center warehouse building. The project site is proposed to provide three access driveways on Palmetto Way. All three project driveways are proposed to be full access. The project west driveway will be truck only. The project central driveway and project east driveway will provide access for both auto and trucks. For purposes of this analysis, the proposed project is anticipated to be constructed and fully operational by year 2027. Figure 2 illustrates the project site plan.

STUDY AREA

Based on the study intersections identified in the approved scoping agreement (Appendix B), the study area consists of the following study intersections within the City of Hesperia and California Department of Transportation jurisdictions:

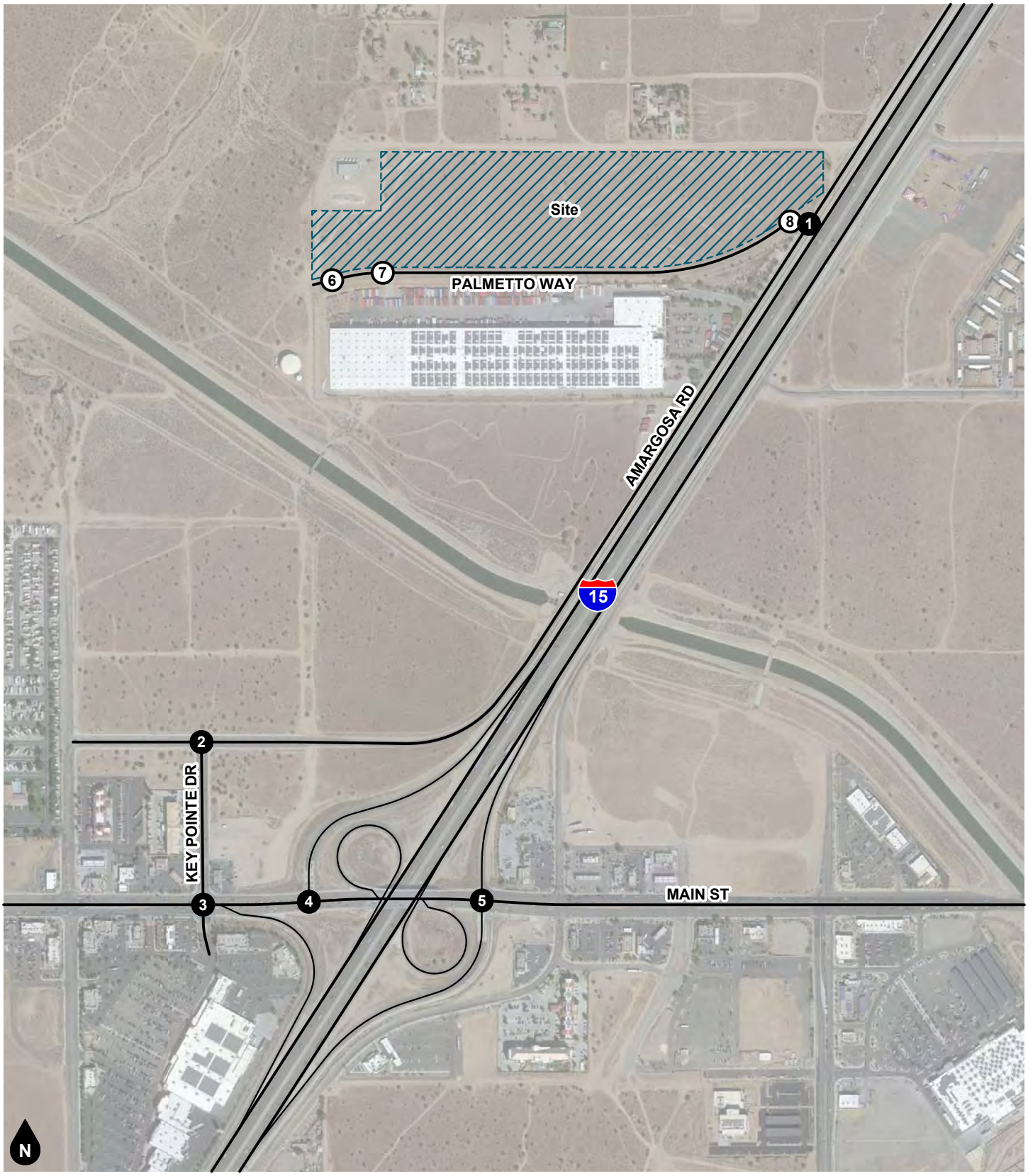
Study Intersections[1]	Jurisdiction
1. Amargosa Road (NS) at Palmetto Way (EW)	City of Hesperia
2. Key Pointe Drive (NS) at Amargosa Road (EW)	City of Hesperia
3. Key Pointe Drive (NS) at Main Street (EW)	City of Hesperia
4. I-15 SB Offramp (NS) at Main Street (EW)	Caltrans[2]
5. I-15 NB Ramps (NS) at Main Street (EW)	Caltrans[2]
6. Project West Driveway (NS) at Palmetto Way (EW)	City of Hesperia
7. Project Central Driveway (NS) at Palmetto Way (EW)	City of Hesperia
8. Project East Driveway (NS) at Palmetto Way (EW)	City of Hesperia

ANALYSIS SCENARIOS

The following scenarios are analyzed during typical weekday AM and PM peak hour conditions:

- Existing
- Opening Year (2027) Without Project
- Opening Year (2027) With Project
- General Plan Buildout (2040) Without Project
- General Plan Buildout (2040) With Project

[1] (NS) = north-south roadway; (EW) = east-west roadway; NB = Northbound; SB = Southbound
[2] Caltrans = California Department of Transportation



Legend

(#) Study Intersection

(#) Project Driveway

Figure 1
Project Location Map

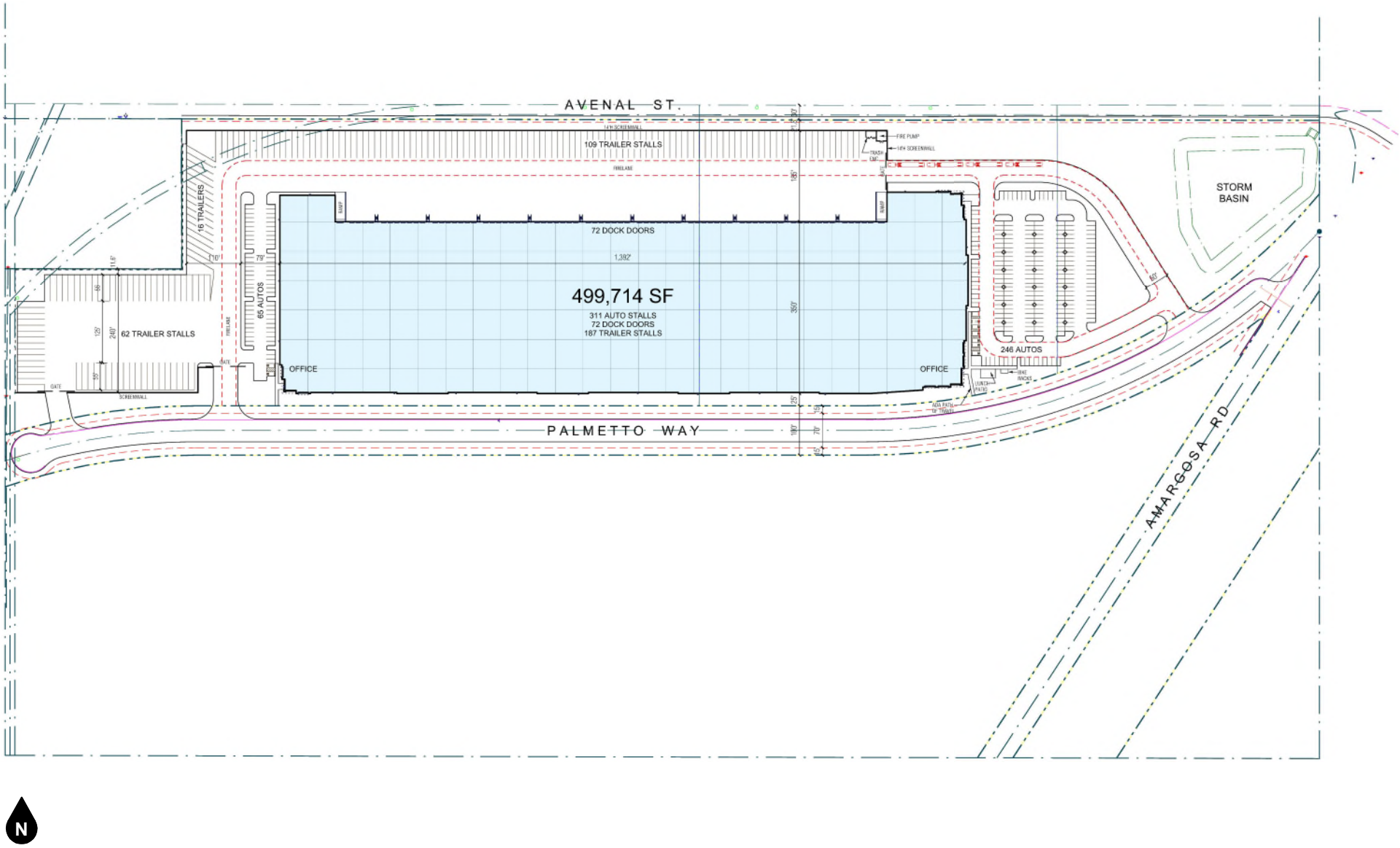


Figure 2
Site Plan

2. METHODOLOGY

This section discusses the analysis methodologies used to assess transportation facility performance as adopted by the respective jurisdictional agencies. This traffic impact analysis was conducted in accordance with the guidelines established within the City of Hesperia *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS)* (July 2020).

LEVEL OF SERVICE/GENERAL PLAN CONFORMANCE (NON-CEQA)

Intersection Delay Methodology

The technique used to assess the performance of intersections is known as the intersection delay methodology based on the procedures contained in the *Highway Capacity Manual* (Transportation Research Board, 6th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding Level of Service. Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection control delay is then correlated to Level of Service based on the following thresholds:

Level of Service	Intersection Control Delay (Seconds / Vehicle)	
	Signalized Intersection	Unsignalized Intersection
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Transportation Research Board, Highway Capacity Manual (6th Edition).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). At intersections with traffic signal or all way stop control, Level of Service is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), Level of Service is determined by the average control delay for the worst individual movement (or movements sharing a single lane).

In accordance with City of Hesperia *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS)* (July 2020), Existing and future conditions were analyzed using optimized signal timing between 60-130 seconds, 10 second minimum phase time, two seconds of lost time per critical phase, and Passenger Car Equivalent (PCE) factors of 1.5 for 2-axle, 2.0 for 3-axle, and 3.0 for 4+-axle. The following saturation flow rates were utilized for existing and opening year:

- 1,800 vehicles per hour for exclusive thru and exclusive right turn lanes
- 1,700 vehicles per hour for exclusive left turn lanes
- 1,600 vehicles per hour for exclusive dual left turn lanes
- 1,500 vehicles per hour for exclusive triple left turn lanes

For future scenarios (Future Year 2040) a peak hour factor of 0.95 was used along with the following saturation flow rates:

- 1,900 vehicles per hour for exclusive thru and exclusive right turn lanes
- 1,800 vehicles per hour for exclusive double right turn lanes
- 1,800 vehicles per hour for exclusive left turn lanes
- 1,700 vehicles per hour for exclusive dual left turn lanes
- 1,600 vehicles per hour for exclusive triple left turn lanes

Intersection delay analysis was performed using the Vistro software.

Performance Standards

City of Hesperia. The City of Hesperia has established LOS D as the minimum acceptable Level of Service along all City maintained roads (including intersections).

California Department of Transportation. As stated in the Guide for the Preparation of Traffic Impact Studies (State of California, 2002), "California Department of Transportation endeavors to maintain a target LOS [Level of Service] at the transition between LOS "C" and LOS "D" on State highway facilities". The California Department of Transportation acknowledges this may not always be feasible and recommends consultation with the California Department of Transportation to determine the appropriate target Level of Service. For consistency with local requirements, this analysis defines Level of Service D as the minimum acceptable Level of Service for State Highway facilities.

Requirements for Improvements

City of Hesperia. For study intersections within the City of Hesperia jurisdiction, a traffic impact occurs if:

- The addition of peak hour project generated trips is forecast to cause an intersection to deteriorate from acceptable Level of Service (D or better) to unacceptable Level of Service (E or F); or,

- The addition of peak hour project generated trips worsens the delay at an intersection operating at an unacceptable Level of Service (E or F) in the baseline condition.

If a project is forecast to cause an operational traffic impact, feasible improvements that will reduce the impact to an acceptable LOS are identified. Improvements can be in many forms, including the addition of lanes, traffic control modification, or demand management measures.

California Department of Transportation. Based on the established performance standards for City of Hesperia a potentially operational transportation impact is defined to occur if:

- The addition of project-generated trips is forecast to cause the performance of a study intersection to deteriorate from acceptable Level of Service (D or better) to unacceptable Level of Service (E or F); or,

- The addition of project generated trips is forecast to worsen the performance of a study intersection operating at unacceptable Level of Service (E or F) in the baseline condition.

VEHICLE MILES TRAVELED METHODOLOGY (CEQA)

The methodology used to evaluate the impact of land use and transportation projects under CEQA is known as vehicle miles traveled (VMT). In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. Additional information and a project assessment is provided in the "Vehicle Miles Traveled" section presented later in this report.

3. EXISTING CONDITIONS

EXISTING ROADWAY SYSTEM

Figure 3 identifies the lane geometry and intersection traffic controls for Existing conditions based on a field survey of the study area. Regional access to the project site is provided by the I-15 Freeway located adjacent to the project site to the east. Key roadways providing local circulation include Key Pointe Drive, Amargosa Road, Palmetto Way, and Main Street.

GENERAL PLAN CONTEXT

Figure 4 shows the City of Hesperia General Plan Circulation Element roadway classifications map. This figure shows the nature and extent of arterial and collector highways that are needed to adequately serve the ultimate development depicted by the Land Use Element of the General Plan. The City of Hesperia standard roadway cross-sections are illustrated on Figure 5.

TRANSIT SERVICE

Figure 7 shows Existing public transit facilities and routes in the project vicinity. As shown on Figure 6, the study area is currently served by Victor Valley Transit Routes 20 and 114 along Amargosa Road adjacent to the project site.

BICYCLE FACILITIES

The City of Hesperia Non-Motorized Transportation Plan is illustrated on Figure 7. This plan shows existing and proposed bike paths within the City of Hesperia. There are currently no existing bike routes adjacent to the project site. Main Street east of the I-15 Freeway is classified as a Class I Bike Path.

EXISTING PEDESTRIAN FACILITIES

Existing pedestrian facilities in the project vicinity are shown on Figure 8. Sidewalks are not provided on Amargosa Road adjacent to the project site.

TRUCK ROUTES

The City of Hesperia truck routes are shown on Figure 9. The City of Victorville General Plan does not identify Amargosa Road south of Bear Valley Road to the project site as a truck route.

EXISTING ROADWAY VOLUMES

Existing peak hour traffic conditions are based upon morning peak period and evening peak period intersection turning movement counts obtained in May 2022 during typical weekday conditions. The weekday morning peak period was counted between 7:00 AM and 9:00 AM, and the weekday evening peak period was counted between 4:00 PM and 6:00 PM. The actual peak hour within the peak period is the four consecutive 15-minute periods with the highest total volume when all movements are added together. Thus, the weekday PM peak hour at one intersection may be 4:45 PM to 5:45 PM if those four consecutive 15-minute periods have the highest combined volume. Intersection turning movement count worksheets are provided in Appendix C. Figure 10 and Figure 11 show the Existing AM and PM peak hour intersection turning movement volumes.

Since the initial traffic counts were conducted in 2022, these traffic counts were increased by an ambient growth rate of 2.0% per year over three years (1.061% total) to reflect existing 2025 conditions.

EXISTING LEVEL OF SERVICE

The intersection Levels of Service for Existing conditions have been calculated and are shown in Table 1. Detailed intersection Level of Service worksheets are provided in Appendix C.

As shown in Table 1, the study intersections currently operate within acceptable Levels of Service during the peak hours for Existing conditions.

Table 1
Existing Intersection Levels of Service

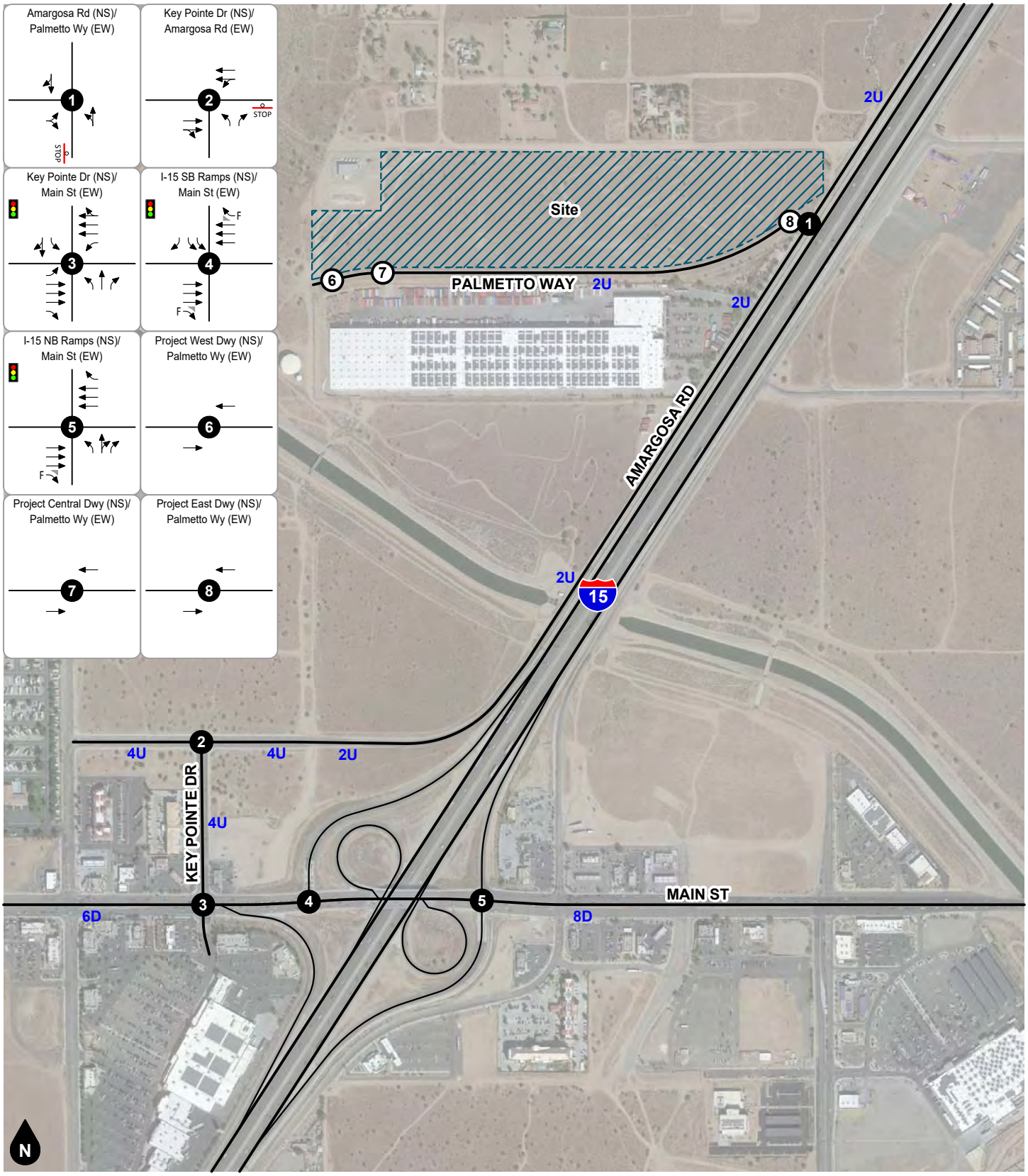
Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Amargosa Road (NS) at Palmetto Way (EW)	CSS	0.0	A	0.0	A
2. Key Pointe Drive (NS) at Amargosa Road (EW)	CSS	8.8	A	9.7	A
3. Key Pointe Drive (NS) at Main Street (EW)	TS	15.1	B	24.2	C
4. I-15 SB Offramp (NS) at Main Street (EW)	TS	8.4	A	11.2	B
5. I-15 NB Ramps (NS) at Main Street (EW)	TS	4.3	A	12.9	B

Notes:

(1) CSS = Cross Street Stop; TS = Traffic Signal

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual approach.

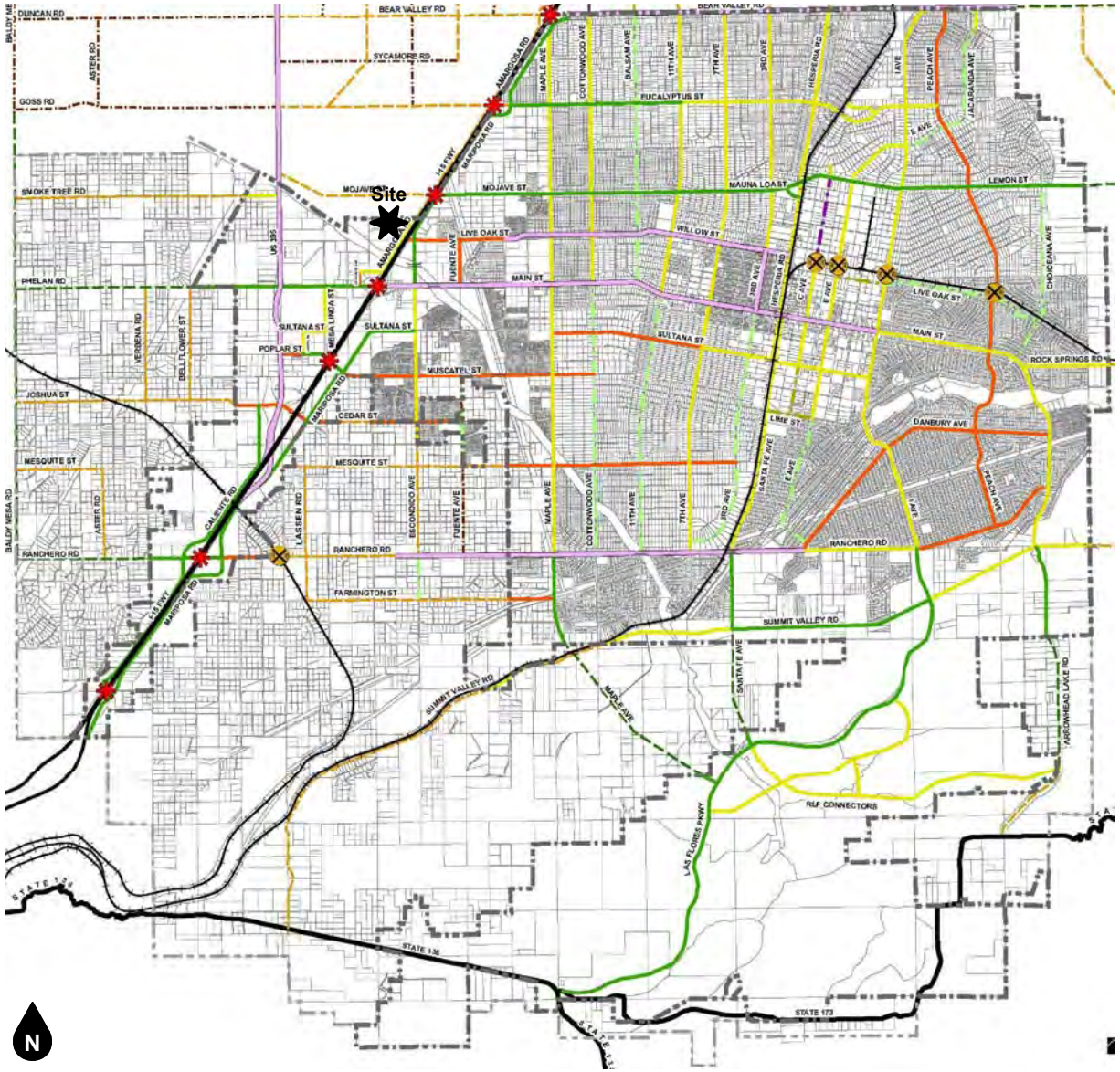
(3) LOS = Level of Service



Legend

- Traffic Signal
- Stop Sign
- #D #-Lane Divided Roadway
- #U #-Lane Undivided Roadway
- Existing Lane
- F Free Right Turn Lane

Figure 3
Existing Lane Geometry and Intersection Traffic Controls



Arterials (RoW) (Curb-Curb)

Major Arterial	(120')	(104')* (92')**
Arterial	(100')	(72')
Secondary Arterial	(80')	(50')
Industrial Collector	(70')	(46')**
Suburban Collector	(60')	(36')**
Rural Collector	(60')	(48')* (40')**

* with bike lane
** without bike lane

Streets Outside City

- Major Arterial
- Arterial
- Colllector

Misc.

- City Boundary
- Sphere of Influence
- Railroad
- At Grade Crossing
- Bridge/overcrossing/undercrossing
- Freeway Interchange

Special Street Section

Special Street

	(RoW)	(Curb-Curb)
Ranchero Road	(140')	(92')
Highway 395	(130')	(106')
Bear Valley Road (halfwidth)	(64')	(45')
Enhanced 3rd Avenue	(100')	(76')
Main Street Corridor "A"	(120')	(88')
Main Street Corridor "B"	(105')	(70')
Modified Live Oak-Willow St	(80')	(40')

Figure 4
City of Hesperia General Plan Circulation Element

Source: City of Hesperia

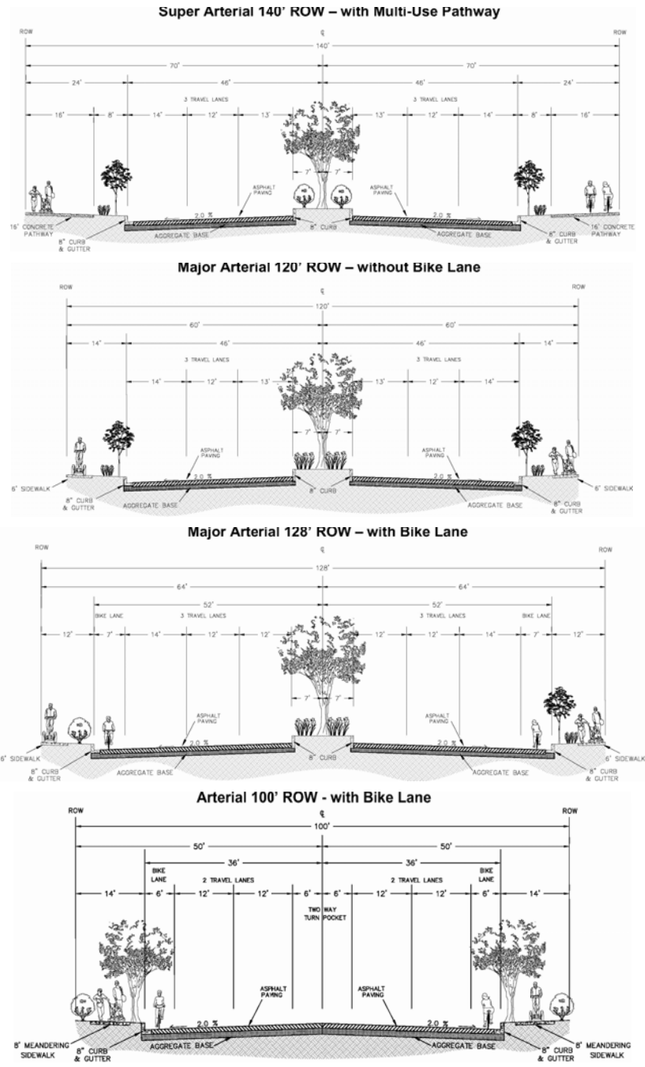


Figure 5
City of Hesperia General Plan Roadway Cross-Sections

Source: City of Hesperia

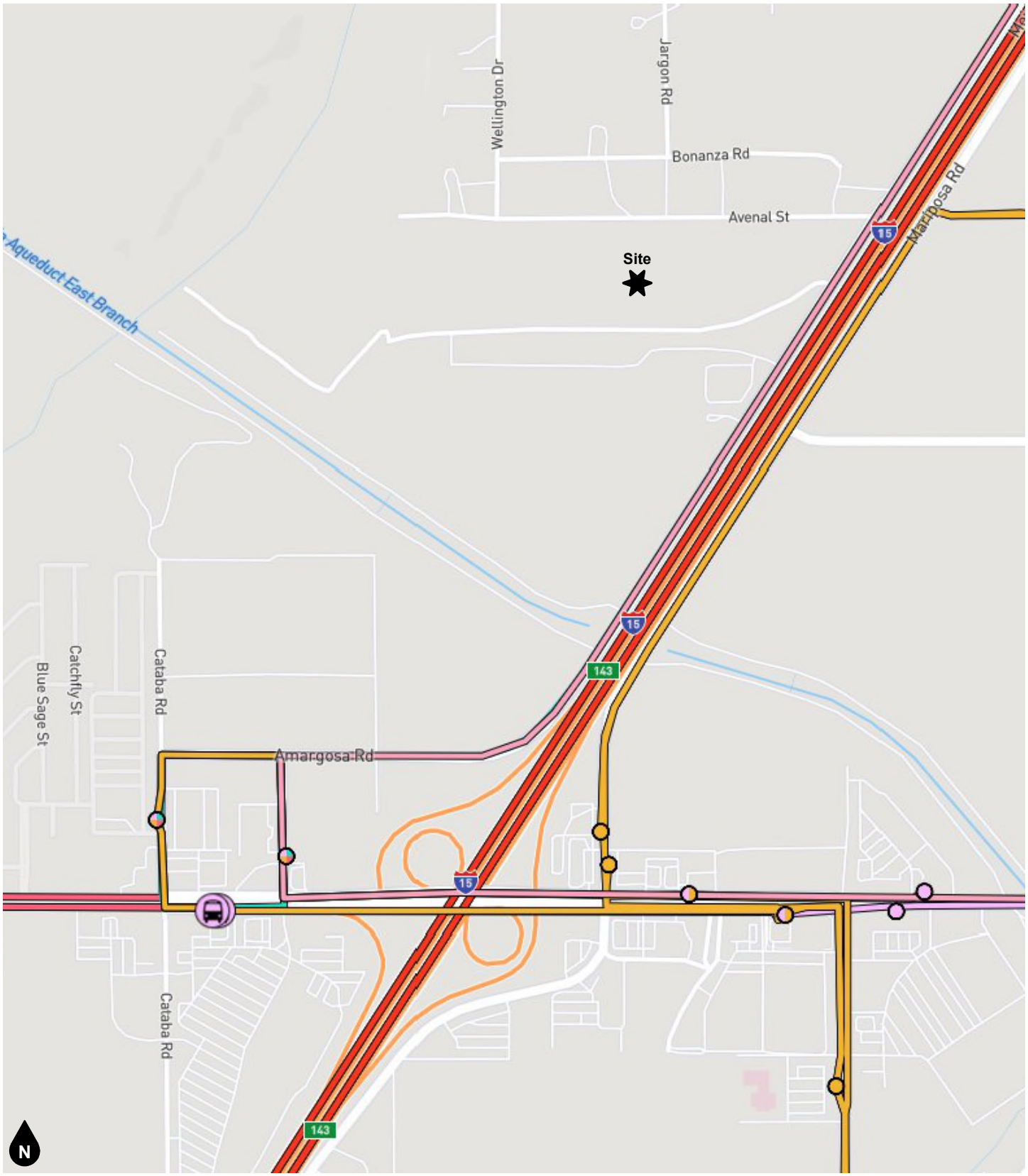


Figure 6
Victory Valley Transit Routes

Source: Victor Valley Transit

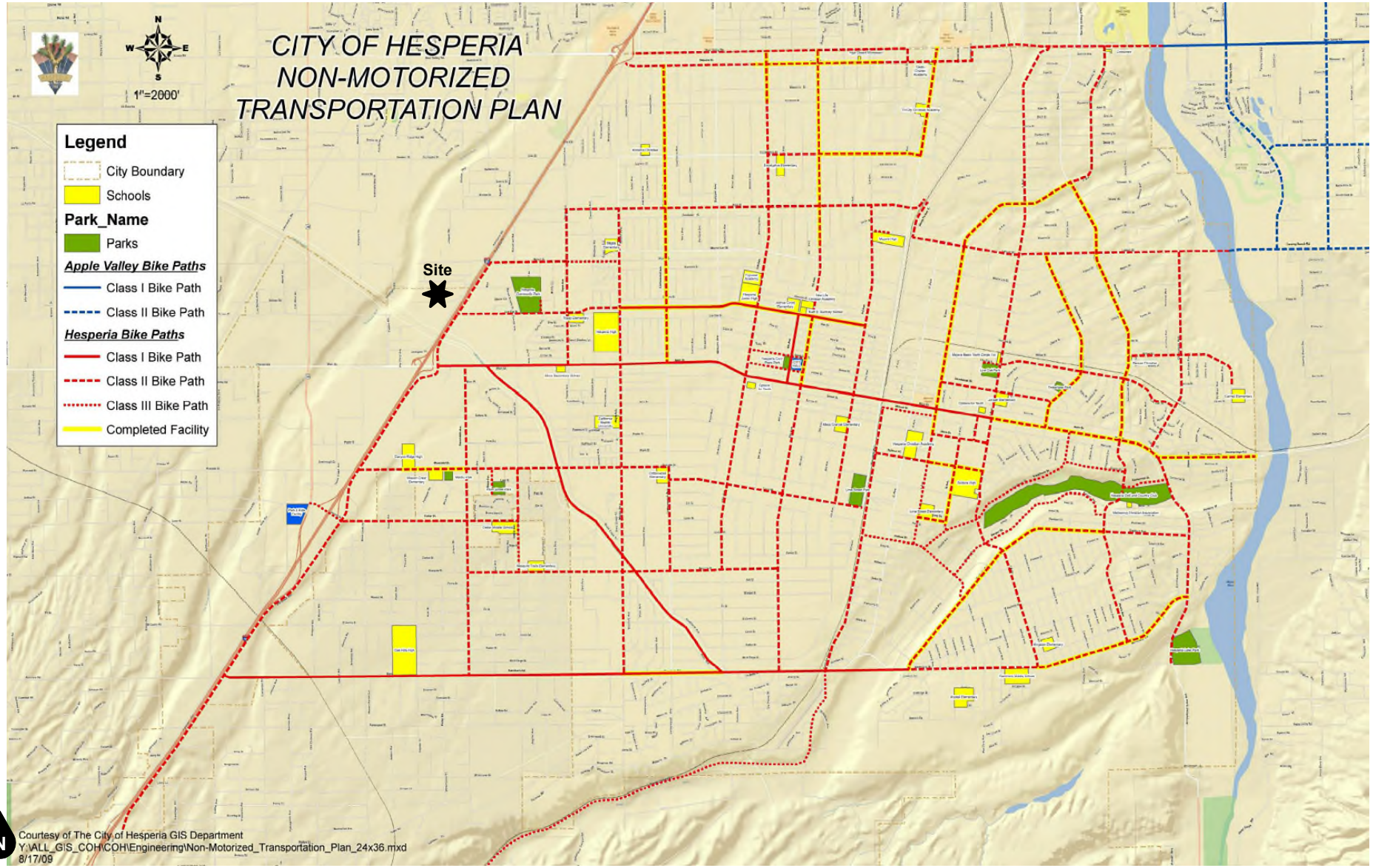
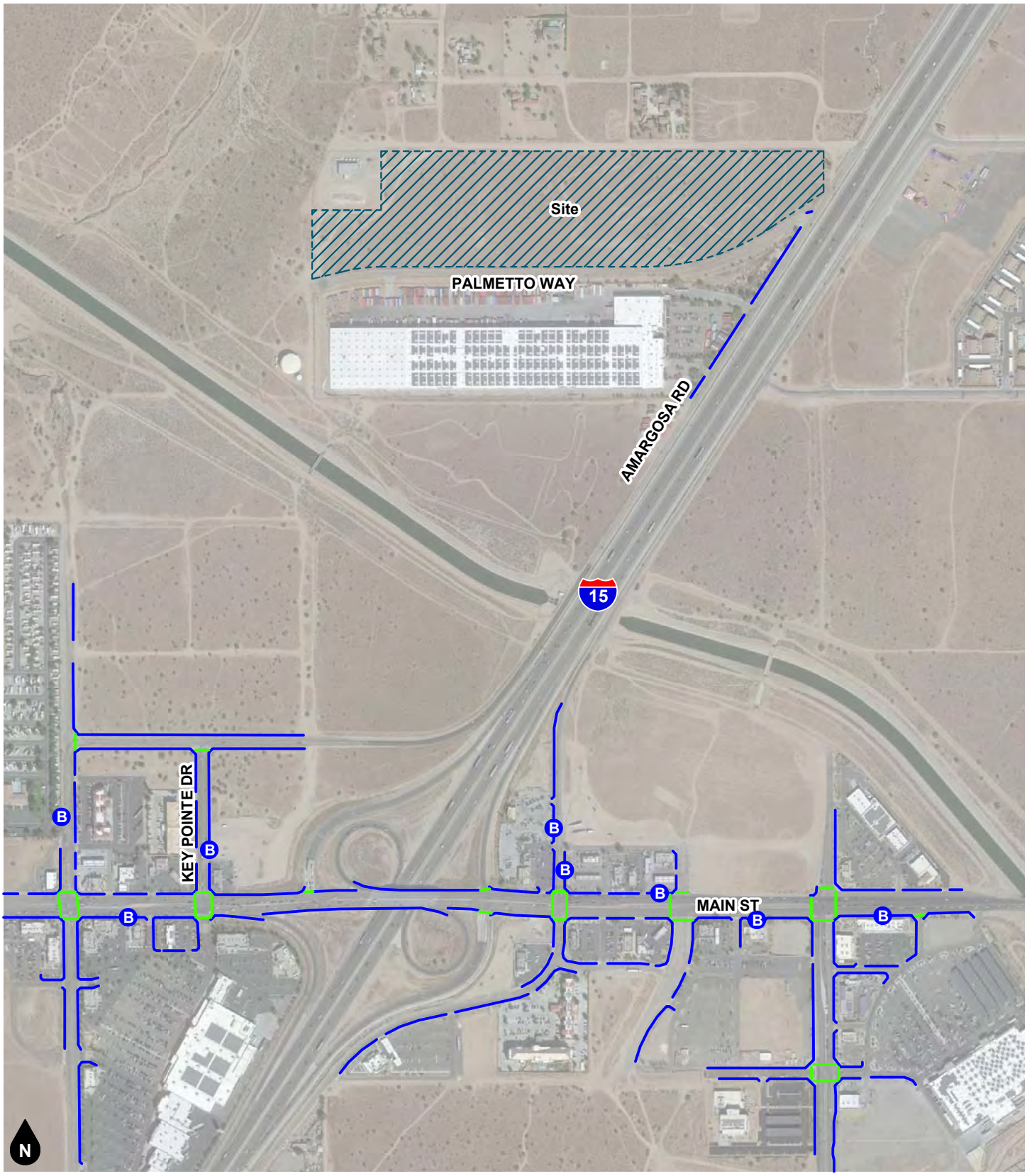


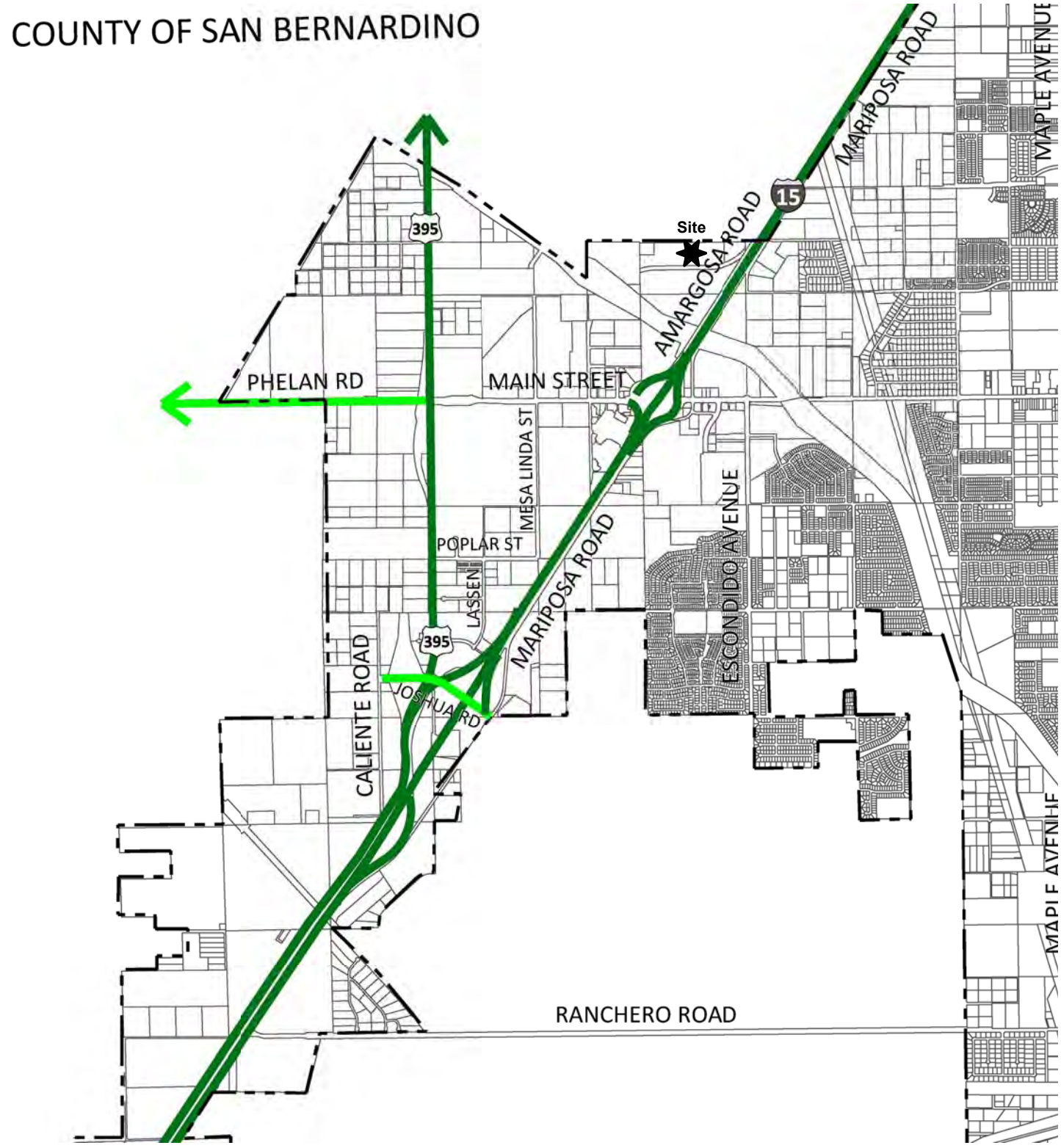
Figure 7
City of Hesperia General Plan Non-Motorized Transportation Plan Map

Source: City of Hesperia



Legend
- Sidewalk
- Cross Walk
- B Bus Stop

Figure 8
Existing Pedestrian Facilities



Source: City of Hesperia

Figure 9
City of Hesperia Truck Route Map

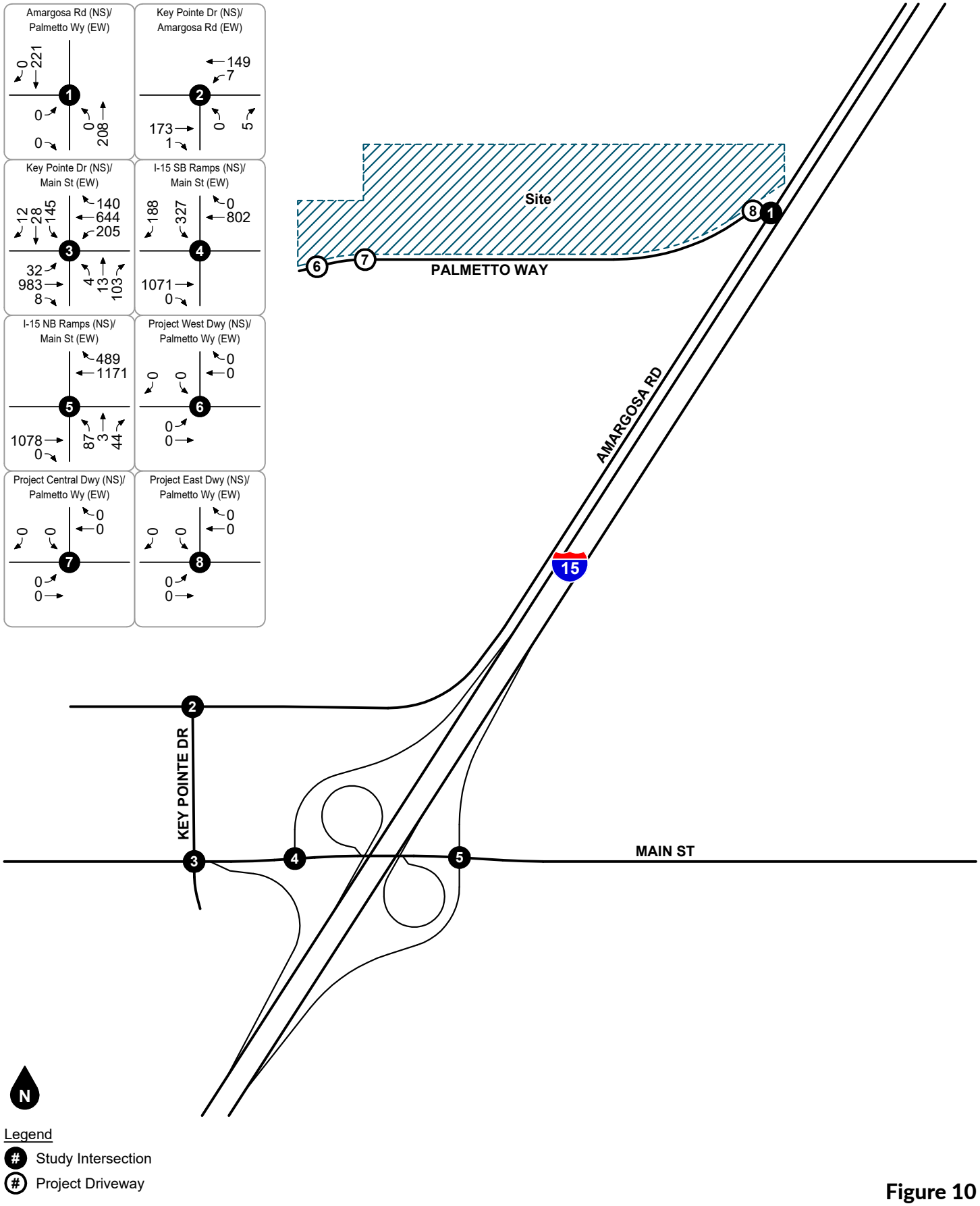


Figure 10
Existing AM Peak Hour Intersection Turning Movement Volumes

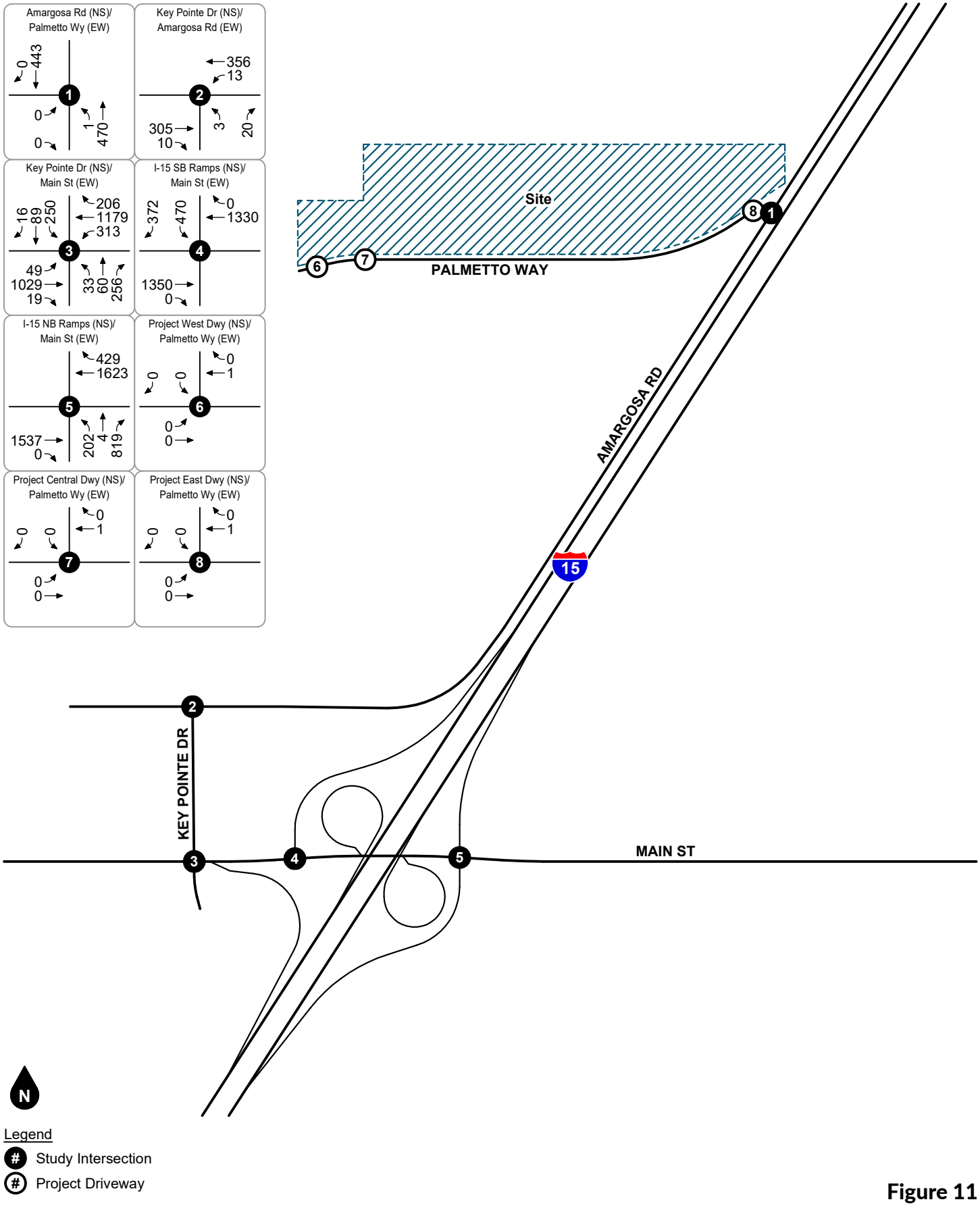


Figure 11
Existing PM Peak Hour Intersection Turning Movement Volumes

4. PROJECT TRIP FORECASTS

This section describes how project trip generation, trip distribution, and trip assignment forecasts were developed. The forecast project volumes are illustrated on figures contained in this section.

PROJECT TRIP GENERATION

shows the project trip generation based upon trip generation rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). Based on review of the ITE land use description, trip generation rates for ITE Land Use Code 155 - High-Cube Warehouse Fulfillment Center Warehouse (Non-Sort) were determined to adequately represent the proposed use and were selected for calculation of the project trip generation forecast. The number of trips generated is determined by multiplying the trip generation rates and directional distributions by the land use quantity.

As shown in Table 2, the proposed project is forecast to generate 905 daily trips, including 74 trips during the AM peak hour and 77 trips during the PM peak hour.

Truck Trips

The project trip generation was also calculated in terms of Passenger Car Equivalent (PCE) trips. The percentage of truck trips was obtained from the ITE *Trip Generation Manual*. The truck mix by axle type was determined based on South Coast Air Quality Management District (SCAQMD) recommendations for high-cube warehousing facilities without cold-storage. Truck trips were converted to PCE trips based on the following factors: 1.5 for 2-axle trucks, 2.0 for 3-axle trucks, and 3.0 for trucks with four or more axles.

As also shown in Table 2, the proposed project is forecast to generate 1,083 daily PCE trips, including 90 PCE trips during the AM peak hour and 81 PCE trips during the PM peak hour.

Review of High-Cube Warehouse Rates

ITE provides the following land use description for Land Use Code 155 - High-Cube Warehouse Fulfillment Center Warehouse (Non-Sort):

> *A high-cube warehouse (HCW) is a building that typically has at least 200,000 gross square feet of floor area, has a ceiling height of 24 feet or more, and is used primarily for the storage and/or consolidation of manufactured goods (and to a lesser extent, raw materials) prior to their distribution to retail locations or other warehouses. A typical HCW has a high level of on-site automation and logistics management. The automation and logistics enable highly-efficient processing of goods through the HCW. High-cube fulfillment center warehouses include warehouses characterized by a significant storage function and direct distribution of ecommerce product to end users. These facilities typically handle smaller packages and quantities than other types of HCWs and often contain multiple mezzanine levels.*

The ITE database further categorizes high-cube fulfillment center warehousing into sort or non-sort facilities. A sort facility is defined as a fulfillment center that ships out smaller items, requiring extensive manual sorting, whereas a non-sort facility ships out large box items that are processed primarily through automation. The trip generation rates for sorting facilities are substantially greater than rates for non-sort facilities; however, they are based on a limited sample size and may not necessarily represent typical operations. In addition, the limited data for sort facilities suggests a higher passenger car/light truck trip generation rate but lower heavy truck trip generation rate compared to non-sort facilities. Other types of high-cube warehouses include high-cube parcel hub and cold-storage warehouses, neither of which are currently contemplated uses for the proposed project.

Based on review of the available ITE data, ITE Land Use Code 155 - High-Cube Warehouse Fulfillment Center Warehouse (Non-Sort) was determined to best represent a typical user for the type of building proposed, while still providing a more conservative daily trip estimate compared to a standard warehouse (ITE Land Use Code 150). To avoid grossly overestimating potential impacts and constructing unnecessary improvements, the project trip generation was calculated based on ITE Land Use Code 155 - High-Cube Warehouse Fulfillment Center Warehouse (Non-Sort). *Should a future potential tenant intend to occupy the building for use as a high-cube fulfillment center sorting facility, parcel hub, or cold-storage warehouse, preparation of a transportation demand management plan and/or further traffic analysis may be necessary to verify consistency with the trip estimates and findings of this study.*

Note that the proposed development will be limited to a non-sort warehouse fulfillment center. If a sorting facility is proposed, additional analysis will be required.

Project Trip Distribution and Assignment

Figure 12 to Figure 15 show the forecast directional distribution patterns for the project generated trips. The project trip distribution patterns were developed using engineering judgment in consultation with City of Hesperia staff and are based on review of existing volume data, surrounding land uses, designated truck routes, and the local and regional roadway facilities in the project vicinity.

Project AM and PM peak hour intersection turning movement volumes expected from the project are depicted on Figure 16 and Figure 17, respectively.

Alternative Land Use Trip Generation

An alternative land use trip generation analysis has been conducted to determine the difference in trips generated between the proposed project as a High-Cube Warehouse Fulfillment Center Warehouse (Non-Sort) land use versus the project site at the same square footage as a Shopping Center land use.

Table 3 shows the alternative land use (commercial retail) trip generation based on regression equations from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). ITE land use code 820 (Shopping Center (>150k)) has been used to estimate the site-specific trip generation estimates for up to 499,850 square feet of commercial retail use.

It should be noted that commercial retail land uses will often locate next to busy roadways to attract motorists already on the street. Since the trip generation rates shown in Table 3 represent vehicles entering and exiting at the site driveway(s), it is appropriate to reduce the initial trip generation forecast by the applicable pass-by trip rate when calculating the net new trips that will be added to the surrounding street system. However, pass-by trip adjustments were not applied to the alternative land use trip generation in accordance with pass-by rates noted in the ITE *Trip Generation Manual* (11th Edition, 2021) since Amargosa Road adjacent to the project site is a low volume roadway and pass-by trips would be minimal.

As shown in Table 3, the alternative land use is forecast to generate a total of approximately 18,915 daily trips, including 429 trips during the AM peak hour and 1,798 trips during the PM peak hour without a pass-by trips reduction.

TRIP GENERATION COMPARISON

Table 4 shows the difference in project trip generation between the proposed project and the alternative land use. The purpose of this analysis is to highlight the substantial decrease in trips generated between the proposed industrial land use in comparison to an equivalent size commercial retail development that could be permitted in accordance with the current land use designation.

As shown in Table 4, the proposed project is forecast to generate approximately 17,832 fewer daily trips compared to a shopping center land use of equivalent size, including 339 fewer trips during the AM peak hour and 1,717 fewer trips during the PM peak hour. Appendix D includes the *Amargosa and Palmeto High-Cube Warehouse Trip Generation Comparison Analysis* (Ganddini Group, Inc., November 28,2022) which is a supplemental analysis that goes into greater detail regarding differences in turning movements at the study area intersections.

Table 2
Project Trip Generation

Land Use: High-Cube Fulfillment Center Warehouse (Non-Sort)
Size: 499.714 TSF

TRIP GENERATION RATES PER TSF[1]								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	Source[2]	In	Out	Rate	In	Out	Rate	Daily Rate
All Vehicles	ITE 155	81%	19%	0.150	39%	61%	0.160	1.810
Trucks Only	ITE 155	50%	50%	0.020	46%	54%	0.010	0.230
Passenger Car (86.7% AM, 93.8% PM, 87.3% Daily)		0.105	0.025	0.130	0.059	0.092	0.151	1.580
Truck (13.3% AM, 6.3% PM, 12.7% Daily)		0.010	0.010	0.020	0.005	0.005	0.010	0.230
Truck Mix:	SCAQMD							
2-Axle Trucks (16.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.038
3-Axle Trucks (20.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.048
4+ Axle Trucks (62.6%)		0.006	0.006	0.012	0.003	0.003	0.006	0.144

VEHICLE TRIPS GENERATED							
	AM Peak Hour			PM Peak Hour			
Vehicle Type	In	Out	Total	In	Out	Total	Daily
Passenger Car	52	12	64	29	46	75	790
Trucks							
2-Axle Trucks	1	1	2	0	0	0	19
3-Axle Trucks	1	1	2	0	0	0	24
4+ Axle Trucks	3	3	6	1	1	2	72
Subtotal	5	5	10	1	1	2	115
Total Vehicle Trips Generated	**57**	**17**	**74**	**30**	**47**	**77**	**905**

PCE[3] TRIPS GENERATED								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	PCE Factor[4]	In	Out	Total	In	Out	Total	Daily
Passenger Car	1.0	52	12	64	29	46	75	790
Trucks								
2-Axle Trucks	1.5	2	2	4	0	0	0	29
3-Axle Trucks	2.0	2	2	4	0	0	0	48
4+ Axle Trucks	3.0	9	9	18	3	3	6	216
Subtotal		13	13	26	3	3	6	293
Total PCE Trips Generated		**65**	**25**	**90**	**32**	**49**	**81**	**1,083**

Notes:
(1) TSF = Thousand Square Feet

(2) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = ITE Land Use Code.
SCAQMD = South Coast Air Quality Management District recommendations for non-cold storage high-cube warehouse.

(3) PCE = Passenger Car Equivalent

(4) Source: San Bernardino County Congestion Management Program (2016), Appendix B.

Table 3
Alternative Land Use Trip Generation

Trip Generation Rates									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Units[2]	% In	% Out	Equation	% In	% Out	Equation	Daily Equation
Shopping Center (>150k)	ITE 820	TSF	62%	38%	T=0.59(X) + 133.55	48%	52%	LN(T) = 0.72Ln(X) + 3.02	T = 26.11(X) + 5863.73

Trips Generated									
			AM Peak Hour			PM Peak Hour			
Land Use	Quantity	Units[3]	In	Out	Total	In	Out	Total	Daily
Shopping Center (>150k)	499.850	TSF	266	163	429	863	935	1,798	18,915

Notes:
(1) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code.

(2) TSF = Thousand Square Feet

Table 4
Project Trip Generation Comparison

Land Use	Trips Generated						
	AM Peak Hour			PM Peak Hour			
	In	Out	Total	In	Out	Total	Daily
Project[1]	65	25	90	32	49	81	1,083
Alternative Land Use[2]	266	163	429	863	935	1,798	18,915
Difference	**-201**	**-138**	**-339**	**-831**	**-886**	**-1,717**	**-17,832**
	-76%	**-85%**	**-79%**	**-96%**	**-95%**	**-95%**	**-94%**

Notes:
(1) See Table 2.
(2) See Table 3.

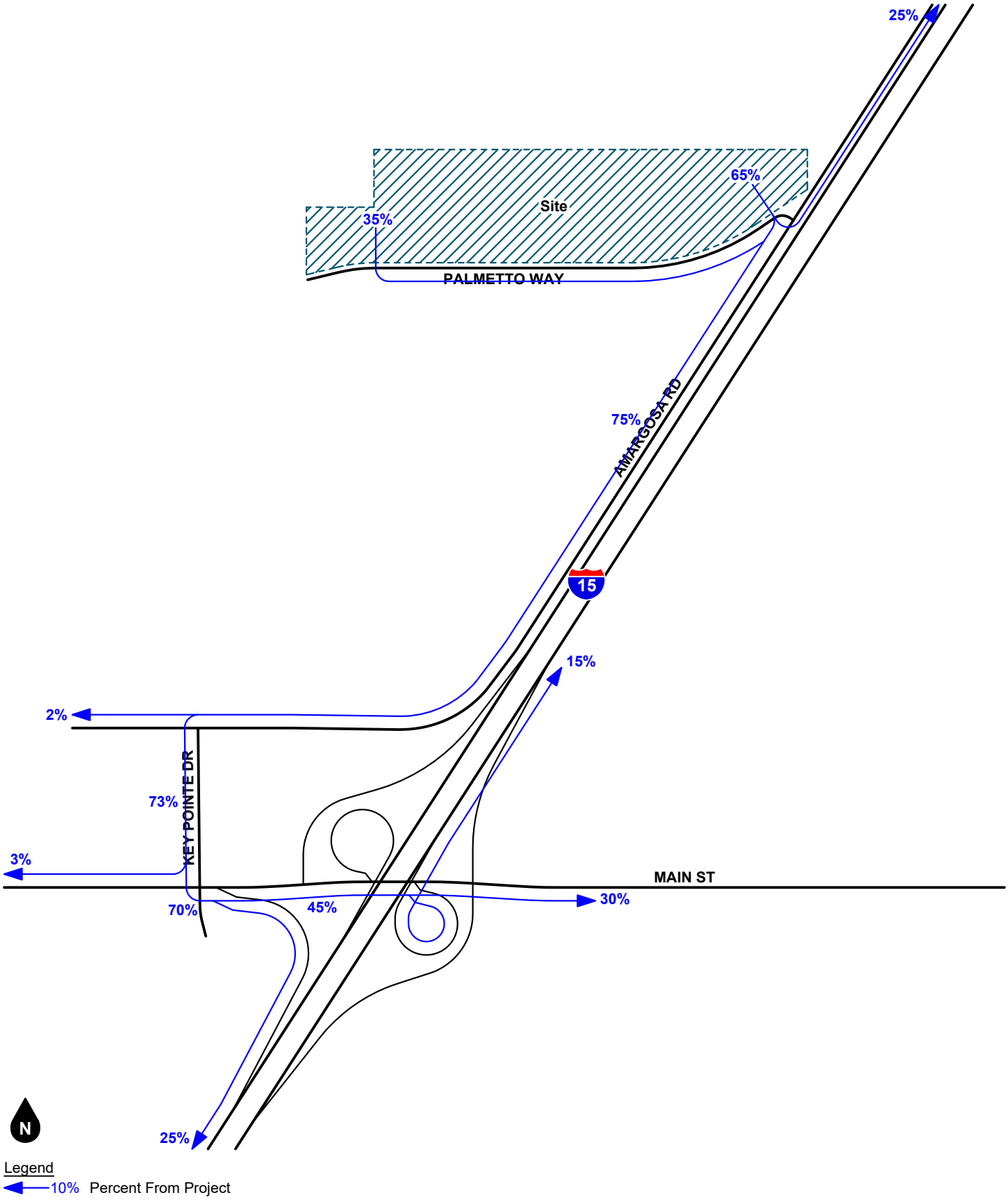


Figure 12
Project Outbound Trip Distribution - Cars

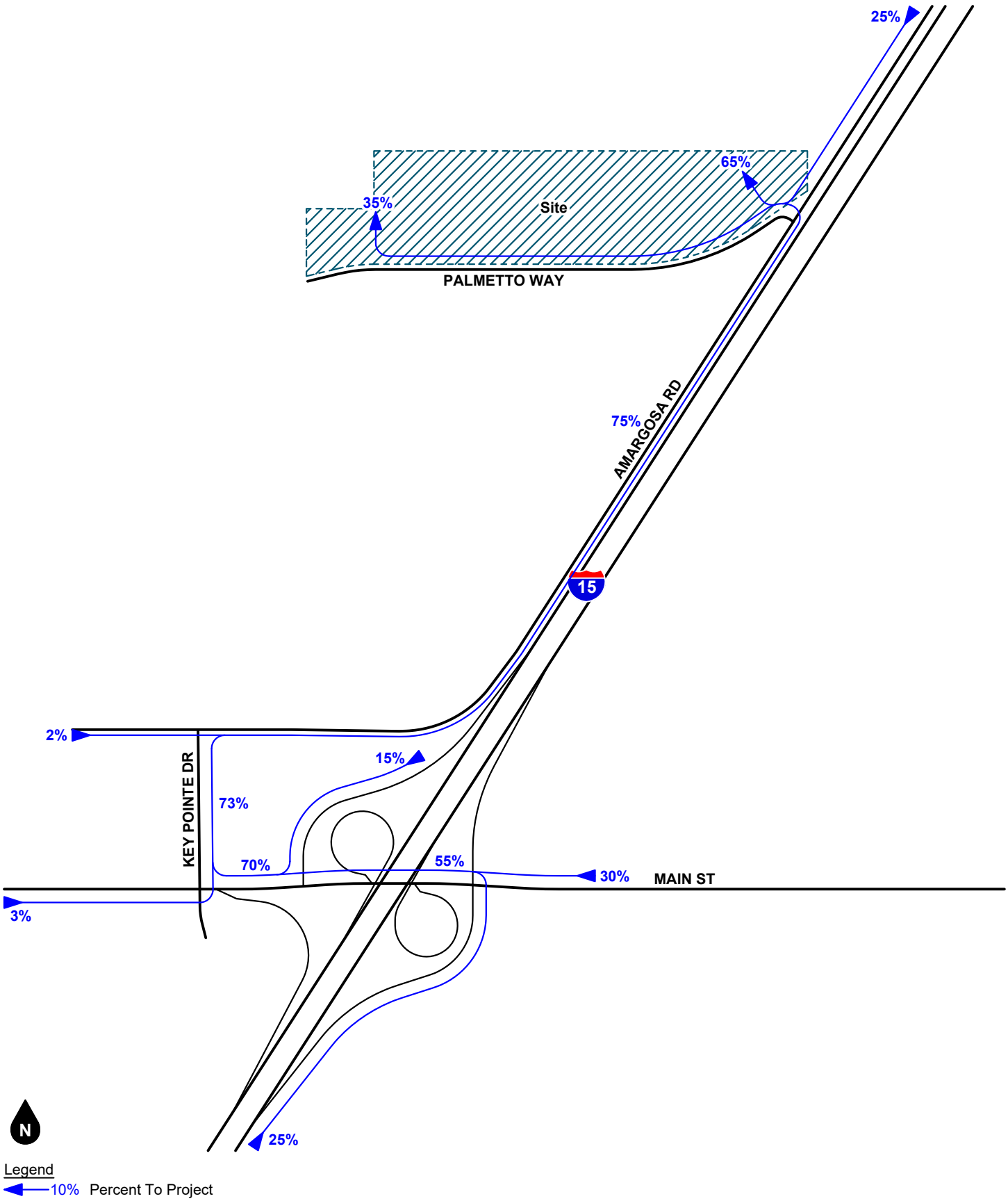


Figure 13
Project Inbound Trip Distribution - Cars

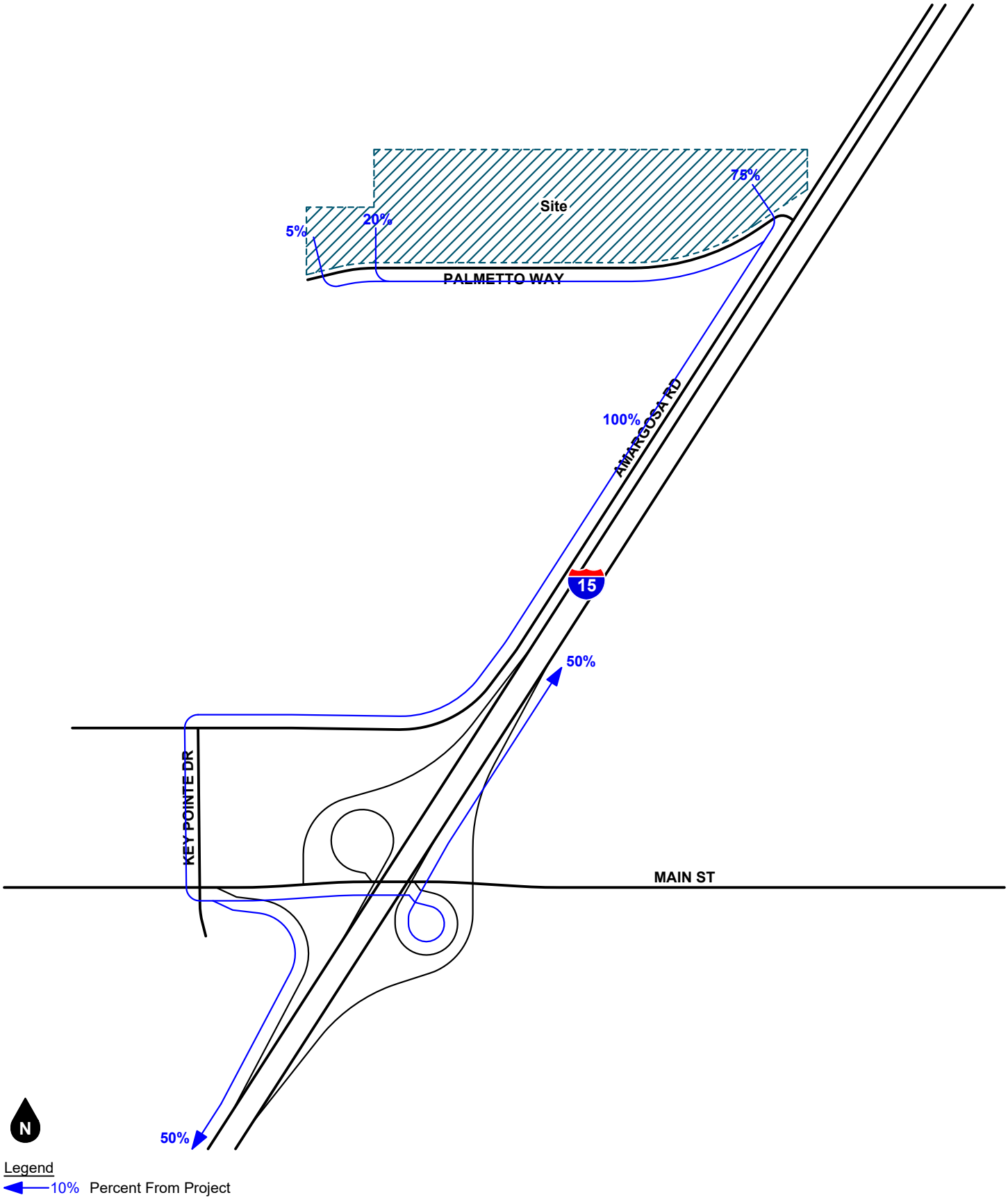


Figure 14
Project Outbound Trip Distribution - Trucks

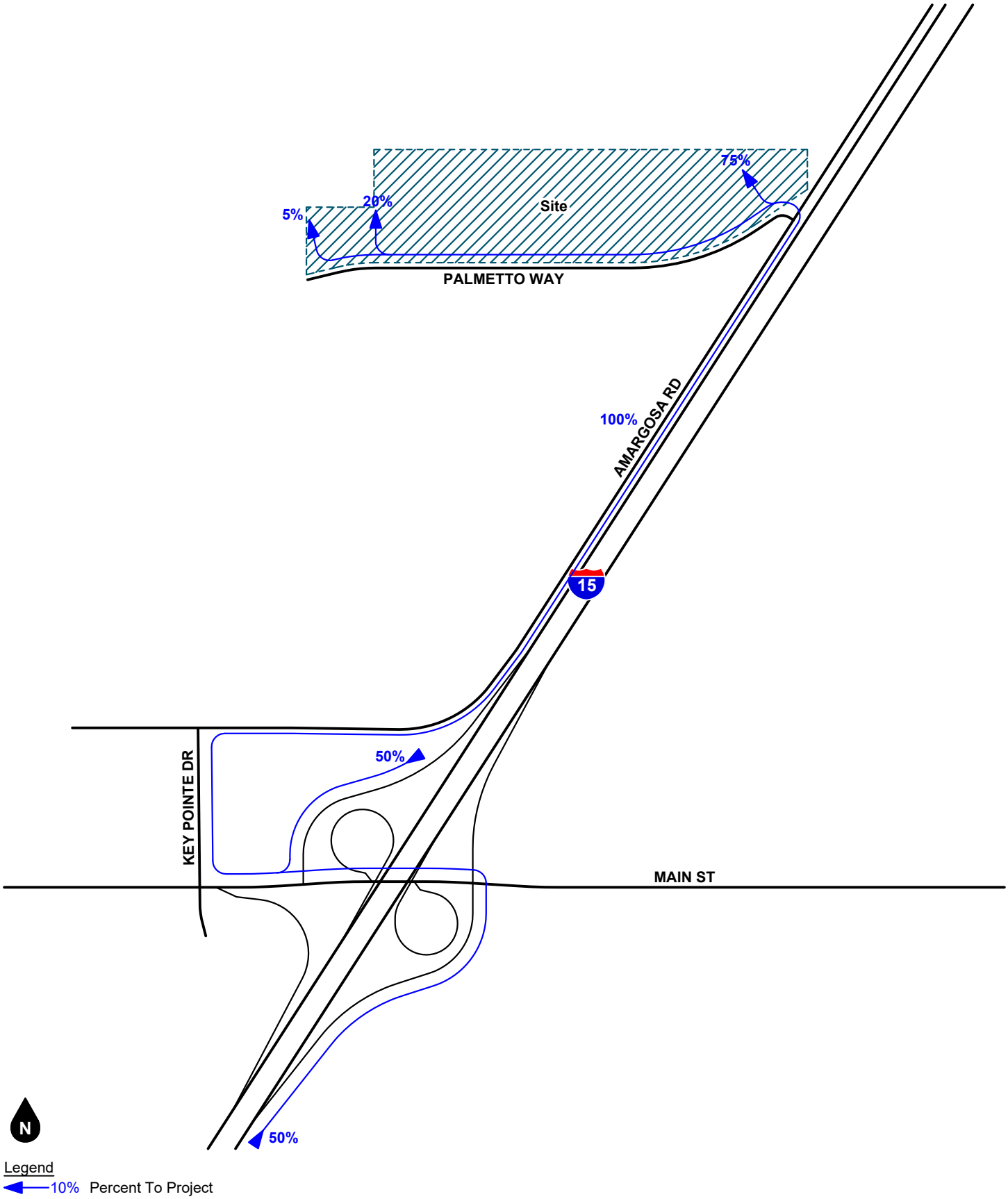


Figure 15
Project Inbound Trip Distribution - Trucks

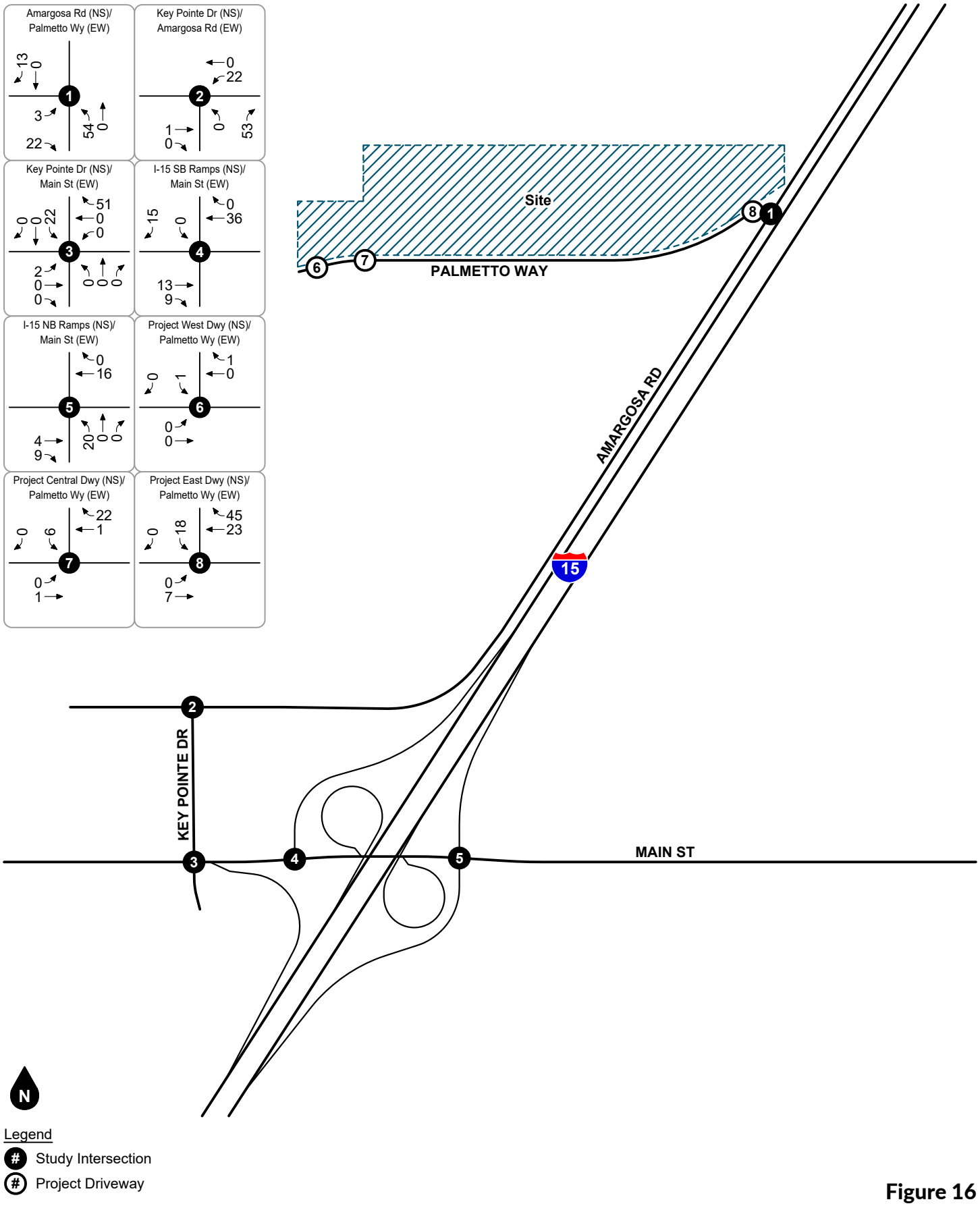


Figure 16
Project AM Peak Hour Intersection Turning Movement Volumes

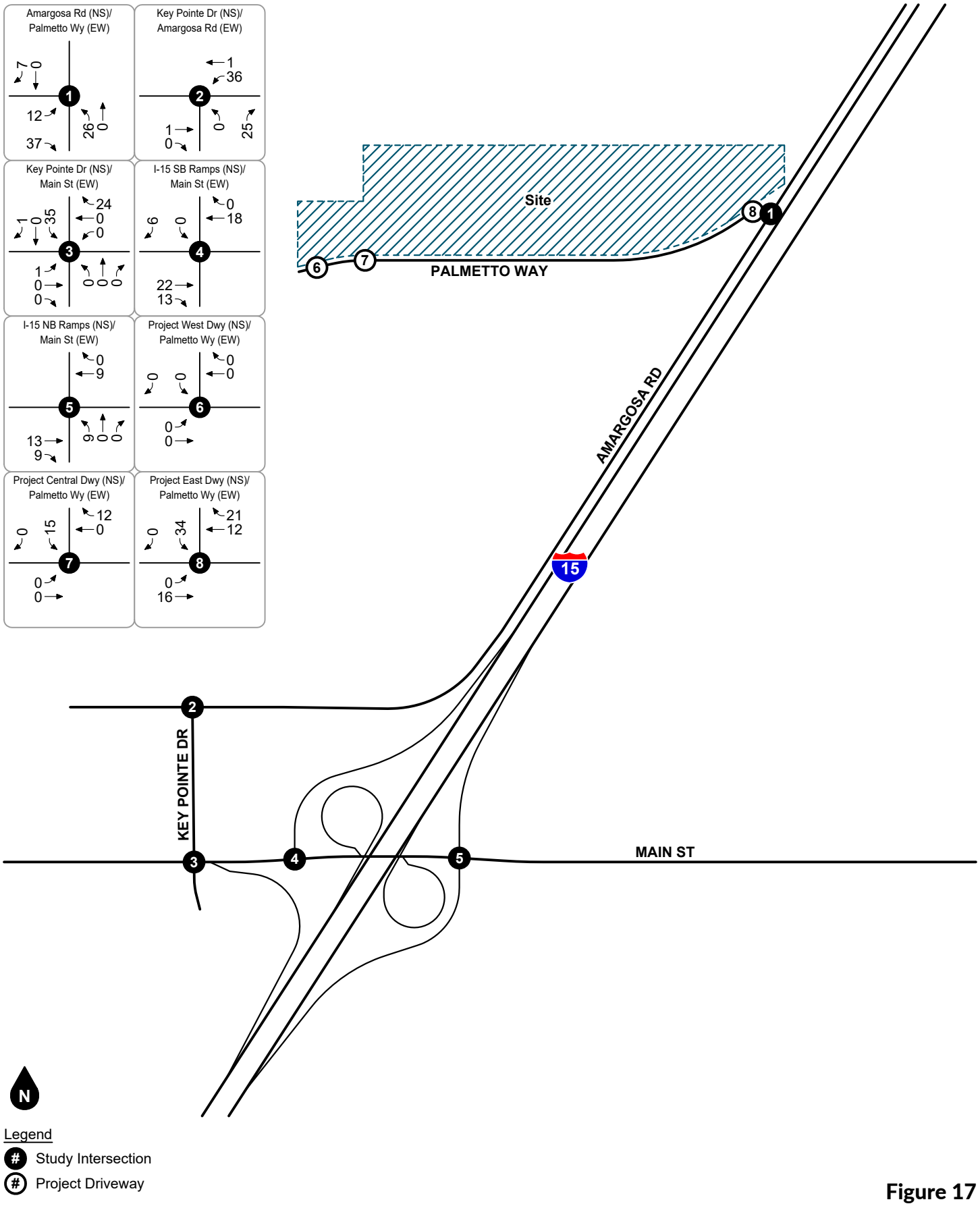


Figure 17
Project PM Peak Hour Intersection Turning Movement Volumes

5. FUTURE VOLUME FORECASTS

This section describes how future volume forecasts for each analysis scenario were developed. Forecast study area volumes are illustrated on figures contained in this section.

CUMULATIVE TRIPS

Ambient Growth Rate

To account for ambient growth on roadways, existing 2022 volumes were increased by a growth rate of two percent (2%) per year over five years for Opening Year (2027) conditions; this equates to a total growth factor of approximately 1.104. The ambient growth rate was conservatively applied to all movements at the study intersections.

Other Development

To account for trips generated by future development, trips generated by pending or approved other development projects were added to the study area. Table 5 shows the other development project list for projects anticipated to contribute appreciable trips to the study area intersections and Figure 18 shows the other development location map.

Figure 19 and Figure 20 show the forecast AM and PM peak hour intersection turning movement volumes for trips generated by other developments.

GENERAL PLAN BUILDOUT (2040) PROJECTIONS

General Plan Buildout (2040) forecasts have been determined using a growth increment approach with the San Bernardino Transportation Analysis Model (SBTAM) Year 2016 and Year 2040 travel demand model plots. This difference defines the incremental growth in forecast volumes over the 24-year period between 2016 and 2040. The incremental growth in average daily traffic volume has been factored to reflect the forecast growth between the current year traffic counts (2022) and year 2040. For this purpose, linear growth between the Year 2016 base condition and the forecast Year 2040 condition was assumed. Since the increment between the current year and Year 2040 is 18 years of the 24-year time frame, a factor of 0.75 (i.e., 18/24) was used.

To derive AM and PM peak hour intersection turning movement volumes, the roadway link growth forecasts were further refined using a spreadsheet program developed by the Federal Highway Administration and consistent with forecasting procedures outlined in the National Cooperative Highway Research Program Report 255. The spreadsheet program uses a linear programming algorithm to calculate future turning movements based on the relationship of existing intersection turning movements and forecast model growth. The forecast turning movements developed by the spreadsheet program were reviewed for reasonableness and adjusted as necessary to ensure no less than 10 percent traffic growth. The end results of the post-processing procedures are future traffic volumes suitable for analysis. Travel demand model plots are provided in Appendix F and post-processing worksheets are provided in Appendix G.

ANALYSIS SCENARIO VOLUME FORECASTS

Opening Year (2027) Without Project

To develop Opening Year (2027) Without Project volume forecasts, existing volumes were combined with ambient growth and trips generated by other developments. Opening Year (2027) Without Project AM and PM peak hour intersection turning movement volumes are shown Figure 21 and Figure 22.

Opening Year (2027) With Project

Opening Year (2027) With Project volume forecasts were developed by adding project generated trips to the Opening Year (2027) Without Project forecast. Opening Year (2027) With Project AM and PM peak hour intersection turning movement volumes are shown on Figure 23 and Figure 24.

General Plan Buildout (2040) Without Project

General Plan Buildout (2040) Without Project volume forecasts were developed based on the SBTAM travel demand model and post-processing procedures as described above. General Plan Buildout (2040) Without Project AM and PM peak hour intersection turning movement volumes are shown on Figure 25 and Figure 26.

General Plan Buildout (2040) With Project

General Plan Buildout (2040) With Project volumes were developed by adding project generated trips to the General Plan Buildout (2040) Without Project forecast volumes. General Plan Buildout (2040) With Project AM and PM peak hour intersection turning movement volumes are shown on Figure 27 and Figure 28.

Table 3 (1 of 2)
Other Development Trip Generation

Project Name	Land Use	Quantity	Trips Generated[2]						
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	Daily
CUP23-00008	Fulfillment Center Warehouse	469.979 TSF							
	- Passenger Cars		49	12	61	28	43	71	743
	- Trucks (in PCE)		13	13	26	3	3	6	277
	Subtotal		62	25	87	31	46	77	1,020
Kiss Logistics Center	Fulfillment Center Warehouse	655.468 TSF							
(CUP22-00017)	- Passenger Cars		69	16	85	39	60	99	1,036
	- Trucks (in PCE)		16	16	32	10	10	20	382
	Subtotal		85	32	117	49	70	119	1,418
Hesperia Commerce Center II	Fulfillment Center Warehouse	3,901.194 TSF							
(includes CUPR24-0001)	- Passenger Cars		410	98	508	230	359	589	6,164
	- Trucks (in PCE)		97	97	194	50	50	100	2,282
	Subtotal		507	195	702	280	409	689	8,446
CUP23-00005/Phelan 20	Fulfillment Center Warehouse	419.700 TSF							
	- Passenger Cars		44	10	54	25	39	64	663
	- Trucks (in PCE)		13	13	26	3	3	6	244
	Subtotal		57	23	80	28	42	70	907
Pixior	Fulfillment Center Warehouse	440.000 TSF							
(CUPR25-00001)	- Passenger Cars		46	11	57	26	40	66	695
	- Trucks (in PCE)		13	13	26	3	3	6	257
	Subtotal		59	24	83	29	43	72	952
CUP24-00005	Commercial Retail	167.664 TSF	87	54	141	273	297	570	6,205
Newcastle	Fulfillment Center Warehouse	400.000 TSF							
(CUP22-00004)	- Passenger Cars		42	10	52	24	37	61	632
	- Trucks (in PCE)		10	10	20	3	3	6	235
	Subtotal		52	20	72	27	40	67	867
Poplar 18 Industrial Park	Fulfillment Center Warehouse	414.700 TSF							
(CUP21-00010)	- Passenger Cars		44	10	54	24	38	62	655
	- Trucks (in PCE)		10	10	20	3	3	6	244
	Subtotal		54	20	74	27	41	68	899
I-15 Industrial Park Project	Fulfillment Center Warehouse	1,850.000 TSF							
(CUP21-00004)	- Passenger Cars		194	46	240	109	170	279	2,923
	- Trucks (in PCE)		47	47	94	25	25	50	1,081
	Subtotal		241	93	334	134	195	329	4,004
Industrial Center	Warehouse	74.924 TSF							
(CUP22-00016/CUP24-0003)	- Passenger Cars		9	3	12	3	8	11	83
	- Trucks (in PCE)		3	0	3	3	3	6	113
	Subtotal		12	3	15	6	11	17	196

Table 3 (2 of 2)
Other Development Trip Generation

Project Name	Land Use	Quantity	Trips Generated[2]						
			AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	Daily
SPR22-00017	Fulfillment Center Warehouse	142.634 TSF							
	- Passenger Cars		15	4	19	8	13	21	225
	- Trucks (in PCE)		3	3	6	0	0	0	85
	Subtotal		18	7	25	8	13	21	310
SPR24-00006	Fulfillment Center Warehouse	91.569 TSF							
	- Passenger Cars		10	2	12	5	8	13	145
	- Trucks (in PCE)		3	3	6	0	0	0	52
	Subtotal		13	5	18	5	8	13	197
Dara Industrial Project	Fulfillment Center Warehouse	750.000 TSF							
(CUP22-00003)	- Passenger Cars		79	19	98	44	69	113	1,185
	- Trucks (in PCE)		22	22	44	10	10	20	440
	Subtotal		101	41	142	54	79	133	1,625
CUP23-00007	Truck Parking	83 SP	7	1	8	1	6	7	59
SPR23-00024	Fulfillment Center Warehouse	150.000 TSF							
	- Passenger Cars		16	4	20	9	14	23	237
	- Trucks (in PCE)		3	3	6	0	0	0	89
	Subtotal		19	7	26	9	14	23	326
Hesperia Commerce Center	Fulfillment Center Warehouse	3,500.000 TSF							
(SPR23-00024)	- Passenger Cars		368	88	456	207	322	529	5,530
	- Trucks (in PCE)		88	88	176	47	47	94	2,048
	Subtotal		456	176	632	254	369	623	7,578
Total			1,830	726	2,556	1,215	1,683	2,898	35,009

Notes:
(1) TSF = Thousand Square Feet; SU = Storage Units

(2) Based on trip generation rates from:
ITE = Institute of Transportation Engineers Trip Generation Manual (11th Edition, 2021); ### = ITE Land Use Code.
SCAQMD = South Coast Air Quality Management District recommendations for non-cold storage high-cube warehouse.
PCE = Passenger Car Equivalent

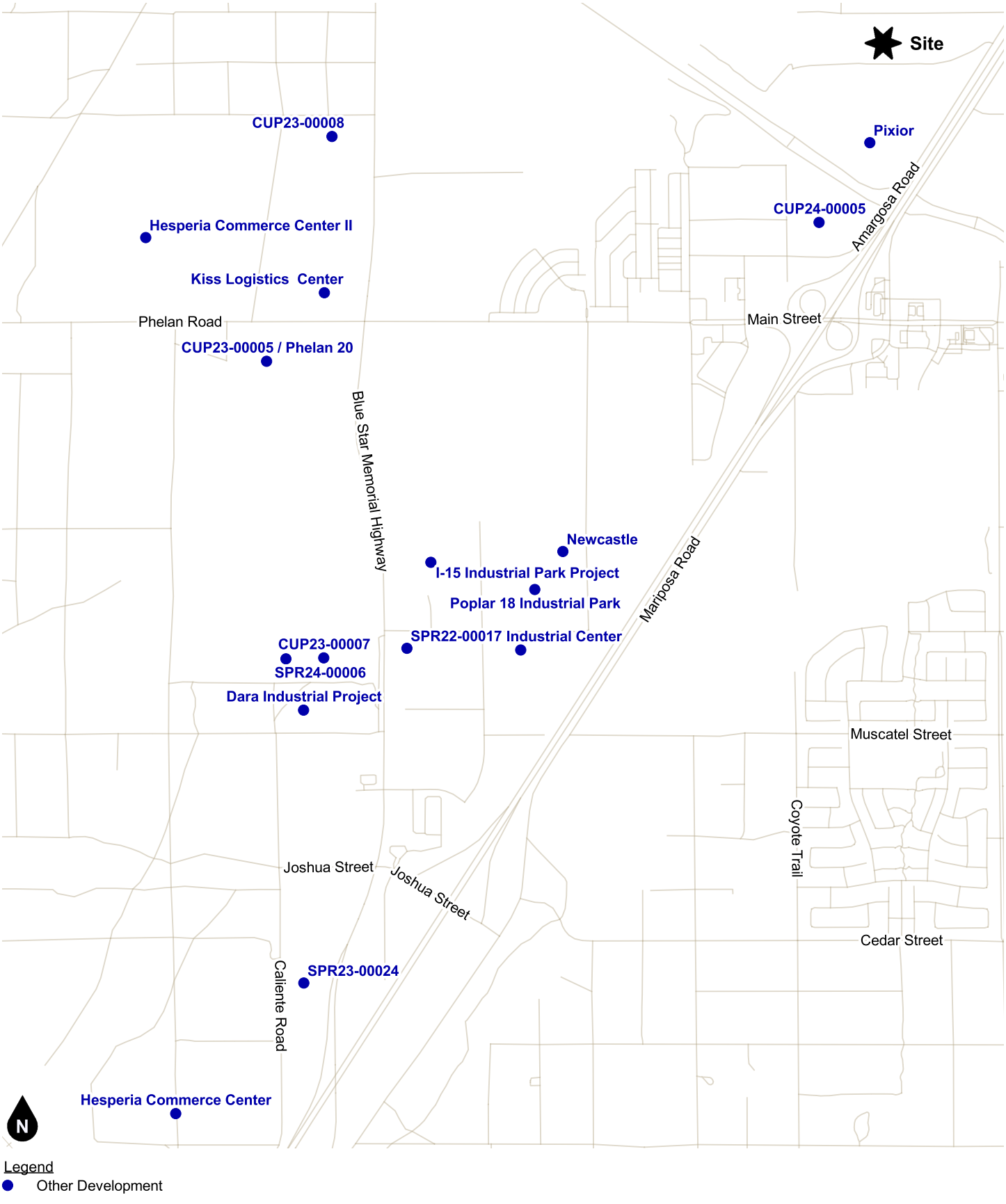


Figure 18
Other Development Location Map

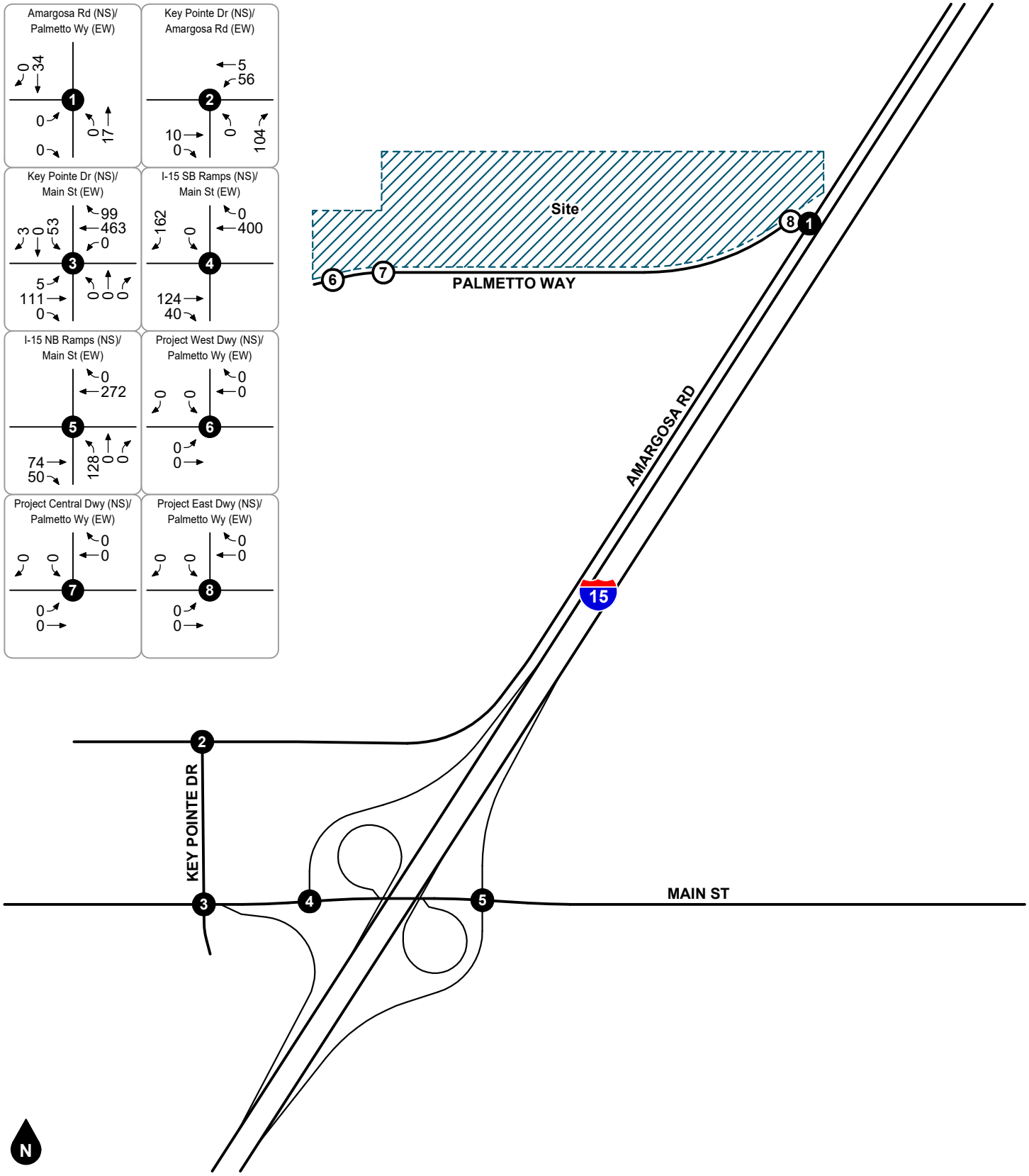


Figure 19
Other Development
AM Peak Hour Intersection Turning Movement Volumes

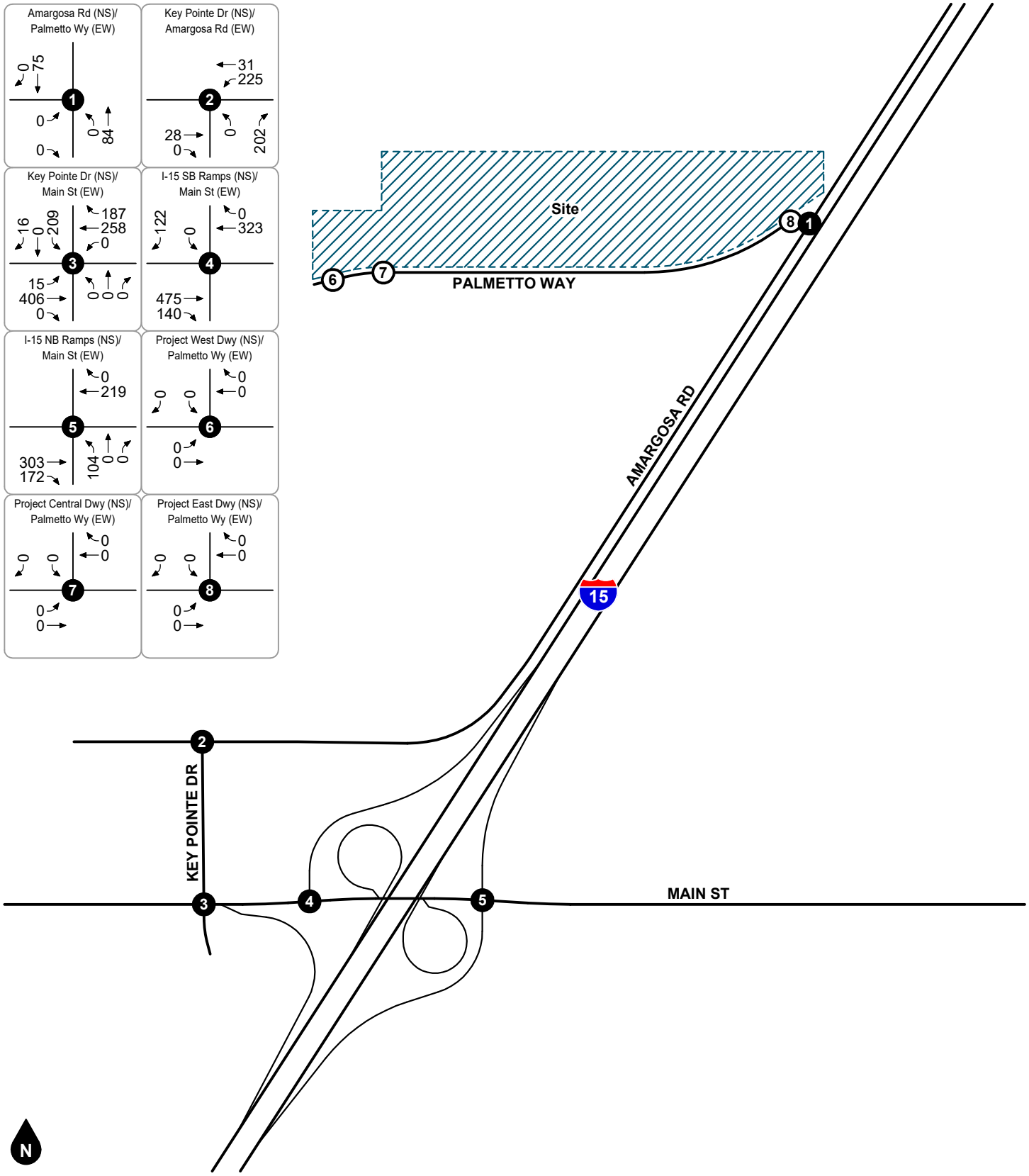


Figure 20
Other Development
PM Peak Hour Intersection Turning Movement Volumes

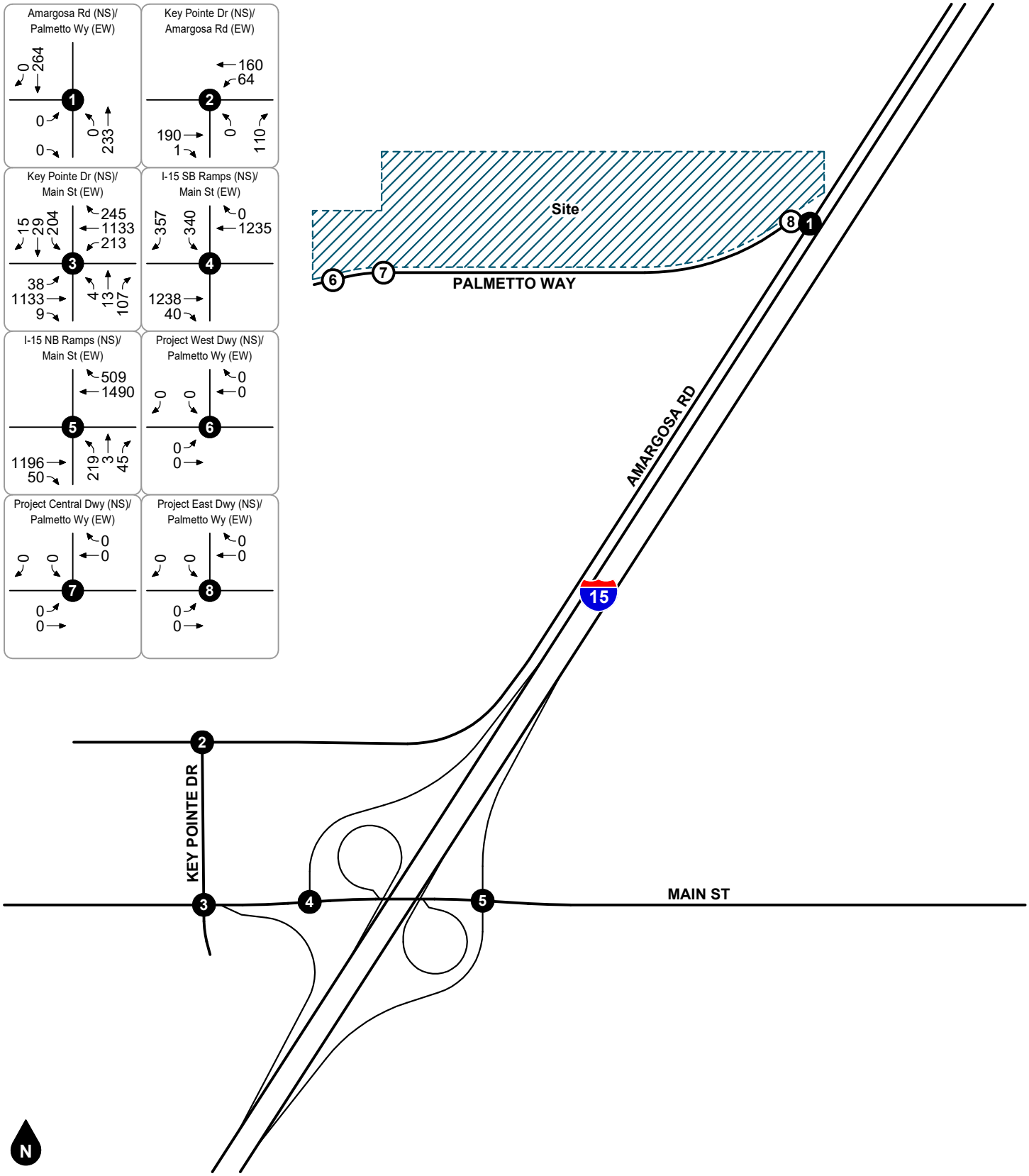


Figure 21
Opening Year (2027) Without Project
AM Peak Hour Intersection Turning Movement Volumes

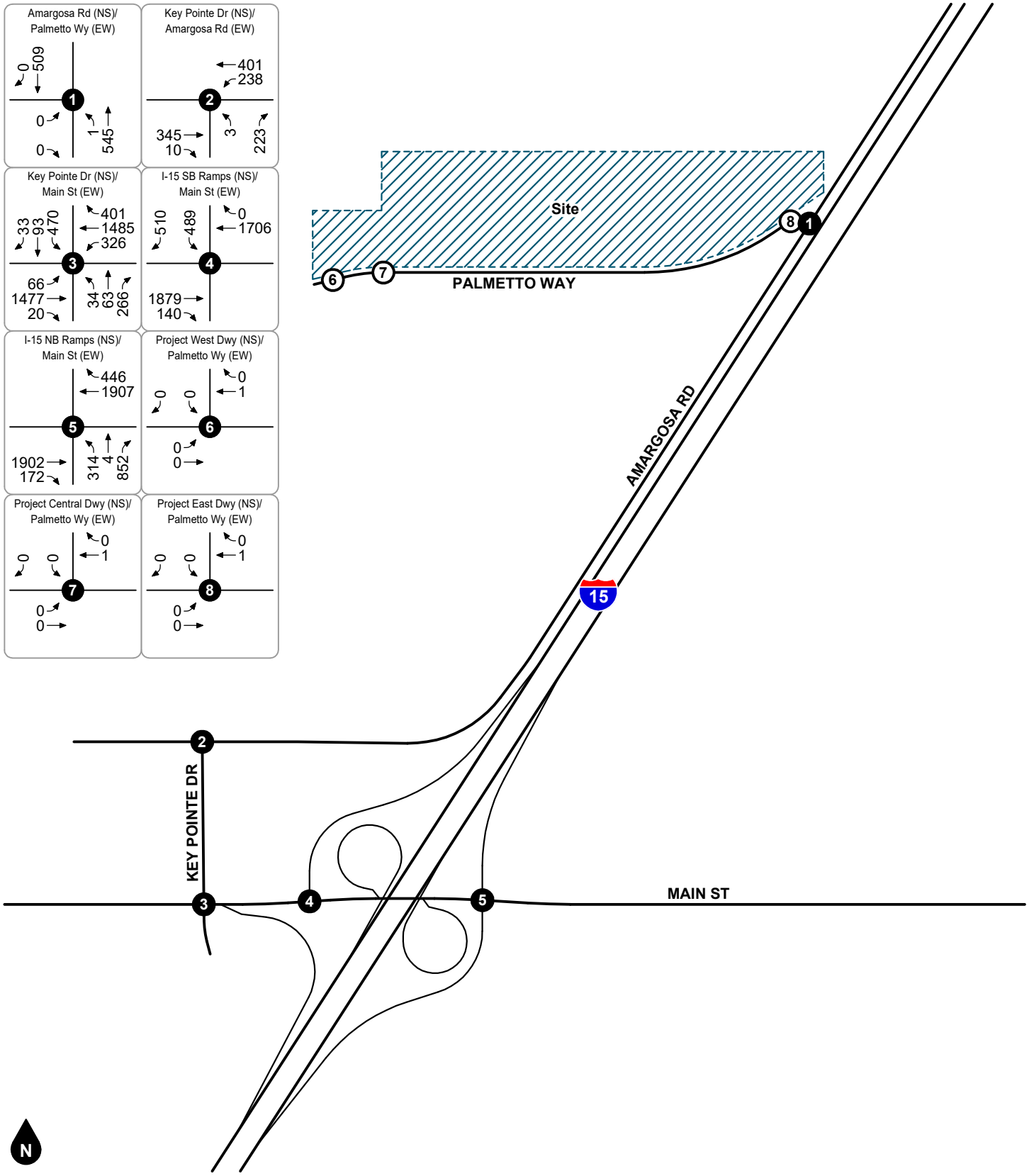
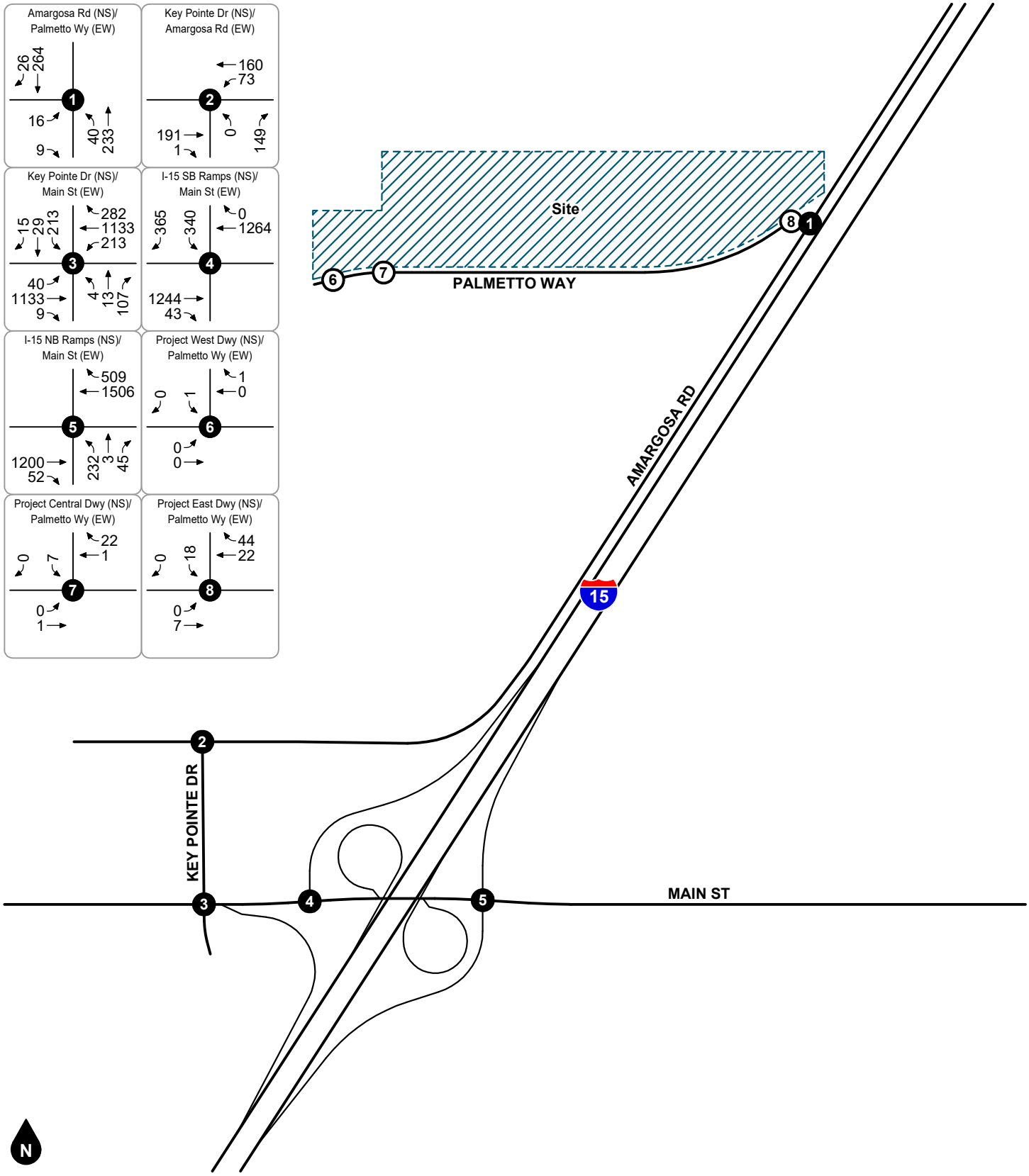


Figure 22
Opening Year (2027) Without Project
PM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

(#) Project Driveway

Figure 23
Opening Year (2027) With Project
AM Peak Hour Intersection Turning Movement Volumes

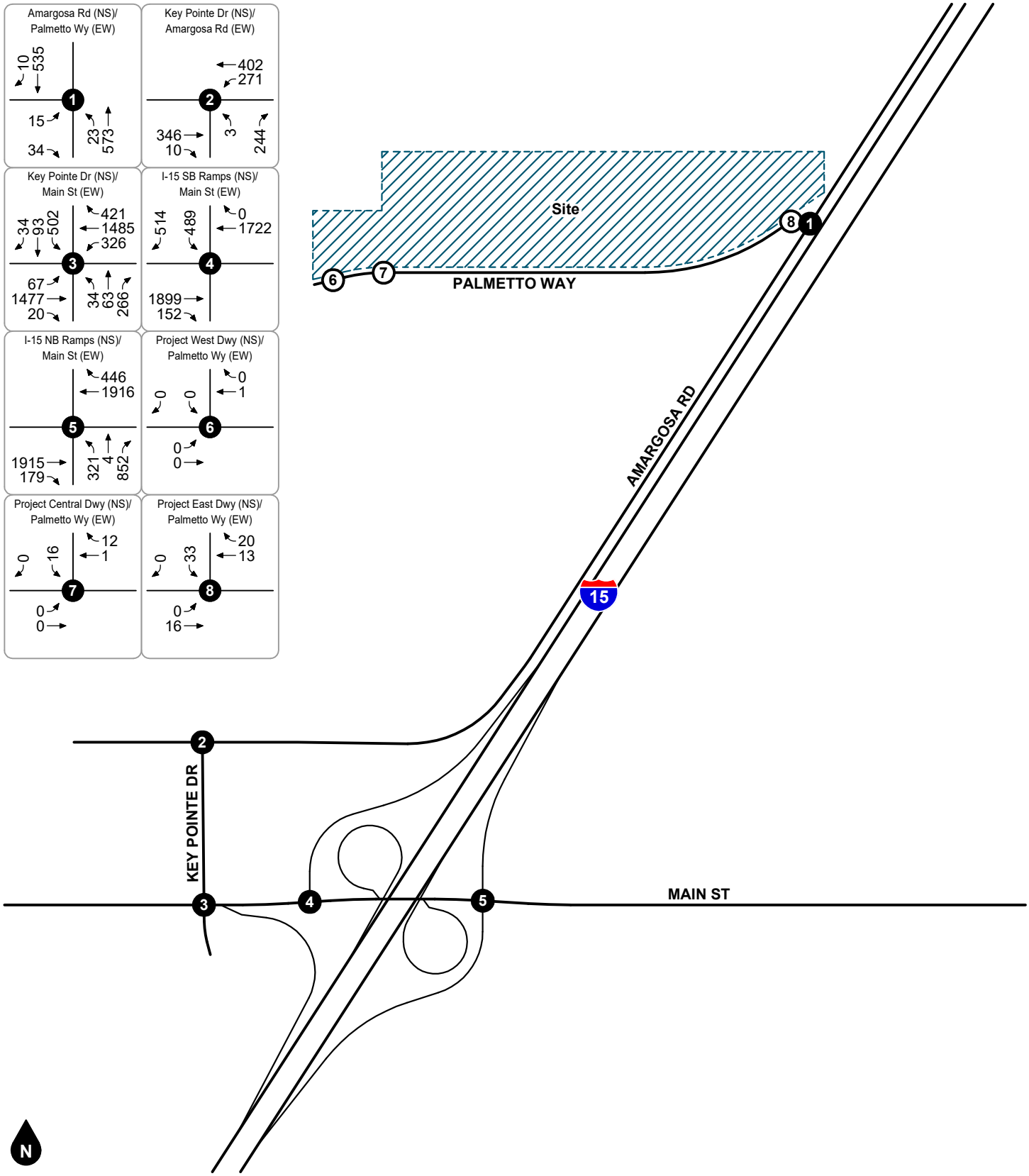
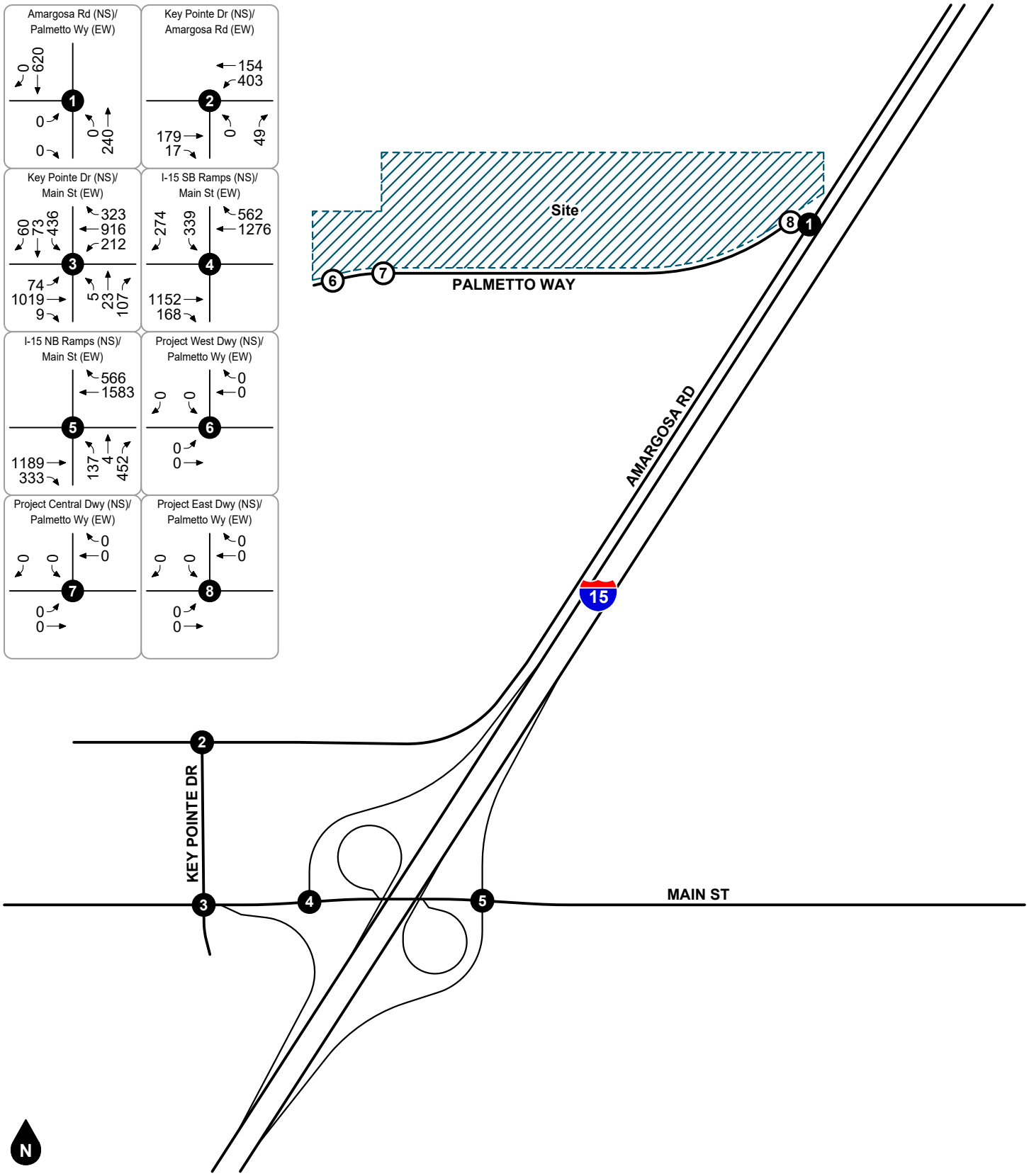


Figure 24
Opening Year (2027) With Project
PM Peak Hour Intersection Turning Movement Volumes

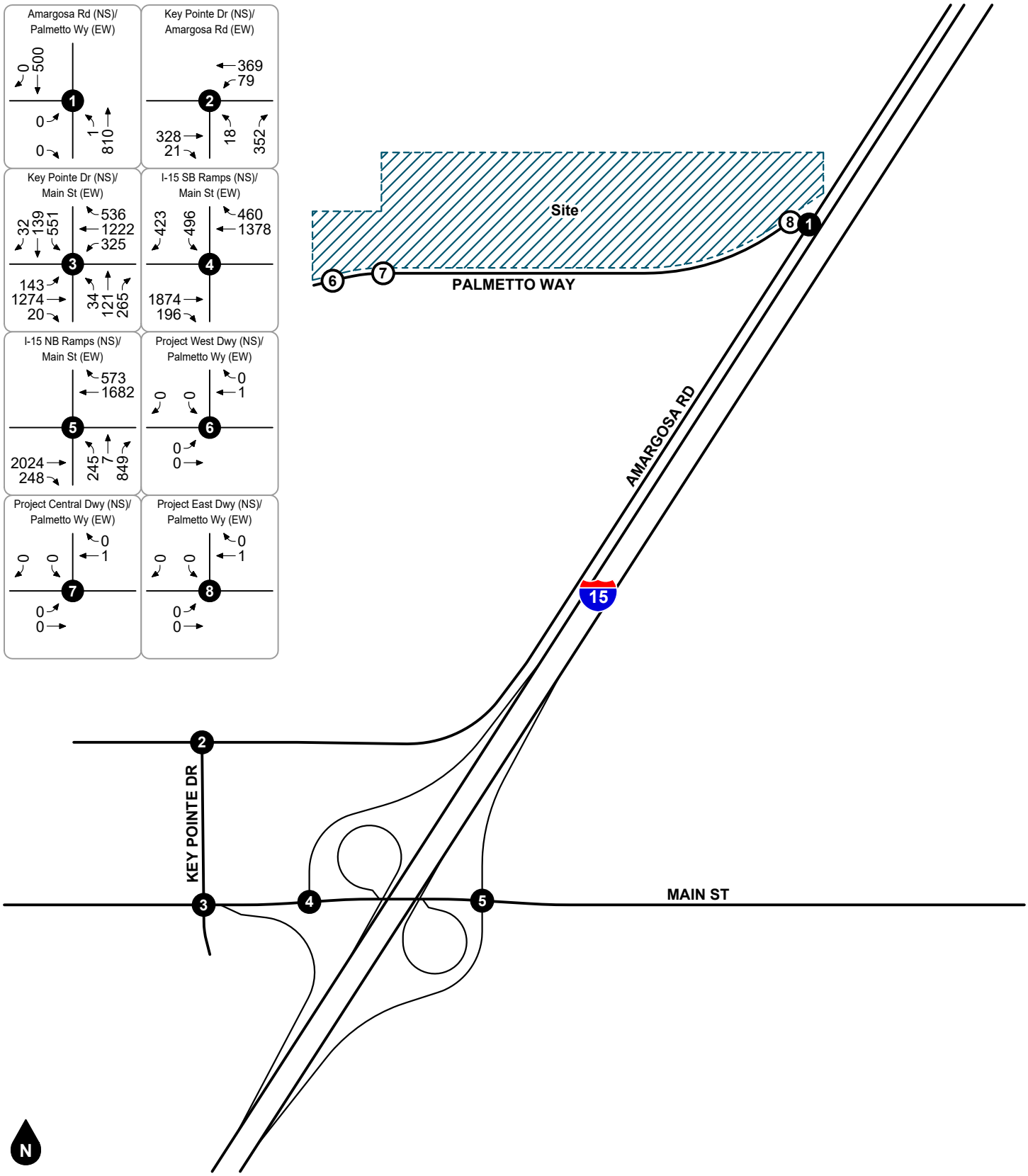


Legend

(#) Study Intersection

(#) Project Driveway

Figure 25
General Plan Buildout (2040) Without Project
AM Peak Hour Intersection Turning Movement Volumes



Legend

(#) Study Intersection

(#) Project Driveway

Figure 26
General Plan Buildout (2040) Without Project
PM Peak Hour Intersection Turning Movement Volumes

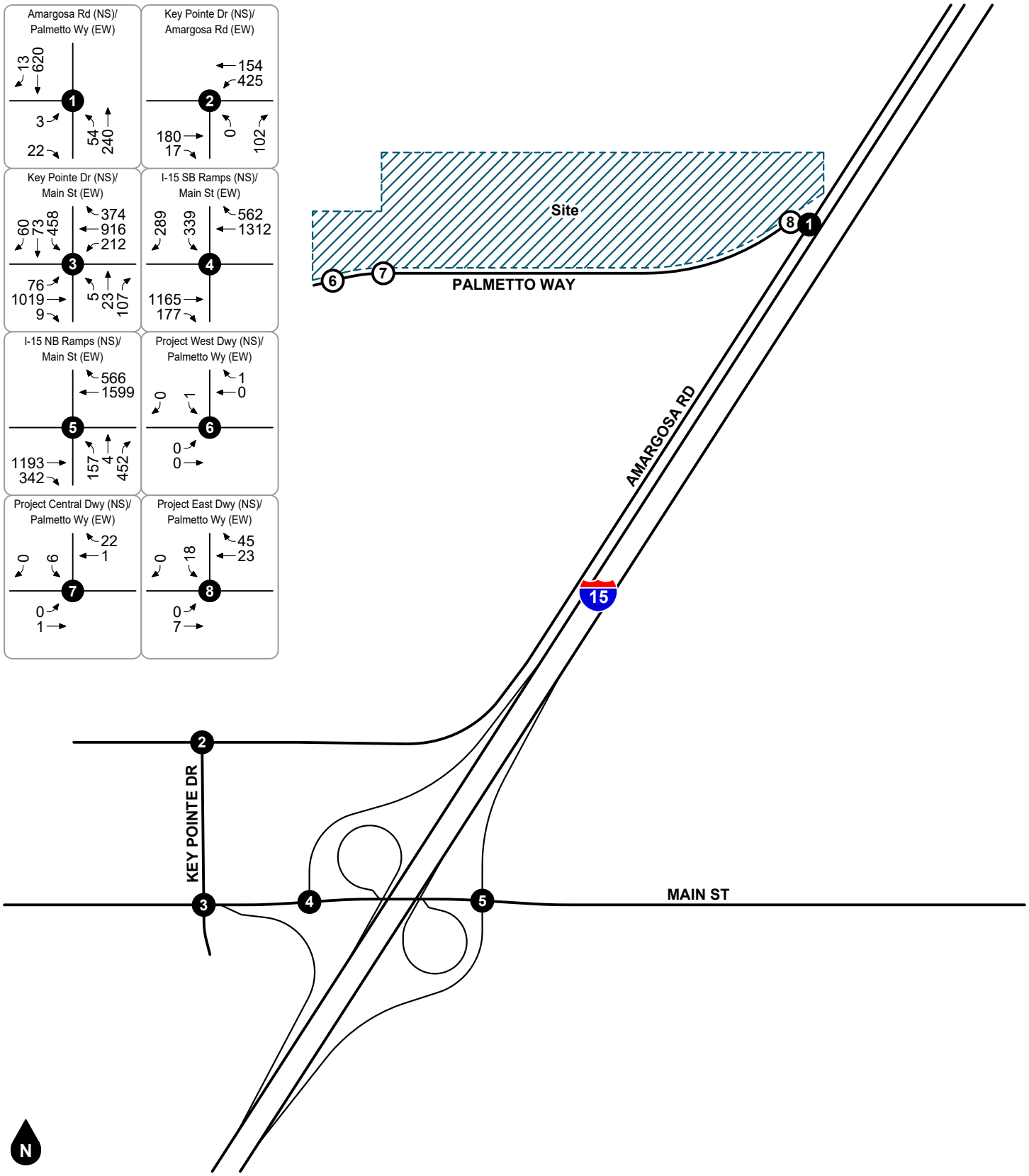


Figure 27
General Plan Buildout (2040) With Project
AM Peak Hour Intersection Turning Movement Volumes

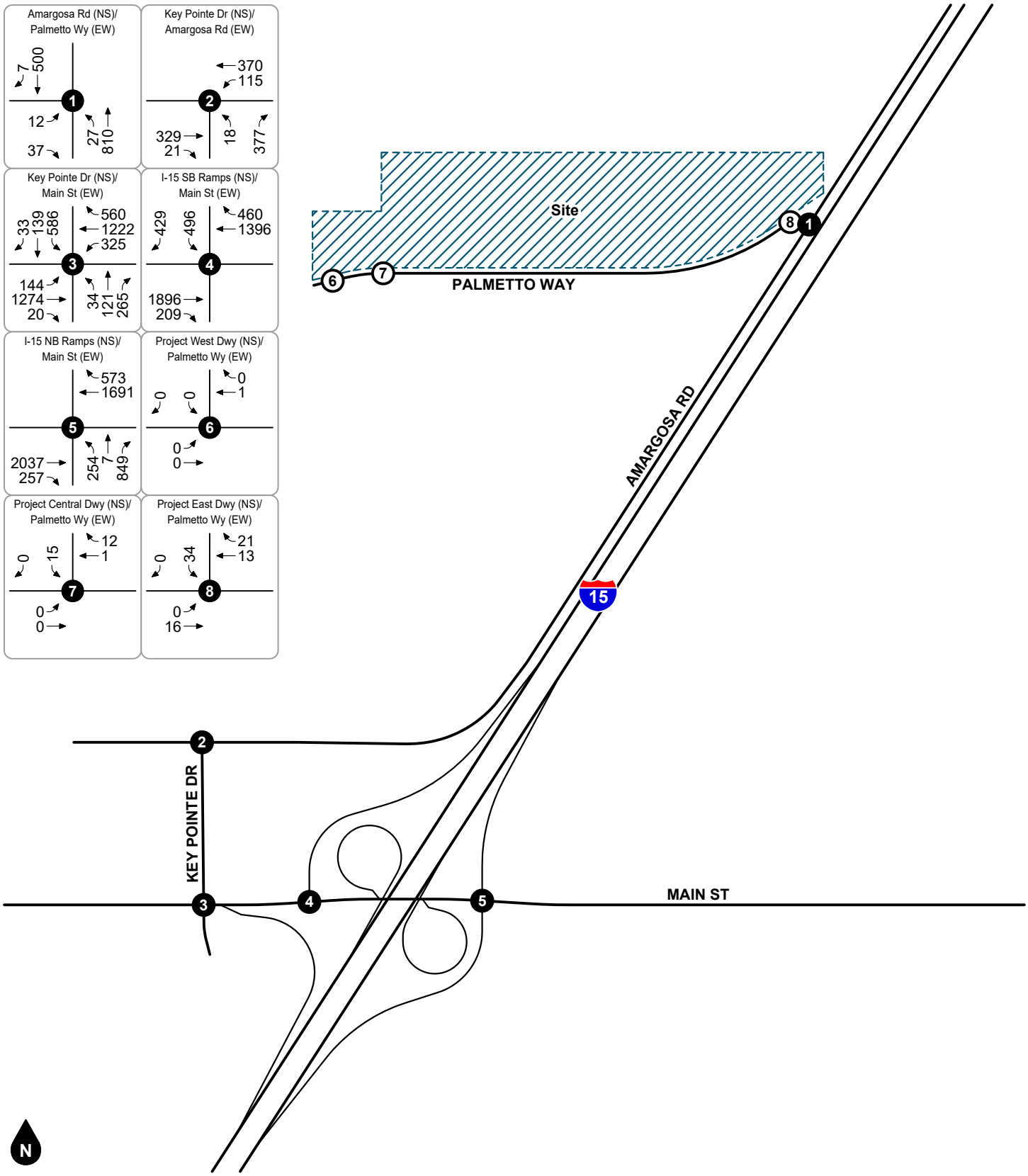


Figure 28
General Plan Buildout (2040) With Project
PM Peak Hour Intersection Turning Movement Volumes

6. FUTURE OPERATIONAL ANALYSIS

Detailed intersection Level of Service calculation worksheets for each of the following analysis scenarios are provided in Appendix D.

OPENING YEAR (2027) WITHOUT PROJECT

The intersection Levels of Service for Opening Year (2027) Without Project conditions are shown in Table 6. As shown in Table 6, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2027) Without Project conditions, except for the following study intersection which is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour:

- Key Pointe Drive (NS) at Main Street (EW) - #3 (PM Peak Hour – LOS F)

OPENING YEAR (2027) WITH PROJECT

The intersection Levels of Service for Opening Year (2027) With Project conditions are shown in Table 7. As shown in Table 7, the study intersections are projected to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2027) With Project conditions, except for the following study intersection which is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour:

- Key Pointe Drive (NS) at Main Street (EW) - #3 (PM Peak Hour – LOS F)

The following improvements are recommended for Opening Year (2027) With Project conditions to maintain acceptable Level of Service:

- Key Pointe Drive (NS) at Main Street (EW) - #3
  - Construct a second southbound left turn lane.

The proposed project is forecast to result in no substantial operational deficiencies at the study intersections for Opening Year (2027) With Project conditions with implementation of the recommended improvements.

GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT

The intersection Levels of Service for General Plan Buildout (2040) Without Project conditions are shown in Table 8. As shown in Table 8, the study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for General Plan Buildout (2040) Without Project conditions, except for the following study intersection which is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour:

- Key Pointe Drive (NS) at Main Street (EW) - #3 (PM Peak Hour – LOS F)

GENERAL PLAN BUILDOUT (2040) WITH PROJECT

The intersection Levels of Service for General Plan Buildout (2040) With Project conditions are shown in Table 9. As shown in Table 9, the study intersections are projected to operate within acceptable Levels of Service (D or better) during the peak hours for General Plan Buildout (2040) With Project conditions, except for the following study intersection which is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour:

- Key Pointe Drive (NS) at Main Street (EW) - #3 (PM Peak Hour – LOS F)

The following improvements are recommended for General Plan Buildout (2040) With Project conditions to maintain acceptable Level of Service:

- Key Pointe Drive (NS) at Main Street (EW) - #3
  - Construct a second southbound left turn lane.

The proposed project is forecast to result in no substantial operational deficiencies at the study intersections for General Plan Buildout (2040) With Project conditions with implementation of the recommended improvements.

A conceptual striping exhibit for the improvement of a second southbound left turn lane at the intersection of Key Pointe Drive at Main Street (Int. #3) is shown on Figure 29.

The traffic signal would require modification from north-south permitted phasing to protected phasing.

PROJECT FAIR SHARE CONTRIBUTION

Table 10 shows the project fair share contributions and summary of improvements recommended for cumulative conditions. The project fair share contribution is based on the proportion of project peak hour intersection turning movement volumes contributed to the improvement location relative to the total new peak hour intersection turning movement volumes. The intersection fair share cost calculations are typically based on the higher of the AM or PM peak hour traffic volumes. The fair share calculations are intended only for the discussion purposes of this traffic impact analysis, and do not imply any legal responsibility or formula for contributions or mitigation.

Note that the existing turning movement volumes are based on the year 2022 traffic counts to most accurately reflect the change in volumes from when existing traffic counts were taken compared to forecasted General Plan Buildout forecast volumes.

Table 6
Opening Year (2027) Without Project Intersection Levels of Service

Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Amargosa Road (NS) at Palmetto Way (EW)	CSS	0.0	A	0.0	A
2. Key Pointe Drive (NS) at Amargosa Road (EW)	CSS	9.3	A	11.0	B
3. Key Pointe Drive (NS) at Main Street (EW)	TS	17.1	B	86.1	F
4. I-15 SB Offramp (NS) at Main Street (EW)	TS	10.4	B	15.6	B
5. I-15 NB Ramps (NS) at Main Street (EW)	TS	6.0	A	14.4	B

Notes:

(1) CSS = Cross Street Stop; TS = Traffic Signal

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual approach.

(3) LOS = Level of Service

Table 7
Opening Year (2027) With Project Intersection Levels of Service

Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Amargosa Road (NS) at Palmetto Way (EW)	CSS	12.1	B	16.3	C
2. Key Pointe Drive (NS) at Amargosa Road (EW)	CSS	9.5	A	11.2	B
3. Key Pointe Drive (NS) at Main Street (EW)	TS	17.5	B	111.0	F
- With Improvements	TS	14.6	B	31.8	C
4. I-15 SB Offramp (NS) at Main Street (EW)	TS	10.6	B	15.9	B
5. I-15 NB Ramps (NS) at Main Street (EW)	TS	6.3	A	14.5	B
6. Project West Driveway (NS) at Palmetto Way (EW)	CSS	8.5	A	0.0	A
7. Project Central Driveway (NS) at Palmetto Way (EW)	CSS	8.6	A	8.6	A
8. Project East Driveway (NS) at Palmetto Way (EW)	CSS	8.8	A	8.8	A

Notes:

(1) CSS = Cross Street Stop; TS = Traffic Signal

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual approach.

(3) LOS = Level of Service

Table 8
General Plan Buildout (2040) Without Project Intersection Levels of Service

Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Amargosa Road (NS) at Palmetto Way (EW)	CSS	0.0	A	0.0	A
2. Key Pointe Drive (NS) at Amargosa Road (EW)	CSS	9.0	A	12.5	B
3. Key Pointe Drive (NS) at Main Street (EW)	TS	24.9	C	160.2	F
4. I-15 SB Offramp (NS) at Main Street (EW)	TS	8.8	A	12.2	B
5. I-15 NB Ramps (NS) at Main Street (EW)	TS	8.1	A	13.5	B

Notes:

(1) CSS = Cross Street Stop; TS = Traffic Signal

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual approach.

(3) LOS = Level of Service

Table 9
General Plan Buildout (2040) With Project Intersection Levels of Service

Study Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		Delay[2]	LOS[3]	Delay[2]	LOS[3]
1. Amargosa Road (NS) at Palmetto Way (EW)	CSS	13.6	B	17.1	C
2. Key Pointe Drive (NS) at Amargosa Road (EW)	CSS	9.3	A	12.9	B
3. Key Pointe Drive (NS) at Main Street (EW)	TS	25.6	C	189.5	F
- With Improvements	TS	26.4	C	50.1	D
4. I-15 SB Offramp (NS) at Main Street (EW)	TS	9.0	A	12.3	B
5. I-15 NB Ramps (NS) at Main Street (EW)	TS	8.2	A	13.6	B
6. Project West Driveway (NS) at Palmetto Way (EW)	CSS	8.5	A	0.0	A
7. Project Central Driveway (NS) at Palmetto Way (EW)	CSS	8.6	A	8.6	A
8. Project East Driveway (NS) at Palmetto Way (EW)	CSS	8.8	A	8.8	A

Notes:

(1) CSS = Cross Street Stop; TS = Traffic Signal

(2) Delay is shown in seconds/vehicle. For intersections with traffic signal or all way stop control, overall average intersection delay and LOS are shown. For intersections with cross street stop control, LOS is based on average delay of the worst individual approach.

(3) LOS = Level of Service

Table 10
Project Fair Share Contribution

Study Intersection	Peak Hour	Intersection Turning Movement Volumes				
		Existing	General Plan Buildout With Project	Project Trips	Total New Trips	Project Share of Total New Trips
3. Key Pointe Drive (NS) at Main Street (EW)	AM	2,083	3,332	75	1,249	6.0%
	PM	3,298	4,723	61	1,425	4.3%

Study Intersection	Improvement
3. Key Pointe Drive (NS) at Main Street (EW)	Construct a second SB left turn lane.



Note: Proof of concept only; not for construction. Final plans shall conform with all applicable CA MUTCD requirements.

Figure 29
Conceptual Striping Plan

7. SITE ACCESS AND CIRCULATION

This section includes a description of project improvements necessary to provide site access and an evaluation of site access and circulation.

PROJECT DESIGN FEATURES

This analysis assumes the following improvements will be constructed by the project as project design features to provide project site access:

- Construct Avenal Street at its ultimate half-section width from the project west terminus to Amargosa Way including landscaping and parkway improvements in conjunction with development, as necessary.

- Construct Palmetto Way at its ultimate half-section width from the project west terminus to Amargosa Way including landscaping and parkway improvements in conjunction with development, as necessary.

- Construct Project West Driveway (NS) at Palmetto Way (EW) to provide one inbound lane and one outbound lane with north-south stop control and the following lane configurations:

    - Southbound: one shared left/right turn lane
    - Eastbound: one shared left/through lane
    - Westbound: one shared through/right turn lane

- Construct Project Central Driveway (NS) at Palmetto Way (EW) to provide one inbound lane and one outbound lane with north-south stop control and the following lane configurations:

    - Southbound: one shared left/right turn lane
    - Eastbound: one shared left/through lane
    - Westbound: one shared through/right turn lane

- Construct Project East Driveway (NS) at Palmetto Way (EW) to provide one inbound lane and one outbound lane with north-south stop control and the following lane configurations:

    - Southbound: one shared left/right turn lane
    - Eastbound: one shared left/through lane
    - Westbound: one shared through/right turn lane

This analysis also assumes the project shall comply with the following conditions as part of the City of Hesperia standard development review process:

- A construction work site traffic control plan shall comply with State standards set forth in the California Manual of Uniform Traffic Control Devices and shall be submitted to the City for review and approval prior to the issuance of a grading permit or start of construction. The plan shall identify any roadway, sidewalk, bike route, or bus stop closures and detours as well as haul routes and hours of operation. All construction related trips shall be restricted to off-peak hours to the extent possible.

- All on-site and off-site roadway design, traffic signing and striping, and traffic control improvements relating to the proposed project shall be constructed in accordance with applicable State/Federal engineering standards and to the satisfaction of the City of Hesperia.

- Site-adjacent roadways shall be constructed or repaired at their ultimate half-section width, including landscaping and parkway improvements in conjunction with development, or as otherwise required by the City of Hesperia.

- Adequate off-street parking shall be provided to the satisfaction of City of Hesperia.

- Adequate emergency vehicle access shall be provided to the satisfaction of the Hesperia Fire Department.

- The final grading, landscaping, and street improvement plans shall demonstrate that sight distance requirements are met in accordance with applicable City of Hesperia/California Department of Transportation sight distance standards.

8. VEHICLES MILES TRAVELED

BACKGROUND

California Senate Bill 743 (SB 743) directed the State Office of Planning and Research (OPR) to amend the California Environmental Quality Act (CEQA) Guidelines for evaluating transportation impacts to provide alternatives to Level of Service that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." In December 2018, the California Natural Resources Agency certified and adopted the updated CEQA Guidelines package. The amended CEQA Guidelines, specifically Section 15064.3, recommend the use of Vehicle Miles Travelled (VMT) as the primary metric for the evaluation of transportation impacts associated with land use and transportation projects. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. All agencies and projects State-wide are required to utilize the updated CEQA guidelines recommending use of VMT for evaluating transportation impacts as of July 1, 2020.

The updated CEQA Guidelines allow for lead agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California, December 2018) ["OPR Technical Advisory"] provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT.

The City of Hesperia has established VMT analysis guidelines at this time; therefore, the project-related VMT impact has been assessed based on guidance from the City of Hesperia *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS)* (July 2020).

SCREENING ASSESSMENT

The City of Hesperia TIA Guidelines provide screening thresholds for certain types of projects that may be presumed to cause a less than significant VMT impact based on substantial evidence provided in the OPR Technical Advisory, or projects that are local serving and thus, by definition, reduce VMT by decreasing the number or distance of trips.

The City of Hesperia TIA Guidelines provide the following three screening steps: 1) Transit Priority Area (TPA) Screening; 2) Low VMT Area Screening; and 3) Project Type Screening.

Transit Priority Area (TPA) Screening

Projects located within a TPA (half mile area around an existing major transit stop or an existing stop along a high quality transit corridor) may be presumed to have a less than significant impact absent substantial evidence to the contrary. This presumption may not be appropriate if the project:

1. Has a Floor Area Ration (FAR) of less than 0.75;
2. Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
3. Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the City Traffic Engineer, with input from the Metropolitan Planning Organization): or
4. Replaces affordable residential units with a smaller number of moderate or high-income residential units.

The San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool was used to determine if the project is located within a TPA. Based on review of the SBCTA VMT Screening Tool, the proposed project is not located within a TPA; therefore, the proposed project cannot be presumed to result in a less than significant VMT impact under this screening criteria.

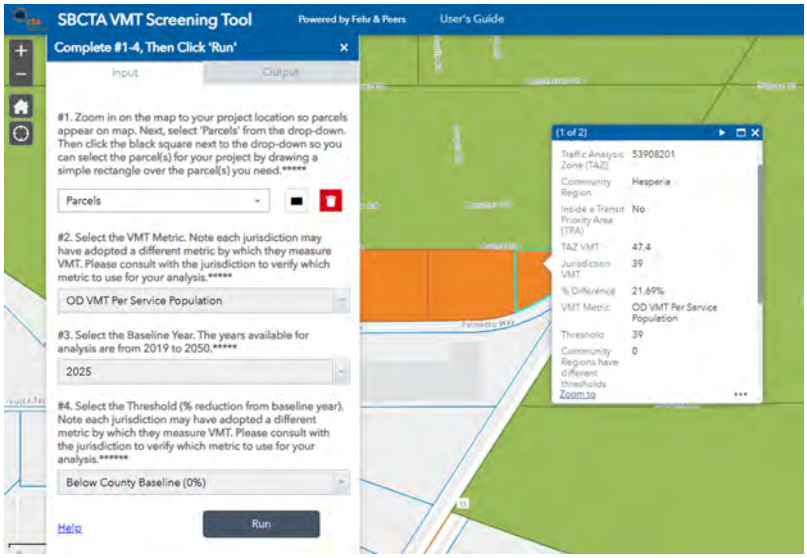
Low VMT Area Screening

Residential and office projects located within a low VMT generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-related and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident, per worker, or per service population that is similar to the existing land uses in the low VMT area.

The SBCTA VMT Screening Tool was used assess low VMT area screening for the project. The SBCTA VMT Screening Tool was developed using the SBTAM travel forecasting model to measure VMT performance for individual jurisdictions and for individual traffic analysis zones (TAZs) within the SBCTA region. TAZs are geographic polygons similar to census block groups used to represent areas of homogenous travel behavior. Total daily VMT per service population (population plus employment) was estimated for each TAZ. This presumption may not be appropriate if the project land uses would alter the existing built environment in such a way as to increase the rate or length of vehicle trips.

To identify if a project is in a low VMT-generating area, the appropriate baseline TAZ VMT is compared to the current County of San Bernardino VMT threshold of 39.0 VMT per service population. Additionally, as noted above, the City directs the analyst to identify if the project is consistent with the existing land use within that TAZ and use professional judgement that there is nothing unique about the project that would otherwise be mis-represented utilizing the data from the travel demand model

Based on review of the SBCTA VMT Screening Tool, the proposed project is not located within a low VMT area because the project TAZ (53908201) has a TAZ VMT of 47.4 using OD VMT per service population in the baseline year (2025) compared to the County of San Bernardino VMT threshold of 39.0 OD VMT per service population (+21.69% difference); therefore, the proposed project cannot be presumed to result in a less than significant VMT impact under this screening criteria. Attachment A shows the SBCTA VMT Screening Tool results.



Attachment A: SBCTA VMT Screening Tool – OD VMT Per Service Population

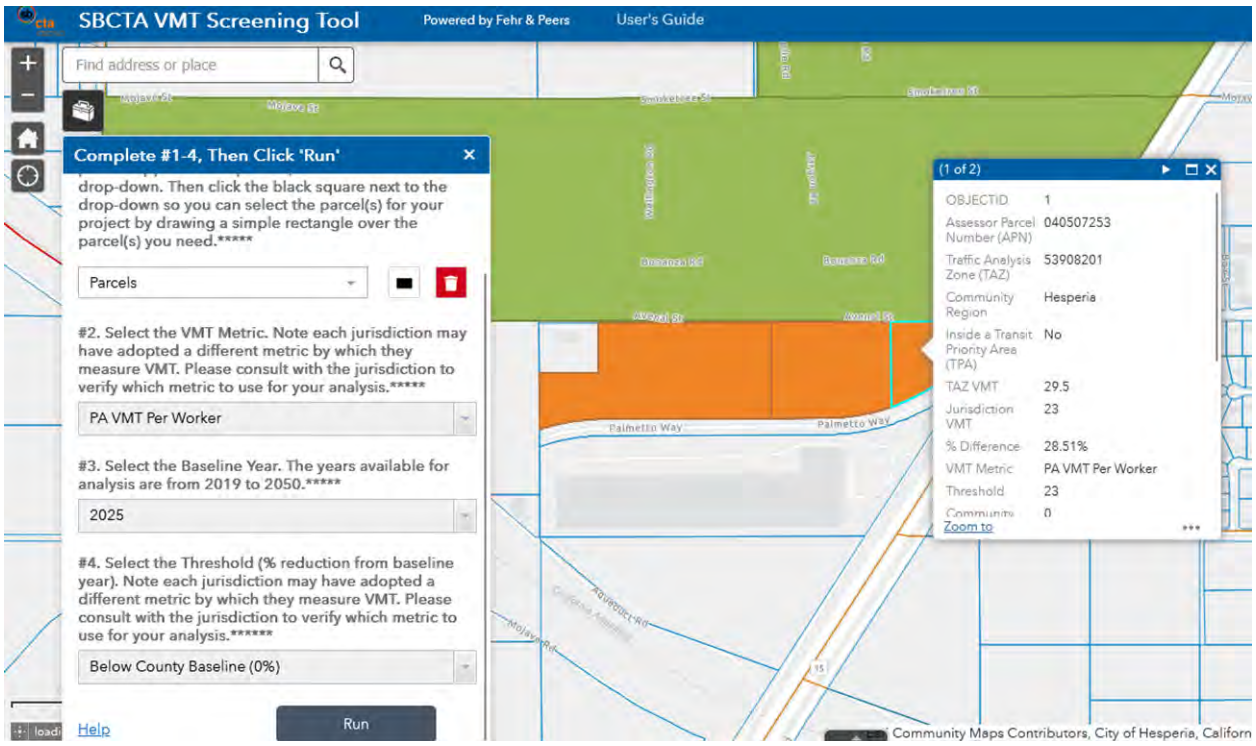
City guidelines state that "In some cases, it may be appropriate to extract the Project-generated VMT using the production-attraction trip matrix. This may be appropriate when a project is entirely composed of retail or office uses, and there is a need to isolate the home-based work (HBW) VMT for purposes of isolating commute VMT. The City should evaluate the appropriate methodology based on the project land use types and context."

The San Bernardino County *Transportation Impact Study Guidelines* (July 2019) states under Section 4.1 (CEQA Assessment – VMT Analysis: Analysis Methodology), "Consistent with OPR guidelines, the following specific components will be utilized to complete a VMT impact assessment:

- Employment Projects – VMT/Employee for only the home-based work trip purpose (attractions) and would apply to office, industrial, governmental, and institutional projects."

The project consists solely of industrial land use. Therefore, all trips to/from the project site are work-based trips and it is appropriate to analyze the project site using the production-attraction trip matrix for VMT per worker, since VMT per worker measures the average (mean) distance a worker drives to work by vehicle in a given period of time.

Based on review of the SBCTA VMT Screening Tool, the proposed project is not located within a low VMT area because the project TAZ (53908201) has a TAZ VMT of 29.5 using PA VMT per worker in the baseline year (2025) compared to the County of San Bernardino VMT average of 23.0 PA VMT per worker (+28.51% difference); therefore, the proposed project cannot be presumed to result in a less than significant VMT impact under this screening criteria. Attachment B shows the SBCTA VMT Screening Tool results.



Attachment B: SBCTA VMT Screening Tool – PA VMT Per Worker

Project Type Screening

Some project types have been identified as having the presumption of a less than significant impact as they are local serving by nature, or they are small enough to not warrant assessment.

Local serving retail projects less than 50,000 square feet may be presumed to have a less than significant impact absent substantial evidence to the contrary. Local serving retail generally improves the convenience of shopping close to home and has the effect of reducing vehicle travel.

The following additional uses can be presumed to have a less than significant impact absent substantial evidence to the contrary as their uses are local serving in nature:

- Local serving K-12 schools
- Local parks
- Day care centers
- Local-serving gas stations
- Local-serving banks
- Local-serving hotels (e.g. non-destination hotels)
- Local-serving medical
- Student housing projects on or adjacent to college campuses
- Local serving assembly uses (places of worship, community organizations)
- Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS
- Affordable or supportive housing
- Assisted living facilities
- Senior housing (as defined by HUD)
- Projects generating less than 110 daily vehicle trips. This generally corresponds to the following "typical" development potentials:
  - 11 single family housing units
  - 16 multi-family, condominiums, or townhouse housing units
  - 10,000 square feet of office
  - 15,000 square feet of light industrial
  - 63,000 square feet of warehousing
  - 79,000 square feet of high-cube transload and short-term storage warehouse

Based on review of project type screening, the proposed project is greater than 63,000 square feet of warehousing; therefore, the proposed project cannot be presumed to result in a less than significant VMT impact under this screening criteria.

Screening Assessment Finding

The proposed project does not meet the City of Hesperia screening criteria for either of the three screening types, as written within the City of Hesperia Traffic Study Guidelines.

9. CONCLUSIONS

This section summarizes the findings from the previous sections of this report.

PROJECT TRIP GENERATION

The proposed project is forecast to generate 1,083 daily PCE trips, including 90 PCE trips during the AM peak hour and 81 PCE trips during the PM peak hour.

LEVELS OF SERVICE

The study intersections currently operate within acceptable Levels of Service during the peak hours for Existing conditions.

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2027) Without Project conditions, except for the following study intersection which is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour:

- Key Pointe Drive (NS) at Main Street (EW) - #3 (PM Peak Hour – LOS F)

The study intersections are projected to operate within acceptable Levels of Service (D or better) during the peak hours for Opening Year (2027) With Project conditions, except for the following study intersection which is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour:

- Key Pointe Drive (NS) at Main Street (EW) - #3 (PM Peak Hour – LOS F)

The following improvements are recommended for Opening Year (2027) With Project conditions to maintain acceptable Level of Service:

- Key Pointe Drive (NS) at Main Street (EW) - #3
  - Construct a second southbound left turn lane.

The proposed project is forecast to result in no substantial operational deficiencies at the study intersections for Opening Year (2027) With Project conditions with implementation of the recommended improvements.

The study intersections are forecast to operate within acceptable Levels of Service (D or better) during the peak hours for General Plan Buildout (2040) Without Project conditions, except for the following study intersection which is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour:

- Key Pointe Drive (NS) at Main Street (EW) - #3 (PM Peak Hour – LOS F)

The study intersections are projected to operate within acceptable Levels of Service (D or better) during the peak hours for General Plan Buildout (2040) With Project conditions, except for the following study intersection which is projected to operate at an unacceptable Level of Service (E or F) during the PM peak hour:

- Key Pointe Drive (NS) at Main Street (EW) - #3 (PM Peak Hour – LOS F)

The following improvements are recommended for General Plan Buildout (2040) With Project conditions to maintain acceptable Level of Service:

- Key Pointe Drive (NS) at Main Street (EW) - #3
  - Construct a second southbound left turn lane.

The proposed project is forecast to result in no substantial operational deficiencies at the study intersections for General Plan Buildout (2040) With Project conditions with implementation of the recommended improvements.

VMT ANALYSIS

Based on review of the SBCTA VMT Screening Tool, the proposed project does not meet the City of Hesperia screening criteria for either of the three screening types, as written within the City of Hesperia Traffic Study Guidelines.

APPENDICES

Appendix A Glossary
Appendix B Scoping Agreement
Appendix C Volume Count Worksheets
Appendix D Trip Generation Comparison Analysis
Appendix E Level of Service Worksheets
Appendix F SBTAM Model Plots
Appendix G Post-Processing Worksheets

APPENDIX A

GLOSSARY

GLOSSARY OF TERMS

ACRONYMS

AC	Acres
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DU	Dwelling Unit
ICU	Intersection Capacity Utilization
LOS	Level of Service
TSF	Thousand Square Feet
V/C	Volume/Capacity
VMT	Vehicle Miles Traveled

TERMS

AVERAGE DAILY TRAFFIC: The average 24-hour volume for a stated period divided by the number of days in that period. For example, Annual Average Daily Traffic is the total volume during a year divided by 365 days.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A point of constriction along a roadway that limits the amount of traffic that can proceed downstream from its location.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

CONTROL DELAY: The component of delay, typically expressed in seconds per vehicle, resulting from the type of traffic control at an intersection. Control delay is measured by comparison with the uncontrolled condition; it includes delay incurred by slowing down, stopping/waiting, and speeding up.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CORNER SIGHT DISTANCE: The minimum sight distance required by the driver of a vehicle to cross or enter the lanes of the major roadway without requiring approaching traffic travelling at a given speed to radically alter their speed or trajectory. Corner sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 36 inches above the pavement in the center of the nearest approach lane.

CYCLE LENGTH: The time period in seconds required for a traffic signal to complete one full cycle of indications.

CUL-DE-SAC: A local street open at one end only and with special provisions for turning around.

DAILY CAPACITY: A theoretical value representing the daily traffic volume that will typically result in a peak hour volume equal to the capacity of the roadway.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections that are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

PASSENGER CAR EQUIVALENT (PCE): A metric used to assess the impact of larger vehicles, such as trucks, recreational vehicles, and buses, by converting the traffic volume of larger vehicles to an equivalent number of passenger cars.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

QUEUE: The number of vehicles waiting at a service area such as a traffic signal, stop sign, or access gate.

QUEUE LENGTH: The length of vehicle queue, typically expressed in feet, waiting at a service area such as a traffic signal, stop sign, or access gate.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SHARED/RECIPROCAL PARKING AGREEMENT: A written binding document executed between property owners to provide a designated number of off-street parking stalls within a designated area to be available for specified businesses or land uses.

SIGHT DISTANCE: The continuous length of roadway visible to a driver or roadway user.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STACKING DISTANCE: The length of area available behind a service area, such as a traffic signal or gate, for vehicle queueing to occur.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through an intersection.

STOPPING SIGHT DISTANCE: The minimum distance required by the driver of a vehicle on the major roadway travelling at a given speed to bring the vehicle to a stop after an object on the road becomes visible. Stopping sight distance is measured from the driver's eye at 42 inches above the pavement to an object height of 6 inches above the pavement.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination (i.e., each trip has two trip-ends). A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quantity of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

TURNING RADIUS: The circular arc formed by the smallest turning path radius of the front outside tire of a vehicle, such as that performed by a U-turn maneuver. This is based on the length and width of the wheel base as well as the steering mechanism of the vehicle.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

VEHICLE MILES OF TRAVEL: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.

APPENDIX B

SCOPING AGREEMENT

Recommended Approval: TKE 06/24/22
Comments on Site Plan excepted

transportation ▪ noise ▪ air quality | **GANDDINI GROUP**

MEMORANDUM OF UNDERSTANDING

TO: CITY OF HESPERIA

FROM: Bryan Crawford, Senior Transportation Planner | GANDDINI GROUP, INC.

DATE: May 23, 2022

SUBJECT: Amargosa and Palmetto High-Cube Warehouse Traffic Impact Analysis Scoping

INTRODUCTION

The purpose of this traffic study scoping document is to outline the proposed traffic analysis parameters and assumptions for review/concurrence by City of Hesperia staff.

PROJECT DESCRIPTION

Figure 1 shows the project location map. The project site is located on the northwest corner of Amargosa Road and Palmetto Way in the City of Hesperia, as exhibited in Figure 2.

The site plan is show in Appendix A. The 30.52-acre project site is proposed to include a 545,000 square foot high-cube fulfillment center warehouse building. The proposed project is anticipated to be constructed and fully operational by year 2024.

The project site is proposed to provide three access driveways on Palmetto Way. All three project driveways are proposed to be full access. The project west driveway will be truck only. The project central driveway and project east driveway will provide access for both auto and trucks.

PROJECT TRIP GENERATION

Table 1 shows the project trip generation based upon rates obtained from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11th Edition, 2021). ITE land use code 155 (High-Cube Fulfillment Center Non-Sort) has been used to estimate the site-specific trip generation estimates for up to 505,665 square feet of high-cube fulfillment center (non-sort) use.

The project vehicle trips are converted to Passenger Car Equivalent (PCE) trips based on truck rates (as a percentage of a total vehicle trips) from the ITE Trip Generation Manual and truck axle mix data recommended by the South Coast Air Quality Management District (SCAQMD). As shown in Table 1, the proposed project is forecast to generate approximately 1,179 daily PCE trips, including 97 PCE trips during the AM peak hour and 102 PCE trips during the PM peak hour.

PROJECT TRIP DISTRIBUTION

Figure 3 to Figure 6 illustrate the forecast outbound and inbound directional distribution patterns of project-generated truck trips and passenger car trips.

STUDY AREA

Based on the City of Hesperia Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS) (July 2020) guidelines, intersections identified for analysis typically include signalized intersections at which a project is forecast to contribute 50 or more trips during the AM or PM peak hours. The study area is proposed to consist of the following eight (8) study intersections, even if the project may not contribute 50 or more trips during either peak hour.

Study Intersections (Figure 1)

1. Amargosa Road (NS) at Palmetto Way (EW)
2. Key Pointe Drive (NS) at Amargosa Road (EW)
3. Key Pointe Drive (NS) at Main Street (EW)
4. I-15 SB Offramp (NS) at Main Street (EW)
5. I-15 NB Ramps (NS) at Main Street (EW)
6. Project West Driveway (NS) at Palmetto Way (EW)
7. Project Central Driveway (NS) at Palmetto Way (EW)
8. Project East Driveway (NS) at Palmetto Way (EW)

TRAFFIC COUNTS

Intersection turning movement counts will be used at the study intersections during the AM peak period (7:00 AM – 9:00 AM) and PM peak period (4:00 PM – 6:00 PM) on a typical weekday (Tuesday, Wednesday, or Thursday).

ANALYSIS SCENARIOS

The traffic study shall evaluate the following analysis scenarios for weekday AM and PM peak hour conditions:

- Existing [2022]
- Opening Year Without Project [2024]
- Opening Year With Project [2024]
- General Plan Buildout Without Project [2040]
- General Plan Buildout With Project [2040]

ANALYSIS METHODOLOGY

To assess the performance of an intersection, the [Manager] uses the intersection delay method based on procedures contained in the Highway Capacity Manual (Transportation Research Board, 6th Edition). The methodology considers the traffic volume and distribution of movements, traffic composition, geometric characteristics, and signalization details to calculate the average control delay per vehicle and corresponding Level of Service (LOS). Control delay is defined as the portion of delay attributed to the intersection traffic control (such as a traffic signal or stop sign) and includes initial deceleration, queue move-up time, stopped delay, and final acceleration delay. The intersection control delay is then correlated to Level of Service based on the following thresholds:

Level of Service	Intersection Control Delay (Seconds / Vehicle)	
	Signalized Intersection	Unsignalized Intersection
A	≤ 10.0	≤ 10.0
B	> 10.0 to ≤ 20.0	> 10.0 to ≤ 15.0
C	> 20.0 to ≤ 35.0	> 15.0 to ≤ 25.0
D	> 35.0 to ≤ 55.0	> 25.0 to ≤ 35.0
E	> 55.0 to ≤ 80.0	> 35.0 to ≤ 50.0
F	> 80.0	> 50.0

Source: Transportation Research Board, Highway Capacity Manual (6th Edition).

Level of Service is used to qualitatively describe the performance of a roadway facility, ranging from Level of Service A (free-flow conditions) to Level of Service F (extreme congestion and system failure). At intersections with traffic signal or all way stop control, Level of Service is determined by the average control delay for the overall intersection. At intersections with cross street stop control (i.e., one- or two-way stop control), Level of Service is determined by the average control delay for the worst individual movement (or movements sharing a single lane).

Intersection Level of Service analysis shall be performed using the Vistro software.

PERFORMANCE STANDARDS

City of Hesperia

The City of Hesperia has established LOS D as the minimum acceptable Level of Service along all City maintained roads (including intersections).

OPERATIONAL THRESHOLDS

City of Hesperia

For study intersections within the City of Hesperia jurisdiction, a traffic impact occurs if:

- The addition of peak hour project generated trips is forecast to cause an intersection to deteriorate from acceptable Level of Service (D or better) to unacceptable Level of Service (E or F); or,

- The addition of peak hour project generated trips worsens the delay at an intersection operating at an unacceptable Level of Service (E or F) in the baseline condition.

If a project is forecast to cause an operational traffic impact, feasible improvements that will reduce the impact to an acceptable LOS are identified. Improvements can be in many forms, including the addition of lanes, traffic control modification, or demand management measures.

FORECASTING METHODOLOGY

Ambient Growth Rate

To account for area-wide ambient growth, the Opening Year 2024 will include a 2% annual growth for 2 years (total growth factor = 1.04) over the 2022 base volumes. City staff shall confirm that this growth rate is applicable and refine as necessary.

Other Cumulative Projects

A list of pending and approved cumulative development projects will be obtained from Cities of Hesperia and Victorville staff. This list will be narrowed down to include projects within a 1.5 mile radius of the project site.

Trip forecasts for other development projects within the project study area will be determined based on the Institute of Transportation Engineers (ITE), Trip Generation Manual, 11th Edition, 2021 and will be added to existing roadway volumes for the applicable analysis scenarios.

General Plan Buildout Volume Forecasts

Year 2040 traffic volume forecasts will be obtained from the current San Bernardino Transportation Analysis Model (SBTAM). Ganddini Group shall perform post-processing procedures to calculate the growth increment between the base year model volumes and the Year 2040 forecast model volumes to be added to current year traffic volumes. Weekday AM and PM peak hour link volumes shall be converted to turning movement volumes using the "b-turns" program. Year 2040 With Project conditions will be determined by manually adding project trips to the baseline Year 2040 forecast.

VEHICLES MILES TRAVELED (VMT) ANALYSIS

California Senate Bill 743 (SB 743) directs the State Office of Planning and Research (OPR) to amend the California Environmental Quality Act (CEQA) Guidelines for evaluating transportation impacts to provide alternatives to Level of Service that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." In December 2018, the California Natural Resources Agency certified and adopted the updated CEQA Guidelines package. The amended CEQA Guidelines, specifically Section 15064.3, recommend the use of Vehicle Miles Travelled (VMT) as the primary metric for the evaluation of transportation impacts associated with land use and transportation projects. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. Agencies are required to apply the updated CEQA guidelines for VMT analysis and implementation was required State-wide by July 1, 2020.

The updated CEQA Guidelines allow for lead agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The Technical Advisory on Evaluating Transportation Impacts in CEQA (State of California, December 2018) ["Technical Advisory"] provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT.

The City of Hesperia has established VMT analysis guidelines at this time; therefore, the project-related VMT impact has been assessed based on guidance from the City of Hesperia Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS) (July 2020).

VMT Screening Assessment

The project VMT impact has been assessed in accordance with guidance from the City of Hesperia Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service Assessment (LOS) (July 2020).

The City of Hesperia TIA Guidelines provide screening thresholds for certain types of projects that may be presumed to cause a less than significant VMT impact based on substantial evidence provided in the OPR Technical Advisory, or projects that are local serving and thus, by definition, reduce VMT by decreasing the number or distance of trips.

The City of Hesperia TIA Guidelines provide the following three screening steps: 1) Transit Priority Area (TPA) Screening; 2) Low VMT Area Screening; and 3) Project Type Screening.

Transit Priority Area (TPA) Screening

Projects located within a TPA (half mile area around an existing major transit stop or an existing stop along a high quality transit corridor) may be presumed to have a less than significant impact absent substantial evidence to the contrary. This presumption may not be appropriate if the project:

1. Has a Floor Area Ration (FAR) of less than 0.75;
2. Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking)
3. Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the City Traffic Engineer, with input from the Metropolitan Planning Organization): or
4. Replaces affordable residential units with a smaller number of moderate or high-income residential units.

The San Bernardino County Transportation Authority (SBCTA) VMT Screening Tool was used to determine if the project is located within a TPA. Based on review of the SBCTA VMT Screening Tool, the proposed project is not located within a TPA; therefore, the proposed project cannot be presumed to result in a less than significant VMT impact under this screening criteria.

Low VMT Area Screening

Residential and office projects located within a low VMT generating area may be presumed to have a less than significant impact absent substantial evidence to the contrary. In addition, other employment-related and mixed-use land use projects may qualify for the use of screening if the project can reasonably be expected to generate VMT per resident, per worker, or per service population that is similar to the existing land uses in the low VMT area.

The SBCTA VMT Screening Tool was used assess low VMT area screening for the project. The SBCTA VMT Screening Tool was developed using the SBTAM travel forecasting model to measure VMT performance for individual jurisdictions and for individual traffic analysis zones (TAZs) within the SBCTA region. TAZs are geographic polygons similar to census block groups used to represent areas of homogenous travel behavior. Total daily VMT per service population (population plus employment) was estimated for each TAZ. This presumption may not be appropriate if the project land uses would alter the existing built environment in such a way as to increase the rate or length of vehicle trips.

To identify if a project is in a low VMT-generating area, the appropriate baseline TAZ VMT is compared to the current County of San Bernardino VMT threshold of 33.3 VMT per service population. Additionally, as noted above, the City directs the analyst to identify if the project is consistent with the existing land use within that

TAZ and use professional judgement that there is nothing unique about the project that would otherwise be mis-represented utilizing the data from the travel demand model

Based on review of the SBCTA VMT Screening Tool, the proposed project is not located within a low VMT area because the project TAZ (53908201) has a TAZ VMT of 72.1 using OD VMT per service population in the baseline year (2022) compared to the County of San Bernardino VMT threshold of 33.3 OD VMT per service population (116.32% difference); therefore, the proposed project cannot be presumed to result in a less than significant VMT impact under this screening criteria.

However, City guidelines state that "In some cases, it may be appropriate to extract the Project-generated VMT using the production-attraction trip matrix. This may be appropriate when a project is entirely composed of retail or office uses, and there is a need to isolate the home-based work (HBW) VMT for purposes of isolating commute VMT. The City should evaluate the appropriate methodology based on the project land use types and context."

The San Bernardino County Transportation Impact Study Guidelines (July 9, 2019) states under Section 4.1 (CEQA Assessment – VMT Analysis: Analysis Methodology), "Consistent with OPR guidelines, the following specific components will be utilized to complete a VMT impact assessment:

- Employment Projects – VMT/Employee for only the home-based work trip purpose (attractions) and would apply to office, industrial, governmental, and institutional projects."

The project is an 100% industrial land use. Therefore, all trips to/from the project site are work-based trips. Therefore, it is appropriate to analyze the project site using the production-attraction trip matrix for VMT per worker, since VMT per worker measures the average (mean) distance a worker drives to work by vehicle in a given period of time.

Based on review of the SBCTA VMT Screening Tool, the proposed project is located within a low VMT area because the project TAZ (53908201) has a TAZ VMT of 13.3 using PA VMT per worker in the baseline year (2022) compared to the County of San Bernardino VMT threshold of 16.9 PA VMT per worker (-21.6% difference); therefore, the proposed project can be presumed to result in a less than significant VMT impact under this screening criteria.

Although the City of Hesperia guidelines state that the appropriate baseline project TAZ OD VMT per service population should be compared to the baseline County of San Bernardino OD VMT per service population, Ganddini Group, Inc. recommends an exemption be applied to this project based on the project TAZ characteristics as identified, and guidance from San Bernardino County regarding the method for evaluating VMT for industrial projects.

Project Type Screening

Some project types have been identified as having the presumption of a less than significant impact as they are local serving by nature, or they are small enough to not warrant assessment.

Local serving retail projects less than 50,000 square feet may be presumed to have a less than significant impact absent substantial evidence to the contrary. Local serving retail generally improves the convenience of shopping close to home and has the effect of reducing vehicle travel.

The following additional uses can be presumed to have a less than significant impact absent substantial evidence to the contrary as their uses are local serving in nature:

- Local serving K-12 schools
- Local parks
- Day care centers
- Local-serving gas stations
- Local-serving banks
- Local-serving hotels (e.g. non-destination hotels)
- Local-serving medical
- Student housing projects on or adjacent to college campuses
- Local serving assembly uses (places of worship, community organizations)
- Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS
- Affordable or supportive housing
- Assisted living facilities
- Senior housing (as defined by HUD)
- Projects generating less than 110 daily vehicle trips. This generally corresponds to the following "typical" development potentials:
  - 11 single family housing units
  - 16 multi-family, condominiums, or townhouse housing units
  - 10,000 square feet of office
  - 15,000 square feet of light industrial
  - 63,000 square feet of warehousing
  - 79,000 square feet of high-cube transload and short-term storage warehouse

Based on review of project type screening, the proposed project is greater than 63,000 square feet of warehousing; therefore, the proposed project cannot be presumed to result in a less than significant VMT impact under this screening criteria.

Screening Assessment Finding

The proposed project does not meet the City of Hesperia screening criteria for either of the three screening types, as written within the City of Hesperia Traffic Study Guidelines.

Although the City of Hesperia guidelines state that the appropriate baseline project TAZ OD VMT per service population should be compared to the baseline County of San Bernardino OD VMT per service population, the project is considered to be in a low VMT generating area based on the PA VMT per worker metric within the SBCTA VMT Screening Tool. PA VMT per worker is the appropriate metric when evaluating industrial projects according to the County of San Bernardino guidelines.

This recommended exemption is based on review of the SBCTA VMT Screening Tool, the proposed project is located within a low VMT area because the project TAZ (53908201) has a TAZ VMT of 13.3 using PA VMT per worker in the baseline year (2022) compared to the County of San Bernardino VMT threshold of 16.9 PA VMT per worker (-21.6% difference); therefore, the proposed project can be presumed to result in a less than significant VMT impact under this screening criteria.

Thus, it appears that the project does meet the intent for the screening criteria for low-VMT generating areas, as specified within the Technical Advisory on Evaluating Transportation Impacts in CEQA (State of California, December 2018) ["Technical Advisory"] and San Bernardino County Transportation Impact Study Guidelines (July 9, 2019)

Ganddini Group, Inc. recommends a detailed VMT analysis exemption be applied to this project based on the project TAZ characteristics as identified, and guidance from San Bernardino County and OPR regarding the method for evaluating VMT for residential projects.

CONCLUSION

We appreciate the opportunity to provide this scoping document for your review. Should you have any questions or comments regarding the proposed scope, please contact Bryan Crawford at (714) 795-3100 x 104 or bryan@ganddini.com.

Table 2
Project Trip Generation

Land Use: High-Cube Fulfillment Center Warehouse (Non-Sort)
Size: 545.000 TSF

TRIP GENERATION RATES PER TSF[1]								
		AM Peak Hour			PM Peak Hour			Daily
Vehicle Type	Source[2]	In	Out	Rate	In	Out	Rate	Rate
All Vehicles	ITE 155	81%	19%	0.150	39%	61%	0.160	1.810
Trucks Only	ITE 155	50%	50%	0.020	46%	54%	0.010	0.230
Passenger Car (86.7% AM, 93.8% PM, 87.3% Daily)		0.105	0.025	0.130	0.059	0.092	0.151	1.580
Truck (13.3% AM, 6.3% PM, 12.7% Daily)		0.010	0.010	0.020	0.005	0.005	0.010	0.230
Truck Mix:	SCAQMD							
2-Axle Trucks (16.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.038
3-Axle Trucks (20.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.048
4+ Axle Trucks (62.6%)		0.006	0.006	0.012	0.003	0.003	0.006	0.144

VEHICLE TRIPS GENERATED							
	AM Peak Hour			PM Peak Hour			
Vehicle Type	In	Out	Total	In	Out	Total	Daily
Passenger Car	57	14	71	32	50	82	861
Trucks							
2-Axle Trucks	1	1	2	1	1	2	21
3-Axle Trucks	1	1	2	1	1	2	26
4+ Axle Trucks	3	3	6	2	2	4	78
Subtotal	5	5	10	4	4	8	125
Total Vehicle Trips Generated	**62**	**19**	**81**	**36**	**54**	**90**	**986**

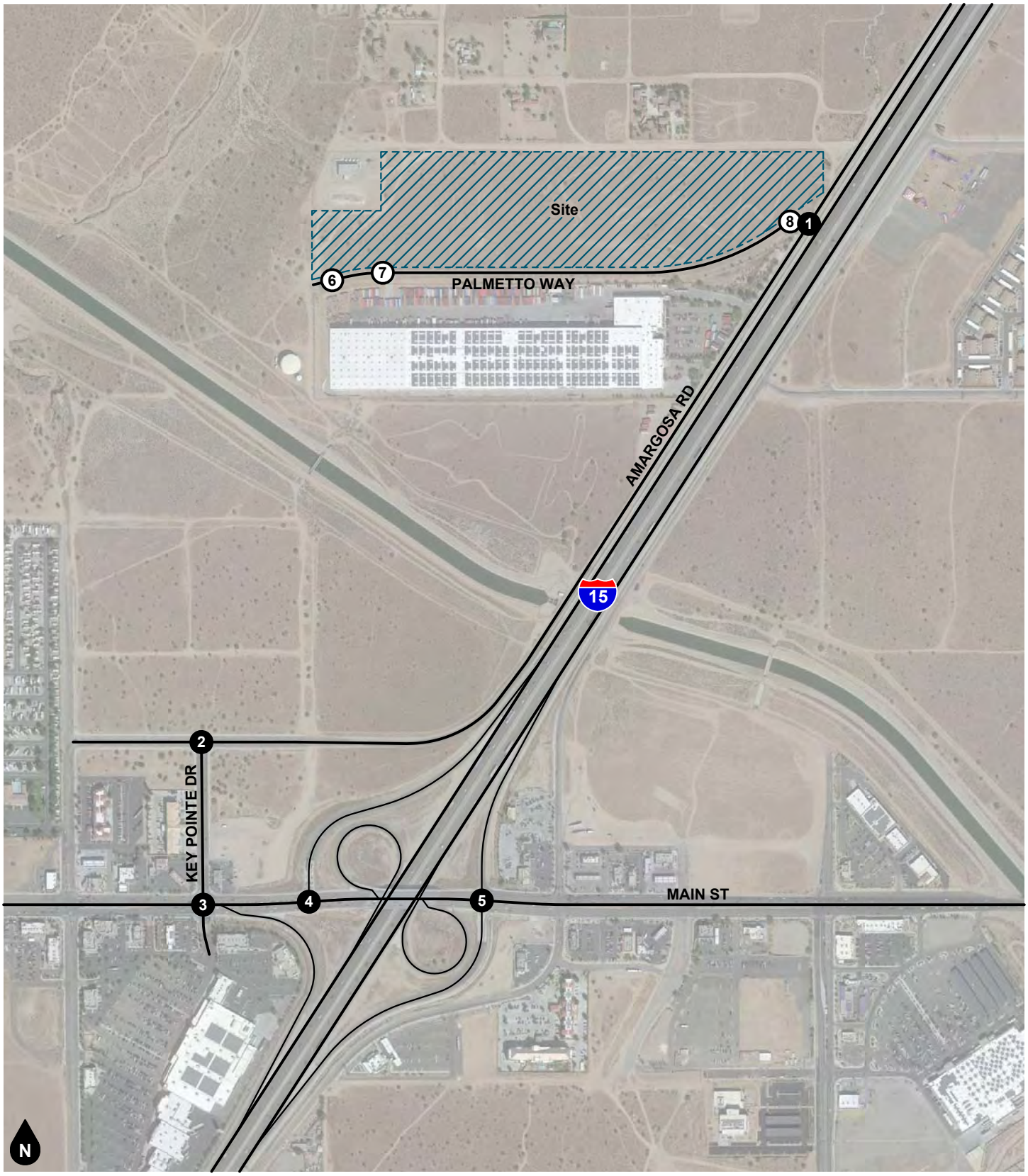
PCE[3] TRIPS GENERATED								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	PCE Factor[4]	In	Out	Total	In	Out	Total	Daily
Passenger Car	1.0	57	14	71	32	50	82	861
Trucks								
2-Axle Trucks	1.5	2	2	4	2	2	4	32
3-Axle Trucks	2.0	2	2	4	2	2	4	52
4+ Axle Trucks	3.0	9	9	18	6	6	12	234
Subtotal		13	13	26	10	10	20	318
Total PCE Trips Generated		**70**	**27**	**97**	**42**	**60**	**102**	**1,179**

Notes:
(1) TSF = Thousand Square Feet

(2) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = ITE Land Use Code.
SCAQMD = South Coast Air Quality Management District recommendations for non-cold storage high-cube warehouse.

(3) PCE = Passenger Car Equivalent

(4) Source: San Bernardino County Congestion Management Program (2016), Appendix B.



Legend

(#) Study Intersection

(#) Project Driveway

Figure 1
Project Location Map

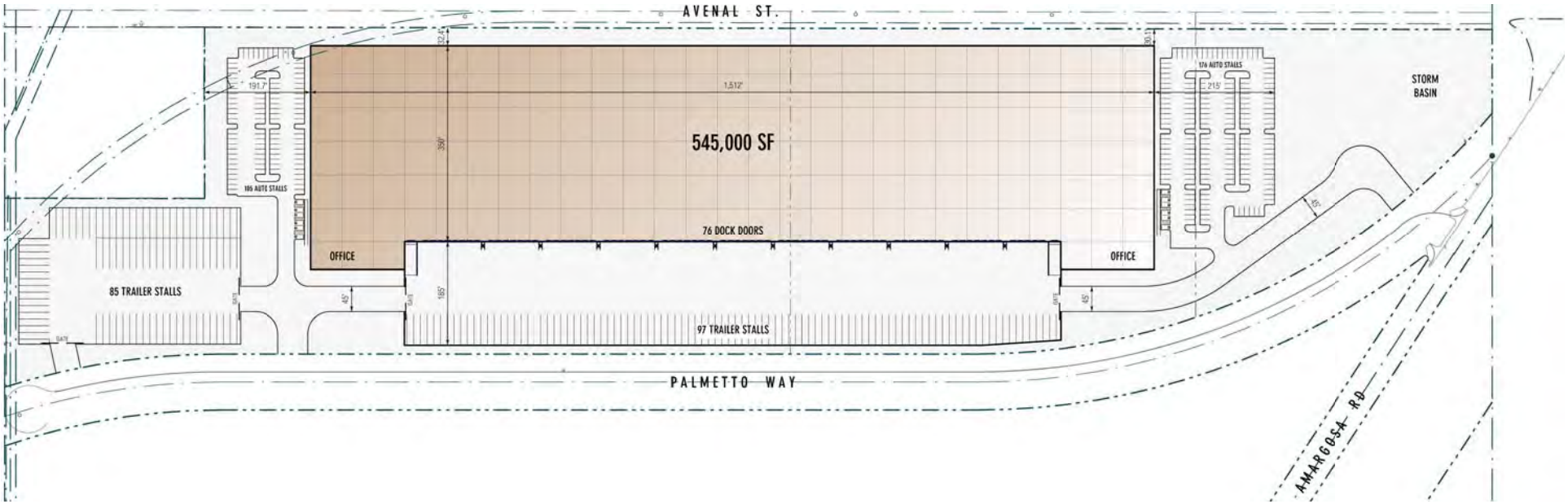


Figure 2
Site Plan

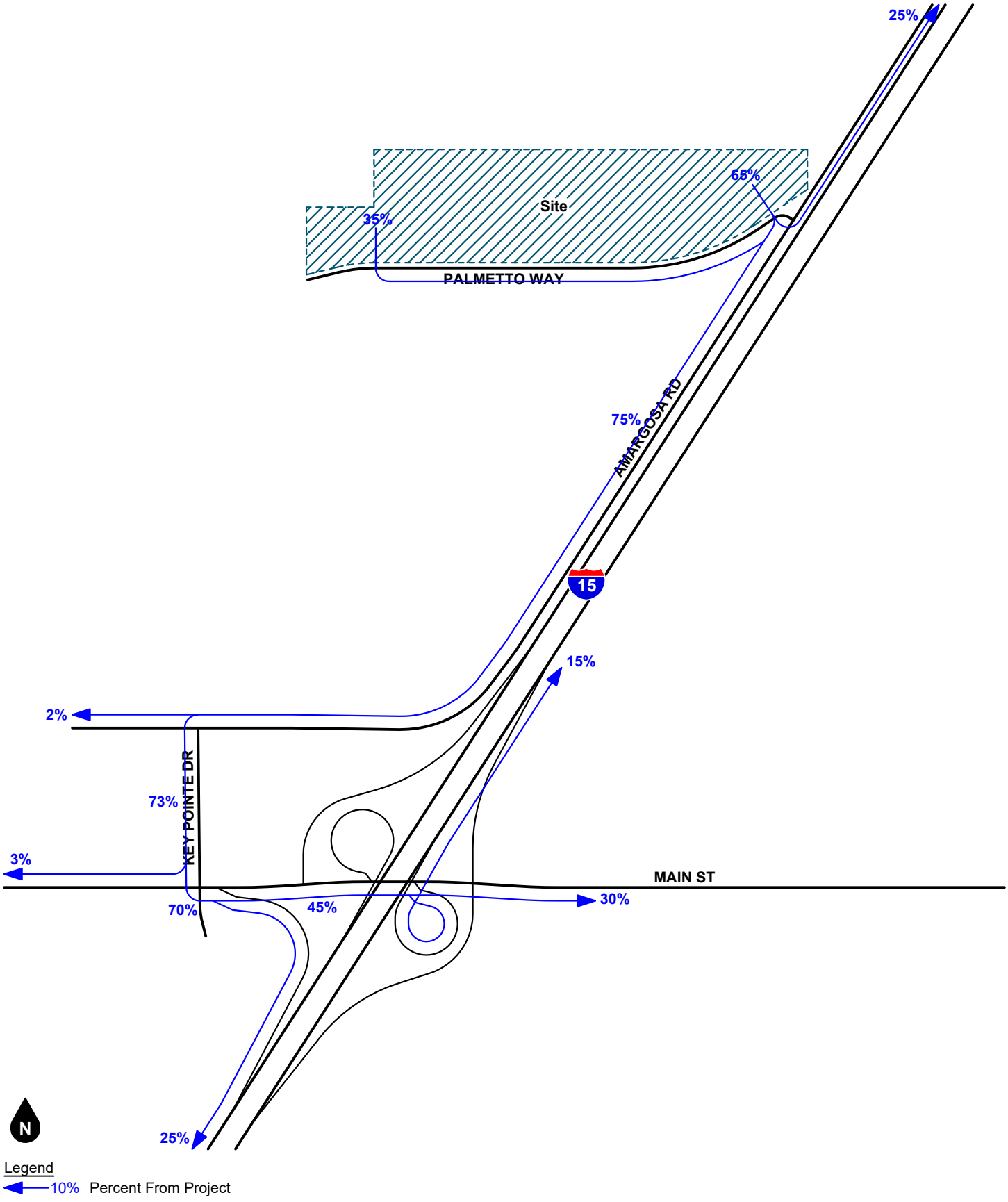


Figure 3
Project Outbound Trip Distribution - Cars

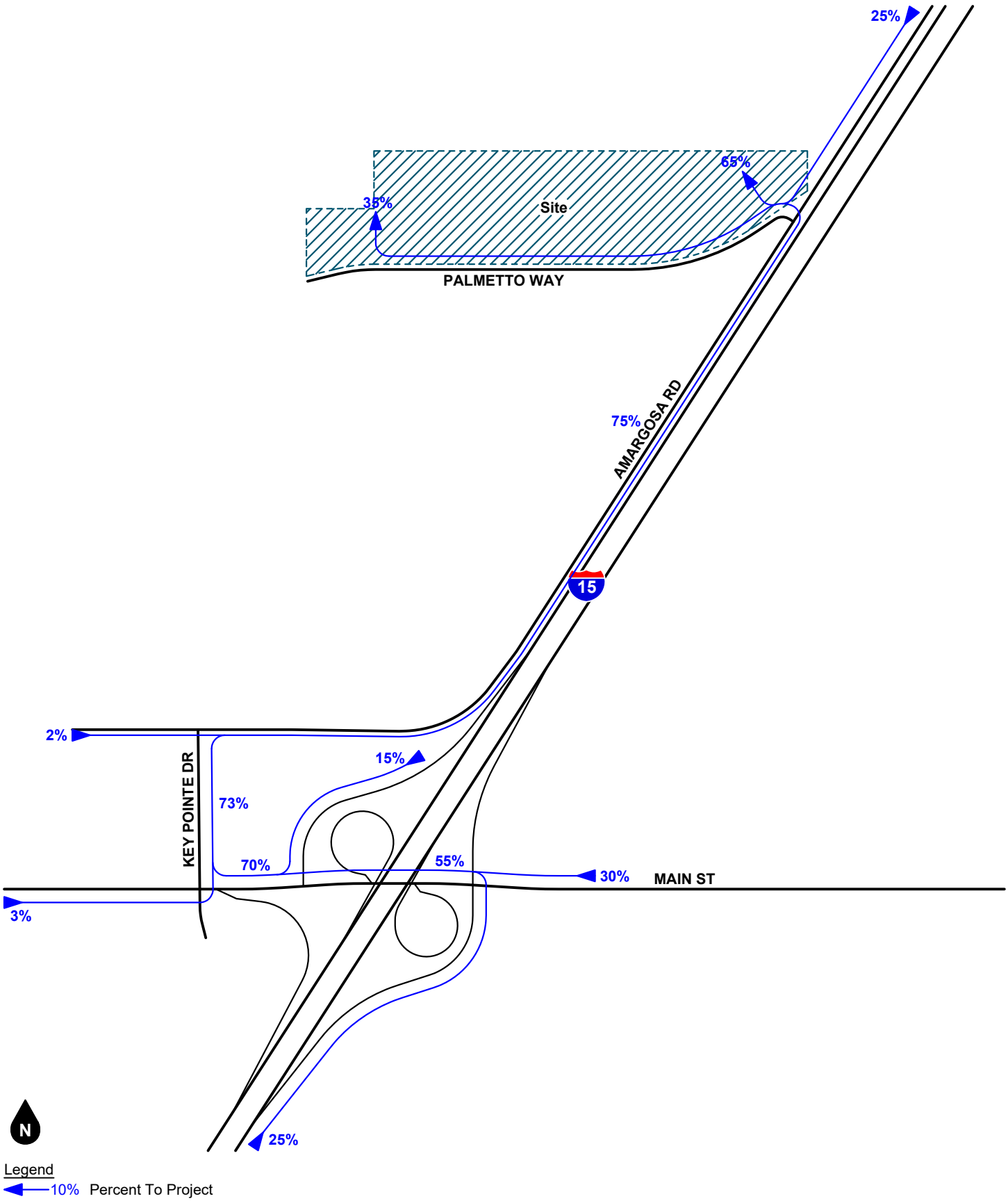


Figure 4
Project Inbound Trip Distribution - Cars

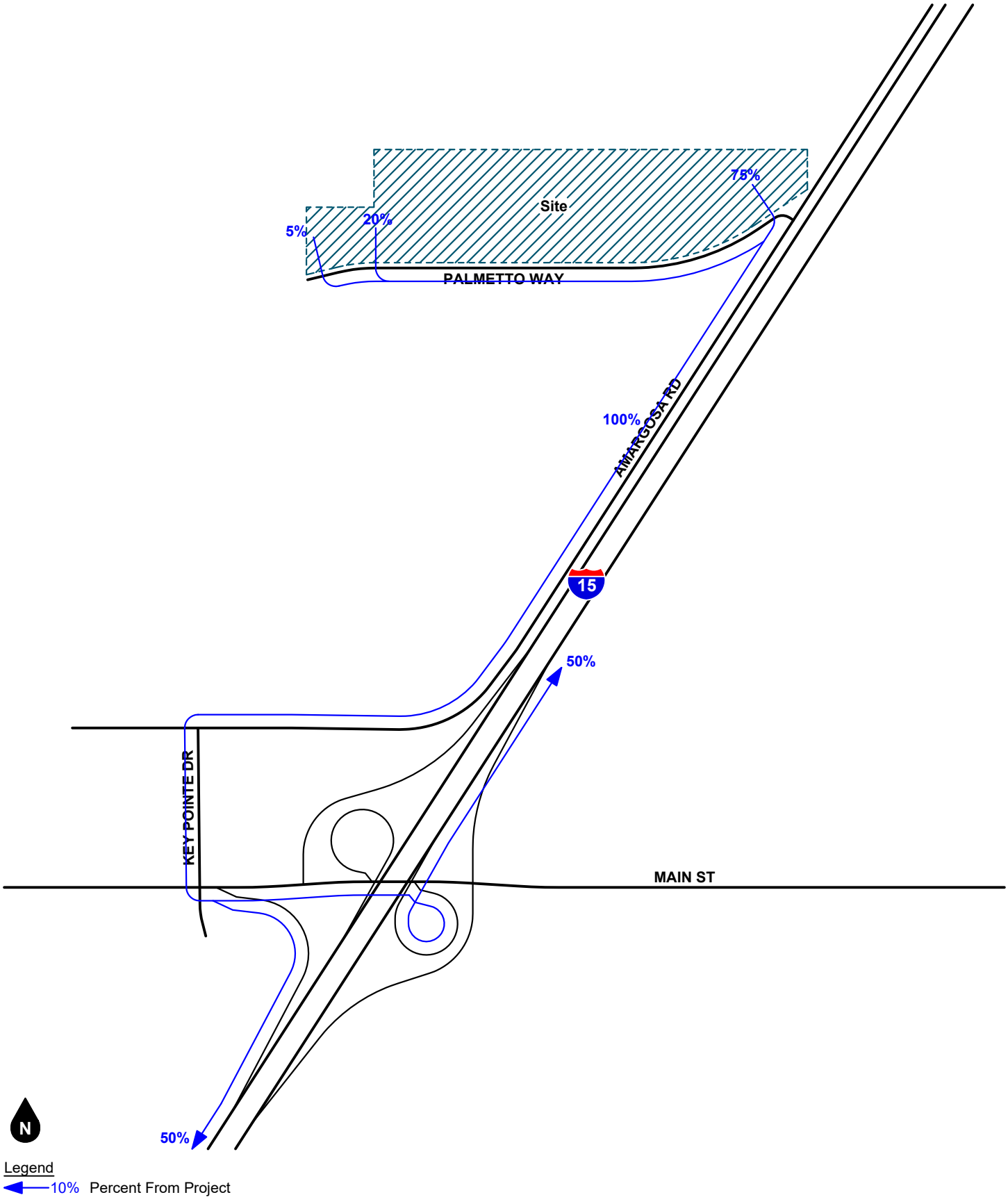


Figure 5
Project Outbound Trip Distribution - Trucks

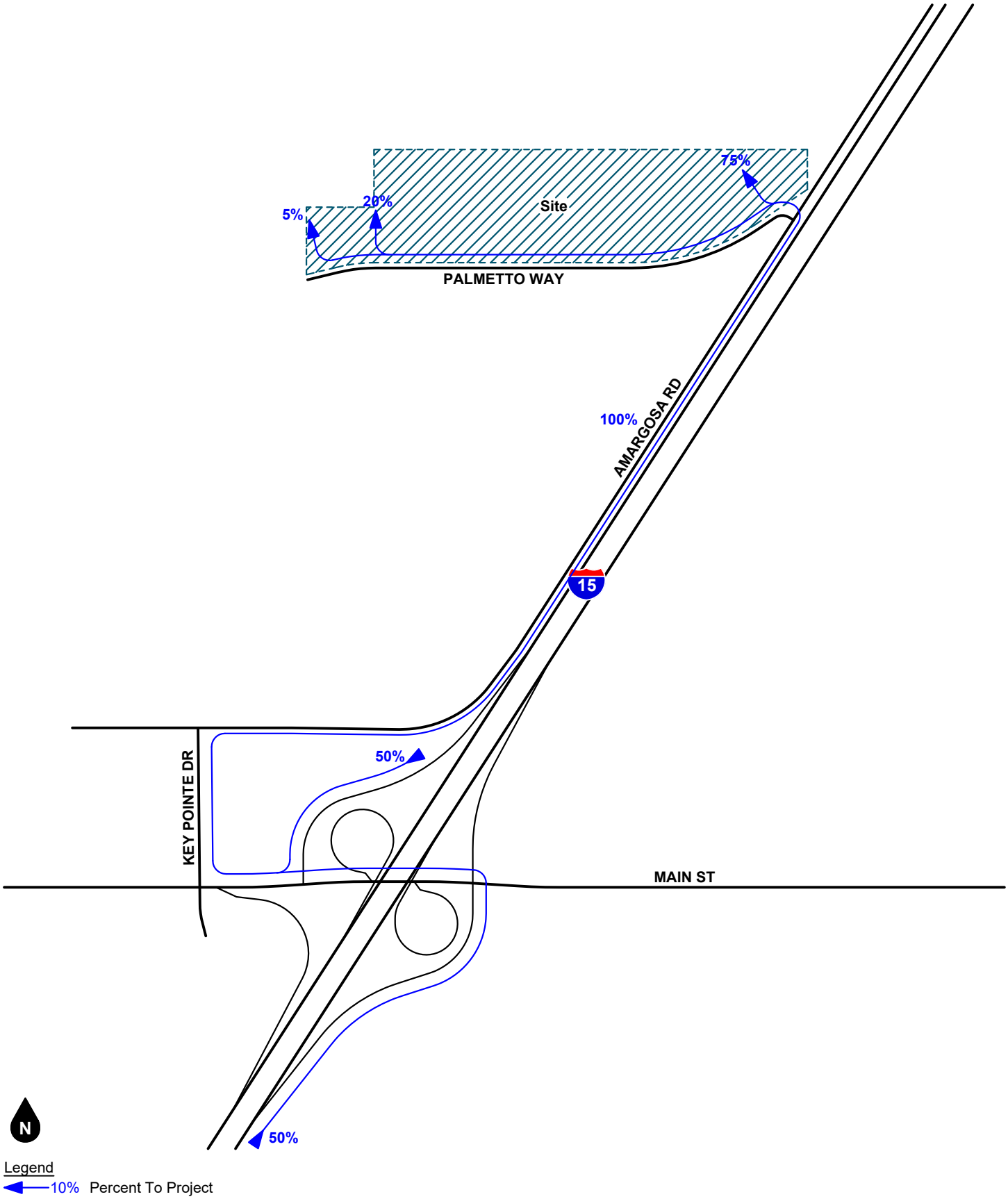


Figure 6
Project Inbound Trip Distribution - Trucks

Appendix A

Site Plan

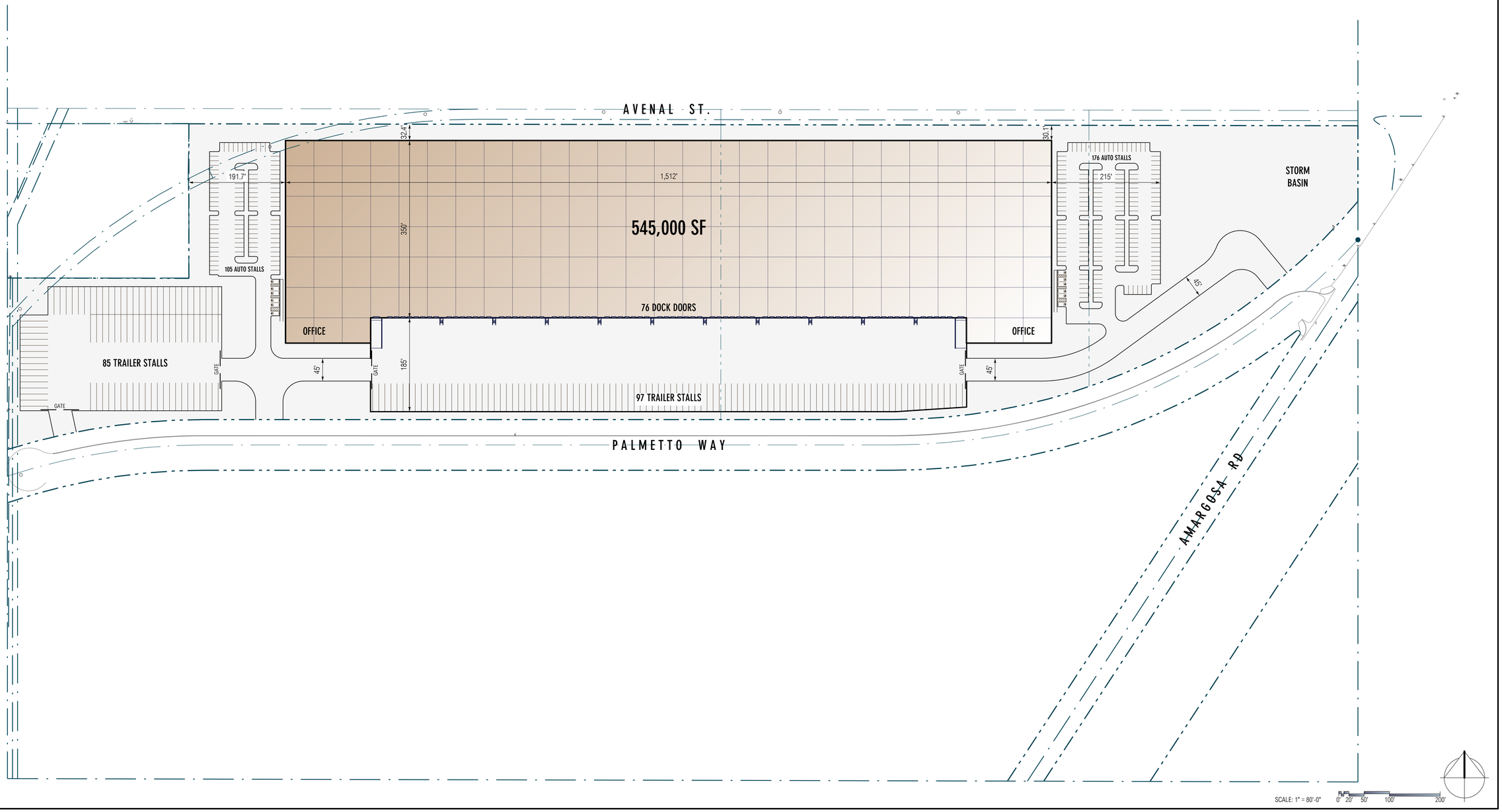
PROJECT DATA:

ZONE:

APPROX. SITE AREA: 1,329,521 SF
30.52 AC

BUILDING AREA: 545,000 SF

COVERAGE: 41.0 %



RGA
Office of Architectural Design
15231 Alton Parkway, Suite 100
Irvine, CA 92618
T 949-341-0920
FX 949-341-0922

SPEC. INDUSTRIAL

PALMETTO WAY - HESPERIA, CA

PRELIMINARY SITE PLAN - SCHEME 02

MARK	DATE	DESCRIPTION
	7/19/21	CONCEPTUAL SITE PLAN

RGA PROJECT NO:	21073.00
CAD FILE NAME:	21073-00-A1-03
DRAWN BY:	CS
CHK'D BY:	CS
COPYRIGHT: RGA, OFFICE OF ARCHITECTURAL DESIGN	
SHEET TITLE	

A1-03

APPENDIX C

VOLUME COUNT WORKSHEETS

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:					
Wed, May 25, 22	LOCATION:	Hesperia	PROJECT #:	SC3470	
	NORTH & SOUTH:	Amargosa	LOCATION #:	1	
	EAST & WEST:	Palmeto	CONTROL:	STOP E	

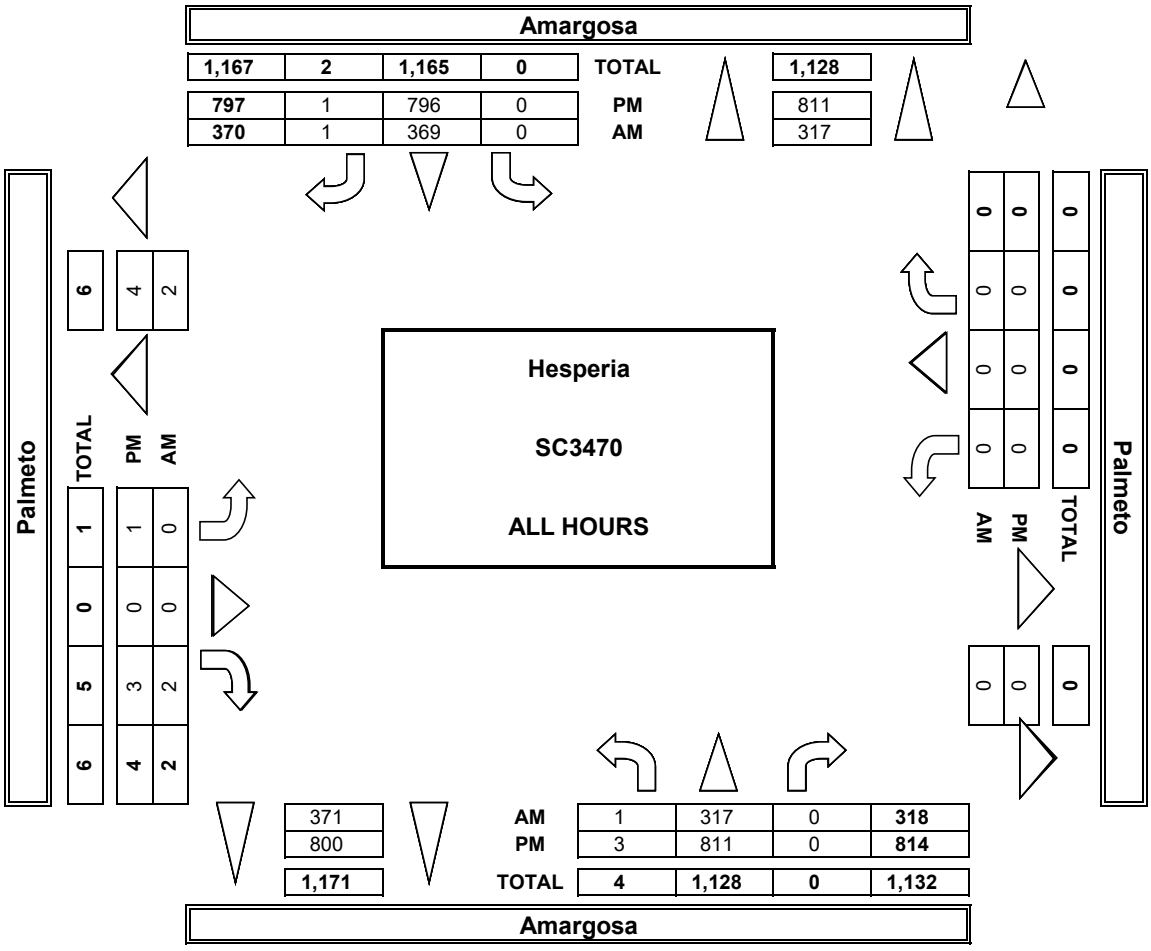
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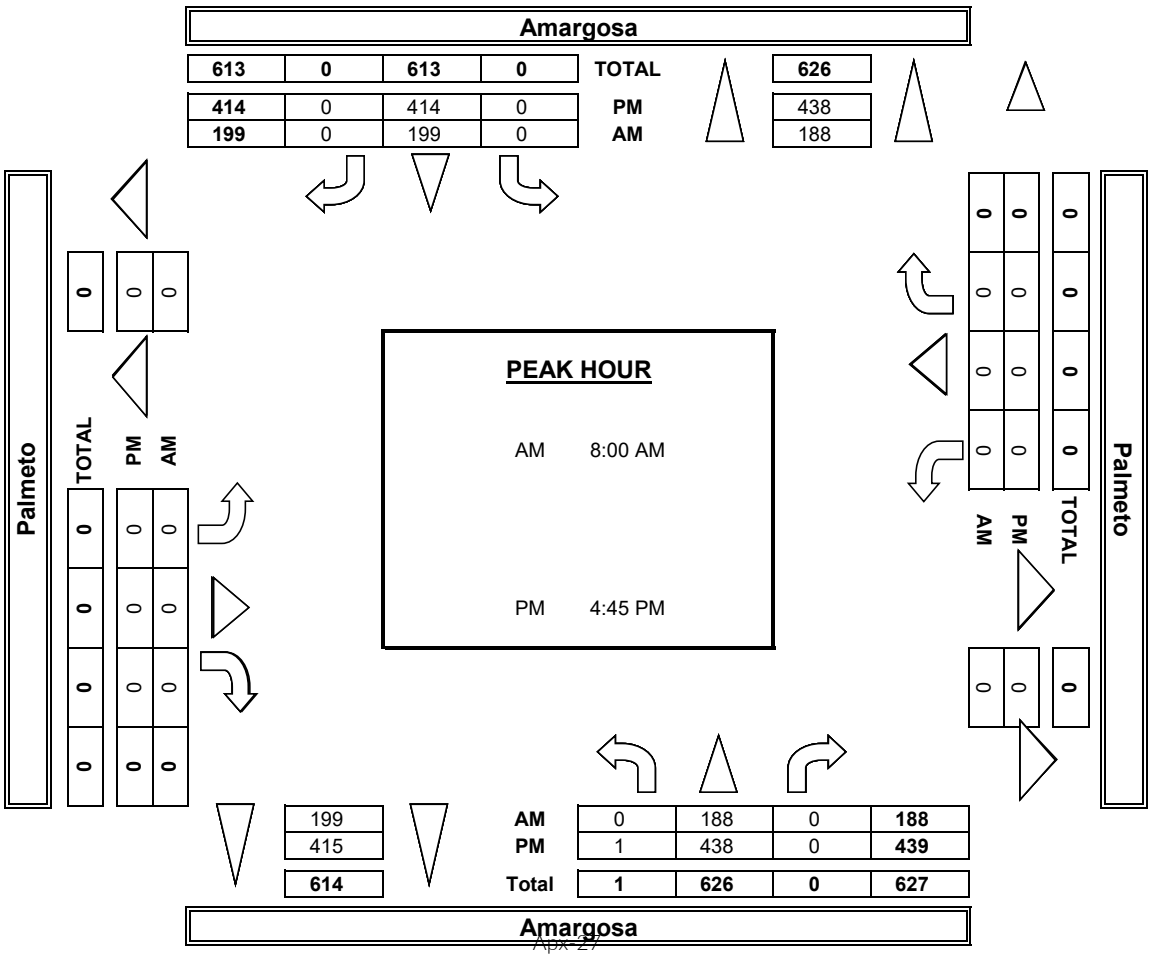
AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Amargosa			SOUTHBOUND Amargosa			EASTBOUND Palmeto			WESTBOUND Palmeto			
	LANES:	NL 0	NT 1	NR X	SL X	ST 1	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL
AM	7:00 AM	0	31	0	0	34	0	0	0	0	0	0	0	65
	7:15 AM	0	24	0	0	43	1	0	0	1	0	0	0	69
	7:30 AM	1	26	0	0	48	0	0	0	1	0	0	0	76
	7:45 AM	0	48	0	0	45	0	0	0	0	0	0	0	93
	8:00 AM	0	36	0	0	43	0	0	0	0	0	0	0	79
	8:15 AM	0	38	0	0	71	0	0	0	0	0	0	0	109
	8:30 AM	0	62	0	0	36	0	0	0	0	0	0	0	98
	8:45 AM	0	52	0	0	49	0	0	0	0	0	0	0	101
	VOLUMES	1	317	0	0	369	1	0	0	2	0	0	0	690
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
	APP/DEPART	318	/	317	370	/	371	2	/	0	0	/	2	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	188	0	0	199	0	0	0	0	0	0	0	387
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.758			0.701			0.000			0.000		0.888
	APP/DEPART	188	/	188	199	/	199	0	/	0	0	/	0	0
PM	04:00 PM	1	102	0	0	88	0	0	0	3	0	0	0	194
	4:15 PM	1	91	0	0	98	0	0	0	0	0	0	0	190
	4:30 PM	0	96	0	0	103	1	1	0	0	0	0	0	201
	4:45 PM	0	96	0	0	108	0	0	0	0	0	0	0	204
	5:00 PM	0	131	0	0	102	0	0	0	0	0	0	0	233
	5:15 PM	0	92	0	0	112	0	0	0	0	0	0	0	204
	5:30 PM	1	119	0	0	92	0	0	0	0	0	0	0	212
	5:45 PM	0	84	0	0	93	0	0	0	0	0	0	0	177
	VOLUMES	3	811	0	0	796	1	1	0	3	0	0	0	1,615
	APPROACH %	0%	100%	0%	0%	100%	0%	25%	0%	75%	0%	0%	0%	
	APP/DEPART	814	/	811	797	/	800	4	/	0	0	/	4	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	1	438	0	0	414	0	0	0	0	0	0	0	853
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
	PEAK HR FACTOR		0.838			0.924			0.000			0.000		0.915
	APP/DEPART	439	/	438	414	/	415	0	/	0	0	/	0	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Amargosa	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Palmeto	CONTROL:	STOP E

	NOTES:												
PCE Adjusted	Class	1	2	3	4	5	6			AM PM MD OTHER OTHER		▲ N ◄ W E ► S ▼	
	Factor	1	1.5	2	3	2	2						

	NORTHBOUND (Amargosa)			SOUTHBOUND (Amargosa)			EASTBOUND (Palmeto)			WESTBOUND (Palmeto)			
LANES:	NL 0	NT 1	NR X	SL X	ST 1	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL
AM 7:00 AM	0	33	0	0	34	0	0	0	0	0	0	0	67
7:15 AM	0	25	0	0	47	1	0	0	1	0	0	0	73
7:30 AM	1	27	0	0	52	0	0	0	1	0	0	0	81
7:45 AM	0	52	0	0	47	0	0	0	0	0	0	0	99
8:00 AM	0	39	0	0	45	0	0	0	0	0	0	0	84
8:15 AM	0	39	0	0	76	0	0	0	0	0	0	0	115
8:30 AM	0	65	0	0	36	0	0	0	0	0	0	0	101
8:45 AM	0	54	0	0	52	0	0	0	0	0	0	0	105
VOLUMES	1	333	0	0	388	1	0	0	2	0	0	0	724
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%	
APP/DEPART	334	/	333	389	/	390	2	/	0	0	/	2	0
BEGIN PEAK HR		8:00 AM											
VOLUMES	0	197	0	0	208	0	0	0	0	0	0	0	405
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.756			0.684			0.000			0.000		0.879
APP/DEPART	197	/	197	208	/	208	0	/	0	0	/	0	0
PM 04:00 PM	1	104	0	0	90	0	0	0	4	0	0	0	198
4:15 PM	1	95	0	0	100	0	0	0	0	0	0	0	196
4:30 PM	0	101	0	0	106	1	1	0	0	0	0	0	209
4:45 PM	0	97	0	0	108	0	0	0	0	0	0	0	205
5:00 PM	0	134	0	0	103	0	0	0	0	0	0	0	236
5:15 PM	0	94	0	0	114	0	0	0	0	0	0	0	207
5:30 PM	1	119	0	0	93	0	0	0	0	0	0	0	213
5:45 PM	0	86	0	0	93	0	0	0	0	0	0	0	179
VOLUMES	3	828	0	0	805	1	1	0	4	0	0	0	1,642
APPROACH %	0%	100%	0%	0%	100%	0%	20%	0%	80%	0%	0%	0%	
APP/DEPART	831	/	829	806	/	809	5	/	0	0	/	4	0
BEGIN PEAK HR		4:45 PM											
VOLUMES	1	443	0	0	417	0	0	0	0	0	0	0	861
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	
PEAK HR FACTOR		0.831			0.917			0.000			0.000		0.912
APP/DEPART	444	/	443	417	/	417	0	/	0	0	/	1	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:				
5/25/22	LOCATION:	Hesperia	PROJECT #:	SC3470
WEDNESDAY	NORTH & SOUTH:	Amargosa	LOCATION #:	1
	EAST & WEST:	Palmeto	CONTROL:	STOP E

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Amargosa			SOUTHBOUND Amargosa			EASTBOUND Palmeto			WESTBOUND Palmeto				U-TURNS				
	LANES:	NL 0	NT 1	NR X	SL X	ST 1	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	28	0	0	34	0	0	0	0	0	0	0	62	0	0	0	0	0
	7:15 AM	0	23	0	0	40	1	0	0	1	0	0	0	65	0	0	0	0	0
	7:30 AM	1	24	0	0	43	0	0	0	1	0	0	0	69	0	0	0	0	0
	7:45 AM	0	42	0	0	42	0	0	0	0	0	0	0	84	0	0	0	0	0
	8:00 AM	0	34	0	0	40	0	0	0	0	0	0	0	74	0	0	0	0	0
	8:15 AM	0	36	0	0	65	0	0	0	0	0	0	0	101	0	0	0	0	0
	8:30 AM	0	59	0	0	36	0	0	0	0	0	0	0	95	0	0	0	0	0
	8:45 AM	0	49	0	0	47	0	0	0	0	0	0	0	96	0	0	0	0	0
	VOLUMES	1	295	0	0	347	1	0	0	2	0	0	0	646	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%						
	APP/DEPART	296	/	295	348	/	349	2	/	0	0	/	2	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	178	0	0	188	0	0	0	0	0	0	0	366					
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.754			0.723			0.000			0.000		0.906					
	APP/DEPART	178	/	178	188	/	188	0	/	0	0	/	0	0					
PM	04:00 PM	1	100	0	0	85	0	0	0	1	0	0	0	187	0	0	0	0	0
	4:15 PM	1	86	0	0	95	0	0	0	0	0	0	0	182	0	0	0	0	0
	4:30 PM	0	90	0	0	100	1	1	0	0	0	0	0	192	0	0	1	0	1
	4:45 PM	0	94	0	0	108	0	0	0	0	0	0	0	202	0	0	0	0	0
	5:00 PM	0	127	0	0	101	0	0	0	0	0	0	0	228	0	0	0	0	0
	5:15 PM	0	89	0	0	109	0	0	0	0	0	0	0	198	0	0	0	0	0
	5:30 PM	1	119	0	0	91	0	0	0	0	0	0	0	211	1	0	0	0	1
	5:45 PM	0	81	0	0	93	0	0	0	0	0	0	0	174	0	0	0	0	0
	VOLUMES	3	786	0	0	782	1	1	0	1	0	0	0	1,574	1	0	1	0	2
	APPROACH %	0%	100%	0%	0%	100%	0%	50%	0%	50%	0%	0%	0%						
	APP/DEPART	789	/	786	783	/	784	2	/	0	0	/	4	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	429	0	0	409	0	0	0	0	0	0	0	839					
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.846			0.938			0.000			0.000		0.920					
	APP/DEPART	430	/	429	409	/	410	0	/	0	0	/	0	0					

Amargosa

NORTH SIDE

Palmeto WEST SIDE EAST SIDE **Palmeto**

SOUTH SIDE

Amargosa

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Amargosa	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Palmeto	CONTROL:	STOP E

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Amargosa			SOUTHBOUND Amargosa			EASTBOUND Palmeto			WESTBOUND Palmeto				U-TURNS				
	LANES:	NL 0	NT 1	NR X	SL X	ST 1	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
	7:15 AM	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
	7:30 AM	0	2	0	0	4	0	0	0	0	0	0	0	6	0	0	0	0	0
	7:45 AM	0	4	0	0	2	0	0	0	0	0	0	0	6	0	0	0	0	0
	8:00 AM	0	0	0	0	3	0	0	0	0	0	0	0	3	0	0	0	0	0
	8:15 AM	0	2	0	0	4	0	0	0	0	0	0	0	6	0	0	0	0	0
	8:30 AM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	8:45 AM	0	3	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0
	VOLUMES	0	17	0	0	15	0	0	0	0	0	0	0	32	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	17	/	17	15	/	15	0	/	0	0	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	7	0	0	8	0	0	0	0	0	0	0	15					
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.583			0.500			0.000			0.000		0.625					
	APP/DEPART	7	/	7	8	/	8	0	/	0	0	/	0	0					
PM	04:00 PM	0	1	0	0	3	0	0	0	2	0	0	0	6	0	0	0	0	0
	4:15 PM	0	4	0	0	3	0	0	0	0	0	0	0	7	0	0	0	0	0
	4:30 PM	0	4	0	0	2	0	0	0	0	0	0	0	6	0	0	0	0	0
	4:45 PM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	5:00 PM	0	3	0	0	1	0	0	0	0	0	0	0	4	0	0	0	0	0
	5:15 PM	0	3	0	0	3	0	0	0	0	0	0	0	6	0	0	0	0	0
	5:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	5:45 PM	0	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0
	VOLUMES	0	20	0	0	13	0	0	0	2	0	0	0	35	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	100%	0%	0%	0%						
	APP/DEPART	20	/	20	13	/	15	2	/	0	0	/	0	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	8	0	0	5	0	0	0	0	0	0	0	13					
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.667			0.417			0.000			0.000		0.542					
	APP/DEPART	8	/	8	5	/	5	0	/	0	0	/	0	0					

Amargosa

NORTH SIDE

Palmeto WEST SIDE EAST SIDE **Palmeto**

SOUTH SIDE

Amargosa

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Amargosa	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Palmeto	CONTROL:	STOP E

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Amargosa			SOUTHBOUND Amargosa			EASTBOUND Palmeto			WESTBOUND Palmeto				U-TURNS				
	LANES:	NL 0	NT 1	NR X	SL X	ST 1	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	2	/	2	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM	04:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	2	/	2	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					

Amargosa

NORTH SIDE

Palmeto WEST SIDE EAST SIDE **Palmeto**

SOUTH SIDE

Amargosa

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Amargosa	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Palmeto	CONTROL:	STOP E

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Amargosa			SOUTHBOUND Amargosa			EASTBOUND Palmeto			WESTBOUND Palmeto				U-TURNS				
LANES:	NL 0	NT 1	NR X	SL X	ST 1	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL	NB	SB	EB	WB	TTL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
8:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
VOLUMES	0	2	0	0	4	0	0	0	0	0	0	0	6	0	0	0	0	0
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
APP/DEPART	2	/	2	4	/	4	0	/	0	0	/	0	0					
BEGIN PEAK HR		8:00 AM																
VOLUMES	0	2	0	0	2	0	0	0	0	0	0	0	4					
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
PEAK HR FACTOR		0.500			0.500			0.000			0.000		1.000					
APP/DEPART	2	/	2	2	/	2	0	/	0	0	/	0	0					
PM 04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
4:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	2	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	2	0	0	1	0	0	0	0	0	0	0	3	0	0	0	0	0
APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
APP/DEPART	2	/	2	1	/	1	0	/	0	0	/	0	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					

Amargosa — NORTH SIDE

Palmeto WEST SIDE — EAST SIDE **Palmeto**

SOUTH SIDE — **Amargosa**

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Amargosa	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Palmeto	CONTROL:	STOP E

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Amargosa			SOUTHBOUND Amargosa			EASTBOUND Palmeto			WESTBOUND Palmeto				U-TURNS				
	LANES:	NL 0	NT 1	NR X	SL X	ST 1	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					

Amargosa NORTH SIDE

Palmeto WEST SIDE EAST SIDE **Palmeto**

SOUTH SIDE **Amargosa**

INTERSECTION TURNING MOVEMENT COUNTS

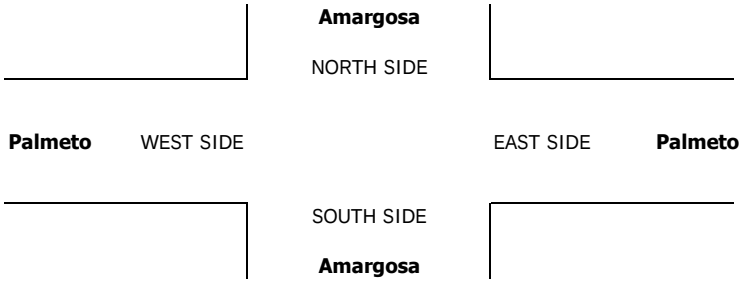
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Amargosa	LOCATION #:	1
WEDNESDAY	EAST & WEST:	Palmeto	CONTROL:	STOP E

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Amargosa			SOUTHBOUND Amargosa			EASTBOUND Palmeto			WESTBOUND Palmeto				U-TURNS				
	LANES:	NL 0	NT 1	NR X	SL X	ST 1	SR 0	EL 0	ET X	ER 0	WL X	WT X	WR X	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:00 AM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	3	0	0	0	0	0	0	0	4	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	1	/	1	3	/	3	0	/	0	0	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	1	0	0	1	0	0	0	0	0	0	0	2					
	APPROACH %	0%	100%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.250			0.250			0.000			0.000		0.500					
	APP/DEPART	1	/	1	1	/	1	0	/	0	0	/	0	0					
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	1	0	0	0	0	0	0	0	0	0	0	1					
	APPROACH %	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.250			0.000			0.000			0.000		0.250					
	APP/DEPART	1	/	1	0	/	0	0	/	0	0	/	0	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:					
Wed, May 25, 22	LOCATION:	Hesperia	PROJECT #:	SC3470	
	NORTH & SOUTH:	Key Pointe	LOCATION #:	4	
	EAST & WEST:	Amargosa	CONTROL:	STOP N	

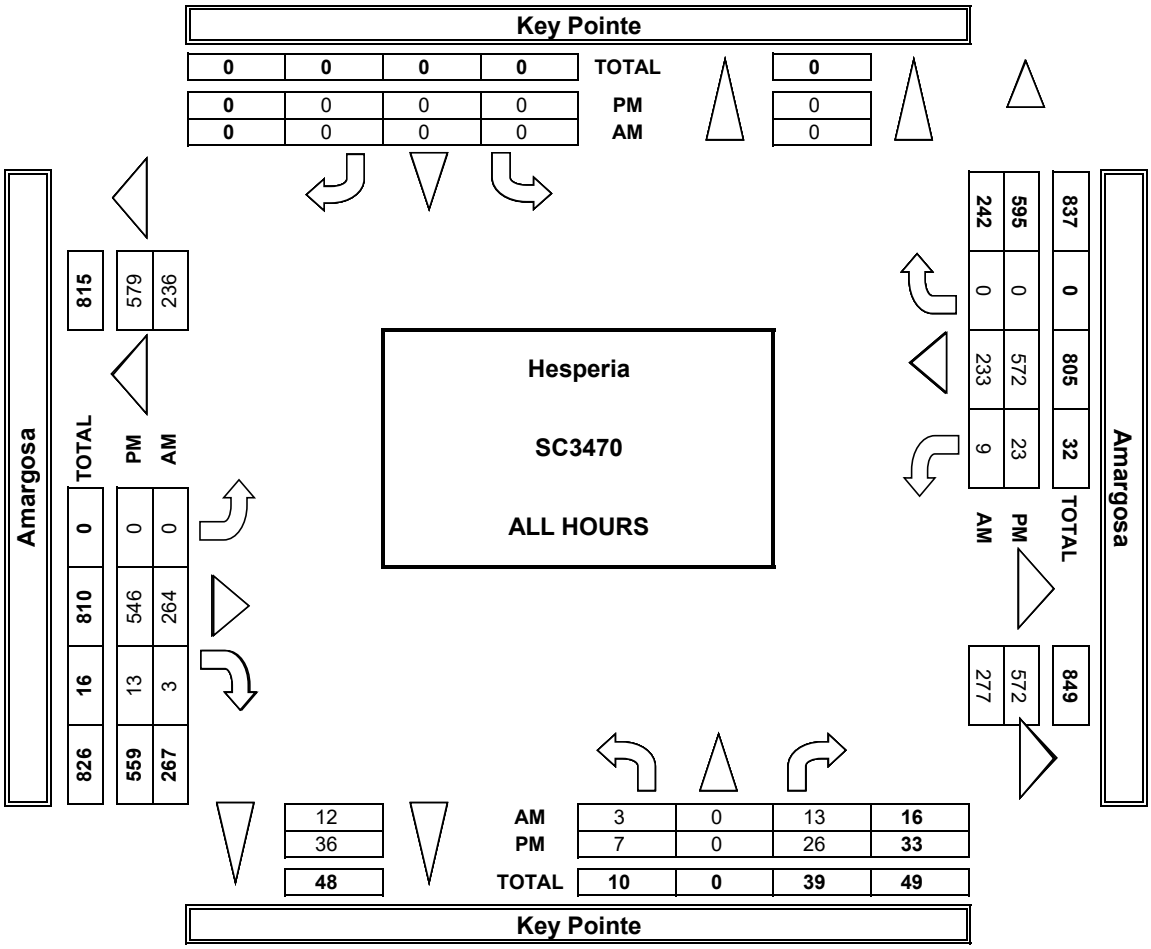
NOTES:

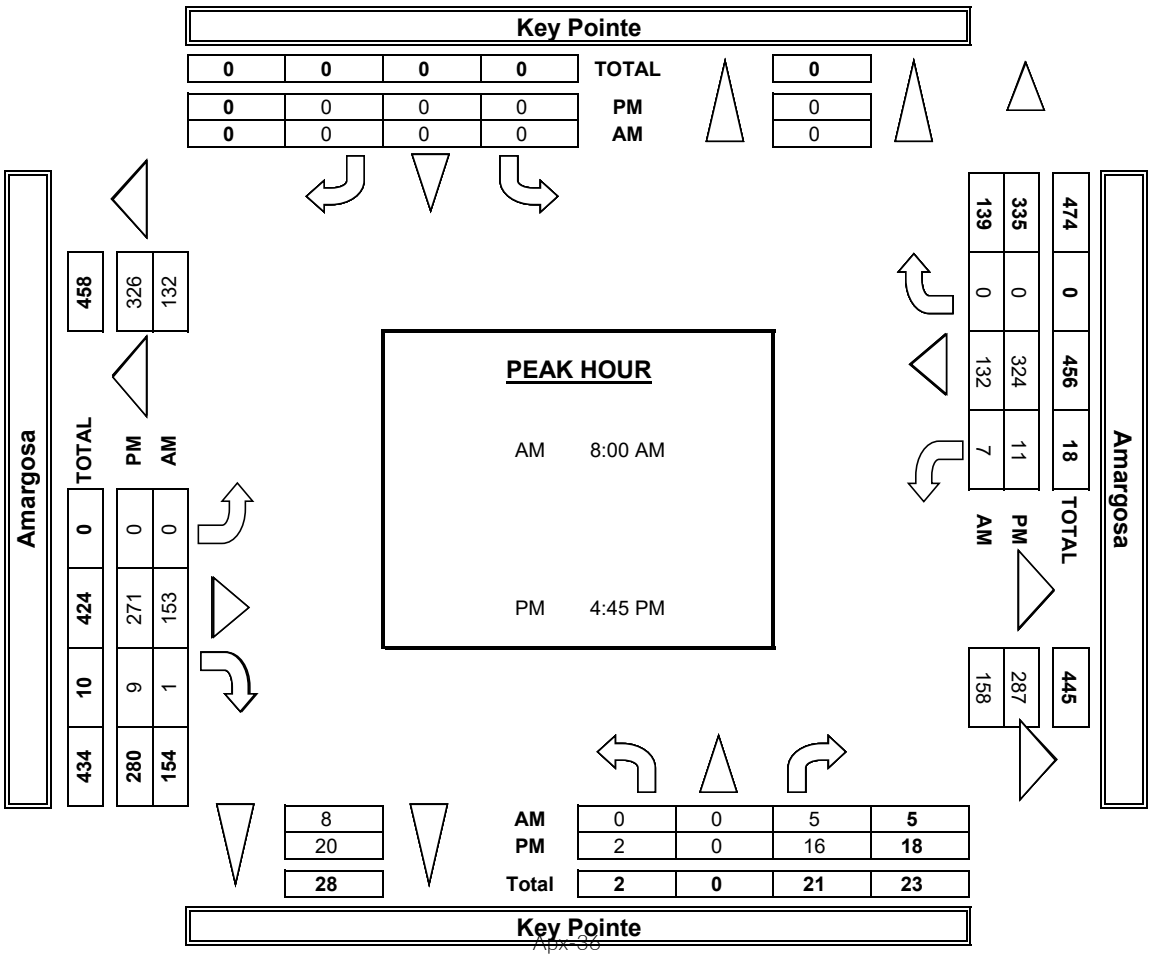
AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Amargosa			WESTBOUND Amargosa			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 0	WT 2	WR X	TOTAL
AM	7:00 AM	2	0	1	0	0	0	0	22	0	0	26	0	51
	7:15 AM	0	0	2	0	0	0	0	20	0	1	21	0	44
	7:30 AM	0	0	3	0	0	0	0	39	1	1	22	0	66
	7:45 AM	1	0	2	0	0	0	0	30	1	0	32	0	66
	8:00 AM	0	0	1	0	0	0	0	33	1	3	18	0	56
	8:15 AM	0	0	0	0	0	0	0	58	0	4	25	0	87
	8:30 AM	0	0	3	0	0	0	0	28	0	0	51	0	82
	8:45 AM	0	0	1	0	0	0	0	34	0	0	38	0	73
	VOLUMES	3	0	13	0	0	0	0	264	3	9	233	0	525
	APPROACH %	19%	0%	81%	0%	0%	0%	0%	99%	1%	4%	96%	0%	
	APP/DEPART	16	/	0	0	/	12	267	/	277	242	/	236	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	5	0	0	0	0	153	1	7	132	0	298
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	99%	1%	5%	95%	0%	
	PEAK HR FACTOR		0.417			0.000			0.664			0.681		0.856
	APP/DEPART	5	/	0	0	/	8	154	/	158	139	/	132	0
PM	04:00 PM	3	0	3	0	0	0	0	62	2	4	61	0	135
	4:15 PM	0	0	2	0	0	0	0	73	0	3	59	0	137
	4:30 PM	1	0	4	0	0	0	0	73	2	4	69	0	153
	4:45 PM	0	0	3	0	0	0	0	71	5	2	77	0	158
	5:00 PM	0	0	4	0	0	0	0	65	1	2	97	0	169
	5:15 PM	0	0	3	0	0	0	0	70	3	2	65	0	143
	5:30 PM	2	0	6	0	0	0	0	65	0	5	85	0	163
	5:45 PM	1	0	1	0	0	0	0	67	0	1	59	0	129
	VOLUMES	7	0	26	0	0	0	0	546	13	23	572	0	1,187
	APPROACH %	21%	0%	79%	0%	0%	0%	0%	98%	2%	4%	96%	0%	
	APP/DEPART	33	/	0	0	/	36	559	/	572	595	/	579	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	2	0	16	0	0	0	0	271	9	11	324	0	633
	APPROACH %	11%	0%	89%	0%	0%	0%	0%	97%	3%	3%	97%	0%	
	PEAK HR FACTOR		0.563			0.000			0.921			0.846		0.936
	APP/DEPART	18	/	0	0	/	20	280	/	287	335	/	326	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	4
WEDNESDAY	EAST & WEST:	Amargosa	CONTROL:	STOP N

	NOTES:												
PCE Adjusted	Class	1	2	3	4	5	6			AM PM MD OTHER OTHER		▲ N ◄ W E ► S ▼	
	Factor	1	1.5	2	3	2	2						

		NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Amargosa			WESTBOUND Amargosa			
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 0	WT 2	WR X	TOTAL
AM	7:00 AM	3	0	1	0	0	0	0	22	0	0	27	0	53
	7:15 AM	0	0	2	0	0	0	0	22	0	1	22	0	47
	7:30 AM	0	0	5	0	0	0	0	44	1	3	24	0	77
	7:45 AM	2	0	2	0	0	0	0	32	1	0	34	0	71
	8:00 AM	0	0	1	0	0	0	0	34	1	3	22	0	61
	8:15 AM	0	0	0	0	0	0	0	66	0	4	27	0	96
	8:30 AM	0	0	3	0	0	0	0	28	0	0	53	0	84
	8:45 AM	0	0	1	0	0	0	0	36	0	0	41	0	78
	VOLUMES	4	0	15	0	0	0	0	283	3	11	249	0	565
	APPROACH %	21%	0%	79%	0%	0%	0%	0%	99%	1%	4%	96%	0%	
	APP/DEPART	19	/	0	0	/	14	286	/	298	260	/	253	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	5	0	0	0	0	163	1	7	142	0	318
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	99%	1%	5%	95%	0%	
	PEAK HR FACTOR		0.417			0.000			0.626			0.710		0.828
	APP/DEPART	5	/	0	0	/	8	164	/	168	149	/	142	0
PM	04:00 PM	3	0	4	0	0	0	0	73	2	6	63	0	150
	4:15 PM	0	0	2	0	0	0	0	79	0	4	64	0	148
	4:30 PM	1	0	5	0	0	0	0	74	3	4	71	0	157
	4:45 PM	0	0	4	0	0	0	0	73	5	2	80	0	164
	5:00 PM	0	0	5	0	0	0	0	68	1	2	102	0	177
	5:15 PM	0	0	4	0	0	0	0	73	3	2	70	0	152
	5:30 PM	3	0	7	0	0	0	0	70	0	6	89	0	174
	5:45 PM	1	0	1	0	0	0	0	67	0	1	62	0	132
	VOLUMES	8	0	30	0	0	0	0	575	14	27	599	0	1,251
	APPROACH %	20%	0%	80%	0%	0%	0%	0%	98%	2%	4%	96%	0%	
	APP/DEPART	37	/	0	0	/	40	588	/	604	626	/	607	0
	BEGIN PEAK HR		4:45 PM											
	VOLUMES	3	0	19	0	0	0	0	283	9	12	341	0	666
	APPROACH %	12%	0%	88%	0%	0%	0%	0%	97%	3%	3%	97%	0%	
	PEAK HR FACTOR		0.583			0.000			0.936			0.847		0.940
	APP/DEPART	21	/	0	0	/	21	292	/	302	353	/	343	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

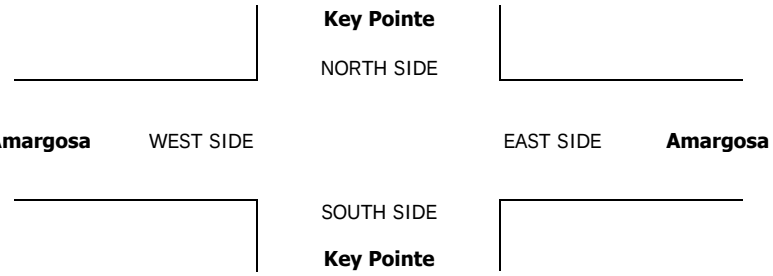
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	4
WEDNESDAY	EAST & WEST:	Amargosa	CONTROL:	STOP N

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Amargosa			WESTBOUND Amargosa				U-TURNS				
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 0	WT 2	WR X	TOTAL	NB	SB	EB	WB	TTL
7:00 AM	1	0	1	0	0	0	0	22	0	0	25	0	49	0	0	0	0	0
7:15 AM	0	0	2	0	0	0	0	19	0	1	20	0	42	0	0	0	0	0
7:30 AM	0	0	2	0	0	0	0	34	1	0	21	0	58	0	0	0	0	0
7:45 AM	0	0	2	0	0	0	0	27	1	0	29	0	59	0	0	0	0	0
8:00 AM	0	0	1	0	0	0	0	32	1	3	15	0	52	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	52	0	4	23	0	79	0	0	0	0	0
8:30 AM	0	0	3	0	0	0	0	28	0	0	49	0	80	0	0	0	0	0
8:45 AM	0	0	1	0	0	0	0	33	0	0	35	0	69	0	0	0	0	0
AM VOLUMES	1	0	12	0	0	0	0	247	3	8	217	0	488	0	0	0	0	0
AM APPROACH %	8%	0%	92%	0%	0%	0%	0%	99%	1%	4%	96%	0%						
AM APP/DEPART	13	/	0	0	/	11	250	/	259	225	/	218	0					
AM BEGIN PEAK HR		8:00 AM																
AM VOLUMES	0	0	5	0	0	0	0	145	1	7	122	0	280					
AM APPROACH %	0%	0%	100%	0%	0%	0%	0%	99%	1%	5%	95%	0%						
AM PEAK HR FACTOR		0.417			0.000			0.702			0.658		0.875					
AM APP/DEPART	5	/	0	0	/	8	146	/	150	129	/	122	0					
04:00 PM	3	0	2	0	0	0	0	53	2	2	59	0	121	0	0	0	0	0
4:15 PM	0	0	2	0	0	0	0	67	0	2	56	0	127	0	0	0	0	0
4:30 PM	1	0	3	0	0	0	0	72	1	4	66	0	147	0	0	0	0	0
4:45 PM	0	0	2	0	0	0	0	70	5	2	74	0	153	0	0	0	0	0
5:00 PM	0	0	3	0	0	0	0	63	1	2	91	0	160	0	0	0	0	0
5:15 PM	0	0	1	0	0	0	0	67	3	2	62	0	135	0	0	0	0	0
5:30 PM	1	0	5	0	0	0	0	62	0	3	82	0	153	0	0	0	0	0
5:45 PM	1	0	1	0	0	0	0	67	0	1	57	0	127	0	0	0	0	0
PM VOLUMES	6	0	19	0	0	0	0	521	12	18	547	0	1,123	0	0	0	0	0
PM APPROACH %	24%	0%	76%	0%	0%	0%	0%	98%	2%	3%	97%	0%						
PM APP/DEPART	25	/	0	0	/	30	533	/	540	565	/	553	0					
PM BEGIN PEAK HR		4:45 PM																
PM VOLUMES	1	0	11	0	0	0	0	262	9	9	309	0	601					
PM APPROACH %	8%	0%	92%	0%	0%	0%	0%	97%	3%	3%	97%	0%						
PM PEAK HR FACTOR		0.500			0.000			0.903			0.855		0.939					
PM APP/DEPART	12	/	0	0	/	18	271	/	273	318	/	310	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	4
WEDNESDAY	EAST & WEST:	Amargosa	CONTROL:	STOP N

CLASS 2:	NOTES:
2-AXLE WORK VEHICLES/ TRUCKS	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Amargosa			WESTBOUND Amargosa				U-TURNS				
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 0	WT 2	WR X	TOTAL	NB	SB	EB	WB	TTL
AM 7:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
7:45 AM	1	0	0	0	0	0	0	2	0	0	2	0	5	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	3	0	0	1	0	4	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
VOLUMES	2	0	0	0	0	0	0	8	0	0	6	0	16	0	0	0	0	0
APPROACH %	100%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
APP/DEPART	2	/	0	0	/	0	8	/	8	6	/	8	0					
BEGIN PEAK HR		8:00 AM																
VOLUMES	0	0	0	0	0	0	0	4	0	0	4	0	8					
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
PEAK HR FACTOR		0.000			0.000			0.333			0.500		0.500					
APP/DEPART	0	/	0	0	/	0	4	/	4	4	/	4	0					
PM 04:00 PM	0	0	1	0	0	0	0	5	0	0	1	0	7	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	3	0	1	1	0	5	0	0	0	0	0
4:30 PM	0	0	1	0	0	0	0	1	1	0	2	0	5	0	0	0	0	0
4:45 PM	0	0	1	0	0	0	0	0	0	0	2	0	3	0	0	0	0	0
5:00 PM	0	0	1	0	0	0	0	1	0	0	2	0	4	0	0	0	0	0
5:15 PM	0	0	2	0	0	0	0	2	0	0	1	0	5	0	0	0	0	0
5:30 PM	1	0	1	0	0	0	0	1	0	2	0	0	5	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
VOLUMES	1	0	7	0	0	0	0	13	1	3	10	0	35	0	0	0	0	0
APPROACH %	13%	0%	88%	0%	0%	0%	0%	93%	7%	23%	77%	0%						
APP/DEPART	8	/	0	0	/	4	14	/	20	13	/	11	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	1	0	5	0	0	0	0	4	0	2	5	0	17					
APPROACH %	17%	0%	83%	0%	0%	0%	0%	100%	0%	29%	71%	0%						
PEAK HR FACTOR		0.750			0.000			0.500			0.875		0.850					
APP/DEPART	6	/	0	0	/	2	4	/	9	7	/	6	0					

Key Pointe

NORTH SIDE

Amargosa WEST SIDE EAST SIDE **Amargosa**

SOUTH SIDE

Key Pointe

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	4
WEDNESDAY	EAST & WEST:	Amargosa	CONTROL:	STOP N

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Amargosa			WESTBOUND Amargosa				U-TURNS				
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 0	WT 2	WR X	TOTAL	NB	SB	EB	WB	TTL
AM																		
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%						
APP/DEPART	0	/	0	0	/	0	0	/	0	1	/	1	0					
BEGIN PEAK HR		8:00 AM																
VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM																		
04:00 PM	0	0	0	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	0	0	2	4	0	6	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	33%	67%	0%						
APP/DEPART	0	/	0	0	/	2	0	/	0	6	/	4	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	0	0	0	0	0	0	0	0	0	0	2	0	2					
APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%						
PEAK HR FACTOR		0.000			0.000			0.000			0.250		0.250					
APP/DEPART	0	/	0	0	/	0	0	/	0	2	/	2	0					

Key Pointe — NORTH SIDE

Amargosa WEST SIDE — EAST SIDE **Amargosa**

SOUTH SIDE — **Key Pointe**

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

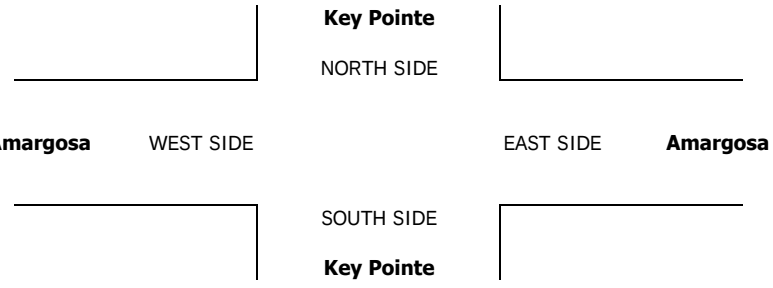
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	4
WEDNESDAY	EAST & WEST:	Amargosa	CONTROL:	STOP N

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Amargosa			WESTBOUND Amargosa				U-TURNS				
LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 0	WT 2	WR X	TOTAL	NB	SB	EB	WB	TTL
AM 7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
7:30 AM	0	0	1	0	0	0	0	1	0	1	1	0	4	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
VOLUMES	0	0	1	0	0	0	0	6	0	1	3	0	11	0	0	0	0	0
APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	25%	75%	0%						
APP/DEPART	1	/	0	0	/	1	6	/	7	4	/	3	0					
BEGIN PEAK HR		8:00 AM																
VOLUMES	0	0	0	0	0	0	0	4	0	0	2	0	6					
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
PEAK HR FACTOR		0.000			0.000			0.333			0.500		0.500					
APP/DEPART	0	/	0	0	/	0	4	/	4	2	/	2	0					
PM 04:00 PM	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
VOLUMES	0	0	0	0	0	0	0	10	0	0	7	0	17	0	0	0	0	0
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
APP/DEPART	0	/	0	0	/	0	10	/	10	7	/	7	0					
BEGIN PEAK HR		4:45 PM																
VOLUMES	0	0	0	0	0	0	0	5	0	0	4	0	9					
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
PEAK HR FACTOR		0.000			0.000			0.625			0.500		0.750					
APP/DEPART	0	/	0	0	/	0	5	/	5	4	/	4	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	4
WEDNESDAY	EAST & WEST:	Amargosa	CONTROL:	STOP N

CLASS 5:	NOTES:
RV	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Amargosa			WESTBOUND Amargosa				U-TURNS				
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 0	WT 2	WR X	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	0	0	0					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.000		0.000					
	APP/DEPART	0	/	0	0	/	0	0	/	0	0	/	0	0					

Key Pointe

NORTH SIDE

Amargosa WEST SIDE EAST SIDE **Amargosa**

SOUTH SIDE

Key Pointe

INTERSECTION TURNING MOVEMENT COUNTS

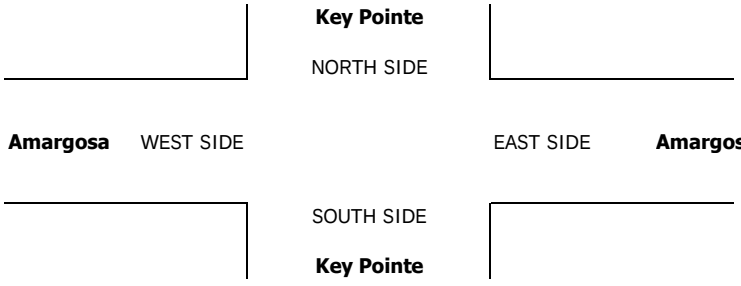
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/25/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	4
WEDNESDAY	EAST & WEST:	Amargosa	CONTROL:	STOP N

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Amargosa			WESTBOUND Amargosa				U-TURNS				
	LANES:	NL 1	NT X	NR 1	SL X	ST X	SR X	EL X	ET 2	ER 0	WL 0	WT 2	WR X	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	3	0	0	6	0	9	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	APP/DEPART	0	/	0	0	/	0	3	/	3	6	/	6	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	4	0	4					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.500		0.500					
	APP/DEPART	0	/	0	0	/	0	0	/	0	4	/	4	0					
PM	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	2	0	0	4	0	6	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	APP/DEPART	0	/	0	0	/	0	2	/	2	4	/	4	0					
	BEGIN PEAK HR		4:45 PM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	4	0	4					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.500		0.500					
	APP/DEPART	0	/	0	0	/	0	0	/	0	4	/	4	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:					
Tue, May 17, 22	LOCATION:	Hesperia	PROJECT #:	SC3470	
	NORTH & SOUTH:	Key Pointe	LOCATION #:	5	
	EAST & WEST:	Main	CONTROL:	SIGNAL	

NOTES:

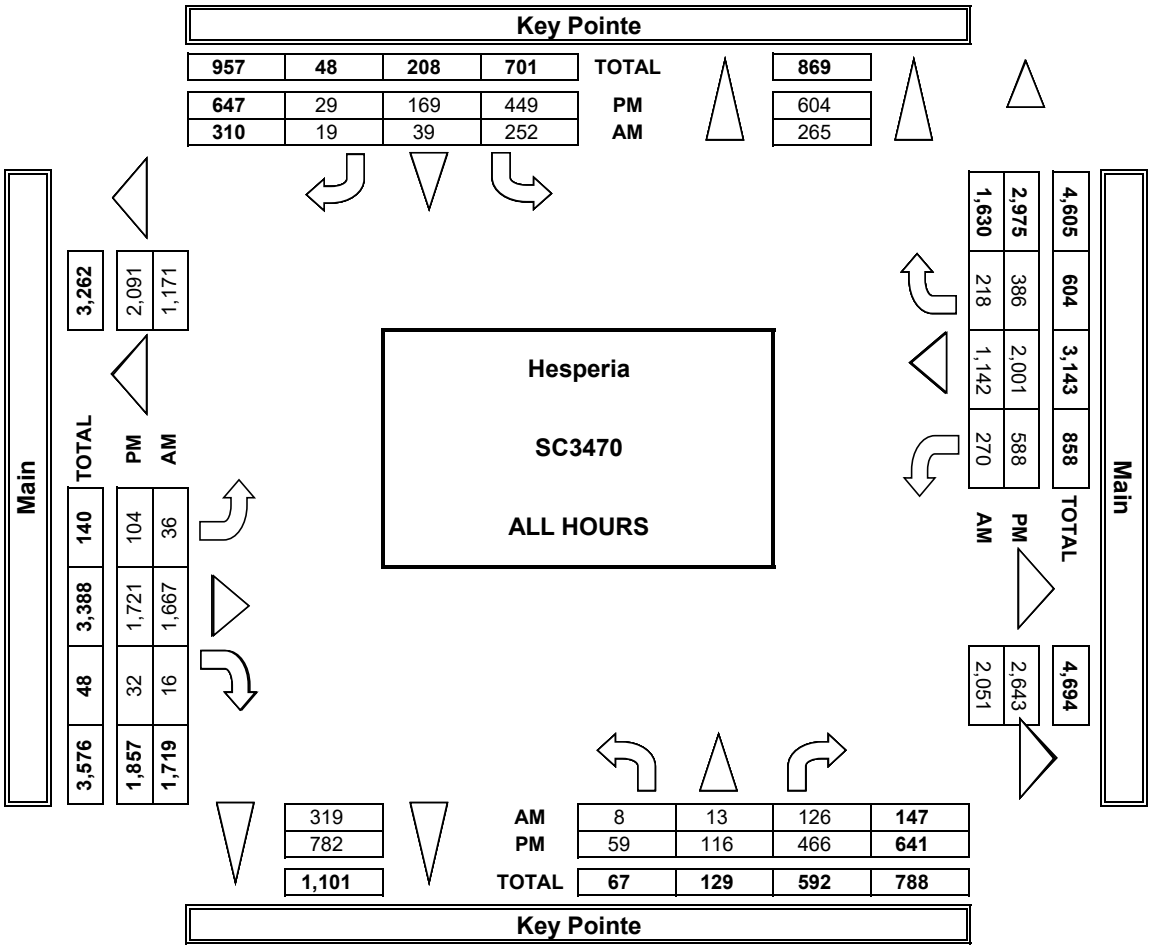
AM / PM / MD / OTHER / OTHER

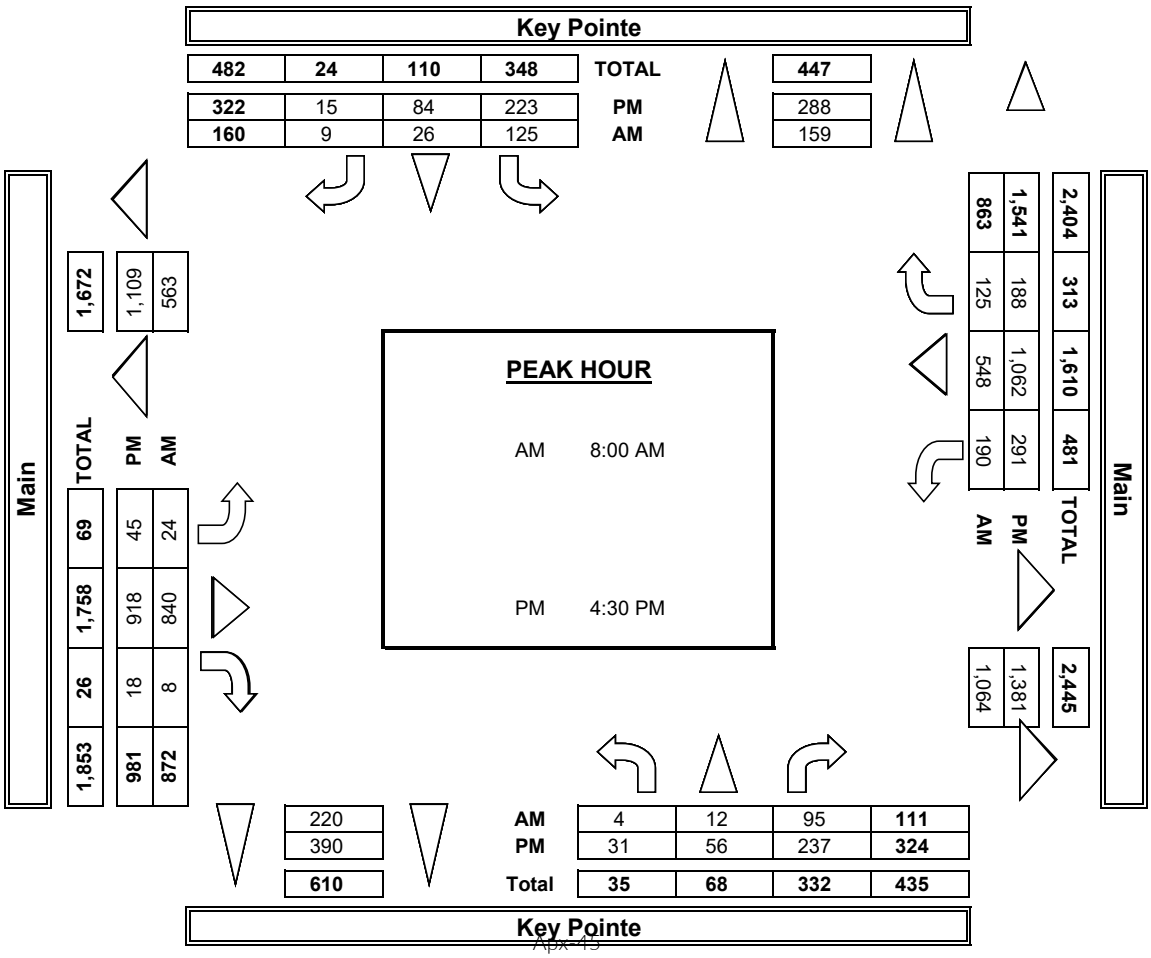
▲ N ◄ W E ► S ▼

		NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Main			WESTBOUND Main			
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 0.5	SR 0.5	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL
AM	7:00 AM	1	0	12	23	2	4	4	183	1	10	115	29	384
	7:15 AM	3	0	6	27	4	3	2	221	2	19	151	20	458
	7:30 AM	0	1	4	41	4	2	3	196	0	24	171	21	467
	7:45 AM	0	0	9	36	3	1	3	227	5	27	157	23	491
	8:00 AM	1	4	17	40	4	3	6	230	2	37	114	33	491
	8:15 AM	0	2	22	32	5	2	6	207	2	41	129	30	478
	8:30 AM	2	4	28	30	8	1	6	191	3	46	155	22	496
	8:45 AM	1	2	28	23	9	3	6	212	1	66	150	40	541
	VOLUMES	8	13	126	252	39	19	36	1,667	16	270	1,142	218	3,806
	APPROACH %	5%	9%	86%	81%	13%	6%	2%	97%	1%	17%	70%	13%	
	APP/DEPART	147	/	265	310	/	319	1,719	/	2,051	1,630	/	1,171	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	4	12	95	125	26	9	24	840	8	190	548	125	2,006
	APPROACH %	4%	11%	86%	78%	16%	6%	3%	96%	1%	22%	63%	14%	
	PEAK HR FACTOR		0.816			0.851			0.916			0.843		0.927
	APP/DEPART	111	/	159	160	/	220	872	/	1,064	863	/	563	0
PM	4:00 PM	6	16	52	59	19	5	12	193	2	78	268	48	758
	4:15 PM	8	15	58	73	23	3	16	187	4	74	244	49	754
	4:30 PM	7	10	69	52	16	3	9	212	4	79	291	41	793
	4:45 PM	7	14	50	53	29	4	12	223	6	71	265	58	792
	5:00 PM	10	15	69	56	21	4	14	233	2	67	233	44	768
	5:15 PM	7	17	49	62	18	4	10	250	6	74	273	45	815
	5:30 PM	6	17	63	46	28	3	17	211	3	67	230	57	748
	5:45 PM	8	12	56	48	15	3	14	212	5	78	197	44	692
	VOLUMES	59	116	466	449	169	29	104	1,721	32	588	2,001	386	6,120
	APPROACH %	9%	18%	73%	69%	26%	4%	6%	93%	2%	20%	67%	13%	
	APP/DEPART	641	/	604	647	/	782	1,857	/	2,643	2,975	/	2,091	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	31	56	237	223	84	15	45	918	18	291	1,062	188	3,168
	APPROACH %	10%	17%	73%	69%	26%	5%	5%	94%	2%	19%	69%	12%	
	PEAK HR FACTOR		0.862			0.936			0.922			0.937		0.972
	APP/DEPART	324	/	288	322	/	390	981	/	1,381	1,541	/	1,109	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	5
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

	NOTES:												
PCE Adjusted	Class	1	2	3	4	5	6			AM PM MD OTHER OTHER		▲ N S ▼	
	Factor	1	1.5	2	3	2	2				◄ W		E ►

	NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Main			WESTBOUND Main			
LANES:	NL 1	NT 1	NR 1	SL 1	ST 0.5	SR 0.5	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL
7:00 AM	1	0	12	25	2	6	4	203	1	10	127	34	425
7:15 AM	3	0	8	32	5	3	3	238	2	19	167	21	500
7:30 AM	0	1	4	44	4	2	3	208	0	26	190	24	504
7:45 AM	0	0	9	38	3	1	4	239	5	30	169	29	525
8:00 AM	1	4	19	46	4	3	7	250	2	39	128	37	538
8:15 AM	0	2	22	32	5	2	7	233	2	41	145	32	522
8:30 AM	2	4	29	33	8	1	9	213	3	46	171	24	542
8:45 AM	1	2	28	26	9	5	8	232	1	68	164	42	584
AM VOLUMES	8	13	130	276	40	23	43	1,815	16	277	1,259	240	4,139
AM APPROACH %	5%	9%	86%	81%	12%	7%	2%	97%	1%	16%	71%	14%	
AM APP/DEPART	151	/	296	339	/	333	1,874	/	2,220	1,776	/	1,290	0
AM BEGIN PEAK HR		8:00 AM											
AM VOLUMES	4	12	97	137	26	11	30	927	8	193	607	134	2,185
AM APPROACH %	4%	11%	86%	79%	15%	6%	3%	96%	1%	21%	65%	14%	
AM PEAK HR FACTOR		0.819			0.818			0.933			0.856		0.936
AM APP/DEPART	113	/	176	174	/	227	965	/	1,161	933	/	622	0
4:00 PM	6	16	52	61	19	6	12	205	2	78	284	49	789
4:15 PM	8	15	59	77	23	3	16	197	4	75	259	52	787
4:30 PM	7	10	70	54	16	3	9	226	4	80	311	41	830
4:45 PM	7	15	51	57	29	4	12	238	6	72	271	59	820
5:00 PM	10	15	72	61	21	4	15	246	2	67	242	49	803
5:15 PM	7	17	49	65	18	4	10	260	6	75	289	46	846
5:30 PM	6	17	64	49	28	5	18	228	3	68	246	64	795
5:45 PM	8	12	57	50	15	3	15	226	5	79	211	45	726
PM VOLUMES	59	117	473	473	169	32	107	1,824	32	593	2,112	404	6,393
PM APPROACH %	9%	18%	73%	70%	25%	5%	5%	93%	2%	19%	68%	13%	
PM APP/DEPART	649	/	628	674	/	794	1,963	/	2,769	3,108	/	2,203	0
PM BEGIN PEAK HR		4:30 PM											
PM VOLUMES	31	57	241	237	84	15	46	969	18	294	1,112	195	3,298
PM APPROACH %	9%	17%	73%	70%	25%	4%	4%	94%	2%	18%	69%	12%	
PM PEAK HR FACTOR		0.848			0.932			0.935			0.927		0.975
PM APP/DEPART	329	/	298	336	/	396	1,033	/	1,446	1,601	/	1,158	0

INTERSECTION TURNING MOVEMENT COUNTS

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DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	5
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

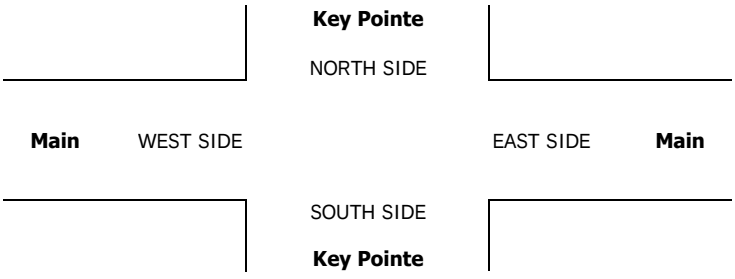
CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 0.5	SR 0.5	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	1	0	12	22	2	3	4	164	1	10	106	26	351	0	0	0	1	1
	7:15 AM	3	0	5	23	2	3	1	202	2	19	131	19	410	0	0	0	1	1
	7:30 AM	0	1	4	38	4	2	3	183	0	22	154	19	430	0	0	0	0	0
	7:45 AM	0	0	9	34	3	1	2	213	5	25	143	17	452	0	0	0	0	0
	8:00 AM	1	4	14	34	4	3	5	210	2	34	95	30	436	0	0	1	1	2
	8:15 AM	0	2	22	32	5	2	5	183	2	41	112	28	434	0	0	0	0	0
	8:30 AM	2	4	27	27	8	1	4	167	3	46	138	20	447	0	0	0	0	0
	8:45 AM	1	2	28	21	9	2	5	192	1	63	132	37	493	0	0	1	3	4
	VOLUMES	8	13	121	231	37	17	29	1,514	16	260	1,011	196	3,453	0	0	2	6	8
	APPROACH %	6%	9%	85%	81%	13%	6%	2%	97%	1%	18%	69%	13%						
	APP/DEPART	142	/	236	285	/	307	1,559	/	1,872	1,467	/	1,038	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	4	12	91	114	26	8	17	752	8	180	477	115	1,810					
	APPROACH %	4%	11%	85%	77%	18%	5%	2%	97%	1%	23%	61%	15%						
	PEAK HR FACTOR		0.811			0.902			0.897			0.836		0.918					
	APP/DEPART	107	/	144	148	/	214	779	/	961	776	/	491	0					
PM	4:00 PM	6	16	52	57	19	4	12	183	2	78	255	47	731	0	0	1	3	4
	4:15 PM	8	15	56	69	23	3	16	175	4	73	227	47	716	0	0	0	0	0
	4:30 PM	7	10	68	49	16	3	9	197	4	78	275	41	757	0	0	0	1	1
	4:45 PM	7	13	49	51	29	4	12	208	6	69	256	56	760	0	0	0	0	0
	5:00 PM	10	15	66	53	21	4	13	216	2	67	226	41	734	0	0	1	0	1
	5:15 PM	7	17	49	60	18	4	10	234	6	73	258	44	780	0	0	0	2	2
	5:30 PM	6	17	61	44	28	2	15	193	3	66	217	53	705	0	0	0	1	1
	5:45 PM	8	12	55	47	15	3	13	200	5	77	187	43	665	0	0	0	0	0
	VOLUMES	59	115	456	430	169	27	100	1,606	32	581	1,901	372	5,848	0	0	2	7	9
	APPROACH %	9%	18%	72%	69%	27%	4%	6%	92%	2%	20%	67%	13%						
	APP/DEPART	630	/	585	626	/	775	1,738	/	2,499	2,854	/	1,989	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	31	55	232	213	84	15	43	855	18	284	1,015	182	3,031					
	APPROACH %	10%	17%	73%	68%	27%	5%	5%	93%	2%	19%	68%	12%						
	PEAK HR FACTOR		0.874			0.929			0.917			0.942		0.971					
	APP/DEPART	318	/	280	312	/	386	917	/	1,303	1,484	/	1,062	0					



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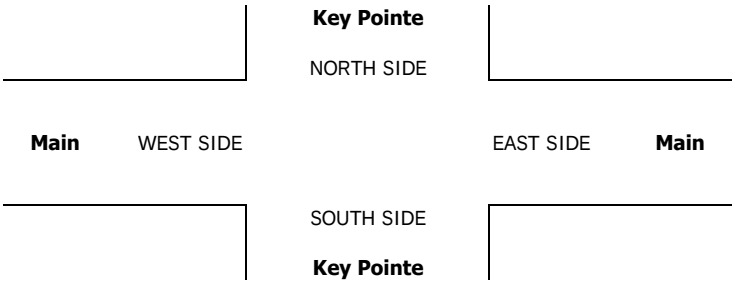
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	5
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 0.5	SR 0.5	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	10	0	0	4	0	14	0	0	0	0	0
	7:15 AM	0	0	0	2	2	0	1	12	0	0	14	1	32	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	7	0	1	9	1	18	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	1	10	0	1	11	3	26	0	0	0	0	0
	8:00 AM	0	0	3	4	0	0	0	11	0	3	14	1	36	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	1	12	0	0	11	1	25	0	0	0	0	0
	8:30 AM	0	0	1	2	0	0	1	14	0	0	9	0	27	0	0	0	0	0
	8:45 AM	0	0	0	1	0	0	0	11	0	3	13	3	31	0	0	0	0	0
	VOLUMES	0	0	4	9	2	0	4	87	0	8	85	10	209	0	0	0	0	0
	APPROACH %	0%	0%	100%	82%	18%	0%	4%	96%	0%	8%	83%	10%						
	APP/DEPART	4	/	14	11	/	10	91	/	100	103	/	85	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	4	7	0	0	2	48	0	6	47	5	119					
	APPROACH %	0%	0%	100%	100%	0%	0%	4%	96%	0%	10%	81%	9%						
	PEAK HR FACTOR		0.333			0.438			0.833			0.763		0.826					
	APP/DEPART	4	/	7	7	/	6	50	/	59	58	/	47	0					
PM	4:00 PM	0	0	0	1	0	0	0	2	0	0	5	1	9	0	0	0	0	0
	4:15 PM	0	0	2	2	0	0	0	9	0	1	10	1	25	0	0	0	0	0
	4:30 PM	0	0	1	2	0	0	0	9	0	1	6	0	19	0	0	0	0	0
	4:45 PM	0	0	1	0	0	0	0	9	0	2	7	2	21	0	0	0	0	0
	5:00 PM	0	0	2	1	0	0	0	13	0	0	2	0	18	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	14	0	0	9	0	23	0	0	0	0	0
	5:30 PM	0	0	2	1	0	0	2	10	0	1	6	0	22	0	0	0	0	0
	5:45 PM	0	0	1	0	0	0	0	6	0	0	2	0	9	0	0	0	0	0
	VOLUMES	0	0	9	7	0	0	2	72	0	5	47	4	146	0	0	0	0	0
	APPROACH %	0%	0%	100%	100%	0%	0%	3%	97%	0%	9%	84%	7%						
	APP/DEPART	9	/	6	7	/	5	74	/	88	56	/	47	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	0	4	3	0	0	0	45	0	3	24	2	81					
	APPROACH %	0%	0%	100%	100%	0%	0%	0%	100%	0%	10%	83%	7%						
	PEAK HR FACTOR		0.500			0.375			0.804			0.659		0.880					
	APP/DEPART	4	/	2	3	/	3	45	/	52	29	/	24	0					



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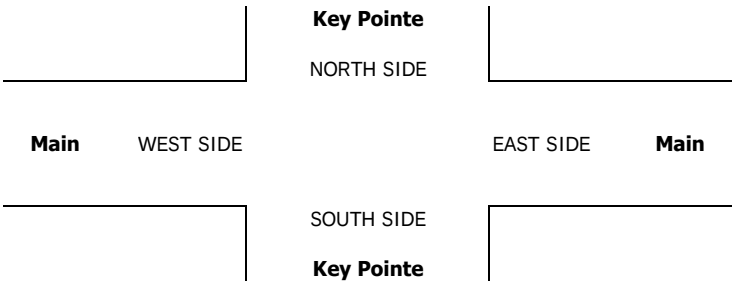
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	5
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

	NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Main			WESTBOUND Main				U-TURNS				
LANES:	NL 1	NT 1	NR 1	SL 1	ST 0.5	SR 0.5	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM																		
7:00 AM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0
7:30 AM	0	0	0	1	0	0	0	2	0	1	2	0	6	0	0	0	0	0
7:45 AM	0	0	0	1	0	0	0	1	0	0	0	2	4	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	3	0	0	2	0	5	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	2	0	0	4	0	6	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0
VOLUMES	0	0	0	2	0	0	0	16	0	1	14	2	35	0	0	0	0	0
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	6%	82%	12%						
APP/DEPART	0	/	2	2	/	1	16	/	18	17	/	14	0					
BEGIN PEAK HR		8:00 AM																
VOLUMES	0	0	0	0	0	0	0	9	0	0	10	0	19					
APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
PEAK HR FACTOR		0.000			0.000			0.750			0.625		0.792					
APP/DEPART	0	/	0	0	/	0	9	/	9	10	/	10	0					
PM																		
4:00 PM	0	0	0	1	0	1	0	3	0	0	1	0	6	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
5:15 PM	0	0	0	1	0	0	0	0	0	0	1	0	2	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	2	0	0	1	1	4	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	1	1	0	1	1	1	5	0	0	0	0	0
VOLUMES	0	0	0	2	0	1	1	11	0	1	11	2	29	0	0	0	0	0
APPROACH %	0%	0%	0%	67%	0%	33%	8%	92%	0%	7%	79%	14%						
APP/DEPART	0	/	3	3	/	1	12	/	13	14	/	12	0					
BEGIN PEAK HR		4:30 PM																
VOLUMES	0	0	0	1	0	0	0	4	0	0	6	0	11					
APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%						
PEAK HR FACTOR		0.000			0.250			0.500			0.750		0.917					
APP/DEPART	0	/	0	1	/	0	4	/	5	6	/	6	0					



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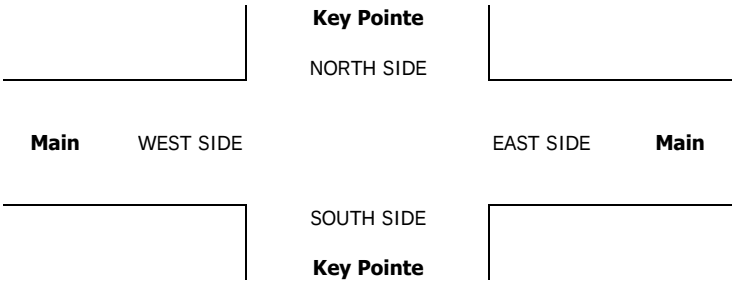
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	5
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND (Key Pointe)			SOUTHBOUND (Key Pointe)			EASTBOUND (Main)			WESTBOUND (Main)				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 0.5	SR 0.5	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	1	0	1	0	6	0	0	5	2	15	0	0	0	0	0
	7:15 AM	0	0	1	2	0	0	0	4	0	0	3	0	10	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	2	0	0	6	1	9	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	3	0	1	3	1	8	0	0	0	0	0
	8:00 AM	0	0	0	2	0	0	0	5	0	0	2	1	10	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	8	0	0	4	0	12	0	0	0	0	0
	8:30 AM	0	0	0	1	0	0	1	5	0	0	3	0	10	0	0	0	0	0
	8:45 AM	0	0	0	1	0	1	1	5	0	0	2	0	10	0	0	0	0	0
	VOLUMES	0	0	1	7	0	2	2	38	0	1	28	5	84	0	0	0	0	0
	APPROACH %	0%	0%	100%	78%	0%	22%	5%	95%	0%	3%	82%	15%						
	APP/DEPART	1	/	7	9	/	1	40	/	46	34	/	30	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	4	0	1	2	23	0	0	11	1	42					
	APPROACH %	0%	0%	0%	80%	0%	20%	8%	92%	0%	0%	92%	8%						
	PEAK HR FACTOR		0.000			0.625			0.781			0.750		0.875					
	APP/DEPART	0	/	3	5	/	0	25	/	27	12	/	12	0					
PM	4:00 PM	0	0	0	0	0	0	0	3	0	0	5	0	8	0	0	0	0	0
	4:15 PM	0	0	0	1	0	0	0	2	0	0	3	1	7	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	3	0	0	7	0	10	0	0	0	0	0
	4:45 PM	0	0	0	2	0	0	0	4	0	0	0	0	6	0	0	0	0	0
	5:00 PM	0	0	1	2	0	0	0	2	0	0	3	2	10	0	0	0	0	0
	5:15 PM	0	0	0	1	0	0	0	1	0	0	5	0	7	0	0	0	0	0
	5:30 PM	0	0	0	1	0	1	0	4	0	0	6	3	15	0	0	0	0	0
	5:45 PM	0	0	0	1	0	0	0	5	0	0	5	0	11	0	0	0	0	0
	VOLUMES	0	0	1	8	0	1	0	24	0	0	34	6	74	0	0	0	0	0
	APPROACH %	0%	0%	100%	89%	0%	11%	0%	100%	0%	0%	85%	15%						
	APP/DEPART	1	/	6	9	/	0	24	/	33	40	/	35	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	0	1	5	0	0	0	10	0	0	15	2	33					
	APPROACH %	0%	0%	100%	100%	0%	0%	0%	100%	0%	0%	88%	12%						
	PEAK HR FACTOR		0.250			0.625			0.625			0.607		0.825					
	APP/DEPART	1	/	2	5	/	0	10	/	16	17	/	15	0					



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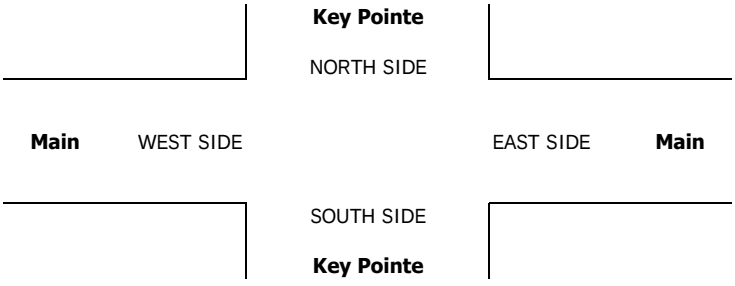
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	5
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 0.5	SR 0.5	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.000			0.000			0.500			0.250		0.750					
	APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	2	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	2	0	1	1	0	4	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	50%	50%	0%						
	APP/DEPART	0	/	0	0	/	1	2	/	2	2	/	1	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	0	0	0	0	0	0	2	0	1	0	0	3					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	100%	0%	0%						
	PEAK HR FACTOR		0.000			0.000			0.500			0.250		0.375					
	APP/DEPART	0	/	0	0	/	1	2	/	2	1	/	0	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	Key Pointe	LOCATION #:	5
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER

▲ N ◄ W E ► S ▼

		NORTHBOUND Key Pointe			SOUTHBOUND Key Pointe			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL 1	NT 1	NR 1	SL 1	ST 0.5	SR 0.5	EL 1	ET 3	ER 1	WL 1	WT 3	WR 0	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	7:30 AM	0	0	0	2	0	0	0	2	0	0	0	0	4	0	0	0	0	0
	7:45 AM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	1	1	0	0	0	1	3	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	2	0	0	0	1	3	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	2	0	0	1	2	5	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	VOLUMES	0	0	0	3	0	0	1	10	0	0	3	5	22	0	0	0	0	0
	APPROACH %	0%	0%	0%	100%	0%	0%	9%	91%	0%	0%	38%	63%						
	APP/DEPART	0	/	6	3	/	0	11	/	13	8	/	3	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	0	0	0	1	6	0	0	2	4	13					
	APPROACH %	0%	0%	0%	0%	0%	0%	14%	86%	0%	0%	33%	67%						
	PEAK HR FACTOR		0.000			0.000			0.875			0.500		0.650					
	APP/DEPART	0	/	5	0	/	0	7	/	6	6	/	2	0					
PM	4:00 PM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0
	4:15 PM	0	0	0	1	0	0	0	0	0	0	2	0	3	0	0	0	0	0
	4:30 PM	0	0	0	1	0	0	0	1	0	0	2	0	4	0	0	0	0	0
	4:45 PM	0	1	0	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	1	0	0	0	0	1	2	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	VOLUMES	0	1	0	2	0	0	1	6	0	0	7	2	19	0	0	0	0	0
	APPROACH %	0%	100%	0%	100%	0%	0%	14%	86%	0%	0%	78%	22%						
	APP/DEPART	1	/	4	2	/	0	7	/	8	9	/	7	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	1	0	1	0	0	1	2	0	0	2	2	9					
	APPROACH %	0%	100%	0%	100%	0%	0%	33%	67%	0%	0%	50%	50%						
	PEAK HR FACTOR		0.250			0.250			0.750			0.500		0.563					
	APP/DEPART	1	/	4	1	/	0	3	/	3	4	/	2	0					

Key Pointe

NORTH SIDE

Main WEST SIDE EAST SIDE **Main**

SOUTH SIDE

Key Pointe

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:					
Tue, May 17, 22	LOCATION:	Hesperia	PROJECT #:	SC3470	
	NORTH & SOUTH:	I-15 SB Ramp	LOCATION #:	2	
	EAST & WEST:	Main	CONTROL:	SIGNAL	

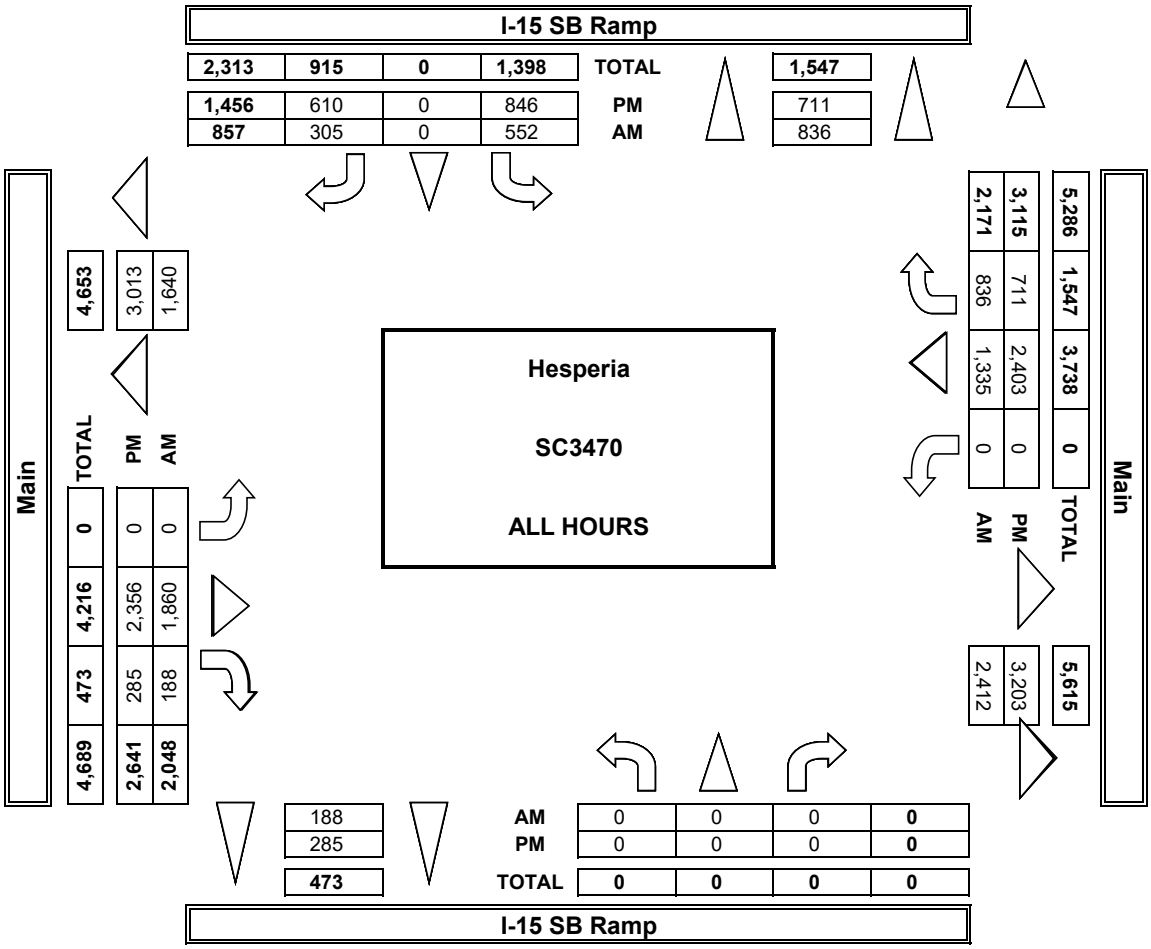
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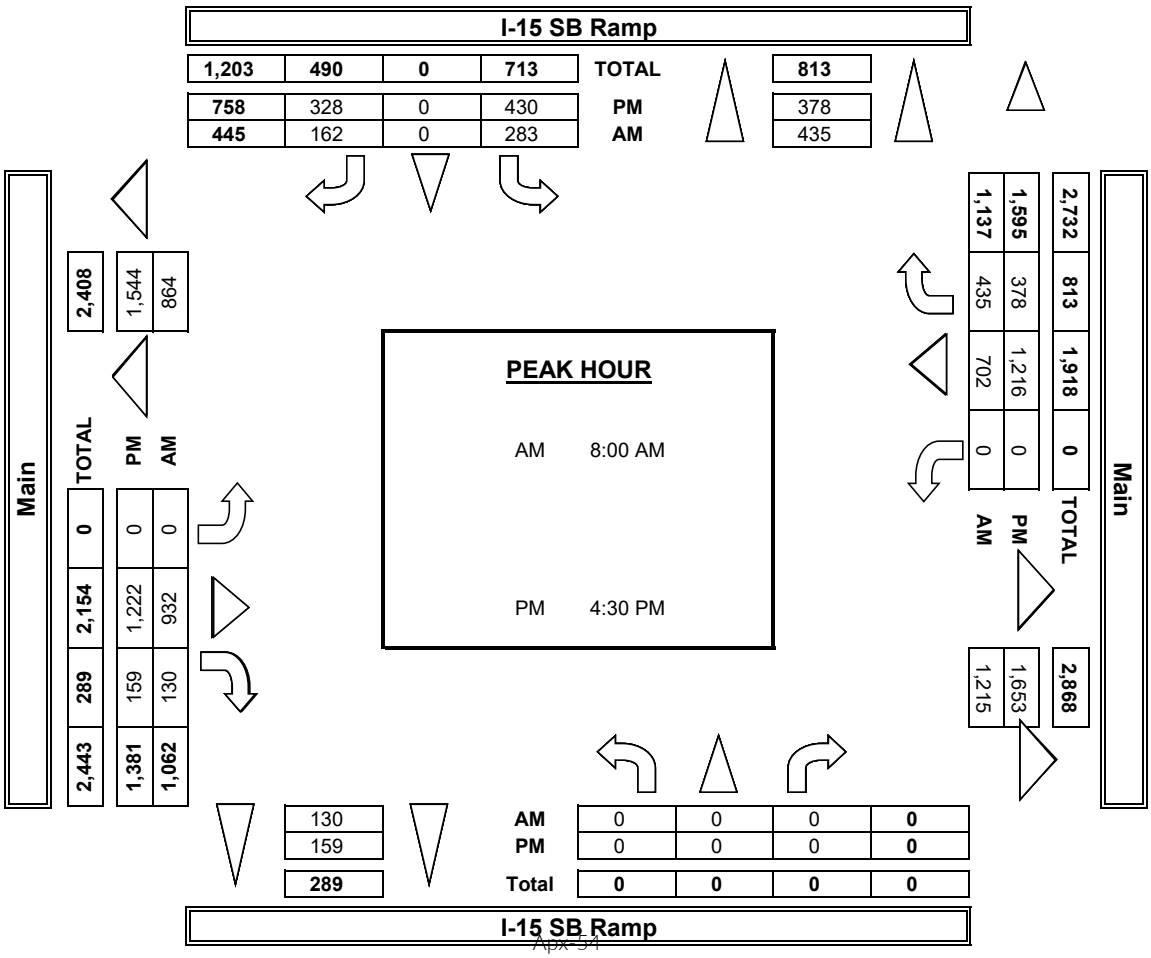
AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND I-15 SB Ramp			SOUTHBOUND I-15 SB Ramp			EASTBOUND Main			WESTBOUND Main			
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 1	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL
AM	7:00 AM	0	0	0	59	0	26	0	200	19	0	117	102	523
	7:15 AM	0	0	0	62	0	31	0	238	0	0	155	107	593
	7:30 AM	0	0	0	66	0	36	0	233	16	0	183	105	639
	7:45 AM	0	0	0	82	0	50	0	257	23	0	178	87	677
	8:00 AM	0	0	0	59	0	27	0	241	39	0	144	103	613
	8:15 AM	0	0	0	77	0	46	0	236	30	0	165	118	672
	8:30 AM	0	0	0	66	0	49	0	223	29	0	184	108	659
	8:45 AM	0	0	0	81	0	40	0	232	32	0	209	106	700
	VOLUMES	0	0	0	552	0	305	0	1,860	188	0	1,335	836	5,076
	APPROACH %	0%	0%	0%	64%	0%	36%	0%	91%	9%	0%	61%	39%	
	APP/DEPART	0	/	836	857	/	188	2,048	/	2,412	2,171	/	1,640	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	283	0	162	0	932	130	0	702	435	2,644
	APPROACH %	0%	0%	0%	64%	0%	36%	0%	88%	12%	0%	62%	38%	
	PEAK HR FACTOR		0.000			0.904			0.948			0.902		0.944
	APP/DEPART	0	/	435	445	/	130	1,062	/	1,215	1,137	/	864	0
PM	4:00 PM	0	0	0	127	0	67	0	286	21	0	321	93	915
	4:15 PM	0	0	0	101	0	71	0	292	31	0	324	78	897
	4:30 PM	0	0	0	95	0	80	0	302	45	0	323	96	941
	4:45 PM	0	0	0	123	0	88	0	277	32	0	302	93	915
	5:00 PM	0	0	0	102	0	82	0	319	46	0	277	99	925
	5:15 PM	0	0	0	110	0	78	0	324	36	0	314	90	952
	5:30 PM	0	0	0	99	0	83	0	277	41	0	280	92	872
	5:45 PM	0	0	0	89	0	61	0	279	33	0	262	70	794
	VOLUMES	0	0	0	846	0	610	0	2,356	285	0	2,403	711	7,212
	APPROACH %	0%	0%	0%	58%	0%	42%	0%	89%	11%	0%	77%	23%	
	APP/DEPART	0	/	711	1,456	/	285	2,641	/	3,203	3,115	/	3,013	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	430	0	328	0	1,222	159	0	1,216	378	3,734
	APPROACH %	0%	0%	0%	57%	0%	43%	0%	88%	12%	0%	76%	24%	
	PEAK HR FACTOR		0.000			0.898			0.946			0.952		0.981
	APP/DEPART	0	/	378	758	/	159	1,381	/	1,653	1,595	/	1,544	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 SB Ramp	LOCATION #:	2
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

	NOTES:											
PCE Adjusted	Class	1	2	3	4	5	6			AM PM MD OTHER OTHER	▲ N ◄ W E ► S ▼	
	Factor	1	1.5	2	3	2	2					

		NORTHBOUND I-15 SB Ramp			SOUTHBOUND I-15 SB Ramp			EASTBOUND Main			WESTBOUND Main			
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 1	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL
AM	7:00 AM	0	0	0	60	0	28	0	222	23	0	130	114	575
	7:15 AM	0	0	0	65	0	40	0	256	0	0	169	125	655
	7:30 AM	0	0	0	69	0	47	0	247	19	0	194	121	697
	7:45 AM	0	0	0	89	0	55	0	271	24	0	191	103	732
	8:00 AM	0	0	0	66	0	29	0	261	47	0	160	113	675
	8:15 AM	0	0	0	83	0	49	0	257	35	0	176	138	737
	8:30 AM	0	0	0	71	0	54	0	243	34	0	199	126	727
	8:45 AM	0	0	0	91	0	46	0	249	38	0	223	134	779
	VOLUMES	0	0	0	593	0	347	0	2,005	219	0	1,441	972	5,575
	APPROACH %	0%	0%	0%	63%	0%	37%	0%	90%	10%	0%	60%	40%	
	APP/DEPART	0	/	972	939	/	219	2,223	/	2,597	2,413	/	1,787	0
	BEGIN PEAK HR		8:00 AM											
	VOLUMES	0	0	0	310	0	177	0	1,010	153	0	758	511	2,917
	APPROACH %	0%	0%	0%	64%	0%	36%	0%	87%	13%	0%	60%	40%	
	PEAK HR FACTOR		0.000			0.894			0.947			0.889		0.936
	APP/DEPART	0	/	511	487	/	153	1,163	/	1,320	1,268	/	934	0
PM	4:00 PM	0	0	0	132	0	78	0	298	25	0	328	106	964
	4:15 PM	0	0	0	112	0	72	0	302	34	0	341	85	946
	4:30 PM	0	0	0	100	0	85	0	313	49	0	340	108	994
	4:45 PM	0	0	0	127	0	91	0	292	37	0	309	105	960
	5:00 PM	0	0	0	104	0	91	0	329	53	0	280	107	962
	5:15 PM	0	0	0	113	0	84	0	339	39	0	327	99	1,000
	5:30 PM	0	0	0	102	0	98	0	292	45	0	290	95	921
	5:45 PM	0	0	0	94	0	64	0	295	36	0	274	74	837
	VOLUMES	0	0	0	882	0	661	0	2,458	316	0	2,487	778	7,581
	APPROACH %	0%	0%	0%	57%	0%	43%	0%	89%	11%	0%	76%	24%	
	APP/DEPART	0	/	778	1,543	/	316	2,774	/	3,340	3,265	/	3,148	0
	BEGIN PEAK HR		4:30 PM											
	VOLUMES	0	0	0	443	0	350	0	1,273	177	0	1,255	418	3,915
	APPROACH %	0%	0%	0%	56%	0%	44%	0%	88%	12%	0%	75%	25%	
	PEAK HR FACTOR		0.000			0.911			0.950			0.934		0.979
	APP/DEPART	0	/	418	793	/	177	1,449	/	1,716	1,673	/	1,605	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

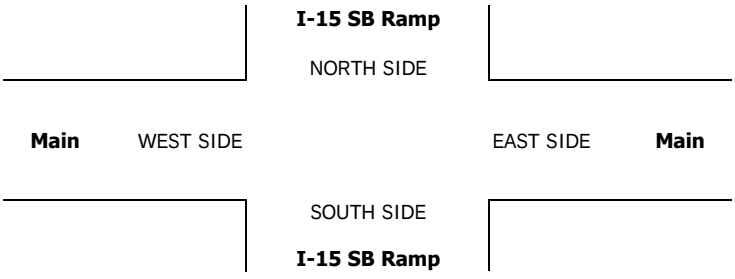
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 SB Ramp	LOCATION #:	2
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-15 SB Ramp			SOUTHBOUND I-15 SB Ramp			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 1	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	58	0	25	0	181	15	0	104	89	472	0	0	0	0	0
	7:15 AM	0	0	0	59	0	25	0	219	0	0	137	90	530	0	0	0	0	0
	7:30 AM	0	0	0	60	0	29	0	219	14	0	173	90	585	0	0	0	0	0
	7:45 AM	0	0	0	72	0	43	0	240	22	0	161	74	612	0	0	0	0	0
	8:00 AM	0	0	0	50	0	24	0	218	33	0	124	89	538	0	0	0	0	0
	8:15 AM	0	0	0	72	0	44	0	216	26	0	151	100	609	0	0	0	0	0
	8:30 AM	0	0	0	58	0	44	0	200	25	0	168	90	585	0	0	0	0	0
	8:45 AM	0	0	0	72	0	33	0	214	27	0	189	84	619	0	0	0	0	0
	VOLUMES	0	0	0	501	0	267	0	1,707	162	0	1,207	706	4,550	0	0	0	0	0
	APPROACH %	0%	0%	0%	65%	0%	35%	0%	91%	9%	0%	63%	37%						
	APP/DEPART	0	/	706	768	/	162	1,869	/	2,208	1,913	/	1,474	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	252	0	145	0	848	111	0	632	363	2,351					
	APPROACH %	0%	0%	0%	63%	0%	37%	0%	88%	12%	0%	64%	36%						
	PEAK HR FACTOR		0.000			0.856			0.955			0.911		0.950					
	APP/DEPART	0	/	363	397	/	111	959	/	1,100	995	/	777	0					
PM	4:00 PM	0	0	0	122	0	60	0	276	16	0	314	81	869	0	0	0	0	0
	4:15 PM	0	0	0	91	0	69	0	280	28	0	305	73	846	0	0	0	0	0
	4:30 PM	0	0	0	91	0	77	0	289	41	0	306	84	888	0	0	0	0	0
	4:45 PM	0	0	0	120	0	86	0	260	29	0	294	84	873	0	0	0	1	1
	5:00 PM	0	0	0	99	0	77	0	307	40	0	273	91	887	0	0	0	0	0
	5:15 PM	0	0	0	108	0	73	0	305	32	0	299	78	895	0	0	0	0	0
	5:30 PM	0	0	0	95	0	75	0	261	37	0	268	87	823	0	0	0	0	0
	5:45 PM	0	0	0	85	0	59	0	266	30	0	253	66	759	0	0	0	0	0
	VOLUMES	0	0	0	811	0	576	0	2,244	253	0	2,312	644	6,841	0	0	0	1	1
	APPROACH %	0%	0%	0%	58%	0%	42%	0%	90%	10%	0%	78%	22%						
	APP/DEPART	0	/	644	1,387	/	253	2,497	/	3,056	2,957	/	2,888	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	0	0	418	0	313	0	1,161	142	0	1,172	337	3,544					
	APPROACH %	0%	0%	0%	57%	0%	43%	0%	89%	11%	0%	78%	22%						
	PEAK HR FACTOR		0.000			0.887			0.939			0.968		0.990					
	APP/DEPART	0	/	337	731	/	142	1,303	/	1,580	1,510	/	1,485	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

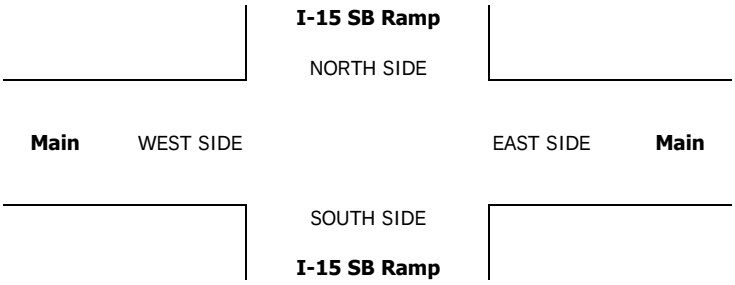
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 SB Ramp	LOCATION #:	2
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-15 SB Ramp			SOUTHBOUND I-15 SB Ramp			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 1	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	1	0	0	0	9	3	0	7	9	29	0	0	0	0	0
	7:15 AM	0	0	0	2	0	2	0	11	0	0	14	10	39	0	0	0	0	0
	7:30 AM	0	0	0	6	0	2	0	6	0	0	4	9	27	0	0	0	0	0
	7:45 AM	0	0	0	8	0	6	0	12	0	0	13	7	46	0	0	0	0	0
	8:00 AM	0	0	0	4	0	3	0	15	3	0	12	12	49	0	0	0	0	0
	8:15 AM	0	0	0	2	0	1	0	10	2	0	10	11	36	0	0	0	0	0
	8:30 AM	0	0	0	7	0	2	0	14	2	0	8	12	45	0	0	0	0	0
	8:45 AM	0	0	0	5	0	5	0	10	3	0	17	10	50	0	0	0	0	0
	VOLUMES	0	0	0	35	0	21	0	87	13	0	85	80	321	0	0	0	0	0
	APPROACH %	0%	0%	0%	63%	0%	38%	0%	87%	13%	0%	52%	48%						
	APP/DEPART	0	/	80	56	/	13	100	/	122	165	/	106	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	18	0	11	0	49	10	0	47	45	180					
	APPROACH %	0%	0%	0%	62%	0%	38%	0%	83%	17%	0%	51%	49%						
	PEAK HR FACTOR		0.000			0.725			0.819			0.852		0.900					
	APP/DEPART	0	/	45	29	/	10	59	/	67	92	/	58	0					
PM	4:00 PM	0	0	0	3	0	1	0	3	3	0	3	7	20	0	0	0	0	0
	4:15 PM	0	0	0	4	0	2	0	9	2	0	12	2	31	0	0	0	0	0
	4:30 PM	0	0	0	2	0	1	0	8	2	0	8	7	28	0	0	0	0	0
	4:45 PM	0	0	0	1	0	0	0	12	1	0	5	4	23	0	0	0	0	0
	5:00 PM	0	0	0	3	0	1	0	8	3	0	3	5	23	0	0	0	0	0
	5:15 PM	0	0	0	0	0	2	0	15	3	0	11	10	41	0	0	0	0	0
	5:30 PM	0	0	0	3	0	1	0	9	2	0	8	4	27	0	0	0	0	0
	5:45 PM	0	0	0	1	0	0	0	6	2	0	2	2	13	0	0	0	0	0
	VOLUMES	0	0	0	17	0	8	0	70	18	0	52	41	206	0	0	0	0	0
	APPROACH %	0%	0%	0%	68%	0%	32%	0%	80%	20%	0%	56%	44%						
	APP/DEPART	0	/	41	25	/	18	88	/	87	93	/	60	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	0	0	6	0	4	0	43	9	0	27	26	115					
	APPROACH %	0%	0%	0%	60%	0%	40%	0%	83%	17%	0%	51%	49%						
	PEAK HR FACTOR		0.000			0.625			0.722			0.631		0.701					
	APP/DEPART	0	/	26	10	/	9	52	/	49	53	/	31	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

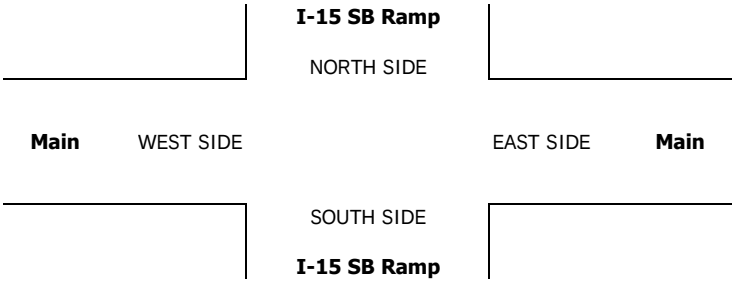
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 SB Ramp	LOCATION #:	2
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-15 SB Ramp			SOUTHBOUND I-15 SB Ramp			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 1	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	2	0	0	2	1	5	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	3	0	0	0	1	4	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	1	1	0	3	1	6	0	0	0	0	0
	7:45 AM	0	0	0	1	0	0	0	1	1	0	2	0	5	0	0	0	0	0
	8:00 AM	0	0	0	2	0	0	0	3	0	0	3	0	8	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0
	8:30 AM	0	0	0	0	0	2	0	2	0	0	2	0	6	0	0	0	0	0
	8:45 AM	0	0	0	1	0	1	0	2	0	0	0	1	5	0	0	0	0	0
	VOLUMES	0	0	0	4	0	3	0	16	2	0	14	4	43	0	0	0	0	0
	APPROACH %	0%	0%	0%	57%	0%	43%	0%	89%	11%	0%	78%	22%						
	APP/DEPART	0	/	4	7	/	2	18	/	20	18	/	17	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	3	0	3	0	9	0	0	7	1	23					
	APPROACH %	0%	0%	0%	50%	0%	50%	0%	100%	0%	0%	88%	13%						
	PEAK HR FACTOR		0.000			0.750			0.750			0.667		0.719					
	APP/DEPART	0	/	1	6	/	0	9	/	12	8	/	10	0					
PM	4:00 PM	0	0	0	1	0	2	0	2	2	0	1	1	9	0	0	0	0	0
	4:15 PM	0	0	0	2	0	0	0	0	0	0	1	0	3	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	1	0	3	2	6	0	0	0	0	0
	4:45 PM	0	0	0	0	0	1	0	1	0	0	2	0	4	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	1	1	0	0	1	3	0	0	0	0	0
	5:15 PM	0	0	0	1	0	0	0	1	0	0	0	0	2	0	0	0	0	0
	5:30 PM	0	0	0	1	0	0	0	2	1	0	2	1	7	0	0	0	0	0
	5:45 PM	0	0	0	2	0	0	0	1	0	0	2	1	6	0	0	0	0	0
	VOLUMES	0	0	0	7	0	3	0	8	5	0	11	6	40	0	0	0	0	0
	APPROACH %	0%	0%	0%	70%	0%	30%	0%	62%	38%	0%	65%	35%						
	APP/DEPART	0	/	6	10	/	5	13	/	15	17	/	14	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	0	0	1	0	1	0	3	2	0	5	3	15					
	APPROACH %	0%	0%	0%	50%	0%	50%	0%	60%	40%	0%	63%	38%						
	PEAK HR FACTOR		0.000			0.500			0.625			0.400		0.625					
	APP/DEPART	0	/	3	2	/	2	5	/	4	8	/	6	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

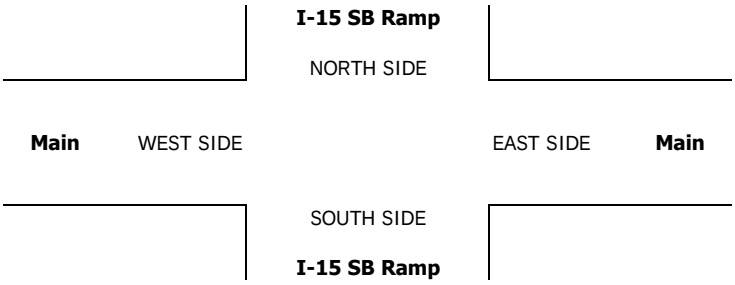
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 SB Ramp	LOCATION #:	2
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-15 SB Ramp			SOUTHBOUND I-15 SB Ramp			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 1	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	1	0	7	1	0	3	3	15	0	0	0	0	0
	7:15 AM	0	0	0	1	0	4	0	4	0	0	3	6	18	0	0	0	0	0
	7:30 AM	0	0	0	0	0	5	0	3	1	0	3	5	17	0	0	0	0	0
	7:45 AM	0	0	0	1	0	1	0	3	0	0	2	6	13	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	4	3	0	2	2	11	0	0	0	0	0
	8:15 AM	0	0	0	2	0	1	0	6	2	0	2	7	20	0	0	0	0	0
	8:30 AM	0	0	0	0	0	1	0	4	2	0	3	6	16	0	0	0	0	0
	8:45 AM	0	0	0	3	0	1	0	4	2	0	2	11	23	0	0	0	0	0
	VOLUMES	0	0	0	7	0	14	0	35	11	0	20	46	133	0	0	0	0	0
	APPROACH %	0%	0%	0%	33%	0%	67%	0%	76%	24%	0%	30%	70%						
	APP/DEPART	0	/	46	21	/	11	46	/	42	66	/	34	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	5	0	3	0	18	9	0	9	26	70					
	APPROACH %	0%	0%	0%	63%	0%	38%	0%	67%	33%	0%	26%	74%						
	PEAK HR FACTOR		0.000			0.500			0.844			0.673		0.761					
	APP/DEPART	0	/	26	8	/	9	27	/	23	35	/	12	0					
PM	4:00 PM	0	0	0	1	0	4	0	3	0	0	1	4	13	0	0	0	0	0
	4:15 PM	0	0	0	3	0	0	0	2	1	0	4	3	13	0	0	0	0	0
	4:30 PM	0	0	0	2	0	2	0	2	1	0	4	3	14	0	0	0	0	0
	4:45 PM	0	0	0	1	0	1	0	4	2	0	1	5	14	0	0	0	0	0
	5:00 PM	0	0	0	0	0	4	0	2	2	0	0	2	10	0	0	0	0	0
	5:15 PM	0	0	0	1	0	2	0	3	0	0	3	2	11	0	0	0	0	0
	5:30 PM	0	0	0	0	0	7	0	3	1	0	2	0	13	0	0	0	0	0
	5:45 PM	0	0	0	1	0	1	0	6	1	0	4	1	14	0	0	0	0	0
	VOLUMES	0	0	0	9	0	21	0	25	8	0	19	20	102	0	0	0	0	0
	APPROACH %	0%	0%	0%	30%	0%	70%	0%	76%	24%	0%	49%	51%						
	APP/DEPART	0	/	20	30	/	8	33	/	34	39	/	40	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	0	0	4	0	9	0	11	5	0	8	12	49					
	APPROACH %	0%	0%	0%	31%	0%	69%	0%	69%	31%	0%	40%	60%						
	PEAK HR FACTOR		0.000			0.813			0.667			0.714		0.875					
	APP/DEPART	0	/	12	13	/	5	16	/	15	20	/	17	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

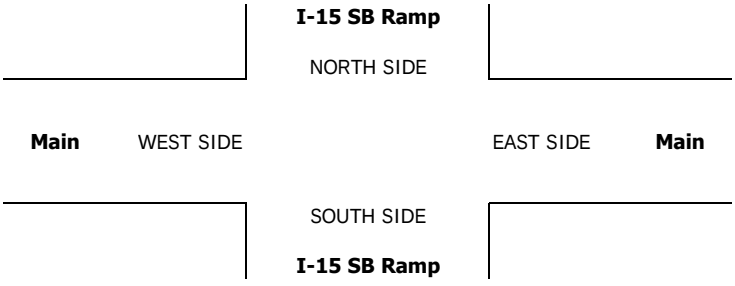
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 SB Ramp	LOCATION #:	2
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-15 SB Ramp			SOUTHBOUND I-15 SB Ramp			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 1	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	0	0	0	0	2	0	0	1	0	3					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.000			0.000			0.500			0.250		0.750					
	APP/DEPART	0	/	0	0	/	0	2	/	2	1	/	1	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	1	0	0	1	0	0	0	2	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0
	VOLUMES	0	0	0	1	0	2	0	1	1	0	0	0	5	0	0	0	0	0
	APPROACH %	0%	0%	0%	33%	0%	67%	0%	50%	50%	0%	0%	0%						
	APP/DEPART	0	/	0	3	/	1	2	/	2	0	/	2	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	0	0	0	0	1	0	1	1	0	0	0	3					
	APPROACH %	0%	0%	0%	0%	0%	100%	0%	50%	50%	0%	0%	0%						
	PEAK HR FACTOR		0.000			0.250			0.500			0.000		0.375					
	APP/DEPART	0	/	0	1	/	1	2	/	1	0	/	1	0					



INTERSECTION TURNING MOVEMENT COUNTS

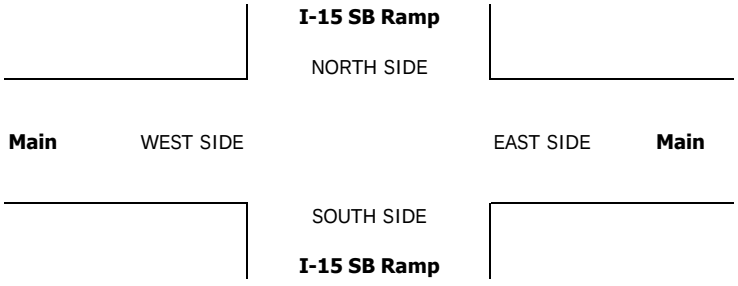
PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 SB Ramp	LOCATION #:	2
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-15 SB Ramp			SOUTHBOUND I-15 SB Ramp			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL X	NT X	NR X	SL 2	ST X	SR 1	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	8:00 AM	0	0	0	3	0	0	0	1	0	0	2	0	6	0	0	0	0	0
	8:15 AM	0	0	0	1	0	0	0	2	0	0	0	0	3	0	0	0	0	0
	8:30 AM	0	0	0	1	0	0	0	2	0	0	3	0	6	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	VOLUMES	0	0	0	5	0	0	0	13	0	0	8	0	26	0	0	0	0	0
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%						
	APP/DEPART	0	/	0	5	/	0	13	/	18	8	/	8	0					
	BEGIN PEAK HR		8:00 AM																
	VOLUMES	0	0	0	5	0	0	0	6	0	0	6	0	17					
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.000			0.417			0.750			0.500		0.708					
	APP/DEPART	0	/	0	5	/	0	6	/	11	6	/	6	0					
PM	4:00 PM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	1	0	0	2	0	3	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	3	0	0	2	0	5	0	0	0	0	0
	4:45 PM	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	VOLUMES	0	0	0	1	0	0	0	8	0	0	9	0	18	0	0	0	0	0
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%						
	APP/DEPART	0	/	0	1	/	0	8	/	9	9	/	9	0					
	BEGIN PEAK HR		4:30 PM																
	VOLUMES	0	0	0	1	0	0	0	3	0	0	4	0	8					
	APPROACH %	0%	0%	0%	100%	0%	0%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.000			0.250			0.250			0.500		0.400					
	APP/DEPART	0	/	0	1	/	0	3	/	4	4	/	4	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:					
Tue, May 17, 22	LOCATION:	Hesperia	PROJECT #:	SC3470	
	NORTH & SOUTH:	I-15 NB Ramp	LOCATION #:	3	
	EAST & WEST:	Main	CONTROL:	SIGNAL	

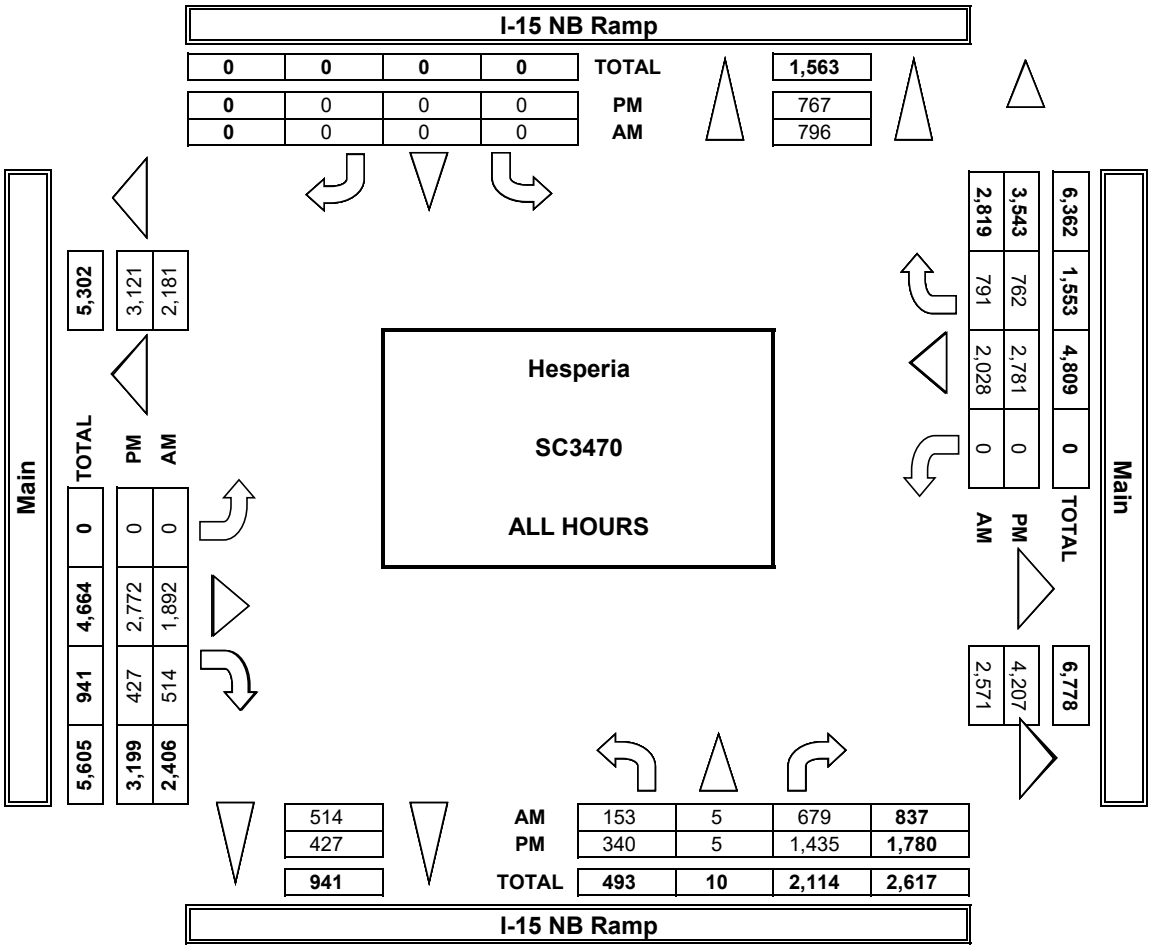
NOTES:

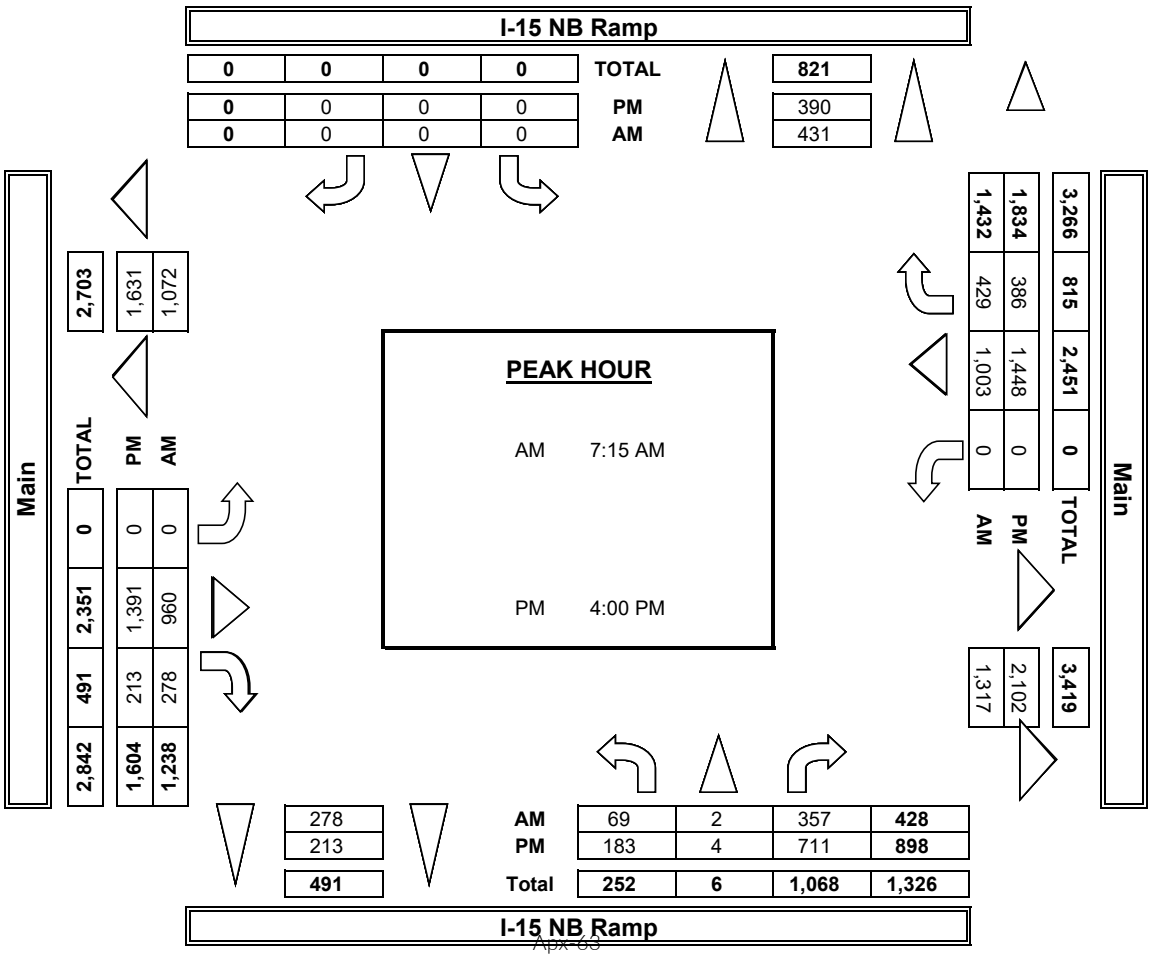
AM / PM / MD / OTHER / OTHER — ▲ N ◄ W E ► S ▼

		NORTHBOUND I-15 NB Ramp			SOUTHBOUND I-15 NB Ramp			EASTBOUND Main			WESTBOUND Main			
	LANES:	NL 1	NT 0.5	NR 1.5	SL X	ST X	SR X	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL
AM	7:00 AM	24	0	91	0	0	0	0	210	49	0	195	92	661
	7:15 AM	17	1	97	0	0	0	0	221	79	0	245	118	778
	7:30 AM	11	0	103	0	0	0	0	229	70	0	277	112	802
	7:45 AM	20	1	85	0	0	0	0	273	66	0	245	117	807
	8:00 AM	21	0	72	0	0	0	0	237	63	0	236	82	711
	8:15 AM	18	0	79	0	0	0	0	250	57	0	265	79	748
	8:30 AM	18	1	81	0	0	0	0	217	72	0	274	90	753
	8:45 AM	24	2	71	0	0	0	0	255	58	0	291	101	802
	VOLUMES	153	5	679	0	0	0	0	1,892	514	0	2,028	791	6,062
	APPROACH %	18%	1%	81%	0%	0%	0%	0%	79%	21%	0%	72%	28%	
	APP/DEPART	837	/	796	0	/	514	2,406	/	2,571	2,819	/	2,181	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	69	2	357	0	0	0	0	960	278	0	1,003	429	3,098
	APPROACH %	16%	0%	83%	0%	0%	0%	0%	78%	22%	0%	70%	30%	
	PEAK HR FACTOR		0.930			0.000			0.913			0.920		0.960
	APP/DEPART	428	/	431	0	/	278	1,238	/	1,317	1,432	/	1,072	0
PM	4:00 PM	49	1	182	0	0	0	0	363	50	0	365	104	1,114
	4:15 PM	48	2	183	0	0	0	0	338	55	0	354	99	1,079
	4:30 PM	45	1	180	0	0	0	0	341	56	0	374	96	1,093
	4:45 PM	41	0	166	0	0	0	0	349	52	0	355	87	1,050
	5:00 PM	36	0	163	0	0	0	0	355	66	0	340	98	1,058
	5:15 PM	32	0	169	0	0	0	0	376	58	0	372	100	1,107
	5:30 PM	51	0	200	0	0	0	0	320	52	0	327	97	1,047
	5:45 PM	38	1	192	0	0	0	0	330	38	0	294	81	974
	VOLUMES	340	5	1,435	0	0	0	0	2,772	427	0	2,781	762	8,522
	APPROACH %	19%	0%	81%	0%	0%	0%	0%	87%	13%	0%	78%	22%	
	APP/DEPART	1,780	/	767	0	/	427	3,199	/	4,207	3,543	/	3,121	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	183	4	711	0	0	0	0	1,391	213	0	1,448	386	4,336
	APPROACH %	20%	0%	79%	0%	0%	0%	0%	87%	13%	0%	79%	21%	
	PEAK HR FACTOR		0.964			0.000			0.971			0.976		0.973
	APP/DEPART	898	/	390	0	/	213	1,604	/	2,102	1,834	/	1,631	0

AimTD LLC

TURNING MOVEMENT COUNTS





INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 NB Ramp	LOCATION #:	3
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

	NOTES:											
PCE Adjusted	Class	1	2	3	4	5	6			AM / PM / MD / OTHER / OTHER	▲ N / ◄ W / E ► / S ▼	
	Factor	1	1.5	2	3	2	2					

		NORTHBOUND I-15 NB Ramp			SOUTHBOUND I-15 NB Ramp			EASTBOUND Main			WESTBOUND Main			
	LANES:	NL 1	NT 0.5	NR 1.5	SL X	ST X	SR X	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL
AM	7:00 AM	27	0	106	0	0	0	0	223	59	0	216	99	729
	7:15 AM	21	1	111	0	0	0	0	236	85	0	274	130	856
	7:30 AM	13	0	120	0	0	0	0	241	75	0	302	119	869
	7:45 AM	27	2	96	0	0	0	0	287	73	0	266	127	877
	8:00 AM	21	0	85	0	0	0	0	257	70	0	262	85	779
	8:15 AM	20	0	95	0	0	0	0	267	67	0	294	88	831
	8:30 AM	20	2	98	0	0	0	0	231	83	0	305	97	835
	8:45 AM	25	2	78	0	0	0	0	277	63	0	332	110	885
	VOLUMES	173	6	787	0	0	0	0	2,018	573	0	2,250	854	6,660
	APPROACH %	18%	1%	82%	0%	0%	0%	0%	78%	22%	0%	72%	28%	
	APP/DEPART	965	/	860	0	/	573	2,591	/	2,805	3,104	/	2,423	0
	BEGIN PEAK HR		7:15 AM											
	VOLUMES	82	3	411	0	0	0	0	1,021	303	0	1,103	460	3,381
	APPROACH %	16%	1%	83%	0%	0%	0%	0%	77%	23%	0%	71%	29%	
	PEAK HR FACTOR		0.930			0.000			0.919			0.930		0.964
	APP/DEPART	495	/	463	0	/	303	1,323	/	1,431	1,563	/	1,185	0
PM	4:00 PM	49	1	205	0	0	0	0	378	51	0	384	111	1,179
	4:15 PM	52	2	198	0	0	0	0	354	60	0	375	102	1,141
	4:30 PM	46	1	192	0	0	0	0	355	59	0	402	98	1,151
	4:45 PM	44	0	178	0	0	0	0	362	58	0	371	93	1,105
	5:00 PM	37	0	175	0	0	0	0	363	70	0	350	104	1,097
	5:15 PM	35	0	195	0	0	0	0	393	59	0	391	103	1,175
	5:30 PM	54	0	224	0	0	0	0	334	56	0	337	102	1,106
	5:45 PM	43	1	201	0	0	0	0	346	43	0	305	83	1,021
	VOLUMES	359	5	1,567	0	0	0	0	2,883	454	0	2,913	795	8,974
	APPROACH %	19%	0%	81%	0%	0%	0%	0%	86%	14%	0%	79%	21%	
	APP/DEPART	1,930	/	800	0	/	454	3,337	/	4,450	3,708	/	3,272	0
	BEGIN PEAK HR		4:00 PM											
	VOLUMES	190	4	773	0	0	0	0	1,449	227	0	1,531	404	4,576
	APPROACH %	20%	0%	80%	0%	0%	0%	0%	86%	14%	0%	79%	21%	
	PEAK HR FACTOR		0.948			0.000			0.976			0.969		0.970
	APP/DEPART	967	/	408	0	/	227	1,675	/	2,221	1,935	/	1,721	0

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

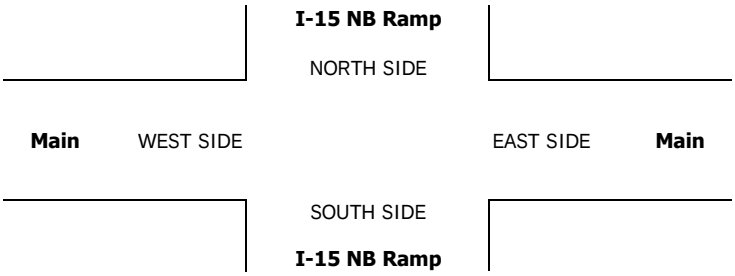
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 NB Ramp	LOCATION #:	3
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 1: PASSENGER VEHICLES

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-15 NB Ramp			SOUTHBOUND I-15 NB Ramp			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL 1	NT 0.5	NR 1.5	SL X	ST X	SR X	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	18	0	72	0	0	0	0	197	42	0	175	86	590	0	0	0	0	0
	7:15 AM	13	1	78	0	0	0	0	207	71	0	214	103	687	0	0	0	0	0
	7:30 AM	8	0	86	0	0	0	0	215	64	0	255	106	734	0	0	0	0	0
	7:45 AM	12	0	70	0	0	0	0	253	59	0	223	106	723	0	0	0	0	0
	8:00 AM	21	0	59	0	0	0	0	211	57	0	202	79	629	0	0	0	0	0
	8:15 AM	15	0	62	0	0	0	0	232	50	0	236	70	665	0	0	0	0	0
	8:30 AM	17	0	65	0	0	0	0	200	58	0	241	83	664	0	0	0	0	0
	8:45 AM	23	2	61	0	0	0	0	233	53	0	250	90	712	0	0	0	0	0
	VOLUMES	127	3	553	0	0	0	0	1,748	454	0	1,796	723	5,404	0	0	0	0	0
	APPROACH %	19%	0%	81%	0%	0%	0%	0%	79%	21%	0%	71%	29%						
	APP/DEPART	683	/	726	0	/	454	2,202	/	2,301	2,519	/	1,923	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	54	1	293	0	0	0	0	886	251	0	894	394	2,773					
	APPROACH %	16%	0%	84%	0%	0%	0%	0%	78%	22%	0%	69%	31%						
	PEAK HR FACTOR		0.926			0.000			0.911			0.892		0.944					
	APP/DEPART	348	/	395	0	/	251	1,137	/	1,179	1,288	/	948	0					
PM	4:00 PM	49	1	162	0	0	0	0	350	48	0	346	96	1,052	0	0	0	0	0
	4:15 PM	44	2	169	0	0	0	0	321	50	0	334	95	1,015	0	0	0	0	0
	4:30 PM	44	1	166	0	0	0	0	327	53	0	346	93	1,030	0	0	0	0	0
	4:45 PM	39	0	144	0	0	0	0	334	47	0	340	81	985	0	0	0	0	0
	5:00 PM	35	0	150	0	0	0	0	344	62	0	329	93	1,013	0	0	0	0	0
	5:15 PM	29	0	148	0	0	0	0	356	57	0	348	96	1,034	0	0	0	0	0
	5:30 PM	48	0	176	0	0	0	0	304	48	0	313	93	982	0	0	0	0	0
	5:45 PM	34	1	177	0	0	0	0	316	35	0	285	78	926	0	0	0	0	0
	VOLUMES	322	5	1,292	0	0	0	0	2,652	400	0	2,641	725	8,037	0	0	0	0	0
	APPROACH %	20%	0%	80%	0%	0%	0%	0%	87%	13%	0%	78%	22%						
	APP/DEPART	1,619	/	730	0	/	400	3,052	/	3,944	3,366	/	2,963	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	176	4	641	0	0	0	0	1,332	198	0	1,366	365	4,082					
	APPROACH %	21%	0%	78%	0%	0%	0%	0%	87%	13%	0%	79%	21%						
	PEAK HR FACTOR		0.955			0.000			0.961			0.979		0.970					
	APP/DEPART	821	/	369	0	/	198	1,530	/	1,973	1,731	/	1,542	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 NB Ramp	LOCATION #:	3
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 2: 2-AXLE WORK VEHICLES/ TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-15 NB Ramp			SOUTHBOUND I-15 NB Ramp			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL 1	NT 0.5	NR 1.5	SL X	ST X	SR X	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	6	0	15	0	0	0	0	7	3	0	10	2	43	0	0	0	0	0
	7:15 AM	3	0	15	0	0	0	0	7	6	0	21	12	64	0	0	0	0	0
	7:30 AM	2	0	10	0	0	0	0	8	4	0	11	3	38	0	0	0	0	0
	7:45 AM	6	1	13	0	0	0	0	16	4	0	14	7	61	0	0	0	0	0
	8:00 AM	0	0	9	0	0	0	0	16	3	0	24	2	54	0	0	0	0	0
	8:15 AM	3	0	12	0	0	0	0	10	2	0	18	6	51	0	0	0	0	0
	8:30 AM	0	1	10	0	0	0	0	10	11	0	20	4	56	0	0	0	0	0
	8:45 AM	1	0	9	0	0	0	0	12	3	0	26	7	58	0	0	0	0	0
	VOLUMES	21	2	93	0	0	0	0	86	36	0	144	43	425	0	0	0	0	0
	APPROACH %	18%	2%	80%	0%	0%	0%	0%	70%	30%	0%	77%	23%						
	APP/DEPART	116	/	45	0	/	36	122	/	179	187	/	165	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	11	1	47	0	0	0	0	47	17	0	70	24	217					
	APPROACH %	19%	2%	80%	0%	0%	0%	0%	73%	27%	0%	74%	26%						
	PEAK HR FACTOR		0.738			0.000			0.800			0.712		0.848					
	APP/DEPART	59	/	25	0	/	17	64	/	94	94	/	81	0					
PM	4:00 PM	0	0	10	0	0	0	0	4	2	0	10	6	32	0	0	0	0	0
	4:15 PM	3	0	7	0	0	0	0	10	3	0	11	2	36	0	0	0	0	0
	4:30 PM	0	0	10	0	0	0	0	9	1	0	15	3	38	0	0	0	0	0
	4:45 PM	1	0	20	0	0	0	0	10	3	0	8	4	46	0	0	0	0	0
	5:00 PM	1	0	9	0	0	0	0	9	2	0	7	2	30	0	0	0	0	0
	5:15 PM	2	0	10	0	0	0	0	14	1	0	19	3	49	0	0	0	0	0
	5:30 PM	2	0	15	0	0	0	0	9	3	0	10	2	41	0	0	0	0	0
	5:45 PM	2	0	14	0	0	0	0	7	0	0	2	3	28	0	0	0	0	0
	VOLUMES	11	0	95	0	0	0	0	72	15	0	82	25	300	0	0	0	0	0
	APPROACH %	10%	0%	90%	0%	0%	0%	0%	83%	17%	0%	77%	23%						
	APP/DEPART	106	/	25	0	/	15	87	/	167	107	/	93	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	4	0	47	0	0	0	0	33	9	0	44	15	152					
	APPROACH %	8%	0%	92%	0%	0%	0%	0%	79%	21%	0%	75%	25%						
	PEAK HR FACTOR		0.607			0.000			0.808			0.819		0.826					
	APP/DEPART	51	/	15	0	/	9	42	/	80	59	/	48	0					

I-15 NB Ramp

NORTH SIDE

Main WEST SIDE EAST SIDE **Main**

SOUTH SIDE

I-15 NB Ramp

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 NB Ramp	LOCATION #:	3
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 3: 3-AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-15 NB Ramp			SOUTHBOUND I-15 NB Ramp			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL 1	NT 0.5	NR 1.5	SL X	ST X	SR X	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	1	0	0	0	0	2	0	0	3	2	8	0	0	0	0	0
	7:15 AM	0	0	2	0	0	0	0	2	1	0	1	0	6	0	0	0	0	0
	7:30 AM	1	0	2	0	0	0	0	0	1	0	3	1	8	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	1	1	0	2	1	5	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	4	1	0	3	0	8	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	1	1	0	2	0	4	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	2	0	0	2	1	5	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	2	1	0	1	0	4	0	0	0	0	0
	VOLUMES	1	0	5	0	0	0	0	14	6	0	17	5	48	0	0	0	0	0
	APPROACH %	17%	0%	83%	0%	0%	0%	0%	70%	30%	0%	77%	23%						
	APP/DEPART	6	/	5	0	/	6	20	/	19	22	/	18	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	1	0	4	0	0	0	0	7	4	0	9	2	27					
	APPROACH %	20%	0%	80%	0%	0%	0%	0%	64%	36%	0%	82%	18%						
	PEAK HR FACTOR		0.417			0.000			0.550			0.688		0.844					
	APP/DEPART	5	/	2	0	/	4	11	/	11	11	/	10	0					
PM	4:00 PM	0	0	2	0	0	0	0	3	0	0	2	0	7	0	0	0	0	0
	4:15 PM	0	0	3	0	0	0	0	2	0	0	1	0	6	0	0	0	0	0
	4:30 PM	0	0	1	0	0	0	0	0	0	0	5	0	6	0	0	0	0	0
	4:45 PM	0	0	1	0	0	0	0	1	0	0	2	0	4	0	0	0	0	0
	5:00 PM	0	0	1	0	0	0	0	1	0	0	1	0	3	0	0	0	0	0
	5:15 PM	0	0	1	0	0	0	0	2	0	0	0	1	4	0	0	0	0	0
	5:30 PM	0	0	2	0	0	0	0	3	0	0	3	0	8	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	2	1	0	3	0	6	0	0	0	0	0
	VOLUMES	0	0	11	0	0	0	0	14	1	0	17	1	44	0	0	0	0	0
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	93%	7%	0%	94%	6%						
	APP/DEPART	11	/	1	0	/	1	15	/	25	18	/	17	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	7	0	0	0	0	6	0	0	10	0	23					
	APPROACH %	0%	0%	100%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.583			0.000			0.500			0.500		0.821					
	APP/DEPART	7	/	0	0	/	0	6	/	13	10	/	10	0					

I-15 NB Ramp

NORTH SIDE

Main WEST SIDE EAST SIDE **Main**

SOUTH SIDE

I-15 NB Ramp

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 NB Ramp	LOCATION #:	3
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 4: 4 OR MORE AXLE TRUCKS

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-15 NB Ramp			SOUTHBOUND I-15 NB Ramp			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL 1	NT 0.5	NR 1.5	SL X	ST X	SR X	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	3	0	0	0	0	3	4	0	6	2	18	0	0	0	0	0
	7:15 AM	1	0	2	0	0	0	0	4	1	0	8	3	19	0	0	0	0	0
	7:30 AM	0	0	5	0	0	0	0	2	1	0	8	2	18	0	0	0	0	0
	7:45 AM	2	0	2	0	0	0	0	2	2	0	6	2	16	0	0	0	0	0
	8:00 AM	0	0	4	0	0	0	0	2	2	0	4	1	13	0	0	0	0	0
	8:15 AM	0	0	5	0	0	0	0	4	4	0	9	3	25	0	0	0	0	0
	8:30 AM	1	0	6	0	0	0	0	2	2	0	8	2	21	0	0	0	0	0
	8:45 AM	0	0	1	0	0	0	0	6	1	0	13	1	22	0	0	0	0	0
	VOLUMES	4	0	28	0	0	0	0	25	17	0	62	16	152	0	0	0	0	0
	APPROACH %	13%	0%	88%	0%	0%	0%	0%	60%	40%	0%	79%	21%						
	APP/DEPART	32	/	16	0	/	17	42	/	53	78	/	66	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	3	0	13	0	0	0	0	10	6	0	26	8	66					
	APPROACH %	19%	0%	81%	0%	0%	0%	0%	63%	38%	0%	76%	24%						
	PEAK HR FACTOR		0.800			0.000			0.800			0.773		0.868					
	APP/DEPART	16	/	8	0	/	6	16	/	23	34	/	29	0					
PM	4:00 PM	0	0	8	0	0	0	0	4	0	0	5	2	19	0	0	0	0	0
	4:15 PM	1	0	4	0	0	0	0	4	1	0	6	0	16	0	0	0	0	0
	4:30 PM	0	0	3	0	0	0	0	4	0	0	7	0	14	0	0	0	0	0
	4:45 PM	1	0	0	0	0	0	0	3	2	0	5	2	13	0	0	0	0	0
	5:00 PM	0	0	3	0	0	0	0	1	1	0	2	2	9	0	0	0	0	0
	5:15 PM	1	0	10	0	0	0	0	4	0	0	4	0	19	0	0	0	0	0
	5:30 PM	1	0	7	0	0	0	0	2	1	0	1	2	14	0	0	0	0	0
	5:45 PM	2	0	1	0	0	0	0	5	2	0	3	0	13	0	0	0	0	0
	VOLUMES	6	0	36	0	0	0	0	27	7	0	33	8	117	0	0	0	0	0
	APPROACH %	14%	0%	86%	0%	0%	0%	0%	79%	21%	0%	80%	20%						
	APP/DEPART	42	/	8	0	/	7	34	/	63	41	/	39	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	2	0	15	0	0	0	0	15	3	0	23	4	62					
	APPROACH %	12%	0%	88%	0%	0%	0%	0%	83%	17%	0%	85%	15%						
	PEAK HR FACTOR		0.531			0.000			0.900			0.964		0.816					
	APP/DEPART	17	/	4	0	/	3	18	/	30	27	/	25	0					

I-15 NB Ramp

NORTH SIDE

Main WEST SIDE EAST SIDE **Main**

SOUTH SIDE

I-15 NB Ramp

INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

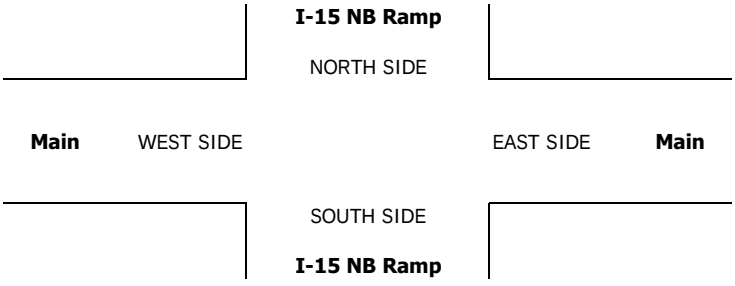
DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 NB Ramp	LOCATION #:	3
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 5: RV

NOTES:

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-15 NB Ramp			SOUTHBOUND I-15 NB Ramp			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL 1	NT 0.5	NR 1.5	SL X	ST X	SR X	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	2	0	0	1	1	4	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	50%	50%						
	APP/DEPART	0	/	1	0	/	0	2	/	2	2	/	1	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	0	0	0	0	0	0	0	1	1	2					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	50%	50%						
	PEAK HR FACTOR		0.000			0.000			0.000			0.500		0.500					
	APP/DEPART	0	/	1	0	/	0	0	/	0	2	/	1	0					
PM	4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	1	0	0	0	1	2	0	0	0	0	0
	4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	1	1	0	0	1	3	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	50%	50%	0%	0%	100%						
	APP/DEPART	0	/	1	0	/	1	2	/	1	1	/	0	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	0	0	0	0	0	0	0	1	0	0	0	1	2					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	100%						
	PEAK HR FACTOR		0.000			0.000			0.250			0.250		0.250					
	APP/DEPART	0	/	1	0	/	0	1	/	1	1	/	0	0					



INTERSECTION TURNING MOVEMENT COUNTS

PREPARED BY: AimTD LLC. tel: 714 253 7888 cs@aimtd.com

DATE:	LOCATION:	Hesperia	PROJECT #:	SC3470
5/17/22	NORTH & SOUTH:	I-15 NB Ramp	LOCATION #:	3
TUESDAY	EAST & WEST:	Main	CONTROL:	SIGNAL

CLASS 6:	NOTES:
BUSES	

AM / PM / MD / OTHER / OTHER — ▲ N, ◄ W, E ►, S ▼

		NORTHBOUND I-15 NB Ramp			SOUTHBOUND I-15 NB Ramp			EASTBOUND Main			WESTBOUND Main				U-TURNS				
	LANES:	NL 1	NT 0.5	NR 1.5	SL X	ST X	SR X	EL X	ET 3	ER 1	WL X	WT 3	WR 1	TOTAL	NB	SB	EB	WB	TTL
AM	7:00 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	7:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	2	0	0	0	0	0
	7:30 AM	0	0	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0
	7:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0
	8:00 AM	0	0	0	0	0	0	0	4	0	0	2	0	6	0	0	0	0	0
	8:15 AM	0	0	0	0	0	0	0	3	0	0	0	0	3	0	0	0	0	0
	8:30 AM	0	0	0	0	0	0	0	2	1	0	3	0	6	0	0	0	0	0
	8:45 AM	0	0	0	0	0	0	0	1	0	0	1	3	5	0	0	0	0	0
	VOLUMES	0	0	0	0	0	0	0	17	1	0	8	3	29	0	0	0	0	0
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	94%	6%	0%	73%	27%						
	APP/DEPART	0	/	3	0	/	1	18	/	17	11	/	8	0					
	BEGIN PEAK HR		7:15 AM																
	VOLUMES	0	0	0	0	0	0	0	10	0	0	3	0	13					
	APPROACH %	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	100%	0%						
	PEAK HR FACTOR		0.000			0.000			0.625			0.375		0.542					
	APP/DEPART	0	/	0	0	/	0	10	/	10	3	/	3	0					
PM	4:00 PM	0	0	0	0	0	0	0	2	0	0	2	0	4	0	0	0	0	0
	4:15 PM	0	0	0	0	0	0	0	0	1	0	2	1	4	0	0	0	0	0
	4:30 PM	1	0	0	0	0	0	0	1	2	0	1	0	5	0	0	0	0	0
	4:45 PM	0	0	1	0	0	0	0	1	0	0	0	0	2	0	0	0	0	0
	5:00 PM	0	0	0	0	0	0	0	0	0	0	1	1	2	0	0	0	0	0
	5:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	5:30 PM	0	0	0	0	0	0	0	2	0	0	0	0	2	0	0	0	0	0
	5:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0
	VOLUMES	1	0	1	0	0	0	0	6	3	0	8	2	21	0	0	0	0	0
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	67%	33%	0%	80%	20%						
	APP/DEPART	2	/	2	0	/	3	9	/	7	10	/	9	0					
	BEGIN PEAK HR		4:00 PM																
	VOLUMES	1	0	1	0	0	0	0	4	3	0	5	1	15					
	APPROACH %	50%	0%	50%	0%	0%	0%	0%	57%	43%	0%	83%	17%						
	PEAK HR FACTOR		0.500			0.000			0.583			0.500		0.750					
	APP/DEPART	2	/	1	0	/	3	7	/	5	6	/	6	0					

I-15 NB Ramp

NORTH SIDE

Main WEST SIDE EAST SIDE **Main**

SOUTH SIDE

I-15 NB Ramp

APPENDIX D

TRIP GENERATION COMPARISON ANALYSIS

November 28, 2022

Mr. Ramin Namvar
RACHAMIN 5, LLC
6001 East Slauson Avenue
Commerce, California 90040

RE: Amargosa and Palmeto High-Cube Warehouse Trip Generation Comparison Analysis
Project No.: 19522

Dear Mr. Namvar:

Ganddini Group, Inc. is pleased to provide this Trip Generation Comparison Analysis for the proposed Amargosa and Palmeto High-Cube Warehouse Project. The purpose of this trip generation comparison analysis is to evaluate the change in trip generation that can be expected between the proposed project and an alternative land use consisting of commercial retail. This Trip Generation Comparison Analysis supplements the Amargosa and *Palmetto High-Cube Warehouse Traffic Impact Analysis* (Ganddini Group, Inc., August 18, 2022). We trust the findings of this analysis will aid you and the City of Hesperia in assessing the project.

PROJECT DESCRIPTION

The project site is located on the northwest corner of Amargosa Road and Palmetto Way in the City of Hesperia. The project site is currently undeveloped. Figure 1 illustrates the project location map.

The 30.52-acre project site is proposed to include a 499,850 square foot high-cube fulfillment center warehouse building. The proposed project is anticipated to be constructed and fully operational by year 2024. The project site is proposed to provide three access driveways on Palmetto Way. All three project driveways are proposed to be full access. The project west driveway will be truck only. The project central driveway and project east driveway will provide access for both auto and trucks. Figure 2 illustrates the project site plan.

PROJECT TRIP GENERATION

Table 1 shows the project trip generation based upon rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). ITE land use code 155 (High-Cube Fulfillment Center Non-Sort) has been used to estimate the site-specific trip generation estimates for up to 499,700 square feet of high-cube fulfillment center (non-sort) use.

The project vehicle trips are converted to Passenger Car Equivalent (PCE) trips based on truck rates (as a percentage of a total vehicle trips) from the ITE *Trip Generation Manual* and truck axle mix data recommended by the South Coast Air Quality Management District (SCAQMD).

As shown in Table 1, the proposed project is forecast to generate approximately 1,083 daily PCE trips, including 90 PCE trips during the AM peak hour and 81 PCE trips during the PM peak hour.

ALTERNATIVE LAND USE TRIP GENERATION

Table 2 shows the alternative land use (commercial retail) trip generation based on regression equations from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). ITE land use code 820 (Shopping Center (>150k)) has been used to estimate the site-specific trip generation estimates for up to 499,850 square feet of commercial retail use.

It should be noted that commercial retail land uses will often locate next to busy roadways to attract motorists already on the street. Since the trip generation rates shown in Table 2 represent vehicles entering and exiting at the site driveway(s), it is appropriate to reduce the initial trip generation forecast by the applicable pass-by trip rate when calculating the net new trips that will be added to the surrounding street system. However, pass-by trip adjustments were not applied to the alternative land use trip generation in accordance with pass-by rates noted in the ITE *Trip Generation Manual* (11th Edition, 2021) since Amargosa Road adjacent to the project site is a low volume roadway and pass-by trips would be minimal.

As shown in Table 2, the alternative land use is forecast to generate a total of approximately 18,915 daily trips, including 429 trips during the AM peak hour and 1,798 trips during the PM peak hour without a pass-by trips reduction.

TRIP GENERATION COMPARISON

Table 3 shows the difference in project trip generation between the proposed project and the alternative land use. As shown in Table 3, the proposed project is forecast to generate approximately 17,832 fewer daily trips compared to a shopping center land use of equivalent size, including 339 fewer trips during the AM peak hour and 1,717 fewer trips during the PM peak hour.

PROJECT TRIP DISTRIBUTION

Figure 3 to Figure 6 show the forecast directional distribution patterns for the project generated trips. The project trip distribution patterns were developed using engineering judgment in consultation with City of Hesperia staff and are based on review of existing volume data, surrounding land uses, designated truck routes, and the local and regional roadway facilities in the project vicinity.

ALTERNATIVE LAND USE TRIP DISTRIBUTION

Figure 7 shows the forecast directional distribution patterns for the alternative land use generated trips. The alternative land use trip distribution patterns were developed using engineering judgment and are based on review of existing volume data, surrounding land uses, designated truck routes, and the local and regional roadway facilities in the project vicinity.

PROJECT TRIP ASSIGNMENT

Project AM and PM peak hour intersection turning movement volumes expected from the project are depicted on Figure 8 and Figure 9, respectively.

ALTERNATIVE LAND USE TRIP ASSIGNMENT

Alternative Land Use AM and PM peak hour intersection turning movement volumes expected from the alternative land use are depicted on Figure 10 and Figure 11, respectively.

Mr. Ramin Namvar
RACHAMIN 5, LLC
November 28, 2022

Difference in Trip Assignment

The additional AM and PM peak hour intersection turning movement volumes expected from the alternative land use versus the proposed project are depicted on Figure 12 and Figure 13, respectively.

As shown on these figures, the alternative land use as commercial retail is expected to generate significantly more AM and PM peak hour intersection turning movement volumes compared to the proposed project for all turning movements at each study area intersection where peak hour trips are expected to be added.

Conclusion

Based on the trip generation comparison analysis, the proposed project consisting of a 499,850 square foot high-cube fulfillment center warehouse building is forecast to generate substantially fewer trips (up to 94% fewer daily trips) compared to an alternative land use composed of 499,850 square feet of commercial retail.

The alternative land use as commercial retail is expected to generate significantly more AM and PM peak hour intersection turning movement volumes compared to the proposed project for all turning movements at each study area intersection where peak hour trips are expected to be added.

We appreciate the opportunity to assist you on this project. Should you have any questions or if we can be of further assistance, please do not hesitate to call at (714) 795-3100 x 103.

Sincerely,

GANDDINI GROUP, INC.
Bryan Crawford | Senior Associate
Giancarlo Ganddini, PE, PTP | Principal



Table 1
Project Trip Generation

Land Use: High-Cube Fulfillment Center Warehouse (Non-Sort)
Size: 499.850 TSF

TRIP GENERATION RATES PER TSF[1]								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	Source[2]	In	Out	Rate	In	Out	Rate	Daily Rate
All Vehicles	ITE 155	81%	19%	0.150	39%	61%	0.160	1.810
Trucks Only	ITE 155	50%	50%	0.020	46%	54%	0.010	0.230
Passenger Car (86.7% AM, 93.8% PM, 87.3% Daily)		0.105	0.025	0.130	0.059	0.092	0.151	1.580
Truck (13.3% AM, 6.3% PM, 12.7% Daily)		0.010	0.010	0.020	0.005	0.005	0.010	0.230
Truck Mix:	SCAQMD							
2-Axle Trucks (16.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.038
3-Axle Trucks (20.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.048
4+ Axle Trucks (62.6%)		0.006	0.006	0.012	0.003	0.003	0.006	0.144

VEHICLE TRIPS GENERATED							
	AM Peak Hour			PM Peak Hour			
Vehicle Type	In	Out	Total	In	Out	Total	Daily
Passenger Car	52	12	64	29	46	75	790
Trucks							
2-Axle Trucks	1	1	2	0	0	0	19
3-Axle Trucks	1	1	2	0	0	0	24
4+ Axle Trucks	3	3	6	1	1	2	72
Subtotal	5	5	10	1	1	2	115
Total Vehicle Trips Generated	**57**	**17**	**74**	**30**	**47**	**77**	**905**

PCE[3] TRIPS GENERATED								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	PCE Factor[4]	In	Out	Total	In	Out	Total	Daily
Passenger Car	1.0	52	12	64	29	46	75	790
Trucks								
2-Axle Trucks	1.5	2	2	4	0	0	0	29
3-Axle Trucks	2.0	2	2	4	0	0	0	48
4+ Axle Trucks	3.0	9	9	18	3	3	6	216
Subtotal		13	13	26	3	3	6	293
Total PCE Trips Generated		**65**	**25**	**90**	**32**	**49**	**81**	**1,083**

Notes:
(1) TSF = Thousand Square Feet
(2) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = ITE Land Use Code.
(3) PCE = Passenger Car Equivalent
(4) Source: San Bernardino County Congestion Management Program (2016), Appendix B.

Table 2
Alternative Land Use Trip Generation

Trip Generation Rates									
			AM Peak Hour			PM Peak Hour			
Land Use	Source[1]	Units[2]	% In	% Out	Equation	% In	% Out	Equation	Daily Equation
Shopping Center (>150k)	ITE 820	TSF	62%	38%	T=0.59(X) + 133.55	48%	52%	LN(T) = 0.72Ln(X) + 3.02	T = 26.11(X) + 5863.73

Trips Generated									
			AM Peak Hour			PM Peak Hour			
Land Use	Quantity	Units[3]	In	Out	Total	In	Out	Total	Daily
Shopping Center (>150k)	499.850	TSF	266	163	429	863	935	1,798	18,915

Notes:

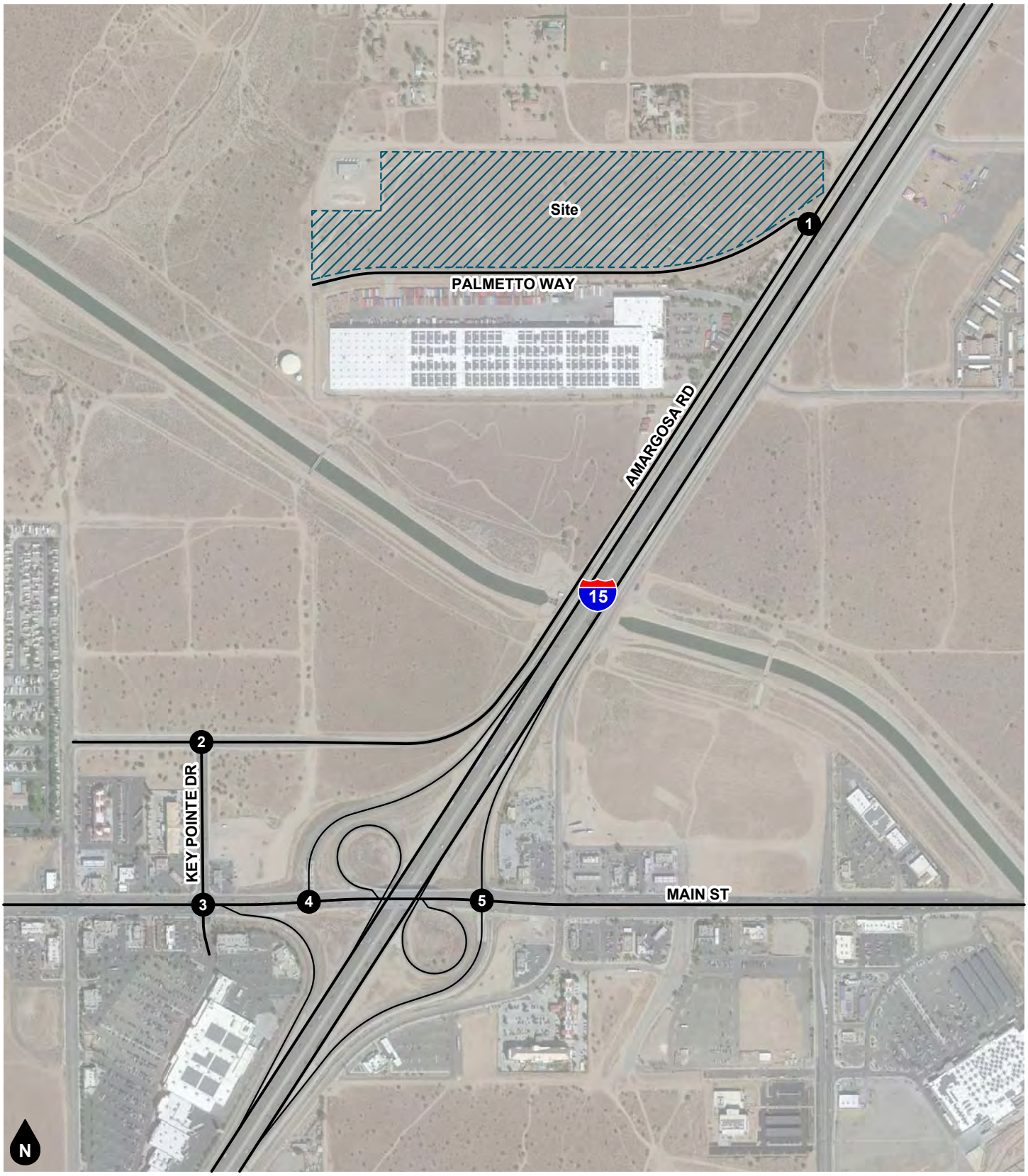
(1) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = Land Use Code.

(2) TSF = Thousand Square Feet

Table 3
Project Trip Generation Comparison

Land Use	Trips Generated						
	AM Peak Hour			PM Peak Hour			
	In	Out	Total	In	Out	Total	Daily
Project[1]	65	25	90	32	49	81	1,083
Alternative Land Use[2]	266	163	429	863	935	1,798	18,915
Difference	**-201**	**-138**	**-339**	**-831**	**-886**	**-1,717**	**-17,832**
	-76%	**-85%**	**-79%**	**-96%**	**-95%**	**-95%**	**-94%**

Notes:
(1) See Table 1.
(2) See Table 2.



Legend

Study Intersection

Figure 1
Project Location Map

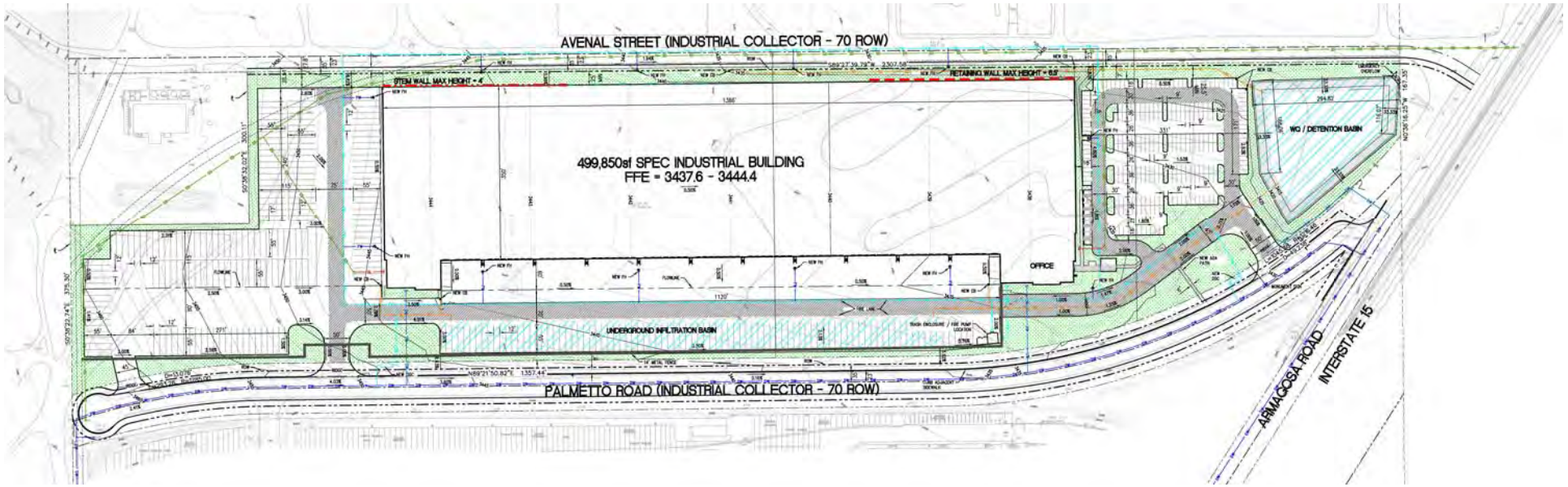


Figure 2
Site Plan

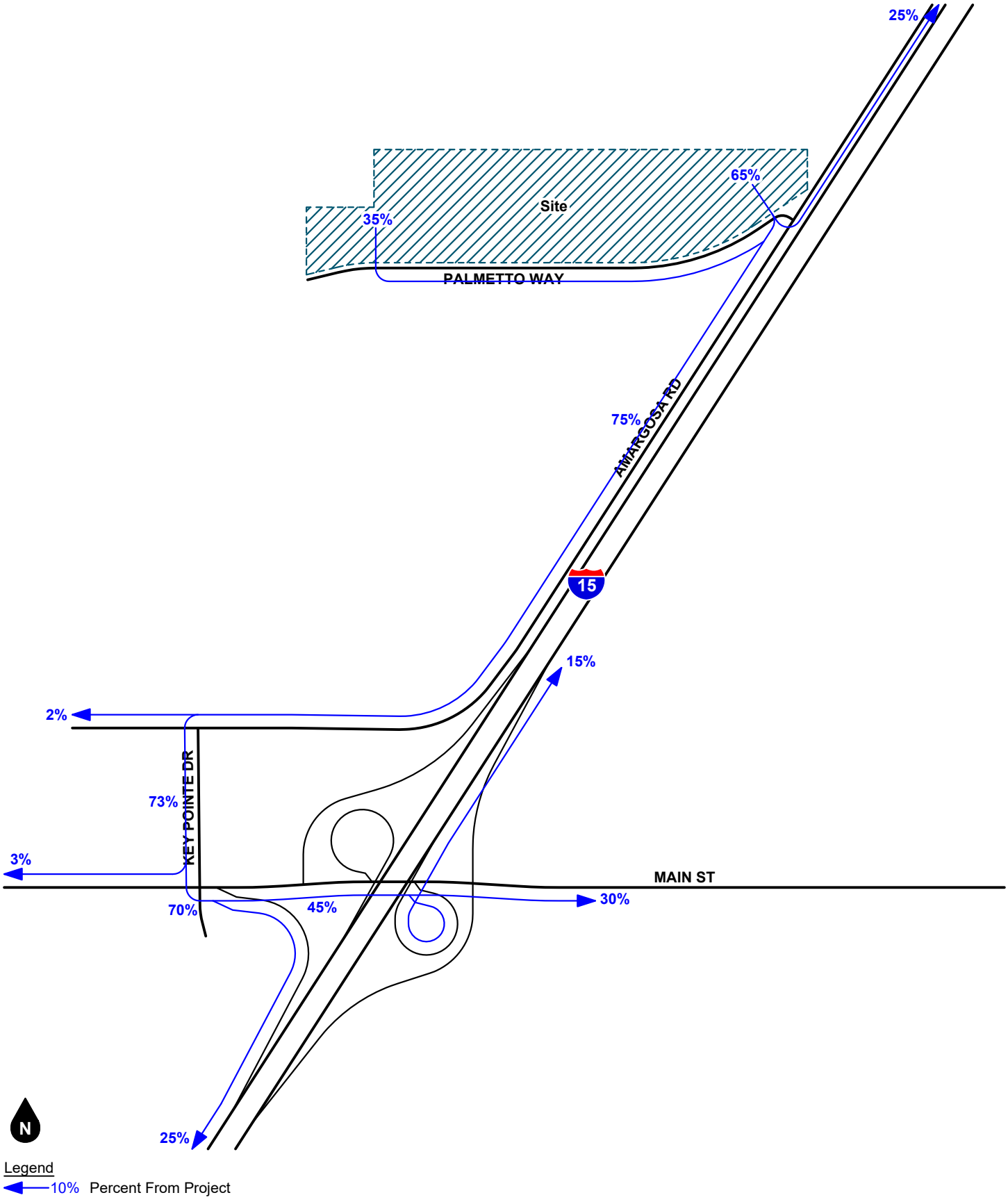


Figure 3
Project Outbound Trip Distribution - Cars

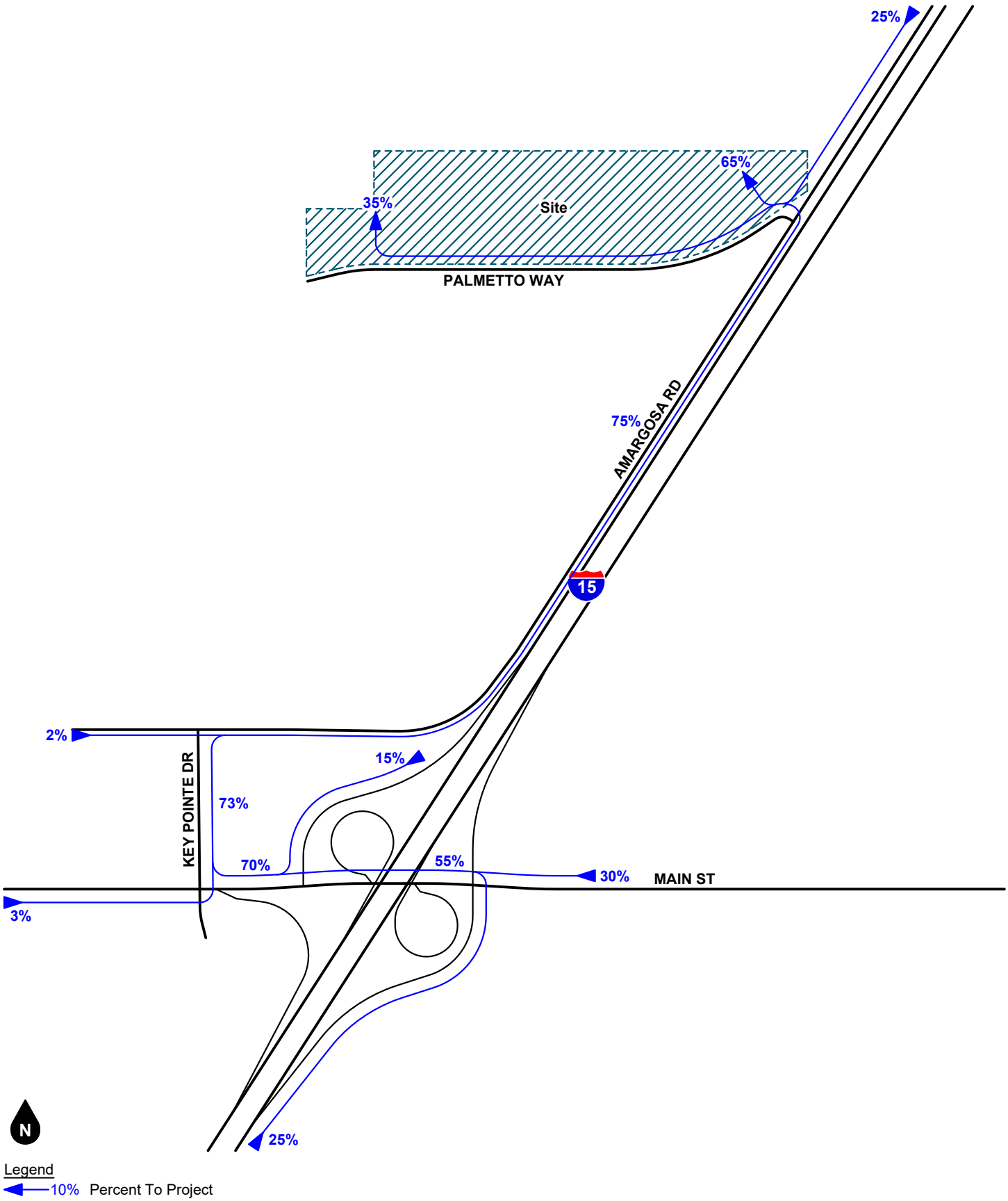


Figure 4
Project Inbound Trip Distribution - Cars

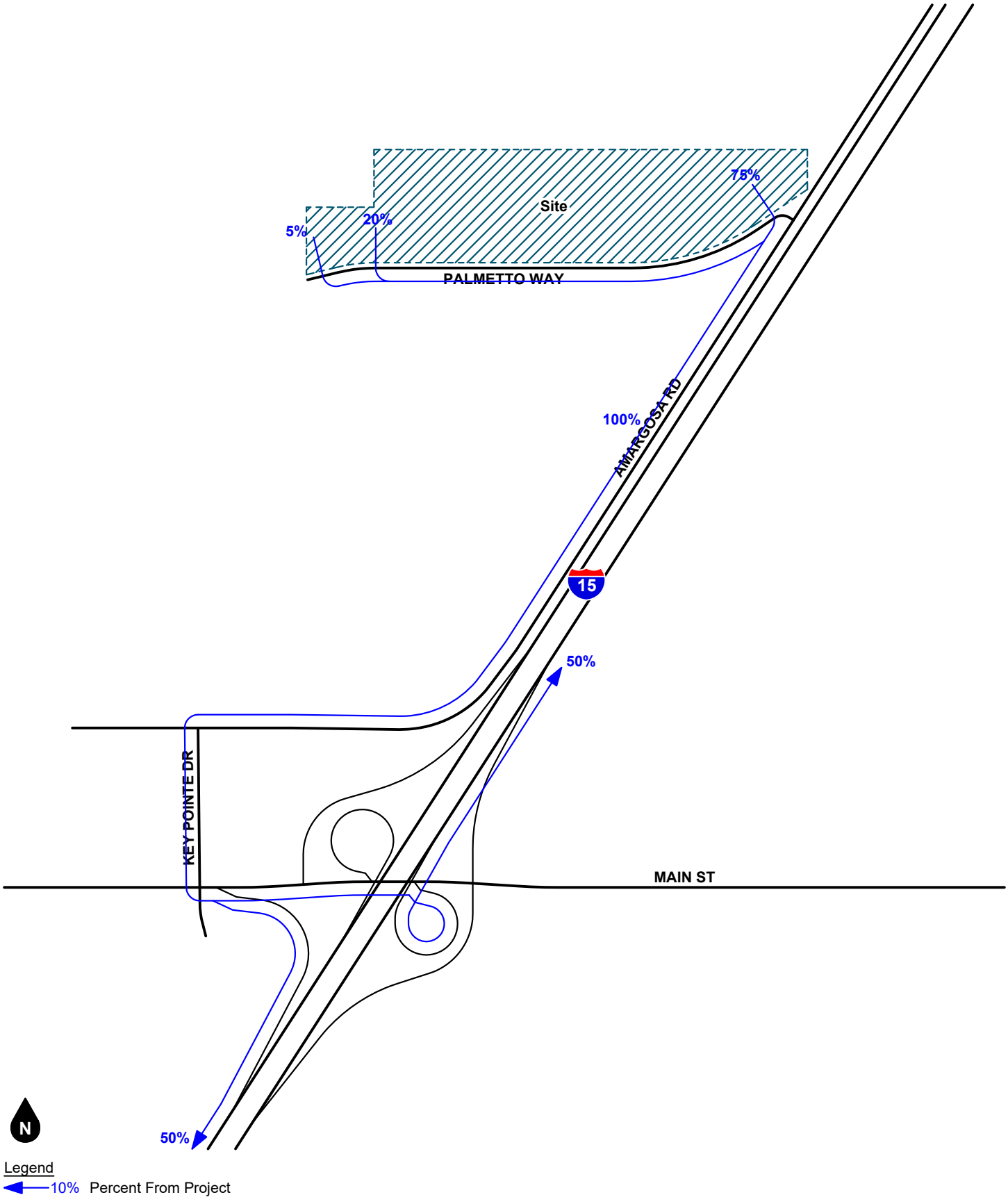


Figure 5
Project Outbound Trip Distribution - Trucks

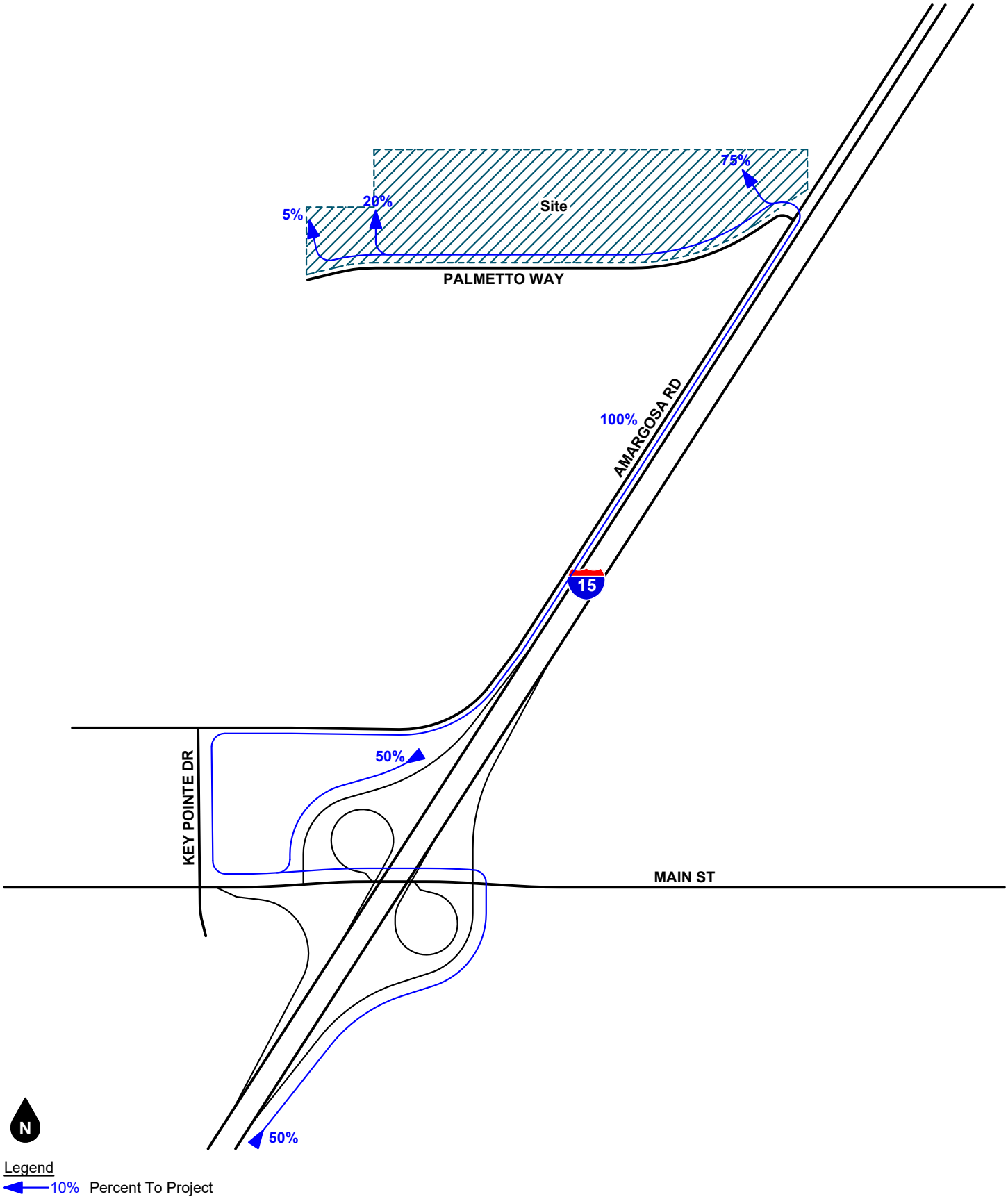


Figure 6
Project Inbound Trip Distribution - Trucks

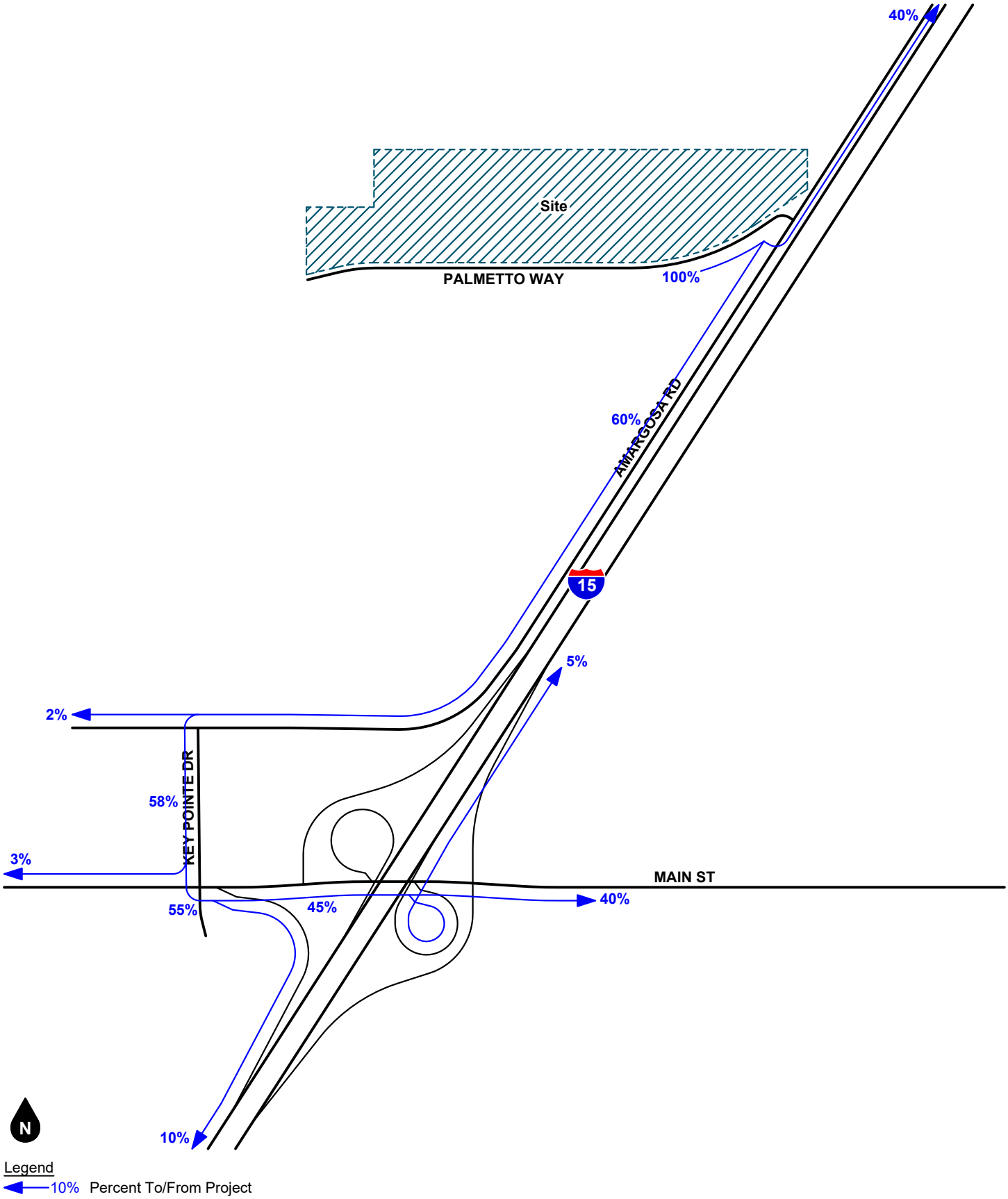


Figure 7
Alternative Land Use Trip Distribution

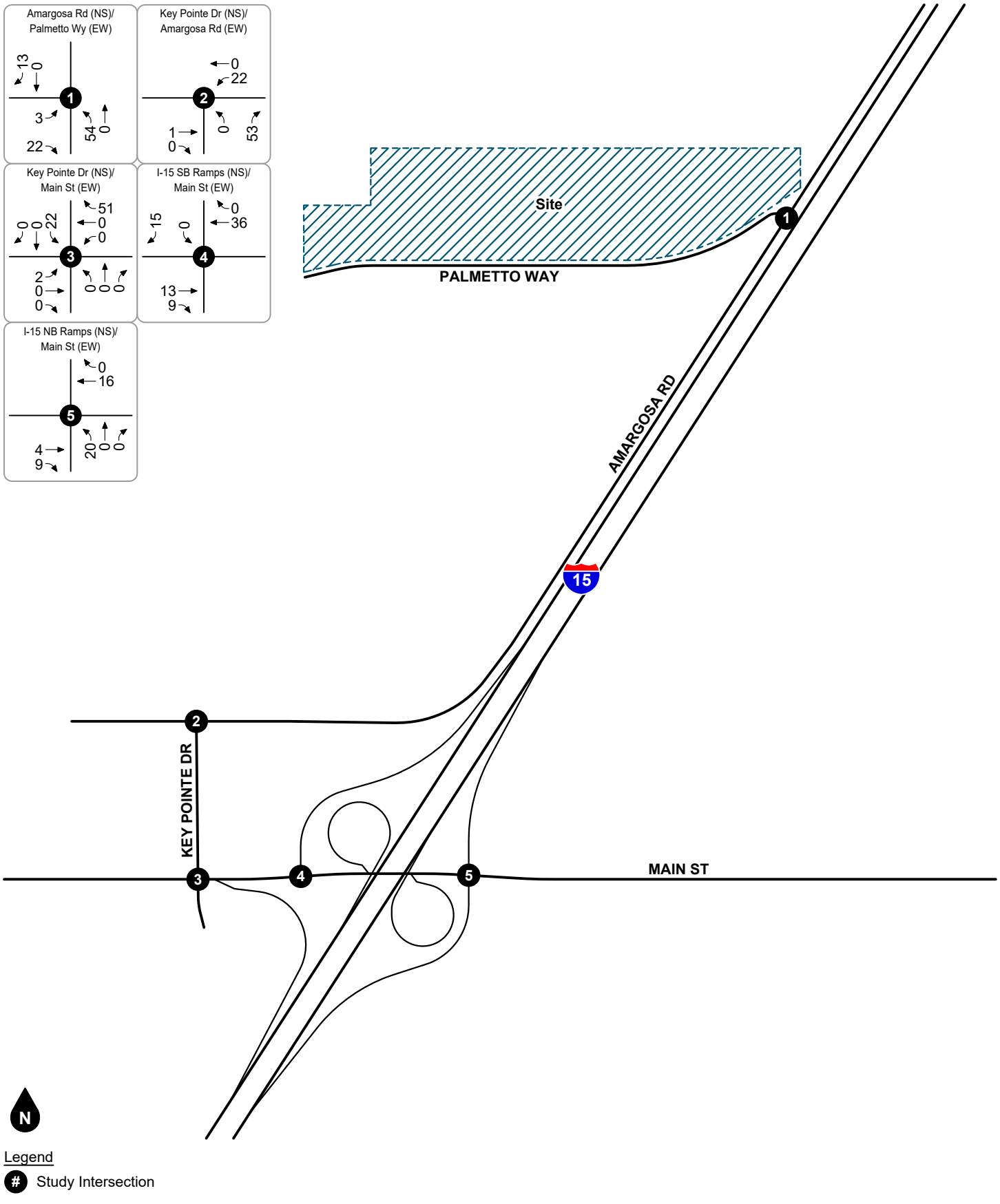


Figure 8
Project AM Peak Hour Intersection Turning Movement Volumes

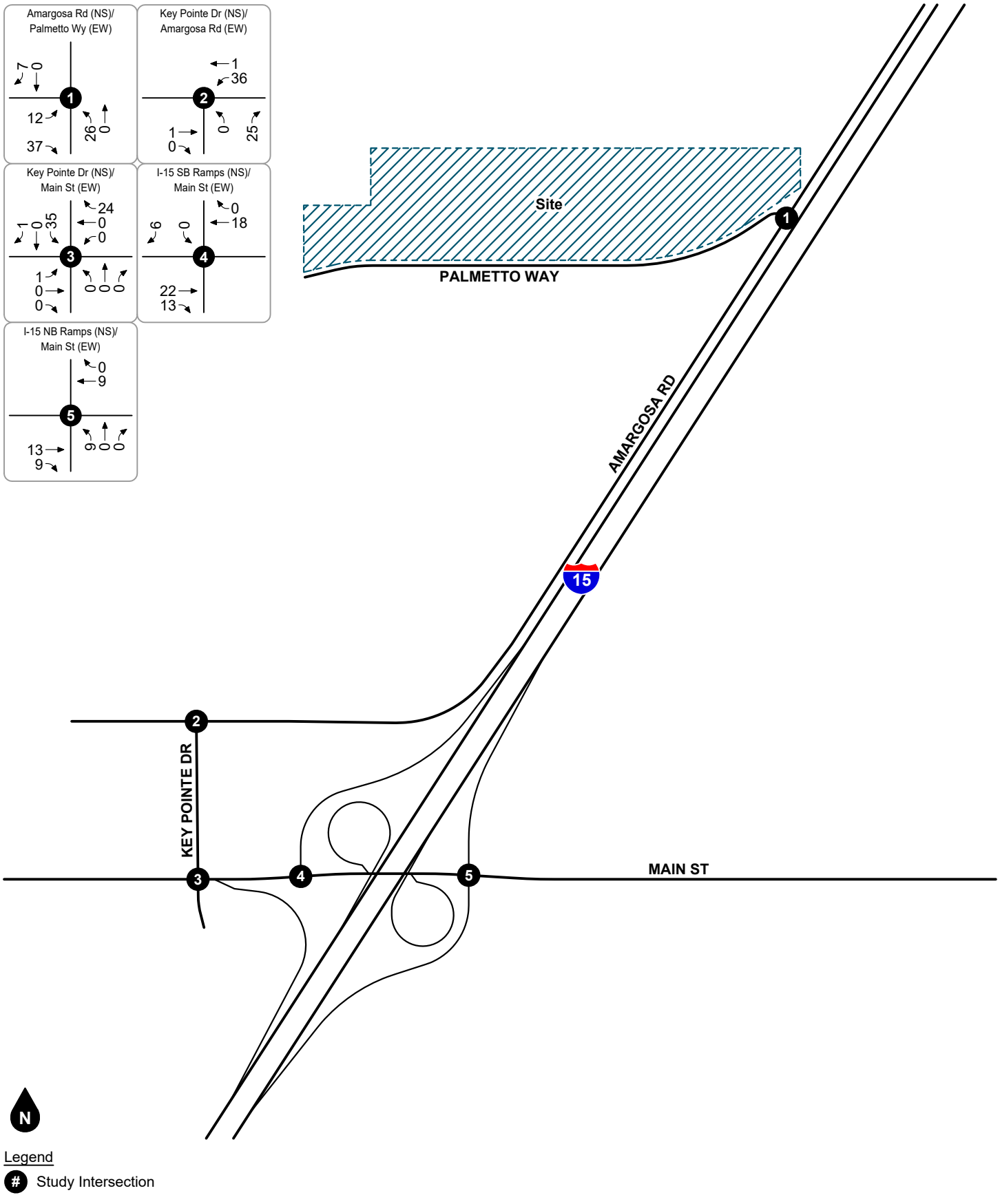
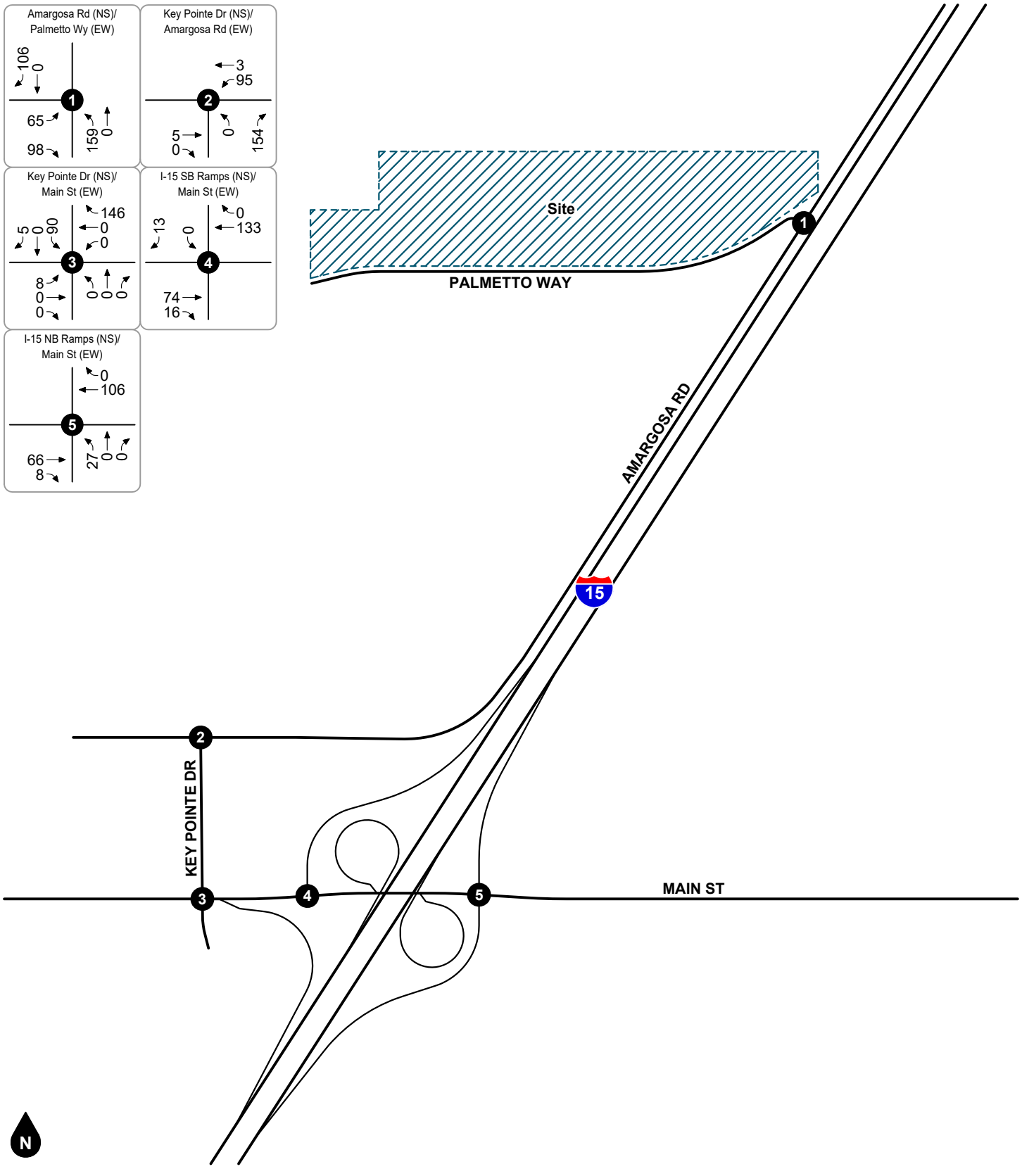


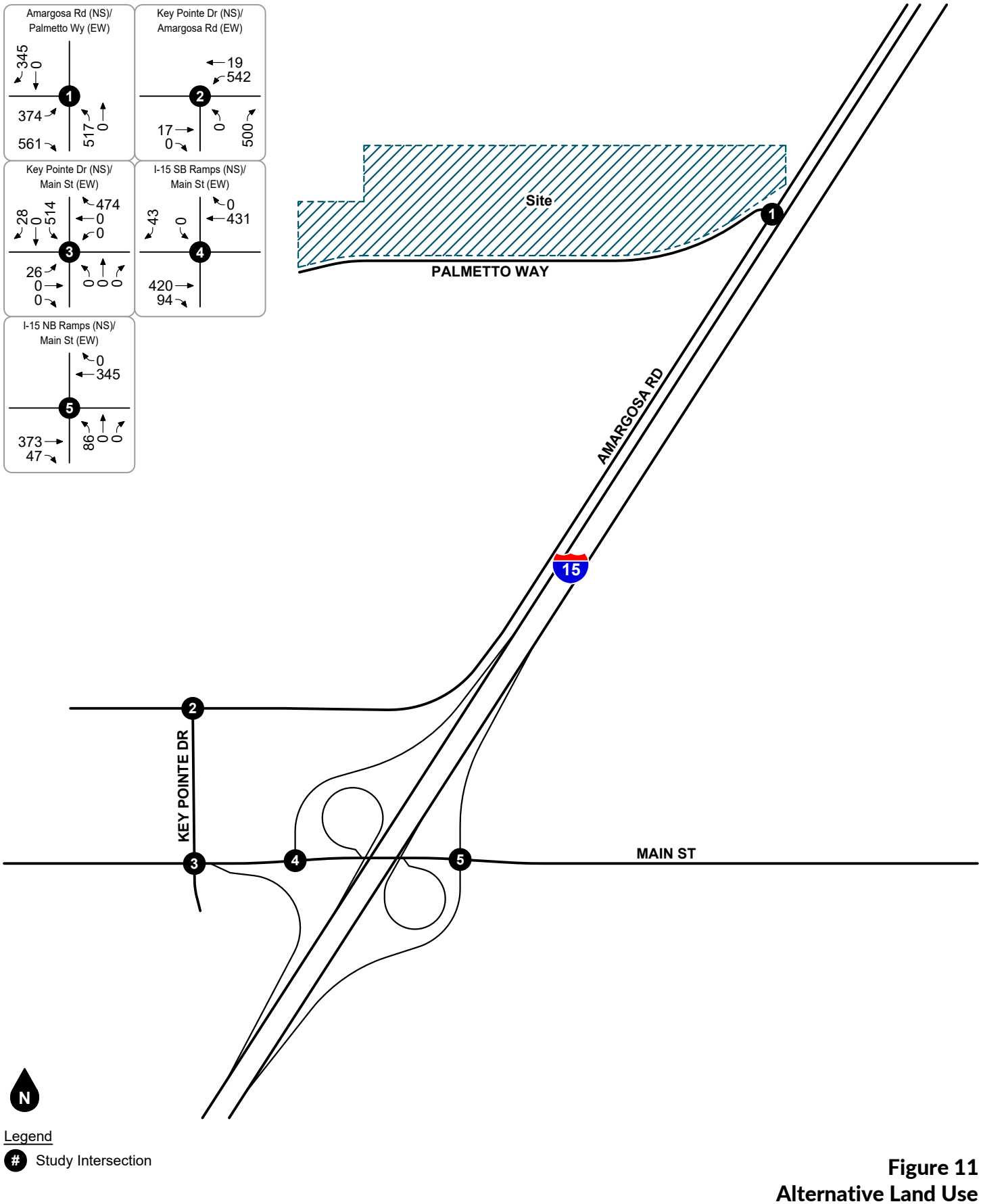
Figure 9
Project PM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

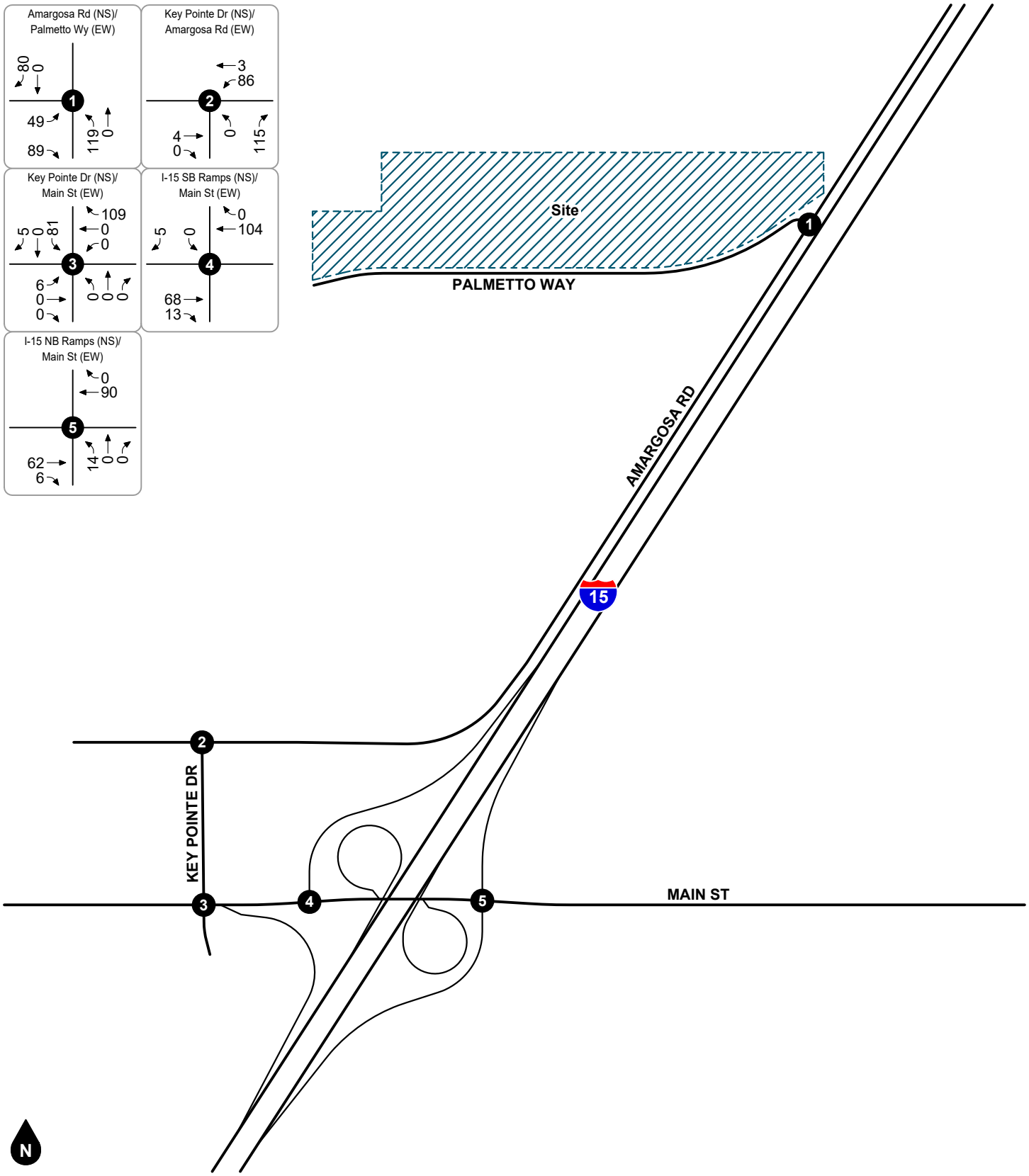
Figure 10
Alternative Land Use
AM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

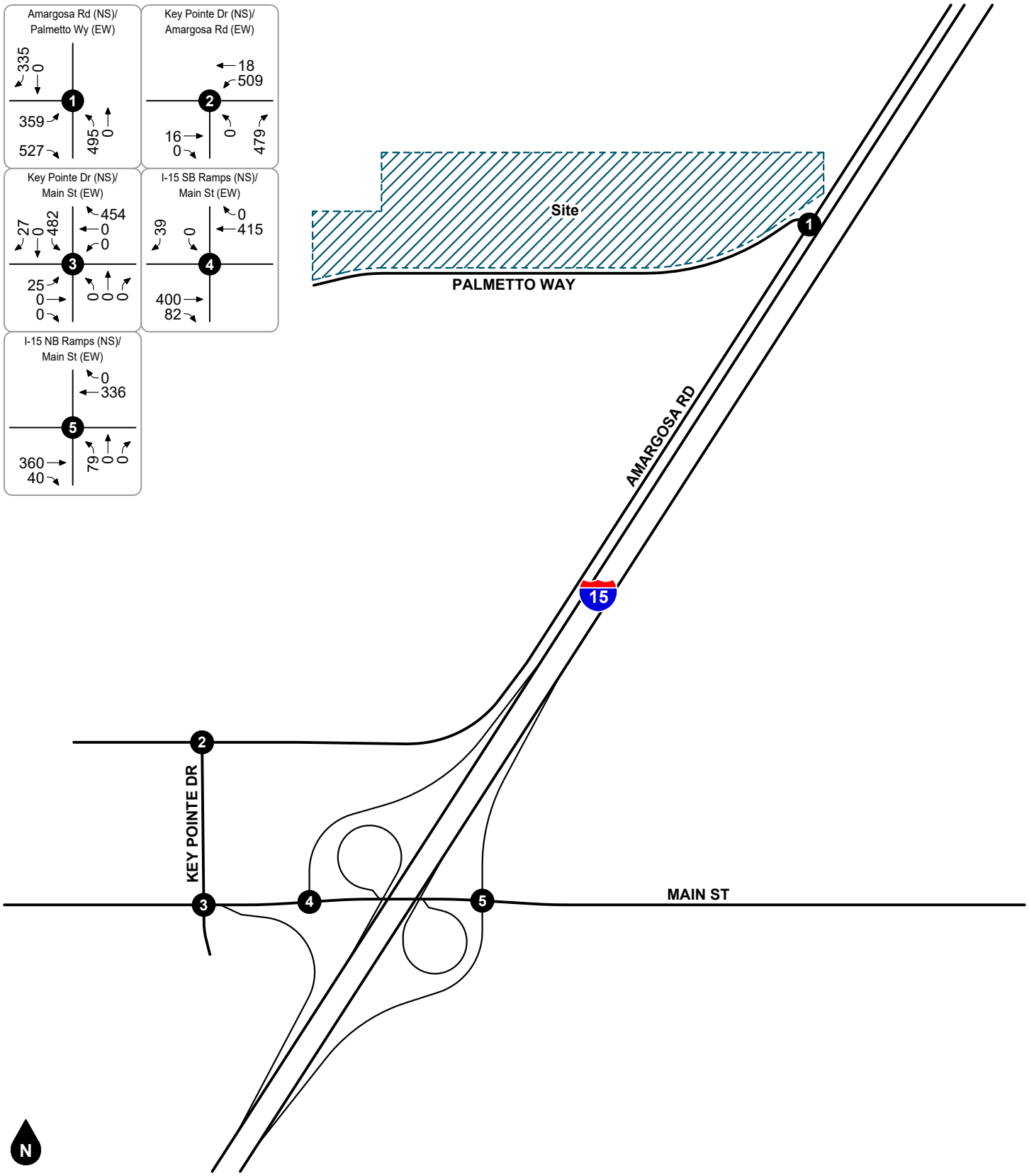
Figure 11
Alternative Land Use
PM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

Figure 12
Additional Alternative Land Use Generated Trips Versus Project Generated Trips
AM Peak Hour Intersection Turning Movement Volumes



Legend

Study Intersection

Figure 13
Additional Alternative Land Use Generated Trips Versus Project Generated Trips
PM Peak Hour Intersection Turning Movement Volumes

APPENDIX E

LEVEL OF SERVICE WORKSHEETS

EXISTING

Amargosa / Palmetto High-Cube Warehouse

Vistro File: C:\...\AME.vistro
Report File: C:\...\AME.pdf

Scenario 1 Existing AM Peak Hour
8/15/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Amargosa Rd (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Thru	0.002	0.0	A
2	Key Pointe Dr (NS) at Amargosa Rd (EW)	Two-way stop	HCM 7th Edition	NB Right	0.005	8.7	A
3	Key Pointe Dr (NS) at Main St (EW)	Signalized	HCM 7th Edition	WB Left	0.464	14.4	B
4	I-15 SB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Right	0.344	8.2	A
5	I-15 NB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	NB Left	0.376	4.2	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Amargosa Rd (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.002

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	196	208	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	196	208	0	0	0
Peak Hour Factor	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	55	59	0	0	0
Total Analysis Volume [veh/h]	0	221	234	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.62	0.00	0.00	0.00	10.94	9.30
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.12	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Key Pointe Dr (NS) at Amargosa Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.005

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	5	163	1	7	140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	5	163	1	7	140
Peak Hour Factor	0.8560	0.8560	0.8560	0.8560	0.8560	0.8560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	1	48	0	2	41
Total Analysis Volume [veh/h]	0	6	190	1	8	164
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	9.99	8.74	0.00	0.00	7.53	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.02	0.00	0.00	0.01	0.01
95th-Percentile Queue Length [ft/ln]	0.00	0.39	0.00	0.00	0.29	0.15
d_A, Approach Delay [s/veh]	8.74		0.00		0.36	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.31					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 3: Key Pointe Dr (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	14.4
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.464

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00	175.00	100.00	100.00	175.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	4	12	97	137	26	11	30	926	8	193	607	132
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	12	97	137	26	11	30	926	8	193	607	132
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	3	26	37	7	3	8	250	2	52	164	36
Total Analysis Volume [veh/h]	4	13	105	148	28	12	32	999	9	208	655	142
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	10	10	0	10	10	0
Maximum Green [s]	0	130	0	0	130	0	130	130	0	130	130	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	0	14	23	0	14	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12	12	12	4	36	36	10	42	42
g / C, Green / Cycle	0.17	0.17	0.17	0.17	0.17	0.06	0.52	0.52	0.14	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.06	0.11	0.02	0.02	0.20	0.01	0.12	0.15	0.15
s, saturation flow rate [veh/h]	1393	1800	1530	1305	1710	1619	4631	1445	1619	3427	1641
c, Capacity [veh/h]	265	298	254	272	283	103	2414	753	229	2055	984
d1, Uniform Delay [s]	27.40	24.53	26.02	29.64	24.90	31.29	10.03	8.07	29.29	6.57	6.58
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.05	0.95	1.45	0.21	1.56	0.46	0.03	8.77	0.28	0.59
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.02	0.04	0.38	0.50	0.13	0.29	0.38	0.01	0.84	0.24	0.25
d, Delay for Lane Group [s/veh]	27.42	24.58	26.96	31.10	25.11	32.86	10.49	8.09	38.06	6.85	7.18
Lane Group LOS	C	C	C	C	C	C	B	A	D	A	A
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.06	0.17	1.45	2.26	0.52	0.49	2.23	0.05	3.39	1.24	1.29
50th-Percentile Queue Length [ft/ln]	1.47	4.14	36.20	56.47	13.01	12.14	55.84	1.24	84.64	31.11	32.33
95th-Percentile Queue Length [veh/ln]	0.11	0.30	2.61	4.07	0.94	0.87	4.02	0.09	6.09	2.24	2.33
95th-Percentile Queue Length [ft/ln]	2.65	7.45	65.16	101.65	23.42	21.85	100.50	2.24	152.36	56.00	58.19

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.42	24.58	26.96	31.10	25.11	25.11	32.86	10.49	8.09	38.06	6.91	7.18
Movement LOS	C	C	C	C	C	C	C	B	A	D	A	A
d_A, Approach Delay [s/veh]	26.73			29.82			11.17			13.40		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	14.41											
Intersection LOS	B											
Intersection V/C	0.464											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.58	26.58	26.58	26.58
l_p,int, Pedestrian LOS Score for Intersection	2.203	2.042	3.042	3.263
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	828	828	543	543
d_b, Bicycle Delay [s]	12.01	12.01	18.58	18.58
l_b,int, Bicycle LOS Score for Intersection	1.746	1.847	2.090	2.072
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-15 SB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	8.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.344

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	515.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	30.00			30.00			50.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	308	0	177	0	1009	153	0	756	511
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	308	0	177	0	1009	0	0	756	0
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	82	0	47	0	267	0	0	200	0
Total Analysis Volume [veh/h]	0	0	0	326	0	188	0	1069	0	0	801	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	10	0	0	0	10	0	0	10	0
Maximum Green [s]	0	0	0	130	0	0	0	130	0	0	130	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	37	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	R
C, Cycle Length [s]		60	60	60	60	60	60
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		10	10	42	42	42	42
g / C, Green / Cycle		0.17	0.17	0.70	0.70	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate		0.10	0.12	0.21	0.00	0.15	0.00
s, saturation flow rate [veh/h]		2959	1530	4903	1530	4903	1530
c, Capacity [veh/h]		499	258	3425	1069	3425	1069
d1, Uniform Delay [s]		23.22	23.53	3.45	0.00	3.24	0.00
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		1.25	3.27	0.22	0.00	0.15	0.00
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.62	0.69	0.29	0.00	0.22	0.00
d, Delay for Lane Group [s/veh]		24.47	26.80	3.67	0.00	3.38	0.00
Lane Group LOS		C	C	A	A	A	A
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		1.98	2.44	0.59	0.00	0.68	0.00
50th-Percentile Queue Length [ft/ln]		49.49	60.97	14.74	0.00	17.10	0.00
95th-Percentile Queue Length [veh/ln]		3.56	4.39	1.06	0.00	1.23	0.00
95th-Percentile Queue Length [ft/ln]		89.09	109.74	26.54	0.00	30.77	0.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	24.47	0.00	26.80	0.00	3.67	0.00	0.00	3.38	0.00
Movement LOS				C		C		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			25.32			3.67			3.38		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	8.24											
Intersection LOS	A											
Intersection V/C	0.344											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.230	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1098	632	632
d_b, Bicycle Delay [s]	30.05	6.11	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.115	1.975
Bicycle LOS	D	A	B	A

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: I-15 NB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	4.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.376

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	82	3	41	0	0	0	0	1016	303	0	1103	461
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	82	3	41	0	0	0	0	1016	0	0	1103	461
Peak Hour Factor	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	21	1	11	0	0	0	0	265	0	0	287	120
Total Analysis Volume [veh/h]	85	3	43	0	0	0	0	1058	0	0	1149	480
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	85
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	130	0	0	0	0	0	130	0	0	130	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	16	0	0	0	0	0	69	0	0	69	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		No						No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	R	C	R
C, Cycle Length [s]	85	85	85		85	85	85	85
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10		68	68	68	68
g / C, Green / Cycle	0.11	0.11	0.11		0.79	0.79	0.79	0.79
(v / s)_i Volume / Saturation Flow Rate	0.05	0.01	0.01		0.21	0.00	0.22	0.30
s, saturation flow rate [veh/h]	1714	1562	1530		4903	1530	4903	1530
c, Capacity [veh/h]	194	177	173		3888	1213	3888	1213
d1, Uniform Delay [s]	35.19	33.98	33.99		2.30	0.00	2.35	2.61
k, delay calibration	0.11	0.11	0.11		0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.47	0.32	0.33		0.16	0.00	0.18	0.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.42	0.13	0.13		0.26	0.00	0.28	0.38
d, Delay for Lane Group [s/veh]	36.66	34.30	34.32		2.47	0.00	2.54	3.52
Lane Group LOS	D	C	C		A	A	A	A
Critical Lane Group	Yes	No	No		No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.64	0.42	0.42		0.52	0.00	0.58	1.02
50th-Percentile Queue Length [ft/ln]	40.94	10.53	10.44		13.06	0.00	14.52	25.56
95th-Percentile Queue Length [veh/ln]	2.95	0.76	0.75		0.94	0.00	1.05	1.84
95th-Percentile Queue Length [ft/ln]	73.69	18.96	18.79		23.52	0.00	26.14	46.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	36.66	34.30	34.31	0.00	0.00	0.00	0.00	2.47	0.00	0.00	2.54	3.52
Movement LOS	D	C	C					A	A		A	A
d_A, Approach Delay [s/veh]	35.84			0.00			2.47			2.83		
Approach LOS	D			A			A			A		
d_I, Intersection Delay [s/veh]	4.23											
Intersection LOS	A											
Intersection V/C	0.376											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	34.02	34.02	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.161	1.875	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	282	0	1528	1528
d_b, Bicycle Delay [s]	31.39	42.54	2.37	2.37
l_b,int, Bicycle LOS Score for Intersection	1.768	4.132	2.118	2.420
Bicycle LOS	A	D	B	B

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Amargosa / Palmetto High-Cube Warehouse

Vistro File: C:\...\PME.vistro
Report File: C:\...\PME.pdf

Scenario 1 Existing PM Peak Hour
8/15/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Amargosa Rd (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	NB Left	0.001	8.1	A
2	Key Pointe Dr (NS) at Amargosa Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	0.006	12.1	B
3	Key Pointe Dr (NS) at Main St (EW)	Signalized	HCM 7th Edition	WB Left	0.659	22.2	C
4	I-15 SB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Right	0.524	10.8	B
5	I-15 NB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	NB Right	0.628	12.1	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Amargosa Rd (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.1
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.001

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	1	443	417	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	443	417	0	0	0
Peak Hour Factor	0.9150	0.9150	0.9150	0.9150	0.9150	0.9150
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	121	114	0	0	0
Total Analysis Volume [veh/h]	1	484	456	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.12	0.00	0.00	0.00	15.98	10.62
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.04	0.04	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.02		0.00		13.30	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.01					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Key Pointe Dr (NS) at Amargosa Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.006

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	3	19	287	9	12	335
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	19	287	9	12	335
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	5	77	2	3	89
Total Analysis Volume [veh/h]	3	20	307	10	13	358
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.02	0.00	0.00	0.01	0.00
d_M, Delay for Movement [s/veh]	12.07	9.19	0.00	0.00	7.83	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.07	0.00	0.00	0.02	0.01
95th-Percentile Queue Length [ft/ln]	0.44	1.66	0.00	0.00	0.50	0.25
d_A, Approach Delay [s/veh]	9.58		0.00		0.27	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.46					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Key Pointe Dr (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	22.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.659

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00	175.00	100.00	100.00	175.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	31	57	241	236	84	15	46	970	18	295	1111	194
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	31	57	241	236	84	15	46	970	18	295	1111	194
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	15	62	61	22	4	12	249	5	76	286	50
Total Analysis Volume [veh/h]	32	59	248	243	86	15	47	998	19	303	1143	200
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	75
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	10	10	0	10	10	0
Maximum Green [s]	0	130	0	0	130	0	130	130	0	130	130	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	0	14	23	0	19	28	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	75	75	75	75	75	75	75	75	75	75	75
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	22	22	22	22	22	6	26	26	15	35	35
g / C, Green / Cycle	0.30	0.30	0.30	0.30	0.30	0.08	0.34	0.34	0.20	0.46	0.46
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.16	0.21	0.06	0.03	0.21	0.01	0.18	0.26	0.26
s, saturation flow rate [veh/h]	1317	1800	1530	1098	1753	1619	4631	1445	1619	3427	1666
c, Capacity [veh/h]	390	532	453	363	519	134	1594	497	324	1582	769
d1, Uniform Delay [s]	23.16	19.21	22.09	27.39	19.72	32.50	20.41	16.34	29.36	14.62	14.62
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.09	0.09	0.98	1.99	0.18	1.52	1.75	0.14	11.43	1.42	2.91
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.11	0.53	0.65	0.19	0.34	0.61	0.04	0.91	0.55	0.56
d, Delay for Lane Group [s/veh]	23.24	19.30	23.06	29.37	19.90	34.02	22.16	16.48	40.78	16.03	17.53
Lane Group LOS	C	B	C	C	B	C	C	B	D	B	B
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.43	0.71	3.50	4.08	1.26	0.78	4.29	0.20	5.67	4.69	4.88
50th-Percentile Queue Length [ft/ln]	10.79	17.69	87.45	101.94	31.59	19.56	107.34	4.96	141.83	117.15	122.01
95th-Percentile Queue Length [veh/ln]	0.78	1.27	6.30	7.34	2.27	1.41	7.69	0.36	9.58	8.24	8.50
95th-Percentile Queue Length [ft/ln]	19.42	31.84	157.41	183.49	56.85	35.20	192.29	8.94	239.49	205.91	212.59

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	23.24	19.30	23.06	29.37	19.90	19.90	34.02	22.16	16.48	40.78	16.35	17.53
Movement LOS	C	B	C	C	B	B	C	C	B	D	B	B
d_A, Approach Delay [s/veh]	22.43			26.57			22.59			21.00		
Approach LOS	C			C			C			C		
d_I, Intersection Delay [s/veh]	22.21											
Intersection LOS	C											
Intersection V/C	0.659											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	29.05	29.05	29.05	29.05
l_p,int, Pedestrian LOS Score for Intersection	2.300	2.138	3.207	3.629
Crosswalk LOS	B	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	773	773	507	640
d_b, Bicycle Delay [s]	14.12	14.12	20.92	17.35
l_b,int, Bicycle LOS Score for Intersection	2.102	2.112	2.128	2.440
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-15 SB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	10.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.524

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	515.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	30.00			30.00			50.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	443	0	351	0	1272	178	0	1253	418
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	443	0	351	0	1272	0	0	1253	0
Peak Hour Factor	0.9440	0.9440	0.9440	0.9800	0.9440	0.9800	0.9440	0.9800	0.9800	0.9440	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	113	0	90	0	324	0	0	320	0
Total Analysis Volume [veh/h]	0	0	0	452	0	358	0	1298	0	0	1279	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	10	0	0	0	10	0	0	10	0
Maximum Green [s]	0	0	0	130	0	0	0	130	0	0	130	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	37	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	R
C, Cycle Length [s]		60	60	60	60	60	60
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		17	17	35	35	35	35
g / C, Green / Cycle		0.29	0.29	0.58	0.58	0.58	0.58
(v / s)_i Volume / Saturation Flow Rate		0.15	0.23	0.26	0.00	0.26	0.00
s, saturation flow rate [veh/h]		2959	1530	4903	1530	4903	1530
c, Capacity [veh/h]		849	439	2845	888	2845	888
d1, Uniform Delay [s]		18.01	19.87	7.16	0.00	7.12	0.00
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.50	3.51	0.51	0.00	0.50	0.00
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.52	0.80	0.45	0.00	0.44	0.00
d, Delay for Lane Group [s/veh]		18.51	23.38	7.67	0.00	7.62	0.00
Lane Group LOS		B	C	A	A	A	A
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		2.41	4.55	1.97	0.00	2.44	0.00
50th-Percentile Queue Length [ft/ln]		60.36	113.65	49.15	0.00	60.88	0.00
95th-Percentile Queue Length [veh/ln]		4.35	8.04	3.54	0.00	4.38	0.00
95th-Percentile Queue Length [ft/ln]		108.64	201.07	88.46	0.00	109.59	0.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	18.51	0.00	23.38	0.00	7.67	0.00	0.00	7.62	0.00
Movement LOS				B		C		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			20.66			7.67			7.62		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	10.76											
Intersection LOS	B											
Intersection V/C	0.524											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.305	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1098	632	632
d_b, Bicycle Delay [s]	30.05	6.11	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.259	2.249
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: I-15 NB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	12.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.628

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	190	4	772	0	0	0	0	1448	225	0	1529	404
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	190	4	772	0	0	0	0	1448	0	0	1529	404
Peak Hour Factor	0.9730	0.9730	0.9730	0.9600	0.9600	0.9600	0.9600	0.9730	0.9730	0.9600	0.9730	0.9730
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	49	1	198	0	0	0	0	372	0	0	393	104
Total Analysis Volume [veh/h]	195	4	793	0	0	0	0	1488	0	0	1571	415
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	130	0	0	0	0	0	130	0	0	130	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	37	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		No						No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	R	C	R
C, Cycle Length [s]	60	60	60		60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	19	19	19		33	33	33	33
g / C, Green / Cycle	0.31	0.31	0.31		0.55	0.55	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.11	0.25	0.25		0.30	0.00	0.31	0.26
s, saturation flow rate [veh/h]	1714	1532	1530		4903	1530	4903	1530
c, Capacity [veh/h]	538	481	480		2712	846	2712	846
d1, Uniform Delay [s]	15.94	18.97	18.98		8.53	0.00	8.73	8.17
k, delay calibration	0.11	0.11	0.11		0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.39	3.34	3.37		0.76	0.00	0.86	1.94
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.35	0.81	0.81		0.53	0.00	0.56	0.48
d, Delay for Lane Group [s/veh]	16.33	22.31	22.35		9.29	0.00	9.59	10.10
Lane Group LOS	B	C	C		A	A	A	B
Critical Lane Group	No	No	Yes		No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	1.89	4.91	4.91		2.69	0.00	2.92	2.46
50th-Percentile Queue Length [ft/ln]	47.36	122.72	122.86		67.29	0.00	72.98	61.50
95th-Percentile Queue Length [veh/ln]	3.41	8.54	8.55		4.84	0.00	5.25	4.43
95th-Percentile Queue Length [ft/ln]	85.24	213.56	213.75		121.12	0.00	131.37	110.70

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.33	22.31	22.33	0.00	0.00	0.00	0.00	9.29	0.00	0.00	9.59	10.10
Movement LOS	B	C	C					A	A		A	B
d_A, Approach Delay [s/veh]	21.15			0.00			9.29			9.70		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	12.11											
Intersection LOS	B											
Intersection V/C	0.628											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.72	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.347	1.802	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1098	0	632	632
d_b, Bicycle Delay [s]	6.11	30.05	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	3.154	4.132	2.356	2.623
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



OPENING YEAR (2024) WITHOUT PROJECT

Amargosa / Palmetto High-Cube Warehouse

Vistro File: C:\...\AME.vistro

Scenario 2 Opening Year (2024) Without Project AM Peak Hour

Report File: C:\...\AMOYWO.pdf

8/15/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Amargosa Rd (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Thru	0.002	0.0	A
2	Key Pointe Dr (NS) at Amargosa Rd (EW)	Two-way stop	HCM 7th Edition	NB Right	0.055	9.0	A
3	Key Pointe Dr (NS) at Main St (EW)	Signalized	HCM 7th Edition	WB Left	0.526	14.8	B
4	I-15 SB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Right	0.479	9.9	A
5	I-15 NB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	NB Left	0.470	5.7	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Amargosa Rd (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.002

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	196	208	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	3	12	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	207	228	0	0	0
Peak Hour Factor	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	58	64	0	0	0
Total Analysis Volume [veh/h]	0	233	257	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	7.66	0.00	0.00	0.00	11.18	9.41
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		10.30	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Key Pointe Dr (NS) at Amargosa Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.055

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	5	163	1	7	140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	48	1	0	21	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	53	171	1	28	146
Peak Hour Factor	0.8560	0.8560	0.8560	0.8560	0.8560	0.8560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	15	50	0	8	43
Total Analysis Volume [veh/h]	0	62	200	1	33	171
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.06	0.00	0.00	0.02	0.00
d_M, Delay for Movement [s/veh]	10.47	8.96	0.00	0.00	7.57	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.17	0.00	0.00	0.05	0.02
95th-Percentile Queue Length [ft/ln]	0.00	4.37	0.00	0.00	1.19	0.59
d_A, Approach Delay [s/veh]	8.96		0.00		1.22	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.72					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 3: Key Pointe Dr (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	14.8
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.526

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00	175.00	100.00	100.00	175.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	4	12	97	137	26	11	30	926	8	193	607	132
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	21	0	0	1	106	0	0	435	47
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	12	101	164	27	11	32	1069	8	201	1067	184
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	3	27	44	7	3	9	288	2	54	288	50
Total Analysis Volume [veh/h]	4	13	109	177	29	12	35	1153	9	217	1151	198
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	10	10	0	10	10	0
Maximum Green [s]	0	130	0	0	130	0	130	130	0	130	130	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	0	14	23	0	14	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	13	13	13	13	13	5	35	35	10	40	40
g / C, Green / Cycle	0.19	0.19	0.19	0.19	0.19	0.07	0.50	0.50	0.14	0.57	0.57
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.07	0.13	0.02	0.02	0.23	0.01	0.12	0.25	0.25
s, saturation flow rate [veh/h]	1391	1800	1530	1300	1713	1619	4631	1445	1619	3427	1668
c, Capacity [veh/h]	294	338	287	299	322	108	2305	719	231	1968	958
d1, Uniform Delay [s]	26.11	23.26	24.73	28.90	23.62	31.12	11.48	8.88	29.37	8.42	8.42
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.04	0.73	1.58	0.16	1.52	0.67	0.03	10.60	0.68	1.40
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.04	0.35	0.55	0.12	0.30	0.46	0.01	0.87	0.43	0.43
d, Delay for Lane Group [s/veh]	26.13	23.30	25.47	30.48	23.79	32.64	12.16	8.91	39.97	9.10	9.82
Lane Group LOS	C	C	C	C	C	C	B	A	D	A	A
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.06	0.16	1.45	2.69	0.52	0.51	2.92	0.05	3.64	2.70	2.82
50th-Percentile Queue Length [ft/ln]	1.43	3.99	36.30	67.13	12.88	12.86	73.07	1.35	90.92	67.56	70.53
95th-Percentile Queue Length [veh/ln]	0.10	0.29	2.61	4.83	0.93	0.93	5.26	0.10	6.55	4.86	5.08
95th-Percentile Queue Length [ft/ln]	2.57	7.18	65.35	120.83	23.19	23.15	131.53	2.42	163.66	121.60	126.96

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	26.13	23.30	25.47	30.48	23.79	23.79	32.64	12.16	8.91	39.97	9.25	9.82
Movement LOS	C	C	C	C	C	C	C	B	A	D	A	A
d_A, Approach Delay [s/veh]	25.27			29.22			12.72			13.58		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	14.82											
Intersection LOS	B											
Intersection V/C	0.526											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.59	26.59	26.59	26.59
l_p,int, Pedestrian LOS Score for Intersection	2.206	2.069	3.165	3.463
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	828	828	543	543
d_b, Bicycle Delay [s]	12.02	12.02	18.59	18.59
l_b,int, Bicycle LOS Score for Intersection	1.753	1.893	2.170	2.358
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-15 SB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	9.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.479

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	515.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	30.00			30.00			50.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	308	0	177	0	1009	153	0	756	511
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0404	1.0000	1.0404	1.0000	1.0404	1.0404	1.0000	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	142	0	96	31	0	340	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	320	0	326	0	1146	31	0	1127	0
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	85	0	86	0	303	8	0	298	0
Total Analysis Volume [veh/h]	0	0	0	339	0	345	0	1214	33	0	1194	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	10	0	0	0	10	0	0	10	0
Maximum Green [s]	0	0	0	130	0	0	0	130	0	0	130	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	37	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	R
C, Cycle Length [s]		60	60	60	60	60	60
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		16	16	36	36	36	36
g / C, Green / Cycle		0.26	0.26	0.60	0.60	0.60	0.60
(v / s)_i Volume / Saturation Flow Rate		0.11	0.21	0.23	0.02	0.23	0.00
s, saturation flow rate [veh/h]		2959	1530	4903	1530	4903	1530
c, Capacity [veh/h]		786	406	2949	920	2949	920
d1, Uniform Delay [s]		18.20	20.63	6.24	4.88	6.21	0.00
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.34	3.84	0.39	0.07	0.38	0.00
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.41	0.80	0.39	0.03	0.38	0.00
d, Delay for Lane Group [s/veh]		18.54	24.48	6.62	4.95	6.58	0.00
Lane Group LOS		B	C	A	A	A	A
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		1.72	4.33	1.52	0.11	1.93	0.00
50th-Percentile Queue Length [ft/ln]		43.07	108.16	38.08	2.68	48.33	0.00
95th-Percentile Queue Length [veh/ln]		3.10	7.74	2.74	0.19	3.48	0.00
95th-Percentile Queue Length [ft/ln]		77.53	193.44	68.55	4.83	87.00	0.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	18.54	0.00	24.48	0.00	6.62	4.95	0.00	6.58	0.00
Movement LOS				B		C		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			21.54			6.58			6.58		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	9.86											
Intersection LOS	A											
Intersection V/C	0.479											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.269	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1098	632	632
d_b, Bicycle Delay [s]	30.05	6.11	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.207	2.179
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: I-15 NB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	5.7
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.470

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	82	3	41	0	0	0	0	1016	303	0	1103	461
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0000	1.0000	1.0000	1.0000	1.0404	1.0404	1.0000	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	108	0	0	0	0	0	0	56	40	0	232	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	193	3	43	0	0	0	0	1113	40	0	1380	480
Peak Hour Factor	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	50	1	11	0	0	0	0	290	10	0	359	125
Total Analysis Volume [veh/h]	201	3	45	0	0	0	0	1159	42	0	1438	500
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	65
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	130	0	0	0	0	0	130	0	0	130	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	42	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		No						No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	R	C	R
C, Cycle Length [s]	65	65	65		65	65	65	65
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10		47	47	47	47
g / C, Green / Cycle	0.15	0.15	0.15		0.72	0.72	0.72	0.72
(v / s)_i Volume / Saturation Flow Rate	0.11	0.01	0.01		0.23	0.03	0.28	0.31
s, saturation flow rate [veh/h]	1714	1560	1530		4903	1530	4903	1530
c, Capacity [veh/h]	263	240	235		3548	1107	3548	1107
d1, Uniform Delay [s]	26.32	23.70	23.71		3.22	2.56	3.46	3.63
k, delay calibration	0.11	0.11	0.11		0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.02	0.17	0.18		0.23	0.06	0.32	1.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.73	0.10	0.10		0.31	0.04	0.39	0.43
d, Delay for Lane Group [s/veh]	30.33	23.88	23.88		3.45	2.62	3.79	4.87
Lane Group LOS	C	C	C		A	A	A	A
Critical Lane Group	Yes	No	No		No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.00	0.30	0.30		0.65	0.07	0.87	1.22
50th-Percentile Queue Length [ft/ln]	74.97	7.60	7.50		16.20	1.69	21.71	30.38
95th-Percentile Queue Length [veh/ln]	5.40	0.55	0.54		1.17	0.12	1.56	2.19
95th-Percentile Queue Length [ft/ln]	134.95	13.69	13.49		29.15	3.04	39.09	54.69

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	30.33	23.88	23.88	0.00	0.00	0.00	0.00	3.45	2.62	0.00	3.79	4.87
Movement LOS	C	C	C					A	A		A	A
d_A, Approach Delay [s/veh]	29.09			0.00			3.42			4.07		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	5.68											
Intersection LOS	A											
Intersection V/C	0.470											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	24.17	24.17	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.184	1.879	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1167	0	584	584
d_b, Bicycle Delay [s]	5.64	32.55	16.32	16.32
l_b,int, Bicycle LOS Score for Intersection	1.954	4.132	2.194	2.583
Bicycle LOS	A	D	B	B

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Amargosa / Palmetto High-Cube Warehouse

Vistro File: C:\...\PME.vistro

Scenario 2 Opening Year (2024) Without Project PM Peak Hour

Report File: C:\...\PMOYWO.pdf

8/15/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Amargosa Rd (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	NB Left	0.001	8.2	A
2	Key Pointe Dr (NS) at Amargosa Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	0.007	13.2	B
3	Key Pointe Dr (NS) at Main St (EW)	Signalized	HCM 7th Edition	WB Left	0.795	28.8	C
4	I-15 SB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Right	0.677	13.0	B
5	I-15 NB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	NB Right	0.685	13.0	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Amargosa Rd (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.001

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	1	443	417	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	10	7	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	471	441	0	0	0
Peak Hour Factor	0.9150	0.9150	0.9150	0.9150	0.9150	0.9150
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	129	120	0	0	0
Total Analysis Volume [veh/h]	1	515	482	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.19	0.00	0.00	0.00	16.79	10.80
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.04	0.04	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.02		0.00		13.80	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.01					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Key Pointe Dr (NS) at Amargosa Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	13.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.007

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	3	19	287	9	12	335
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	24	1	0	32	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	44	300	9	44	350
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	12	80	2	12	93
Total Analysis Volume [veh/h]	3	47	321	10	47	374
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.05	0.00	0.00	0.03	0.00
d_M, Delay for Movement [s/veh]	13.23	9.36	0.00	0.00	7.90	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.16	0.00	0.00	0.08	0.04
95th-Percentile Queue Length [ft/ln]	0.51	3.99	0.00	0.00	1.88	0.94
d_A, Approach Delay [s/veh]	9.60		0.00		0.88	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.07					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Key Pointe Dr (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	28.8
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.795

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00	175.00	100.00	100.00	175.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	31	57	241	236	84	15	46	970	18	295	1111	194
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	31	0	1	1	402	0	0	267	23
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	59	251	277	87	17	49	1411	19	307	1423	225
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	15	65	71	22	4	13	363	5	79	366	58
Total Analysis Volume [veh/h]	33	61	258	285	90	17	50	1452	20	316	1464	231
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	105
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	10	10	0	10	10	0
Maximum Green [s]	0	130	0	0	130	0	130	130	0	130	130	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	0	14	23	0	49	58	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	105	105	105	105	105	105	105	105	105	105	105
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	29	29	8	42	42	22	56	56
g / C, Green / Cycle	0.28	0.28	0.28	0.28	0.28	0.07	0.40	0.40	0.21	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.16	0.25	0.06	0.03	0.30	0.01	0.19	0.32	0.32
s, saturation flow rate [veh/h]	1311	1800	1530	1086	1750	1619	4631	1445	1619	3427	1678
c, Capacity [veh/h]	348	497	423	323	483	119	1844	576	342	1838	900
d1, Uniform Delay [s]	33.37	28.47	32.94	41.23	29.28	46.56	27.38	19.29	40.35	16.67	16.73
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.11	0.11	1.34	7.01	0.22	2.30	3.15	0.11	9.46	1.47	3.05
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.09	0.12	0.59	0.86	0.22	0.41	0.77	0.03	0.90	0.60	0.61
d, Delay for Lane Group [s/veh]	33.48	28.57	34.28	48.24	29.50	48.86	30.53	19.39	49.81	18.14	19.79
Lane Group LOS	C	C	C	D	C	D	C	B	D	B	B
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.67	1.13	5.63	7.86	2.05	1.25	9.84	0.28	8.19	8.29	8.61
50th-Percentile Queue Length [ft/ln]	16.74	28.18	140.86	196.62	51.16	31.29	246.08	7.05	204.70	207.33	215.15
95th-Percentile Queue Length [veh/ln]	1.21	2.03	9.53	12.46	3.68	2.25	14.99	0.51	12.88	13.02	13.42
95th-Percentile Queue Length [ft/ln]	30.14	50.72	238.18	311.60	92.09	56.32	374.72	12.69	322.02	325.40	335.43

Movement, Approach, & Intersection Results

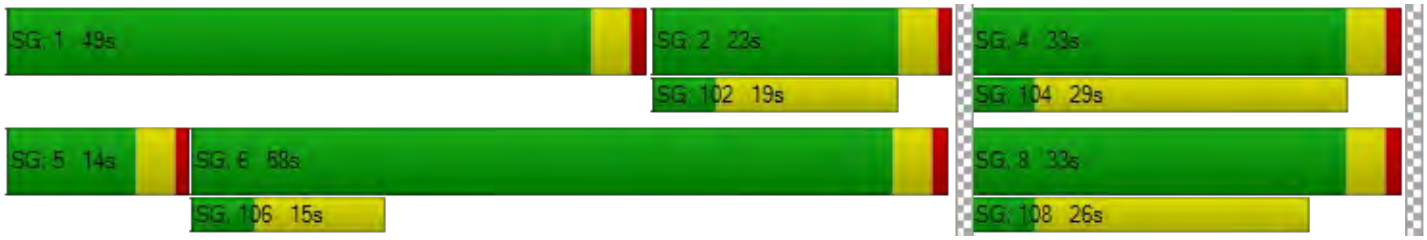
d_M, Delay for Movement [s/veh]	33.48	28.57	34.28	48.24	29.50	29.50	48.86	30.53	19.39	49.81	18.51	19.79
Movement LOS	C	C	C	D	C	C	D	C	B	D	B	B
d_A, Approach Delay [s/veh]	33.22			43.13			30.99			23.57		
Approach LOS	C			D			C			C		
d_I, Intersection Delay [s/veh]	28.80											
Intersection LOS	C											
Intersection V/C	0.795											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	43.92	43.92	43.92	43.92
l_p,int, Pedestrian LOS Score for Intersection	2.324	2.181	3.379	3.901
Crosswalk LOS	B	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	552	552	362	1028
d_b, Bicycle Delay [s]	27.54	27.54	35.25	12.41
l_b,int, Bicycle LOS Score for Intersection	2.124	2.188	2.373	2.635
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-15 SB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.677

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	515.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	30.00			30.00			50.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	443	0	351	0	1272	178	0	1253	418
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0404	1.0000	1.0404	1.0000	1.0404	1.0404	1.0000	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	84	0	338	95	0	206	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	461	0	449	0	1661	95	0	1510	0
Peak Hour Factor	0.9440	0.9440	0.9440	0.9800	0.9440	0.9800	0.9440	0.9800	0.9800	0.9440	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	118	0	115	0	424	24	0	385	0
Total Analysis Volume [veh/h]	0	0	0	470	0	458	0	1695	97	0	1541	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	10	0	0	0	10	0	0	10	0
Maximum Green [s]	0	0	0	130	0	0	0	130	0	0	130	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	37	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	R
C, Cycle Length [s]		60	60	60	60	60	60
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		21	21	31	31	31	31
g / C, Green / Cycle		0.35	0.35	0.52	0.52	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate		0.16	0.29	0.34	0.06	0.31	0.00
s, saturation flow rate [veh/h]		2959	1530	4903	1530	4903	1530
c, Capacity [veh/h]		1031	533	2543	794	2543	794
d1, Uniform Delay [s]		15.12	18.07	10.53	7.42	10.06	0.00
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.31	3.86	1.33	0.31	1.03	0.00
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.45	0.84	0.65	0.12	0.59	0.00
d, Delay for Lane Group [s/veh]		15.43	21.93	11.86	7.73	11.09	0.00
Lane Group LOS		B	C	B	A	B	A
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		2.23	5.65	3.85	0.50	3.98	0.00
50th-Percentile Queue Length [ft/ln]		55.68	141.32	96.36	12.41	99.50	0.00
95th-Percentile Queue Length [veh/ln]		4.01	9.55	6.94	0.89	7.16	0.00
95th-Percentile Queue Length [ft/ln]		100.22	238.80	173.45	22.34	179.11	0.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	15.43	0.00	21.93	0.00	11.86	7.73	0.00	11.09	0.00
Movement LOS				B		C		B	A		B	A
d_A, Approach Delay [s/veh]	0.00			18.63			11.64			11.09		
Approach LOS	A			B			B			B		
d_I, Intersection Delay [s/veh]	12.97											
Intersection LOS	B											
Intersection V/C	0.677											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.70	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.334	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1099	633	633
d_b, Bicycle Delay [s]	30.03	6.09	14.03	14.03
l_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.525	2.390
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: I-15 NB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.685

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	190	4	772	0	0	0	0	1448	225	0	1529	404
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0000	1.0000	1.0000	1.0000	1.0404	1.0404	1.0000	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	65	0	0	0	0	0	0	212	126	0	141	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	263	4	803	0	0	0	0	1718	126	0	1732	420
Peak Hour Factor	0.9730	0.9730	0.9730	0.9600	0.9600	0.9600	0.9600	0.9730	0.9730	0.9600	0.9730	0.9730
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	68	1	206	0	0	0	0	441	32	0	445	108
Total Analysis Volume [veh/h]	270	4	825	0	0	0	0	1766	129	0	1780	432
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	130	0	0	0	0	0	130	0	0	130	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	37	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		No						No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	R	C	R
C, Cycle Length [s]	60	60	60		60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	20	20		33	33	33	33
g / C, Green / Cycle	0.33	0.33	0.33		0.54	0.54	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.15	0.26	0.26		0.35	0.08	0.35	0.27
s, saturation flow rate [veh/h]	1714	1532	1530		4903	1530	4903	1530
c, Capacity [veh/h]	560	501	500		2649	827	2649	827
d1, Uniform Delay [s]	16.12	18.52	18.53		9.79	6.93	9.83	8.77
k, delay calibration	0.11	0.11	0.11		0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.61	3.20	3.22		1.25	0.39	1.28	2.24
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.81	0.81		0.65	0.15	0.65	0.51
d, Delay for Lane Group [s/veh]	16.73	21.72	21.75		11.04	7.32	11.11	11.01
Lane Group LOS	B	C	C		B	A	B	B
Critical Lane Group	No	No	Yes		No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.70	5.03	5.04		3.72	0.62	3.77	2.75
50th-Percentile Queue Length [ft/ln]	67.42	125.78	125.92		92.88	15.52	94.13	68.83
95th-Percentile Queue Length [veh/ln]	4.85	8.71	8.72		6.69	1.12	6.78	4.96
95th-Percentile Queue Length [ft/ln]	121.36	217.74	217.94		167.18	27.93	169.44	123.90

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.73	21.72	21.73	0.00	0.00	0.00	0.00	11.04	7.32	0.00	11.11	11.01
Movement LOS	B	C	C					B	A		B	B
d_A, Approach Delay [s/veh]	20.50			0.00			10.79			11.09		
Approach LOS	C			A			B			B		
d_I, Intersection Delay [s/veh]	12.97											
Intersection LOS	B											
Intersection V/C	0.685											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.72	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.403	1.818	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1098	0	632	632
d_b, Bicycle Delay [s]	6.11	30.05	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	3.325	4.132	2.574	2.743
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



OPENING YEAR (2024) WITH PROJECT

Amargosa / Palmetto High-Cube Warehouse

Vistro File: C:\...\AME.vistro
Report File: C:\...\AMOYW.pdf

Scenario 3 Opening Year (2024) With Project AM Peak Hour
8/17/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Amargosa Rd (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	EB Left	0.006	12.7	B
2	Key Pointe Dr (NS) at Amargosa Rd (EW)	Two-way stop	HCM 7th Edition	NB Right	0.110	9.2	A
3	Key Pointe Dr (NS) at Main St (EW)	Signalized	HCM 7th Edition	WB Left	0.545	15.6	B
4	I-15 SB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Right	0.493	10.1	B
5	I-15 NB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	NB Left	0.487	5.9	A
6	Project West Dwy (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Left	0.001	8.5	A
7	Project Central Dwy (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Left	0.006	8.6	A
8	Project East Dwy (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Left	0.019	8.8	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Amargosa Rd (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	12.7
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.006

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	196	208	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	54	3	12	13	3	22
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	207	228	13	3	22
Peak Hour Factor	0.8880	0.8880	0.8880	0.8880	0.8880	0.8880
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	15	58	64	4	1	6
Total Analysis Volume [veh/h]	61	233	257	15	3	25
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.04	0.00	0.00	0.00	0.01	0.03
d_M, Delay for Movement [s/veh]	7.75	0.00	0.00	0.00	12.71	9.61
Movement LOS	A	A	A	A	B	A
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.00	0.00	0.10	0.10
95th-Percentile Queue Length [ft/ln]	2.32	2.32	0.00	0.00	2.60	2.60
d_A, Approach Delay [s/veh]	1.60		0.00		9.99	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.27					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 2: Key Pointe Dr (NS) at Amargosa Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.110

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	5	163	1	7	140
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	101	2	0	43	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	106	172	1	50	146
Peak Hour Factor	0.8560	0.8560	0.8560	0.8560	0.8560	0.8560
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	31	50	0	15	43
Total Analysis Volume [veh/h]	0	124	201	1	58	171
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.11	0.00	0.00	0.04	0.00
d_M, Delay for Movement [s/veh]	10.93	9.21	0.00	0.00	7.60	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.37	0.00	0.00	0.09	0.04
95th-Percentile Queue Length [ft/ln]	0.00	9.29	0.00	0.00	2.14	1.07
d_A, Approach Delay [s/veh]	9.21		0.00		1.94	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	2.85					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 3: Key Pointe Dr (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	15.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.545

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00	175.00	100.00	100.00	175.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	4	12	97	137	26	11	30	926	8	193	607	132
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	43	0	0	3	106	0	0	435	98
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	4	12	101	186	27	11	34	1069	8	201	1067	235
Peak Hour Factor	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270	0.9270
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	3	27	50	7	3	9	288	2	54	288	63
Total Analysis Volume [veh/h]	4	13	109	201	29	12	37	1153	9	217	1151	254
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	70
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	10	10	0	10	10	0
Maximum Green [s]	0	130	0	0	130	0	130	130	0	130	130	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	0	14	23	0	14	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	70	70	70	70	70	70	70	70	70	70	70
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	14	14	14	14	14	5	34	34	10	39	39
g / C, Green / Cycle	0.21	0.21	0.21	0.21	0.21	0.07	0.48	0.48	0.14	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.07	0.14	0.02	0.02	0.23	0.01	0.12	0.26	0.26
s, saturation flow rate [veh/h]	1391	1800	1530	1300	1713	1619	4631	1445	1619	3427	1639
c, Capacity [veh/h]	320	370	315	322	352	113	2223	694	231	1896	907
d1, Uniform Delay [s]	25.02	22.24	23.65	28.24	22.59	30.97	12.31	9.52	29.37	9.40	9.40
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.02	0.04	0.58	1.64	0.13	1.49	0.75	0.03	10.60	0.82	1.72
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.03	0.32	0.58	0.11	0.30	0.48	0.01	0.87	0.46	0.46
d, Delay for Lane Group [s/veh]	25.03	22.28	24.24	29.88	22.73	32.46	13.06	9.55	39.97	10.23	11.12
Lane Group LOS	C	C	C	C	C	C	B	A	D	B	B
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.06	0.16	1.41	3.03	0.50	0.54	3.09	0.06	3.64	3.13	3.22
50th-Percentile Queue Length [ft/ln]	1.39	3.88	35.18	75.63	12.51	13.59	77.36	1.42	90.92	78.26	80.49
95th-Percentile Queue Length [veh/ln]	0.10	0.28	2.53	5.45	0.90	0.98	5.57	0.10	6.55	5.63	5.80
95th-Percentile Queue Length [ft/ln]	2.50	6.98	63.32	136.13	22.52	24.46	139.25	2.56	163.66	140.87	144.88

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	25.03	22.28	24.24	29.88	22.73	22.73	32.46	13.06	9.55	39.97	10.38	11.12
Movement LOS	C	C	C	C	C	C	C	B	A	D	B	B
d_A, Approach Delay [s/veh]	24.06			28.67			13.63			14.45		
Approach LOS	C			C			B			B		
d_I, Intersection Delay [s/veh]	15.60											
Intersection LOS	B											
Intersection V/C	0.545											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	26.59	26.59	26.59	26.59
l_p,int, Pedestrian LOS Score for Intersection	2.206	2.093	3.165	3.511
Crosswalk LOS	B	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	828	828	543	543
d_b, Bicycle Delay [s]	12.02	12.02	18.59	18.59
l_b,int, Bicycle LOS Score for Intersection	1.753	1.929	2.171	2.386
Bicycle LOS	A	A	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-15 SB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	10.1
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.493

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	515.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	30.00			30.00			50.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	308	0	177	0	1009	153	0	756	511
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0404	1.0000	1.0404	1.0000	1.0404	1.0404	1.0000	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	157	0	109	40	0	376	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	320	0	341	0	1159	40	0	1163	0
Peak Hour Factor	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440	0.9440
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	85	0	90	0	307	11	0	308	0
Total Analysis Volume [veh/h]	0	0	0	339	0	361	0	1228	42	0	1232	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	10	0	0	0	10	0	0	10	0
Maximum Green [s]	0	0	0	130	0	0	0	130	0	0	130	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	37	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	R
C, Cycle Length [s]		60	60	60	60	60	60
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		16	16	36	36	36	36
g / C, Green / Cycle		0.27	0.27	0.59	0.59	0.59	0.59
(v / s)_i Volume / Saturation Flow Rate		0.11	0.22	0.24	0.03	0.24	0.00
s, saturation flow rate [veh/h]		2959	1530	4903	1530	4903	1530
c, Capacity [veh/h]		815	421	2902	906	2902	906
d1, Uniform Delay [s]		17.73	20.35	6.57	5.15	6.57	0.00
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.31	3.89	0.41	0.09	0.41	0.00
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.39	0.81	0.40	0.04	0.40	0.00
d, Delay for Lane Group [s/veh]		18.04	24.23	6.98	5.24	6.99	0.00
Lane Group LOS		B	C	A	A	A	A
Critical Lane Group		No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]		1.69	4.51	1.63	0.15	2.10	0.00
50th-Percentile Queue Length [ft/ln]		42.29	112.67	40.78	3.66	52.51	0.00
95th-Percentile Queue Length [veh/ln]		3.05	7.99	2.94	0.26	3.78	0.00
95th-Percentile Queue Length [ft/ln]		76.13	199.71	73.40	6.59	94.52	0.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	18.04	0.00	24.23	0.00	6.98	5.24	0.00	6.99	0.00
Movement LOS				B		C		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			21.23			6.92			6.99		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	10.08											
Intersection LOS	B											
Intersection V/C	0.493											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.273	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1098	632	632
d_b, Bicycle Delay [s]	30.05	6.11	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.219	2.199
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: I-15 NB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	5.9
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.487

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	82	3	41	0	0	0	0	1016	303	0	1103	461
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0000	1.0000	1.0000	1.0000	1.0404	1.0404	1.0000	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	128	0	0	0	0	0	0	60	49	0	248	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	213	3	43	0	0	0	0	1117	49	0	1396	480
Peak Hour Factor	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600	0.9600
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	55	1	11	0	0	0	0	291	13	0	364	125
Total Analysis Volume [veh/h]	222	3	45	0	0	0	0	1164	51	0	1454	500
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	130	0	0	0	0	0	130	0	0	130	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	37	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		No						No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	R	C	R
C, Cycle Length [s]	60	60	60		60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	10	10	10		42	42	42	42
g / C, Green / Cycle	0.17	0.17	0.17		0.70	0.70	0.70	0.70
(v / s)_i Volume / Saturation Flow Rate	0.12	0.01	0.01		0.23	0.03	0.28	0.31
s, saturation flow rate [veh/h]	1714	1560	1530		4903	1530	4903	1530
c, Capacity [veh/h]	286	260	255		3435	1072	3435	1072
d1, Uniform Delay [s]	23.88	21.23	21.23		3.50	2.79	3.77	3.93
k, delay calibration	0.11	0.11	0.11		0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	3.97	0.15	0.15		0.25	0.08	0.36	1.36
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.75	0.09	0.09		0.33	0.05	0.41	0.45
d, Delay for Lane Group [s/veh]	27.84	21.37	21.38		3.75	2.87	4.13	5.29
Lane Group LOS	C	C	C		A	A	A	A
Critical Lane Group	Yes	No	No		No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	3.00	0.27	0.27		0.66	0.08	0.89	1.24
50th-Percentile Queue Length [ft/ln]	75.04	6.76	6.66		16.38	2.11	22.25	30.98
95th-Percentile Queue Length [veh/ln]	5.40	0.49	0.48		1.18	0.15	1.60	2.23
95th-Percentile Queue Length [ft/ln]	135.07	12.17	11.99		29.49	3.79	40.05	55.76

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	27.84	21.37	21.37	0.00	0.00	0.00	0.00	3.75	2.87	0.00	4.13	5.29
Movement LOS	C	C	C					A	A		A	A
d_A, Approach Delay [s/veh]	26.69			0.00			3.71			4.43		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	5.92											
Intersection LOS	A											
Intersection V/C	0.487											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.72	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.187	1.875	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1098	0	632	632
d_b, Bicycle Delay [s]	6.11	30.05	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	1.987	4.132	2.201	2.591
Bicycle LOS	A	D	B	B

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Project West Dwy (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.001

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	0	0	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	0	0	0	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	1	0	0	0	0	1
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.51	8.31	7.20	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.07	0.07	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.51		3.60		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.25					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 7: Project Central Dwy (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.006

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	0	0	1	1	22
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	0	0	1	1	22
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	0	0	0	6
Total Analysis Volume [veh/h]	6	0	0	1	1	23
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.58	8.37	7.24	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.45	0.45	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.58		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.72					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 8: Project East Dwy (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.019

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	18	0	0	7	23	45
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	0	0	7	23	45
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	0	2	6	12
Total Analysis Volume [veh/h]	19	0	0	7	24	47
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.82	8.57	7.33	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.43	1.43	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.82		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.71					
Intersection LOS	A					

Amargosa / Palmetto High-Cube Warehouse

Vistro File: C:\...\PME.vistro
Report File: C:\...\PMOYW.pdf

Scenario 3 Opening Year (2024) With Project PM Peak Hour
8/17/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Amargosa Rd (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	EB Left	0.044	19.0	C
2	Key Pointe Dr (NS) at Amargosa Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	0.008	14.5	B
3	Key Pointe Dr (NS) at Main St (EW)	Signalized	HCM 7th Edition	WB Left	0.834	30.0	C
4	I-15 SB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Right	0.686	13.2	B
5	I-15 NB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	NB Right	0.687	13.0	B
6	Project West Dwy (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	WB Thru	0.000	0.0	A
7	Project Central Dwy (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Left	0.015	8.6	A
8	Project East Dwy (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Left	0.035	8.8	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Amargosa Rd (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	19.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.044

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	1	443	417	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	26	10	7	7	12	37
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	471	441	7	12	37
Peak Hour Factor	0.9150	0.9150	0.9150	0.9150	0.9150	0.9150
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	129	120	2	3	10
Total Analysis Volume [veh/h]	30	515	482	8	13	40
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.04	0.06
d_M, Delay for Movement [s/veh]	8.24	0.00	0.00	0.00	19.01	11.71
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	0.35	0.35
95th-Percentile Queue Length [ft/ln]	1.14	1.14	0.00	0.00	8.66	8.66
d_A, Approach Delay [s/veh]	0.45		0.00		13.50	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.89					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: Key Pointe Dr (NS) at Amargosa Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	14.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.008

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	3	19	287	9	12	335
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	49	2	0	68	2
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	3	69	301	9	80	351
Peak Hour Factor	0.9360	0.9360	0.9360	0.9360	0.9360	0.9360
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	18	80	2	21	94
Total Analysis Volume [veh/h]	3	74	322	10	85	375
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.08	0.00	0.00	0.06	0.00
d_M, Delay for Movement [s/veh]	14.48	9.50	0.00	0.00	7.95	0.00
Movement LOS	B	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.26	0.00	0.00	0.14	0.07
95th-Percentile Queue Length [ft/ln]	0.59	6.46	0.00	0.00	3.49	1.74
d_A, Approach Delay [s/veh]	9.70		0.00		1.47	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.64					
Intersection LOS	B					

Intersection Level Of Service Report
Intersection 3: Key Pointe Dr (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	30.0
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.834

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00	175.00	100.00	100.00	175.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	31	57	241	236	84	15	46	970	18	295	1111	194
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	66	0	2	2	402	0	0	267	47
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	32	59	251	312	87	18	50	1411	19	307	1423	249
Peak Hour Factor	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720	0.9720
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	8	15	65	80	22	5	13	363	5	79	366	64
Total Analysis Volume [veh/h]	33	61	258	321	90	19	51	1452	20	316	1464	256
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	95
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	10	10	0	10	10	0
Maximum Green [s]	0	130	0	0	130	0	130	130	0	130	130	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	0	14	23	0	39	48	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	95	95	95	95	95	95	95	95	95	95	95
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	29	29	7	34	34	20	47	47
g / C, Green / Cycle	0.31	0.31	0.31	0.31	0.31	0.08	0.36	0.36	0.21	0.49	0.49
(v / s)_i Volume / Saturation Flow Rate	0.02	0.03	0.16	0.29	0.06	0.03	0.30	0.01	0.19	0.33	0.33
s, saturation flow rate [veh/h]	1309	1800	1530	1086	1747	1619	4631	1445	1619	3427	1667
c, Capacity [veh/h]	392	550	467	361	533	127	1646	514	345	1681	818
d1, Uniform Delay [s]	28.05	23.74	27.47	36.14	24.43	41.72	28.42	20.02	36.36	18.36	18.44
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.09	0.09	0.97	6.67	0.18	2.01	6.39	0.13	8.74	2.14	4.51
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.08	0.11	0.54	0.86	0.20	0.40	0.86	0.04	0.89	0.67	0.67
d, Delay for Lane Group [s/veh]	28.14	23.82	28.43	42.81	24.61	43.72	34.81	20.16	45.09	20.50	22.95
Lane Group LOS	C	C	C	D	C	D	C	C	D	C	C
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.57	0.96	4.77	7.93	1.75	1.13	9.91	0.27	7.28	8.54	8.96
50th-Percentile Queue Length [ft/ln]	14.30	23.91	119.21	198.26	43.85	28.29	247.84	6.84	181.98	213.62	224.01
95th-Percentile Queue Length [veh/ln]	1.03	1.72	8.35	12.55	3.16	2.04	15.08	0.49	11.70	13.34	13.87
95th-Percentile Queue Length [ft/ln]	25.74	43.03	208.74	313.72	78.93	50.92	376.94	12.31	292.60	333.47	346.74

Movement, Approach, & Intersection Results

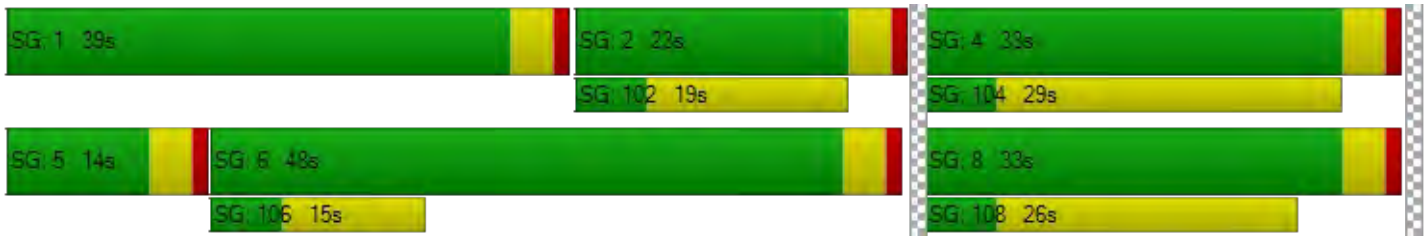
d_M, Delay for Movement [s/veh]	28.14	23.82	28.43	42.81	24.61	24.61	43.72	34.81	20.16	45.09	21.02	22.95
Movement LOS	C	C	C	D	C	C	D	C	C	D	C	C
d_A, Approach Delay [s/veh]	27.61			38.23			34.93			25.00		
Approach LOS	C			D			C			C		
d_I, Intersection Delay [s/veh]	30.00											
Intersection LOS	C											
Intersection V/C	0.834											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	38.96	38.96	38.96	38.96
l_p,int, Pedestrian LOS Score for Intersection	2.319	2.196	3.375	3.960
Crosswalk LOS	B	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	610	610	400	926
d_b, Bicycle Delay [s]	22.96	22.96	30.44	13.72
l_b,int, Bicycle LOS Score for Intersection	2.124	2.248	2.374	2.648
Bicycle LOS	B	B	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-15 SB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	13.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.686

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	515.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	30.00			30.00			50.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	443	0	351	0	1272	178	0	1253	418
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0404	1.0000	1.0404	1.0000	1.0404	1.0404	1.0000	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	90	0	360	108	0	224	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	461	0	455	0	1683	108	0	1528	0
Peak Hour Factor	0.9440	0.9440	0.9440	0.9800	0.9440	0.9800	0.9440	0.9800	0.9800	0.9440	0.9800	0.9800
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	118	0	116	0	429	28	0	390	0
Total Analysis Volume [veh/h]	0	0	0	470	0	464	0	1717	110	0	1559	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	10	0	0	0	10	0	0	10	0
Maximum Green [s]	0	0	0	130	0	0	0	130	0	0	130	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	37	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	R
C, Cycle Length [s]		60	60	60	60	60	60
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		21	21	31	31	31	31
g / C, Green / Cycle		0.35	0.35	0.52	0.52	0.52	0.52
(v / s)_i Volume / Saturation Flow Rate		0.16	0.30	0.34	0.07	0.31	0.00
s, saturation flow rate [veh/h]		2959	1530	4903	1530	4903	1530
c, Capacity [veh/h]		1042	539	2525	788	2525	788
d1, Uniform Delay [s]		14.95	17.96	10.77	7.61	10.27	0.00
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.30	3.88	1.42	0.36	1.09	0.00
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.44	0.84	0.67	0.14	0.61	0.00
d, Delay for Lane Group [s/veh]		15.24	21.84	12.19	7.97	11.36	0.00
Lane Group LOS		B	C	B	A	B	A
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		2.21	5.72	4.00	0.58	4.10	0.00
50th-Percentile Queue Length [ft/ln]		55.23	142.97	99.96	14.45	102.57	0.00
95th-Percentile Queue Length [veh/ln]		3.98	9.64	7.20	1.04	7.39	0.00
95th-Percentile Queue Length [ft/ln]		99.42	241.01	179.92	26.01	184.63	0.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	15.24	0.00	21.84	0.00	12.19	7.97	0.00	11.36	0.00
Movement LOS				B		C		B	A		B	A
d_A, Approach Delay [s/veh]	0.00			18.52			11.93			11.36		
Approach LOS	A			B			B			B		
d_I, Intersection Delay [s/veh]	13.15											
Intersection LOS	B											
Intersection V/C	0.686											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.70	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.335	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1099	633	633
d_b, Bicycle Delay [s]	30.03	6.09	14.03	14.03
l_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.545	2.400
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: I-15 NB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	13.0
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.687

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	190	4	772	0	0	0	0	1448	225	0	1529	404
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0404	1.0404	1.0404	1.0000	1.0000	1.0000	1.0000	1.0404	1.0404	1.0000	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	74	0	0	0	0	0	0	225	135	0	150	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	272	4	803	0	0	0	0	1731	135	0	1741	420
Peak Hour Factor	0.9730	0.9730	0.9730	0.9600	0.9600	0.9600	0.9600	0.9730	0.9730	0.9600	0.9730	0.9730
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	70	1	206	0	0	0	0	445	35	0	447	108
Total Analysis Volume [veh/h]	280	4	825	0	0	0	0	1779	139	0	1789	432
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	130	0	0	0	0	0	130	0	0	130	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	37	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		No						No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	R	C	R
C, Cycle Length [s]	60	60	60		60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	20	20		33	33	33	33
g / C, Green / Cycle	0.33	0.33	0.33		0.54	0.54	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.16	0.26	0.26		0.35	0.09	0.36	0.27
s, saturation flow rate [veh/h]	1714	1532	1530		4903	1530	4903	1530
c, Capacity [veh/h]	561	501	500		2648	826	2648	826
d1, Uniform Delay [s]	16.20	18.50	18.51		9.84	6.98	9.87	8.78
k, delay calibration	0.11	0.11	0.11		0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.65	3.18	3.21		1.28	0.43	1.30	2.25
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.49	0.81	0.81		0.65	0.16	0.66	0.51
d, Delay for Lane Group [s/veh]	16.85	21.68	21.72		11.12	7.41	11.18	11.02
Lane Group LOS	B	C	C		B	A	B	B
Critical Lane Group	No	No	Yes		No	No	Yes	No
50th-Percentile Queue Length [veh/ln]	2.81	5.03	5.03		3.77	0.67	3.80	2.76
50th-Percentile Queue Length [ft/ln]	70.18	125.65	125.80		94.17	16.77	95.08	68.92
95th-Percentile Queue Length [veh/ln]	5.05	8.70	8.71		6.78	1.21	6.85	4.96
95th-Percentile Queue Length [ft/ln]	126.33	217.57	217.77		169.51	30.19	171.14	124.06

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.85	21.68	21.70	0.00	0.00	0.00	0.00	11.12	7.41	0.00	11.18	11.02
Movement LOS	B	C	C					B	A		B	B
d_A, Approach Delay [s/veh]	20.48			0.00			10.86			11.15		
Approach LOS	C			A			B			B		
d_I, Intersection Delay [s/veh]	13.01											
Intersection LOS	B											
Intersection V/C	0.687											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.72	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.408	1.818	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1098	0	632	632
d_b, Bicycle Delay [s]	6.11	30.05	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	3.340	4.132	2.586	2.748
Bicycle LOS	C	D	B	B

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Project West Dwy (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	1	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	1	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	1	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	7.20	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		3.60		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 7: Project Central Dwy (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.015

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	1	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	0	0	0	12
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	0	0	0	1	12
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	0	0	0	0	3
Total Analysis Volume [veh/h]	16	0	0	0	1	13
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.58	8.38	7.22	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.12	1.12	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.58		3.61		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.60					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 8: Project East Dwy (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.035

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	1	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0404	1.0404	1.0404	1.0404	1.0404	1.0404
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	0	0	16	12	21
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	0	0	16	13	21
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	0	0	4	3	6
Total Analysis Volume [veh/h]	36	0	0	17	14	22
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.82	8.53	7.26	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.70	2.70	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.82		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.57					
Intersection LOS	A					

GENERAL PLAN BUILDOUT (2040) WITHOUT PROJECT

Amargosa / Palmetto High-Cube Warehouse

Vistro File: C:\...\AME.vistro

Scenario 4 General Plan Buildout Without Project AM Peak Hour

Report File: C:\...\AM40WO.pdf

8/15/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Amargosa Rd (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Thru	0.006	0.0	A
2	Key Pointe Dr (NS) at Amargosa Rd (EW)	Two-way stop	HCM 7th Edition	NB Right	0.052	9.0	A
3	Key Pointe Dr (NS) at Main St (EW)	Signalized	HCM 7th Edition	WB Left	0.715	24.9	C
4	I-15 SB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Right	0.446	8.8	A
5	I-15 NB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	NB Right	0.546	8.1	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Amargosa Rd (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.006

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	240	620	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	240	620	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	63	163	0	0	0
Total Analysis Volume [veh/h]	0	253	653	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.71	0.00	0.00	0.00	15.94	12.32
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.00		0.00		14.13	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Key Pointe Dr (NS) at Amargosa Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.052

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	49	179	17	403	154
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	49	179	17	403	154
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	13	47	4	106	41
Total Analysis Volume [veh/h]	0	52	188	18	424	162
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.05	0.00	0.00	0.29	0.00
d_M, Delay for Movement [s/veh]	28.58	9.02	0.00	0.00	8.17	0.00
Movement LOS	D	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.16	0.00	0.00	0.86	0.43
95th-Percentile Queue Length [ft/ln]	0.00	4.10	0.00	0.00	21.61	10.80
d_A, Approach Delay [s/veh]	9.02		0.00		5.91	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.66					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 3: Key Pointe Dr (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	24.9
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.715

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00	175.00	100.00	100.00	175.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	5	23	107	436	73	60	74	1019	9	212	916	323
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	23	107	436	73	60	74	1019	9	212	916	323
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	6	28	115	19	16	19	268	2	56	241	85
Total Analysis Volume [veh/h]	5	24	113	459	77	63	78	1073	9	223	964	340
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	10	10	0	10	10	0
Maximum Green [s]	0	130	0	0	130	0	130	130	0	130	130	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	0	14	23	0	24	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	29	29	8	27	27	12	31	31
g / C, Green / Cycle	0.36	0.36	0.36	0.36	0.36	0.10	0.34	0.34	0.15	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.07	0.34	0.08	0.04	0.20	0.01	0.12	0.23	0.23
s, saturation flow rate [veh/h]	1277	1900	1615	1280	1760	1714	5176	1615	1714	3618	1657
c, Capacity [veh/h]	456	689	585	515	638	175	1754	547	255	1396	639
d1, Uniform Delay [s]	20.45	16.49	17.45	27.11	17.63	33.78	21.81	17.61	33.12	19.76	19.76
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.01	0.02	0.15	4.12	0.16	1.63	1.42	0.05	7.27	2.00	4.35
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.03	0.18	0.85	0.21	0.42	0.58	0.02	0.83	0.61	0.61
d, Delay for Lane Group [s/veh]	20.46	16.51	17.60	31.24	17.79	35.40	23.23	17.67	40.40	21.76	24.11
Lane Group LOS	C	B	B	C	B	D	C	B	D	C	C
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.07	0.27	1.32	8.51	1.65	1.33	4.84	0.11	4.18	5.86	5.79
50th-Percentile Queue Length [ft/ln]	1.66	6.67	32.97	212.71	41.35	33.29	121.03	2.68	104.54	146.58	144.75
95th-Percentile Queue Length [veh/ln]	0.12	0.48	2.37	13.29	2.98	2.40	8.45	0.19	7.53	9.83	9.74
95th-Percentile Queue Length [ft/ln]	2.98	12.00	59.34	332.30	74.42	59.92	211.24	4.82	188.18	245.86	243.41

Movement, Approach, & Intersection Results

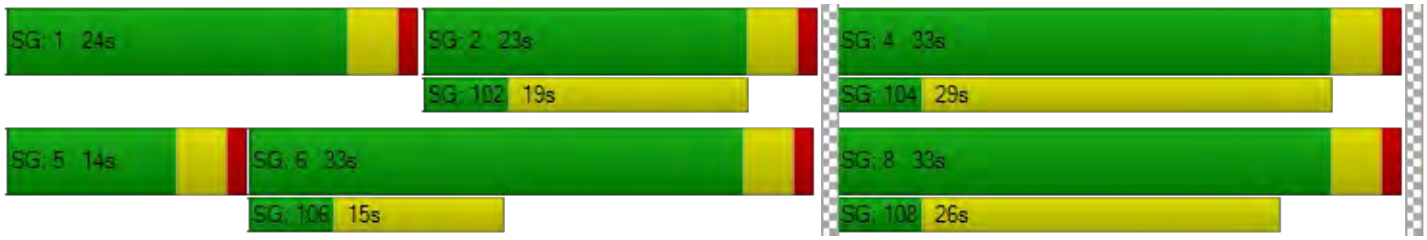
d_M, Delay for Movement [s/veh]	20.46	16.51	17.60	31.24	17.79	17.79	35.40	23.23	17.67	40.40	21.93	24.11
Movement LOS	C	B	B	C	B	B	D	C	B	D	C	C
d_A, Approach Delay [s/veh]	17.52			28.09			24.00			25.11		
Approach LOS	B			C			C			C		
d_I, Intersection Delay [s/veh]	24.94											
Intersection LOS	C											
Intersection V/C	0.715											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	31.55	31.55	31.55	31.55
l_p,int, Pedestrian LOS Score for Intersection	2.231	2.257	3.151	3.909
Crosswalk LOS	B	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	724	724	475	724
d_b, Bicycle Delay [s]	16.29	16.29	23.29	16.29
l_b,int, Bicycle LOS Score for Intersection	1.782	2.498	2.166	2.358
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-15 SB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.446

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	515.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	30.00			30.00			50.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	339	0	274	0	1152	168	0	1276	562
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	339	0	274	0	1152	0	0	1276	0
Peak Hour Factor	0.9440	0.9440	0.9440	0.9500	0.9440	0.9500	0.9440	0.9500	0.9500	0.9440	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	89	0	72	0	303	0	0	336	0
Total Analysis Volume [veh/h]	0	0	0	357	0	288	0	1213	0	0	1343	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	10	0	0	0	10	0	0	10	0
Maximum Green [s]	0	0	0	130	0	0	0	130	0	0	130	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	37	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	R
C, Cycle Length [s]		60	60	60	60	60	60
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		13	13	39	39	39	39
g / C, Green / Cycle		0.22	0.22	0.64	0.64	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate		0.10	0.17	0.22	0.00	0.25	0.00
s, saturation flow rate [veh/h]		3329	1615	5176	1615	5176	1615
c, Capacity [veh/h]		745	361	3330	1039	3330	1039
d1, Uniform Delay [s]		20.20	21.85	4.92	0.00	5.08	0.00
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.44	3.35	0.29	0.00	0.34	0.00
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.46	0.76	0.35	0.00	0.38	0.00
d, Delay for Lane Group [s/veh]		20.63	25.20	5.21	0.00	5.42	0.00
Lane Group LOS		C	C	A	A	A	A
Critical Lane Group		No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]		1.95	3.67	1.15	0.00	1.83	0.00
50th-Percentile Queue Length [ft/ln]		48.76	91.70	28.68	0.00	45.67	0.00
95th-Percentile Queue Length [veh/ln]		3.51	6.60	2.07	0.00	3.29	0.00
95th-Percentile Queue Length [ft/ln]		87.77	165.06	51.63	0.00	82.21	0.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	20.63	0.00	25.20	0.00	5.21	0.00	0.00	5.42	0.00
Movement LOS				C		C		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			22.67			5.21			5.42		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	8.82											
Intersection LOS	A											
Intersection V/C	0.446											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.261	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1098	632	632
d_b, Bicycle Delay [s]	30.05	6.11	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.193	2.261
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: I-15 NB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	8.1
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.546

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	137	4	452	0	0	0	0	1189	333	0	1583	566
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	137	4	452	0	0	0	0	1189	0	0	1583	566
Peak Hour Factor	0.9500	0.9500	0.9500	0.9600	0.9600	0.9600	0.9600	0.9500	0.9500	0.9600	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	36	1	119	0	0	0	0	313	0	0	417	149
Total Analysis Volume [veh/h]	144	4	476	0	0	0	0	1252	0	0	1666	596
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	130	0	0	0	0	0	130	0	0	130	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	37	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		No						No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	R	C	R
C, Cycle Length [s]	60	60	60		60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12		40	40	40	40
g / C, Green / Cycle	0.19	0.19	0.19		0.67	0.67	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.08	0.14	0.14		0.23	0.00	0.31	0.35
s, saturation flow rate [veh/h]	1714	1619	1615		5176	1615	5176	1615
c, Capacity [veh/h]	333	315	314		3482	1086	3482	1086
d1, Uniform Delay [s]	21.23	22.74	22.74		4.19	0.00	4.64	4.96
k, delay calibration	0.11	0.11	0.11		0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.81	3.24	3.25		0.27	0.00	0.43	1.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.41	0.73	0.73		0.34	0.00	0.45	0.52
d, Delay for Lane Group [s/veh]	22.05	25.99	26.00		4.45	0.00	5.07	6.76
Lane Group LOS	C	C	C		A	A	A	A
Critical Lane Group	No	No	Yes		No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.65	3.10	3.09		0.94	0.00	1.40	1.98
50th-Percentile Queue Length [ft/ln]	41.29	77.42	77.24		23.44	0.00	34.91	49.61
95th-Percentile Queue Length [veh/ln]	2.97	5.57	5.56		1.69	0.00	2.51	3.57
95th-Percentile Queue Length [ft/ln]	74.32	139.35	139.04		42.20	0.00	62.85	89.29

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.05	25.99	25.99	0.00	0.00	0.00	0.00	4.45	0.00	0.00	5.07	6.76
Movement LOS	C	C	C					A	A		A	A
d_A, Approach Delay [s/veh]	25.08			0.00			4.45			5.52		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	8.15											
Intersection LOS	A											
Intersection V/C	0.546											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.72	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.256	1.960	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1098	0	632	632
d_b, Bicycle Delay [s]	6.11	30.05	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	2.538	4.132	2.214	2.742
Bicycle LOS	B	D	B	B

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Amargosa / Palmetto High-Cube Warehouse

Vistro File: C:\...\PME.vistro

Scenario 4 General Plan Buildout Without Project PM Peak Hour

Report File: C:\...\PM40WO.pdf

8/15/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Amargosa Rd (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	NB Left	0.001	8.4	A
2	Key Pointe Dr (NS) at Amargosa Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	0.050	15.5	C
3	Key Pointe Dr (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Left	1.036	160.2	F
4	I-15 SB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Right	0.668	12.2	B
5	I-15 NB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	NB Right	0.729	13.5	B

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Amargosa Rd (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.4
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.001

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	1	810	500	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	810	500	0	0	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	213	132	0	0	0
Total Analysis Volume [veh/h]	1	853	526	0	0	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.01	0.01	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.35	0.00	0.00	0.00	25.41	11.26
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.04	0.04	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	0.01		0.00		18.34	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.01					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 2: Key Pointe Dr (NS) at Amargosa Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	15.5
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.050

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	18	352	328	21	79	369
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	352	328	21	79	369
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	93	86	6	21	97
Total Analysis Volume [veh/h]	19	371	345	22	83	388
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.05	0.42	0.00	0.00	0.06	0.00
d_M, Delay for Movement [s/veh]	15.51	12.29	0.00	0.00	8.04	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.16	2.12	0.00	0.00	0.14	0.07
95th-Percentile Queue Length [ft/ln]	3.94	53.10	0.00	0.00	3.44	1.72
d_A, Approach Delay [s/veh]	12.45		0.00		1.42	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	4.49					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Key Pointe Dr (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	160.2
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	1 hour	Volume to Capacity (v/c):	1.036

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00	175.00	100.00	100.00	175.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	121	265	551	139	32	143	1274	20	325	1222	536
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	121	265	551	139	32	143	1274	20	325	1222	536
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	32	70	145	37	8	38	335	5	86	322	141
Total Analysis Volume [veh/h]	36	127	279	580	146	34	151	1341	21	342	1286	564
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	10	10	0	10	10	0
Maximum Green [s]	0	130	0	0	130	0	130	130	0	130	130	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	57	0	0	57	0	14	29	0	24	39	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	53	53	53	53	53	10	25	25	20	35	35
g / C, Green / Cycle	0.48	0.48	0.48	0.48	0.48	0.09	0.23	0.23	0.18	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.03	0.06	0.16	0.54	0.09	0.08	0.25	0.01	0.19	0.33	0.34
s, saturation flow rate [veh/h]	1233	1900	1615	1013	1839	1714	5176	1615	1714	3618	1623
c, Capacity [veh/h]	572	914	777	501	885	157	1178	368	313	1151	517
d1, Uniform Delay [s]	19.66	15.85	17.75	34.55	16.36	49.63	42.59	33.31	45.09	37.60	37.60
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.06	0.26	189.69	0.11	21.87	164.68	0.28	95.96	108.70	172.16
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.13	0.34	1.10	0.19	0.91	1.08	0.05	1.04	1.05	1.07
d, Delay for Lane Group [s/veh]	19.71	15.91	18.01	224.24	16.46	71.50	207.27	33.59	141.05	146.29	209.76
Lane Group LOS	B	B	B	F	B	E	F	C	F	F	F
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.54	1.69	4.17	40.24	2.47	4.70	28.05	0.43	16.45	31.79	37.63
50th-Percentile Queue Length [ft/ln]	13.39	42.34	104.26	1006.07	61.82	117.52	701.29	10.77	411.17	794.66	940.75
95th-Percentile Queue Length [veh/ln]	0.96	3.05	7.51	54.55	4.45	8.26	38.49	0.78	23.58	42.31	50.08
95th-Percentile Queue Length [ft/ln]	24.11	76.21	187.66	1363.75	111.27	206.41	962.13	19.38	589.57	1057.71	1252.11

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	19.71	15.91	18.01	224.24	16.46	16.46	71.50	207.27	33.59	141.05	147.26	209.76
Movement LOS	B	B	B	F	B	B	E	F	C	F	F	F
d_A, Approach Delay [s/veh]	17.54			175.03			191.34			162.38		
Approach LOS	B			F			F			F		
d_I, Intersection Delay [s/veh]	160.22											
Intersection LOS	F											
Intersection V/C	1.036											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.44	46.44	46.44	46.44
l_p,int, Pedestrian LOS Score for Intersection	2.363	2.446	3.339	4.358
Crosswalk LOS	B	B	C	E
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	962	962	454	636
d_b, Bicycle Delay [s]	14.82	14.82	32.91	25.63
l_b,int, Bicycle LOS Score for Intersection	2.253	2.751	2.350	2.705
Bicycle LOS	B	C	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-15 SB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	12.2
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.668

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	515.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	30.00			30.00			50.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	496	0	423	0	1874	196	0	1378	460
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	496	0	423	0	1874	0	0	1378	0
Peak Hour Factor	0.9440	0.9440	0.9440	0.9500	0.9440	0.9500	0.9440	0.9500	0.9500	0.9440	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	131	0	111	0	493	0	0	363	0
Total Analysis Volume [veh/h]	0	0	0	522	0	445	0	1973	0	0	1451	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	10	0	0	0	10	0	0	10	0
Maximum Green [s]	0	0	0	130	0	0	0	130	0	0	130	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	37	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	R
C, Cycle Length [s]		60	60	60	60	60	60
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		19	19	33	33	33	33
g / C, Green / Cycle		0.32	0.32	0.55	0.55	0.55	0.55
(v / s)_i Volume / Saturation Flow Rate		0.16	0.26	0.36	0.00	0.27	0.00
s, saturation flow rate [veh/h]		3144	1615	5176	1615	5176	1615
c, Capacity [veh/h]		1010	519	2825	882	2825	882
d1, Uniform Delay [s]		16.46	18.79	9.73	0.00	8.46	0.00
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.37	3.28	1.25	0.00	0.61	0.00
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.49	0.82	0.66	0.00	0.49	0.00
d, Delay for Lane Group [s/veh]		16.84	22.06	10.98	0.00	9.07	0.00
Lane Group LOS		B	C	B	A	A	A
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		2.54	5.32	4.02	0.00	3.09	0.00
50th-Percentile Queue Length [ft/ln]		63.62	133.10	100.59	0.00	77.25	0.00
95th-Percentile Queue Length [veh/ln]		4.58	9.11	7.24	0.00	5.56	0.00
95th-Percentile Queue Length [ft/ln]		114.52	227.71	181.06	0.00	139.05	0.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	16.84	0.00	22.06	0.00	10.98	0.00	0.00	9.07	0.00
Movement LOS				B		C		B	A		A	A
d_A, Approach Delay [s/veh]	0.00			19.24			10.98			9.07		
Approach LOS	A			B			B			A		
d_I, Intersection Delay [s/veh]	12.17											
Intersection LOS	B											
Intersection V/C	0.668											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.336	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1098	632	632
d_b, Bicycle Delay [s]	30.05	6.11	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.590	2.318
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: I-15 NB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	13.5
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.729

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	245	7	849	0	0	0	0	2024	248	0	1682	573
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	245	7	849	0	0	0	0	2024	0	0	1682	573
Peak Hour Factor	0.9500	0.9500	0.9500	0.9600	0.9600	0.9600	0.9600	0.9500	0.9500	0.9600	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	64	2	223	0	0	0	0	533	0	0	443	151
Total Analysis Volume [veh/h]	258	7	894	0	0	0	0	2131	0	0	1771	603
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	130	0	0	0	0	0	130	0	0	130	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	37	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		No						No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	R	C	R
C, Cycle Length [s]	60	60	60		60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	20	20		32	32	32	32
g / C, Green / Cycle	0.33	0.33	0.33		0.54	0.54	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.14	0.26	0.27		0.39	0.00	0.32	0.35
s, saturation flow rate [veh/h]	1714	1619	1615		5176	1615	5176	1615
c, Capacity [veh/h]	564	533	531		2785	869	2785	869
d1, Uniform Delay [s]	15.81	18.42	18.43		10.55	0.00	9.52	9.96
k, delay calibration	0.11	0.11	0.11		0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.53	2.96	3.00		1.71	0.00	0.98	3.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.43	0.80	0.81		0.73	0.00	0.60	0.66
d, Delay for Lane Group [s/veh]	16.34	21.38	21.44		12.26	0.00	10.50	13.94
Lane Group LOS	B	C	C		B	A	B	B
Critical Lane Group	No	No	Yes		Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	2.47	5.29	5.30		4.77	0.00	3.50	4.43
50th-Percentile Queue Length [ft/ln]	61.64	132.18	132.42		119.21	0.00	87.44	110.75
95th-Percentile Queue Length [veh/ln]	4.44	9.06	9.07		8.35	0.00	6.30	7.88
95th-Percentile Queue Length [ft/ln]	110.95	226.45	226.78		208.75	0.00	157.39	197.05

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.34	21.38	21.41	0.00	0.00	0.00	0.00	12.26	0.00	0.00	10.50	13.94
Movement LOS	B	C	C					B	A		B	B
d_A, Approach Delay [s/veh]	20.28			0.00			12.26			11.38		
Approach LOS	C			A			B			B		
d_I, Intersection Delay [s/veh]	13.53											
Intersection LOS	B											
Intersection V/C	0.729											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.72	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.380	1.970	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1098	0	632	632
d_b, Bicycle Delay [s]	6.11	30.05	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	3.376	4.132	2.673	2.800
Bicycle LOS	C	D	B	C

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



GENERAL PLAN BUILDOUT (2040) WITH PROJECT

Amargosa / Palmetto High-Cube Warehouse

Vistro File: C:\...\AME.vistro

Scenario 5 General Plan Buildout With Project AM Peak Hour

Report File: C:\...\AM40W.pdf

8/17/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Amargosa Rd (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	EB Left	0.011	19.2	C
2	Key Pointe Dr (NS) at Amargosa Rd (EW)	Two-way stop	HCM 7th Edition	NB Right	0.108	9.3	A
3	Key Pointe Dr (NS) at Main St (EW)	Signalized	HCM 7th Edition	WB Left	0.733	25.6	C
4	I-15 SB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Right	0.463	9.0	A
5	I-15 NB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	NB Right	0.546	8.2	A
6	Project West Dwy (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Left	0.001	8.5	A
7	Project Central Dwy (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Left	0.006	8.6	A
8	Project East Dwy (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Left	0.019	8.8	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Amargosa Rd (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	19.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.011

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	0	240	620	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	54	0	0	13	3	22
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	54	240	620	13	3	22
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	14	63	163	3	1	6
Total Analysis Volume [veh/h]	57	253	653	14	3	23
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.00	0.01	0.00	0.01	0.05
d_M, Delay for Movement [s/veh]	8.81	0.00	0.00	0.00	19.17	12.87
Movement LOS	A	A	A	A	C	B
95th-Percentile Queue Length [veh/ln]	0.09	0.09	0.00	0.00	0.18	0.18
95th-Percentile Queue Length [ft/ln]	2.32	2.32	0.00	0.00	4.49	4.49
d_A, Approach Delay [s/veh]	1.62		0.00		13.63	
Approach LOS	A		A		B	
d_I, Intersection Delay [s/veh]	0.86					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 2: Key Pointe Dr (NS) at Amargosa Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	9.3
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.108

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	49	179	17	403	154
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	53	1	0	22	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	102	180	17	425	154
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	27	47	4	112	41
Total Analysis Volume [veh/h]	0	107	189	18	447	162
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.11	0.00	0.00	0.31	0.00
d_M, Delay for Movement [s/veh]	30.83	9.27	0.00	0.00	8.21	0.00
Movement LOS	D	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.36	0.00	0.00	0.93	0.46
95th-Percentile Queue Length [ft/ln]	0.00	9.07	0.00	0.00	23.15	11.58
d_A, Approach Delay [s/veh]	9.27		0.00		6.03	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	5.05					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 3: Key Pointe Dr (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	25.6
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.733

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00	175.00	100.00	100.00	175.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	5	23	107	436	73	60	74	1019	9	212	916	323
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	22	0	0	2	0	0	0	0	51
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	23	107	458	73	60	76	1019	9	212	916	374
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	6	28	121	19	16	20	268	2	56	241	98
Total Analysis Volume [veh/h]	5	24	113	482	77	63	80	1073	9	223	964	394
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	80
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	10	10	0	10	10	0
Maximum Green [s]	0	130	0	0	130	0	130	130	0	130	130	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	33	0	0	33	0	14	23	0	24	33	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	80	80	80	80	80	80	80	80	80	80	80
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	29	29	29	29	29	8	27	27	12	31	31
g / C, Green / Cycle	0.36	0.36	0.36	0.36	0.36	0.10	0.34	0.34	0.15	0.39	0.39
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.07	0.36	0.08	0.04	0.20	0.01	0.12	0.25	0.25
s, saturation flow rate [veh/h]	1277	1900	1615	1280	1760	1714	5176	1615	1714	3618	1631
c, Capacity [veh/h]	456	689	585	515	638	177	1754	547	255	1392	628
d1, Uniform Delay [s]	20.45	16.49	17.45	27.74	17.63	33.74	21.81	17.61	33.12	20.11	20.11
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.01	0.02	0.15	5.93	0.16	1.66	1.42	0.05	7.27	2.28	5.03
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.01	0.03	0.18	0.89	0.21	0.43	0.58	0.02	0.83	0.64	0.64
d, Delay for Lane Group [s/veh]	20.46	16.51	17.60	33.66	17.79	35.40	23.23	17.67	40.40	22.39	25.14
Lane Group LOS	C	B	B	C	B	D	C	B	D	C	C
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.07	0.27	1.32	9.39	1.65	1.37	4.84	0.11	4.18	6.27	6.13
50th-Percentile Queue Length [ft/ln]	1.66	6.67	32.97	234.70	41.35	34.18	121.03	2.68	104.54	156.63	153.29
95th-Percentile Queue Length [veh/ln]	0.12	0.48	2.37	14.41	2.98	2.46	8.45	0.19	7.53	10.37	10.19
95th-Percentile Queue Length [ft/ln]	2.98	12.00	59.34	360.33	74.42	61.53	211.24	4.82	188.18	259.25	254.81

Movement, Approach, & Intersection Results

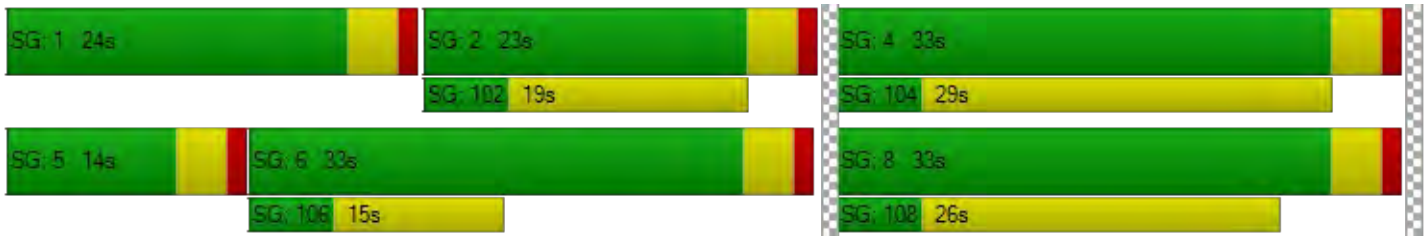
d_M, Delay for Movement [s/veh]	20.46	16.51	17.60	33.66	17.79	17.79	35.40	23.23	17.67	40.40	22.47	25.14
Movement LOS	C	B	B	C	B	B	D	C	B	D	C	C
d_A, Approach Delay [s/veh]	17.52			30.09			24.02			25.66		
Approach LOS	B			C			C			C		
d_I, Intersection Delay [s/veh]	25.57											
Intersection LOS	C											
Intersection V/C	0.733											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	31.55	31.55	31.55	31.55
l_p,int, Pedestrian LOS Score for Intersection	2.231	2.282	3.152	3.958
Crosswalk LOS	B	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	724	724	475	724
d_b, Bicycle Delay [s]	16.29	16.29	23.29	16.29
l_b,int, Bicycle LOS Score for Intersection	1.782	2.535	2.167	2.386
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-15 SB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	9.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.463

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	515.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	30.00			30.00			50.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	339	0	274	0	1152	168	0	1276	562
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	15	0	13	9	0	36	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	339	0	289	0	1165	9	0	1312	0
Peak Hour Factor	0.9440	0.9440	0.9440	0.9500	0.9440	0.9500	0.9440	0.9500	0.9500	0.9440	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	89	0	76	0	307	2	0	345	0
Total Analysis Volume [veh/h]	0	0	0	357	0	304	0	1226	9	0	1381	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	10	0	0	0	10	0	0	10	0
Maximum Green [s]	0	0	0	130	0	0	0	130	0	0	130	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	37	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	R
C, Cycle Length [s]		60	60	60	60	60	60
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		14	14	38	38	38	38
g / C, Green / Cycle		0.23	0.23	0.64	0.64	0.64	0.64
(v / s)_i Volume / Saturation Flow Rate		0.10	0.18	0.23	0.01	0.25	0.00
s, saturation flow rate [veh/h]		3329	1615	5176	1615	5176	1615
c, Capacity [veh/h]		776	376	3282	1024	3282	1024
d1, Uniform Delay [s]		19.72	21.57	5.20	4.05	5.40	0.00
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.39	3.40	0.30	0.02	0.37	0.00
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.44	0.77	0.35	0.01	0.40	0.00
d, Delay for Lane Group [s/veh]		20.11	24.96	5.50	4.07	5.76	0.00
Lane Group LOS		C	C	A	A	A	A
Critical Lane Group		No	Yes	No	No	Yes	No
50th-Percentile Queue Length [veh/ln]		1.92	3.85	1.24	0.03	1.99	0.00
50th-Percentile Queue Length [ft/ln]		47.95	96.35	31.10	0.63	49.76	0.00
95th-Percentile Queue Length [veh/ln]		3.45	6.94	2.24	0.05	3.58	0.00
95th-Percentile Queue Length [ft/ln]		86.31	173.43	55.98	1.14	89.56	0.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	20.11	0.00	24.96	0.00	5.50	4.07	0.00	5.76	0.00
Movement LOS				C		C		A	A		A	A
d_A, Approach Delay [s/veh]	0.00			22.34			5.49			5.76		
Approach LOS	A			C			A			A		
d_I, Intersection Delay [s/veh]	9.00											
Intersection LOS	A											
Intersection V/C	0.463											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.265	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1098	632	632
d_b, Bicycle Delay [s]	30.05	6.11	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.205	2.281
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: I-15 NB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	8.2
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.546

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	137	4	452	0	0	0	0	1189	333	0	1583	566
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	20	0	0	0	0	0	0	4	9	0	16	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	157	4	452	0	0	0	0	1193	9	0	1599	566
Peak Hour Factor	0.9500	0.9500	0.9500	0.9600	0.9600	0.9600	0.9600	0.9500	0.9500	0.9600	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	41	1	119	0	0	0	0	314	2	0	421	149
Total Analysis Volume [veh/h]	165	4	476	0	0	0	0	1256	9	0	1683	596
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	130	0	0	0	0	0	130	0	0	130	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	37	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		No						No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	R	C	R
C, Cycle Length [s]	60	60	60		60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	12	12	12		40	40	40	40
g / C, Green / Cycle	0.19	0.19	0.19		0.67	0.67	0.67	0.67
(v / s)_i Volume / Saturation Flow Rate	0.09	0.14	0.14		0.23	0.01	0.31	0.35
s, saturation flow rate [veh/h]	1714	1619	1615		5176	1615	5176	1615
c, Capacity [veh/h]	334	316	315		3478	1085	3478	1085
d1, Uniform Delay [s]	21.47	22.70	22.70		4.21	3.26	4.69	4.99
k, delay calibration	0.11	0.11	0.11		0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.03	3.19	3.20		0.27	0.01	0.44	1.80
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.47	0.72	0.72		0.34	0.01	0.46	0.52
d, Delay for Lane Group [s/veh]	22.50	25.89	25.90		4.48	3.27	5.13	6.79
Lane Group LOS	C	C	C		A	A	A	A
Critical Lane Group	No	No	Yes		No	No	No	Yes
50th-Percentile Queue Length [veh/ln]	1.92	3.09	3.08		0.95	0.02	1.43	2.00
50th-Percentile Queue Length [ft/ln]	48.07	77.24	77.07		23.71	0.48	35.68	49.90
95th-Percentile Queue Length [veh/ln]	3.46	5.56	5.55		1.71	0.03	2.57	3.59
95th-Percentile Queue Length [ft/ln]	86.53	139.03	138.73		42.67	0.87	64.22	89.82

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	22.50	25.89	25.90	0.00	0.00	0.00	0.00	4.48	3.27	0.00	5.13	6.79
Movement LOS	C	C	C					A	A		A	A
d_A, Approach Delay [s/veh]	25.02			0.00			4.47			5.56		
Approach LOS	C			A			A			A		
d_I, Intersection Delay [s/veh]	8.23											
Intersection LOS	A											
Intersection V/C	0.546											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.72	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.263	1.960	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1098	0	632	632
d_b, Bicycle Delay [s]	6.11	30.05	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	2.571	4.132	2.221	2.750
Bicycle LOS	B	D	B	C

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Project West Dwy (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.5
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.001

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	1	0	0	0	0	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	1	0	0	0	0	1
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	1	0	0	0	0	1
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.51	8.31	7.20	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.07	0.07	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.51		3.60		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.25					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 7: Project Central Dwy (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.006

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	6	0	0	1	1	22
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	6	0	0	1	1	22
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	2	0	0	0	0	6
Total Analysis Volume [veh/h]	6	0	0	1	1	23
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.58	8.37	7.24	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.02	0.02	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.45	0.45	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.58		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.72					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 8: Project East Dwy (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.019

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	18	0	0	7	23	45
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	0	0	7	23	45
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	0	0	2	6	12
Total Analysis Volume [veh/h]	19	0	0	7	24	47
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.02	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.82	8.57	7.33	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.06	0.06	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.43	1.43	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.82		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	1.71					
Intersection LOS	A					

Amargosa / Palmetto High-Cube Warehouse

Vistro File: C:\...\PME.vistro

Scenario 5 General Plan Buildout With Project PM Peak Hour

Report File: C:\...\PM40W.pdf

8/17/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
1	Amargosa Rd (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	EB Left	0.077	29.8	D
2	Key Pointe Dr (NS) at Amargosa Rd (EW)	Two-way stop	HCM 7th Edition	NB Left	0.058	17.2	C
3	Key Pointe Dr (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Left	1.063	189.5	F
4	I-15 SB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Right	0.677	12.3	B
5	I-15 NB Ramps (NS) at Main St (EW)	Signalized	HCM 7th Edition	NB Right	0.732	13.6	B
6	Project West Dwy (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	WB Thru	0.000	0.0	A
7	Project Central Dwy (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Left	0.015	8.6	A
8	Project East Dwy (NS) at Palmetto Wy (EW)	Two-way stop	HCM 7th Edition	SB Left	0.035	8.8	A

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 1: Amargosa Rd (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	29.8
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.077

Intersection Setup

Name						
Approach	Northbound		Southbound		Eastbound	
Lane Configuration						
Turning Movement	Left	Thru	Thru	Right	Left	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	40.00		40.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		Yes	

Volumes

Name						
Base Volume Input [veh/h]	1	810	500	0	0	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	26	0	0	7	12	37
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	27	810	500	7	12	37
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	7	213	132	2	3	10
Total Analysis Volume [veh/h]	28	853	526	7	13	39
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Free	Free	Stop
Flared Lane			No
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance			No
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.01	0.01	0.00	0.08	0.06
d_M, Delay for Movement [s/veh]	8.40	0.00	0.00	0.00	29.79	13.00
Movement LOS	A	A	A	A	D	B
95th-Percentile Queue Length [veh/ln]	0.05	0.05	0.00	0.00	0.49	0.49
95th-Percentile Queue Length [ft/ln]	1.14	1.14	0.00	0.00	12.33	12.33
d_A, Approach Delay [s/veh]	0.27		0.00		17.12	
Approach LOS	A		A		C	
d_I, Intersection Delay [s/veh]	0.76					
Intersection LOS	D					

Intersection Level Of Service Report
Intersection 2: Key Pointe Dr (NS) at Amargosa Rd (EW)

Control Type:	Two-way stop	Delay (sec / veh):	17.2
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.058

Intersection Setup

Name						
Approach	Northbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Thru	Right	Left	Thru
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	1	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	1
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	100.00
Speed [mph]	30.00		40.00		40.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	Yes		No		No	

Volumes

Name						
Base Volume Input [veh/h]	18	352	328	21	79	369
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	25	1	0	36	1
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	18	377	329	21	115	370
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	5	99	87	6	30	97
Total Analysis Volume [veh/h]	19	397	346	22	121	389
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane			
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.06	0.45	0.00	0.00	0.09	0.00
d_M, Delay for Movement [s/veh]	17.23	12.69	0.00	0.00	8.09	0.00
Movement LOS	C	B	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.18	2.40	0.00	0.00	0.20	0.10
95th-Percentile Queue Length [ft/ln]	4.58	59.90	0.00	0.00	5.12	2.56
d_A, Approach Delay [s/veh]	12.90		0.00		1.92	
Approach LOS	B		A		A	
d_I, Intersection Delay [s/veh]	4.90					
Intersection LOS	C					

Intersection Level Of Service Report
Intersection 3: Key Pointe Dr (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	189.5
Analysis Method:	HCM 7th Edition	Level Of Service:	F
Analysis Period:	1 hour	Volume to Capacity (v/c):	1.063

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00	175.00	100.00	100.00	175.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	121	265	551	139	32	143	1274	20	325	1222	536
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	35	0	1	1	0	0	0	0	24
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	121	265	586	139	33	144	1274	20	325	1222	560
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	32	70	154	37	9	38	335	5	86	322	147
Total Analysis Volume [veh/h]	36	127	279	617	146	35	152	1341	21	342	1286	589
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	130
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	0	8	0	0	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	0	10	0	0	10	0	10	10	0	10	10	0
Maximum Green [s]	0	130	0	0	130	0	130	130	0	130	130	0
Amber [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	0	70	0	0	70	0	14	33	0	27	46	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall		No			No		No	No		No	No	
Maximum Recall		No			No		No	No		No	No	
Pedestrian Recall		No			No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	130	130	130	130	130	130	130	130	130	130	130
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	2.00	0.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	66	66	66	66	66	10	29	29	23	42	42
g / C, Green / Cycle	0.51	0.51	0.51	0.51	0.51	0.08	0.22	0.22	0.18	0.32	0.32
(v / s)_i Volume / Saturation Flow Rate	0.03	0.06	0.16	0.58	0.09	0.08	0.25	0.01	0.19	0.34	0.35
s, saturation flow rate [veh/h]	1232	1900	1615	1013	1838	1714	5176	1615	1714	3618	1616
c, Capacity [veh/h]	599	964	819	521	932	133	1156	361	304	1169	522
d1, Uniform Delay [s]	20.89	16.90	18.93	38.39	17.46	60.07	50.58	39.78	53.58	44.09	44.09
k, delay calibration	0.11	0.11	0.11	0.16	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.04	0.06	0.23	235.47	0.09	178.64	199.04	0.29	141.41	106.66	174.78
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.06	0.13	0.32	1.13	0.18	1.08	1.10	0.06	1.07	1.04	1.08
d, Delay for Lane Group [s/veh]	20.93	16.96	19.15	273.86	17.55	238.71	249.63	40.07	194.99	150.75	218.87
Lane Group LOS	C	B	B	F	B	F	F	D	F	F	F
Critical Lane Group	No	No	No	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.61	1.94	4.78	51.38	2.86	10.87	33.36	0.52	21.54	35.16	41.29
50th-Percentile Queue Length [ft/ln]	15.28	48.60	119.55	1284.47	71.40	271.85	833.96	13.03	538.38	879.11	1032.17
95th-Percentile Queue Length [veh/ln]	1.10	3.50	8.37	69.29	5.14	16.76	45.37	0.94	30.20	46.27	54.53
95th-Percentile Queue Length [ft/ln]	27.51	87.47	209.21	1732.26	128.52	418.92	1134.13	23.45	755.09	1156.83	1363.24

Movement, Approach, & Intersection Results

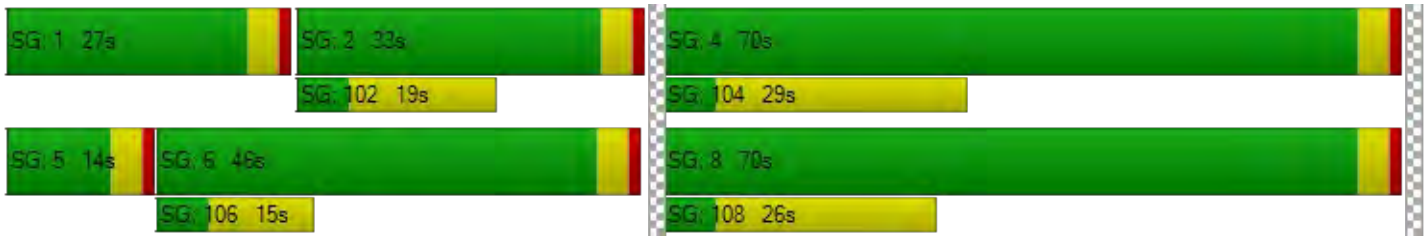
d_M, Delay for Movement [s/veh]	20.93	16.96	19.15	273.86	17.55	17.55	238.71	249.63	40.07	194.99	150.84	218.87
Movement LOS	C	B	B	F	B	B	F	F	D	F	F	F
d_A, Approach Delay [s/veh]	18.66			215.70			245.62			175.73		
Approach LOS	B			F			F			F		
d_I, Intersection Delay [s/veh]	189.46											
Intersection LOS	F											
Intersection V/C	1.063											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	56.38	56.38	56.38	56.38
l_p,int, Pedestrian LOS Score for Intersection	2.370	2.474	3.347	4.429
Crosswalk LOS	B	B	C	E
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1014	1014	446	645
d_b, Bicycle Delay [s]	15.80	15.80	39.30	29.84
l_b,int, Bicycle LOS Score for Intersection	2.253	2.810	2.351	2.718
Bicycle LOS	B	C	B	B

Sequence

Ring 1	1	2	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 4: I-15 SB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	12.3
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.677

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	1	0	1	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	515.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	2
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.21
Speed [mph]	30.00			30.00			50.00			30.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present				No			No			No		
Crosswalk	No			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	0	0	0	496	0	423	0	1874	196	0	1378	460
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	0.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	6	0	22	13	0	18	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	496	0	429	0	1896	13	0	1396	0
Peak Hour Factor	0.9440	0.9440	0.9440	0.9500	0.9440	0.9500	0.9440	0.9500	0.9500	0.9440	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	131	0	113	0	499	3	0	367	0
Total Analysis Volume [veh/h]	0	0	0	522	0	452	0	1996	14	0	1469	0
Presence of On-Street Parking				No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	4.00

Phasing & Timing

Control Type	Permiss	Permiss	Permiss	Split	Permiss	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	0	0	7	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	Lead	-	-	-	-	-	-	-	-
Minimum Green [s]	0	0	0	10	0	0	0	10	0	0	10	0
Maximum Green [s]	0	0	0	130	0	0	0	130	0	0	130	0
Amber [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	0	0	37	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	0.0	0.0	3.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	0	0	5	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	0	0	10	0	0	0	10	0	0	14	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk				No				No			No	
I1, Start-Up Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	0.0	0.0	2.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall				No				No			No	
Maximum Recall				No				No			No	
Pedestrian Recall				No				No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group		L	R	C	R	C	R
C, Cycle Length [s]		60	60	60	60	60	60
L, Total Lost Time per Cycle [s]		4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]		0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]		2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]		19	19	33	33	33	33
g / C, Green / Cycle		0.32	0.32	0.54	0.54	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate		0.16	0.27	0.37	0.01	0.27	0.00
s, saturation flow rate [veh/h]		3144	1615	5176	1615	5176	1615
c, Capacity [veh/h]		1021	525	2807	876	2807	876
d1, Uniform Delay [s]		16.29	18.68	9.95	6.36	8.64	0.00
k, delay calibration		0.11	0.11	0.50	0.50	0.50	0.50
I, Upstream Filtering Factor		1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]		0.36	3.29	1.33	0.03	0.63	0.00
d3, Initial Queue Delay [s]		0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio		1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor		1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity		0.49	0.82	0.68	0.01	0.50	0.00
d, Delay for Lane Group [s/veh]		16.65	21.98	11.28	6.39	9.27	0.00
Lane Group LOS		B	C	B	A	A	A
Critical Lane Group		No	Yes	Yes	No	No	No
50th-Percentile Queue Length [veh/ln]		2.53	5.39	4.17	0.06	3.19	0.00
50th-Percentile Queue Length [ft/ln]		63.15	134.76	104.25	1.44	79.67	0.00
95th-Percentile Queue Length [veh/ln]		4.55	9.20	7.51	0.10	5.74	0.00
95th-Percentile Queue Length [ft/ln]		113.68	229.96	187.66	2.60	143.41	0.00

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	0.00	0.00	0.00	16.65	0.00	21.98	0.00	11.28	6.39	0.00	9.27	0.00
Movement LOS				B		C		B	A		A	A
d_A, Approach Delay [s/veh]	0.00			19.12			11.25			9.27		
Approach LOS	A			B			B			A		
d_I, Intersection Delay [s/veh]	12.32											
Intersection LOS	B											
Intersection V/C	0.677											

Other Modes

g_Walk,mi, Effective Walk Time [s]	0.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	0.00	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	0.000	2.337	0.000	0.000
Crosswalk LOS	F	B	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	0	1098	632	632
d_b, Bicycle Delay [s]	30.05	6.11	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	4.132	1.560	2.610	2.327
Bicycle LOS	D	A	B	B

Sequence

Ring 1	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	7	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 5: I-15 NB Ramps (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	13.6
Analysis Method:	HCM 7th Edition	Level Of Service:	B
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.732

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	0	0	0	0	0	1	0	0	1
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No						No			No		
Crosswalk	Yes			Yes			No			No		

Volumes

Name												
Base Volume Input [veh/h]	245	7	849	0	0	0	0	2024	248	0	1682	573
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	0.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	9	0	0	0	0	0	0	13	9	0	9	0
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	254	7	849	0	0	0	0	2037	9	0	1691	573
Peak Hour Factor	0.9500	0.9500	0.9500	0.9600	0.9600	0.9600	0.9600	0.9500	0.9500	0.9600	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	67	2	223	0	0	0	0	536	2	0	445	151
Total Analysis Volume [veh/h]	267	7	894	0	0	0	0	2144	9	0	1780	603
Presence of On-Street Parking	No		No				No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	60
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	6.00

Phasing & Timing

Control Type	Split	Split	Split	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss	Permiss
Signal Group	0	8	0	0	0	0	0	2	0	0	6	0
Auxiliary Signal Groups												
Lead / Lag	-	-	-	-	-	-	-	-	-	-	-	-
Minimum Green [s]	0	10	0	0	0	0	0	10	0	0	10	0
Maximum Green [s]	0	130	0	0	0	0	0	130	0	0	130	0
Amber [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
All red [s]	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.0	0.0
Split [s]	0	37	0	0	0	0	0	23	0	0	23	0
Vehicle Extension [s]	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	3.0	0.0
Walk [s]	0	5	0	0	0	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	10	0	0	0	0	0	14	0	0	3	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No						No			No	
I1, Start-Up Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
I2, Clearance Lost Time [s]	0.0	2.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	2.0	0.0
Minimum Recall		No						No			No	
Maximum Recall		No						No			No	
Pedestrian Recall		No						No			No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R		C	R	C	R
C, Cycle Length [s]	60	60	60		60	60	60	60
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00		4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00		2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	20	20	20		32	32	32	32
g / C, Green / Cycle	0.33	0.33	0.33		0.54	0.54	0.54	0.54
(v / s)_i Volume / Saturation Flow Rate	0.15	0.26	0.27		0.39	0.01	0.33	0.35
s, saturation flow rate [veh/h]	1714	1619	1615		5176	1615	5176	1615
c, Capacity [veh/h]	565	533	532		2783	868	2783	868
d1, Uniform Delay [s]	15.89	18.40	18.42		10.61	6.47	9.55	9.97
k, delay calibration	0.11	0.11	0.11		0.50	0.50	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	0.56	2.94	2.98		1.76	0.02	1.00	3.99
d3, Initial Queue Delay [s]	0.00	0.00	0.00		0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00		1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00		1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.45	0.80	0.80		0.73	0.01	0.61	0.66
d, Delay for Lane Group [s/veh]	16.45	21.34	21.40		12.37	6.49	10.55	13.96
Lane Group LOS	B	C	C		B	A	B	B
Critical Lane Group	No	No	Yes		Yes	No	No	No
50th-Percentile Queue Length [veh/ln]	2.57	5.28	5.29		4.83	0.04	3.53	4.44
50th-Percentile Queue Length [ft/ln]	64.30	132.05	132.29		120.79	1.02	88.28	110.91
95th-Percentile Queue Length [veh/ln]	4.63	9.05	9.06		8.44	0.07	6.36	7.89
95th-Percentile Queue Length [ft/ln]	115.74	226.28	226.61		210.91	1.83	158.91	197.26

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	16.45	21.34	21.37	0.00	0.00	0.00	0.00	12.37	6.49	0.00	10.55	13.96
Movement LOS	B	C	C					B	A		B	B
d_A, Approach Delay [s/veh]	20.25			0.00			12.34			11.42		
Approach LOS	C			A			B			B		
d_I, Intersection Delay [s/veh]	13.57											
Intersection LOS	B											
Intersection V/C	0.732											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	0.0	0.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	21.72	21.72	0.00	0.00
l_p,int, Pedestrian LOS Score for Intersection	2.385	1.970	0.000	0.000
Crosswalk LOS	B	A	F	F
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	1098	0	632	632
d_b, Bicycle Delay [s]	6.11	30.05	14.05	14.05
l_b,int, Bicycle LOS Score for Intersection	3.391	4.132	2.685	2.805
Bicycle LOS	C	D	B	C

Sequence

Ring 1	-	2	-	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Intersection Level Of Service Report
Intersection 6: Project West Dwy (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	0.0
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.000

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	1	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	0	0	0
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	0	0	0	0	1	0
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	0	0	0	0	0	0
Total Analysis Volume [veh/h]	0	0	0	0	1	0
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.00	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.50	8.30	7.20	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.00	0.00	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	0.00	0.00	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.40		3.60		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	0.00					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 7: Project Central Dwy (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.6
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.015

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	1	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	15	0	0	0	0	12
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	15	0	0	0	1	12
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	4	0	0	0	0	3
Total Analysis Volume [veh/h]	16	0	0	0	1	13
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.01	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.58	8.38	7.22	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.04	0.04	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	1.12	1.12	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.58		3.61		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	4.60					
Intersection LOS	A					

Intersection Level Of Service Report
Intersection 8: Project East Dwy (NS) at Palmetto Wy (EW)

Control Type:	Two-way stop	Delay (sec / veh):	8.8
Analysis Method:	HCM 7th Edition	Level Of Service:	A
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.035

Intersection Setup

Name						
Approach	Southbound		Eastbound		Westbound	
Lane Configuration						
Turning Movement	Left	Right	Left	Thru	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	0	0	0	0	0	0
Entry Pocket Length [ft]	100.00	100.00	100.00	100.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	25.00		25.00		25.00	
Grade [%]	0.00		0.00		0.00	
Crosswalk	No		No		No	

Volumes

Name						
Base Volume Input [veh/h]	0	0	0	0	1	0
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0
Site-Generated Trips [veh/h]	34	0	0	16	12	21
Diverted Trips [veh/h]	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	0	0	16	13	21
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	0	0	4	3	6
Total Analysis Volume [veh/h]	36	0	0	17	14	22
Pedestrian Volume [ped/h]	0		0		0	

Intersection Settings

Priority Scheme	Stop	Free	Free
Flared Lane	No		
Storage Area [veh]	0	0	0
Two-Stage Gap Acceptance	No		
Number of Storage Spaces in Median	0	0	0

Movement, Approach, & Intersection Results

V/C, Movement V/C Ratio	0.03	0.00	0.00	0.00	0.00	0.00
d_M, Delay for Movement [s/veh]	8.82	8.53	7.26	0.00	0.00	0.00
Movement LOS	A	A	A	A	A	A
95th-Percentile Queue Length [veh/ln]	0.11	0.11	0.00	0.00	0.00	0.00
95th-Percentile Queue Length [ft/ln]	2.70	2.70	0.00	0.00	0.00	0.00
d_A, Approach Delay [s/veh]	8.82		0.00		0.00	
Approach LOS	A		A		A	
d_I, Intersection Delay [s/veh]	3.57					
Intersection LOS	A					

Amargosa / Palmetto High-Cube Warehouse

Vistro File: C:\...\AME.vistro

Scenario 6 General Plan Buildout With Project AM Peak Hour - With Improvements

Report File: C:\...\AM40WI.pdf

8/17/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
3	Key Pointe Dr (NS) at Main St (EW)	Signalized	HCM 7th Edition	NB Left	0.584	26.4	C

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 3: Key Pointe Dr (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	26.4
Analysis Method:	HCM 7th Edition	Level Of Service:	C
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.584

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00	175.00	100.00	100.00	175.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	5	23	107	436	73	60	74	1019	9	212	916	323
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	22	0	0	2	0	0	0	0	51
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	5	23	107	458	73	60	76	1019	9	212	916	374
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	1	6	28	121	19	16	20	268	2	56	241	98
Total Analysis Volume [veh/h]	5	24	113	482	77	63	80	1073	9	223	964	394
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	90
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	10	10	0	10	10	0	10	10	0	10	10	0
Maximum Green [s]	130	130	0	130	130	0	130	130	0	130	130	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	30	0	19	35	0	14	23	0	18	27	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	90	90	90	90	90	90	90	90	90	90	90
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	1	10	10	15	23	9	37	37	13	41	41
g / C, Green / Cycle	0.01	0.11	0.11	0.17	0.26	0.10	0.41	0.41	0.14	0.45	0.45
(v / s)_i Volume / Saturation Flow Rate	0.00	0.01	0.07	0.15	0.08	0.04	0.20	0.01	0.12	0.25	0.25
s, saturation flow rate [veh/h]	1714	1900	1615	3144	1760	1714	5176	1615	1714	3618	1631
c, Capacity [veh/h]	24	204	173	522	456	164	2097	654	248	1643	741
d1, Uniform Delay [s]	43.98	36.40	38.52	36.73	26.79	38.62	19.88	16.05	37.68	17.83	17.83
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	4.25	0.24	3.63	5.22	0.35	2.05	0.81	0.04	9.02	1.29	2.86
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.21	0.11	0.62	0.88	0.29	0.46	0.49	0.01	0.86	0.54	0.54
d, Delay for Lane Group [s/veh]	48.23	36.65	42.14	41.95	27.14	40.67	20.69	16.09	46.70	19.12	20.68
Lane Group LOS	D	D	D	D	C	D	C	B	D	B	C
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.14	0.47	2.41	5.20	2.30	1.59	4.84	0.11	4.89	6.10	5.83
50th-Percentile Queue Length [ft/ln]	3.44	11.68	60.13	130.09	57.45	39.83	121.01	2.68	122.19	152.51	145.64
95th-Percentile Queue Length [veh/ln]	0.25	0.84	4.33	8.94	4.14	2.87	8.45	0.19	8.51	10.15	9.78
95th-Percentile Queue Length [ft/ln]	6.20	21.02	108.23	223.62	103.41	71.69	211.21	4.82	212.83	253.78	244.60

Movement, Approach, & Intersection Results

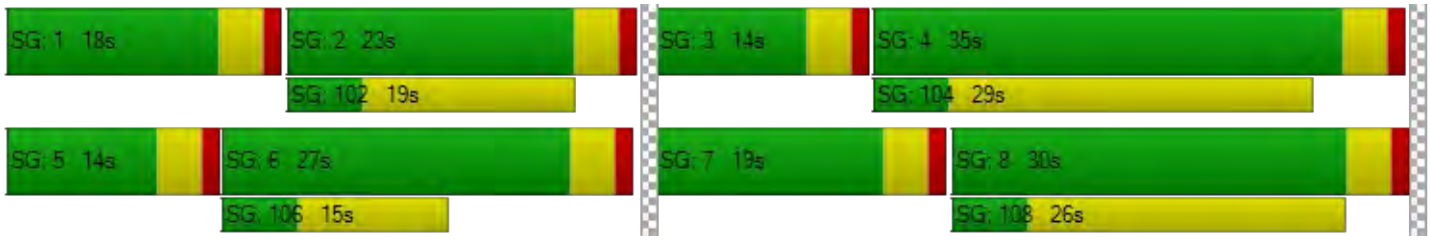
d_M, Delay for Movement [s/veh]	48.23	36.65	42.14	41.95	27.14	27.14	40.67	20.69	16.09	46.70	19.16	20.68
Movement LOS	D	D	D	D	C	C	D	C	B	D	B	C
d_A, Approach Delay [s/veh]	41.43			38.61			22.03			23.43		
Approach LOS	D			D			C			C		
d_I, Intersection Delay [s/veh]	26.39											
Intersection LOS	C											
Intersection V/C	0.584											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	36.50	36.50	36.50	36.50
l_p,int, Pedestrian LOS Score for Intersection	2.237	2.392	3.151	3.312
Crosswalk LOS	B	B	C	C
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	577	688	422	510
d_b, Bicycle Delay [s]	22.81	19.39	28.06	24.99
l_b,int, Bicycle LOS Score for Intersection	1.782	2.535	2.167	2.386
Bicycle LOS	A	B	B	B

Sequence

Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



Amargosa / Palmetto High-Cube Warehouse

Vistro File: C:\...\PME.vistro

Scenario 6 General Plan Buildout With Project PM Peak Hour - With Improvements

Report File: C:\...\PM40WI.pdf

8/17/2022

Intersection Analysis Summary

ID	Intersection Name	Control Type	Method	Worst Mvmt	V/C	Delay (s/veh)	LOS
3	Key Pointe Dr (NS) at Main St (EW)	Signalized	HCM 7th Edition	SB Left	0.848	50.1	D

V/C, Delay, LOS: For two-way stop, these values are taken from the movement with the worst (highest) delay value. For all other control types, they are taken for the whole intersection.

Intersection Level Of Service Report
Intersection 3: Key Pointe Dr (NS) at Main St (EW)

Control Type:	Signalized	Delay (sec / veh):	50.1
Analysis Method:	HCM 7th Edition	Level Of Service:	D
Analysis Period:	1 hour	Volume to Capacity (v/c):	0.848

Intersection Setup

Name												
Approach	Northbound			Southbound			Eastbound			Westbound		
Lane Configuration												
Turning Movement	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right
Lane Width [ft]	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
No. of Lanes in Entry Pocket	1	0	1	1	0	0	1	0	1	1	0	0
Entry Pocket Length [ft]	150.00	100.00	100.00	100.00	100.00	100.00	175.00	100.00	100.00	175.00	100.00	100.00
No. of Lanes in Exit Pocket	0	0	0	0	0	0	0	0	0	0	0	0
Exit Pocket Length [ft]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Speed [mph]	30.00			30.00			50.00			50.00		
Grade [%]	0.00			0.00			0.00			0.00		
Curb Present	No			No			No			No		
Crosswalk	Yes			Yes			Yes			Yes		

Volumes

Name												
Base Volume Input [veh/h]	34	121	265	551	139	32	143	1274	20	325	1222	536
Base Volume Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Heavy Vehicles Percentage [%]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Proportion of CAVs [%]	0.00											
Growth Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
In-Process Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Site-Generated Trips [veh/h]	0	0	0	35	0	1	1	0	0	0	0	24
Diverted Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Pass-by Trips [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Existing Site Adjustment Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Other Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Right Turn on Red Volume [veh/h]	0	0	0	0	0	0	0	0	0	0	0	0
Total Hourly Volume [veh/h]	34	121	265	586	139	33	144	1274	20	325	1222	560
Peak Hour Factor	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500	0.9500
Other Adjustment Factor	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
Total 15-Minute Volume [veh/h]	9	32	70	154	37	9	38	335	5	86	322	147
Total Analysis Volume [veh/h]	36	127	279	617	146	35	152	1341	21	342	1286	589
Presence of On-Street Parking	No		No	No		No	No		No	No		No
On-Street Parking Maneuver Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
Local Bus Stopping Rate [/h]	0	0	0	0	0	0	0	0	0	0	0	0
v_do, Outbound Pedestrian Volume crossing	0			0			0			0		
v_di, Inbound Pedestrian Volume crossing m	0			0			0			0		
v_co, Outbound Pedestrian Volume crossing	0			0			0			0		
v_ci, Inbound Pedestrian Volume crossing mi	0			0			0			0		
v_ab, Corner Pedestrian Volume [ped/h]	0			0			0			0		
Bicycle Volume [bicycles/h]	0			0			0			0		

Intersection Settings

Located in CBD	No
Signal Coordination Group	-
Cycle Length [s]	110
Coordination Type	Time of Day Pattern Isolated
Actuation Type	Fully actuated
Offset [s]	0.0
Offset Reference	Lead Green - Beginning of First Green
Permissive Mode	SingleBand
Lost time [s]	8.00

Phasing & Timing

Control Type	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss	Protecte	Permiss	Permiss
Signal Group	3	8	0	7	4	0	5	2	0	1	6	0
Auxiliary Signal Groups												
Lead / Lag	Lead	-	-	Lead	-	-	Lead	-	-	Lead	-	-
Minimum Green [s]	10	10	0	10	10	0	10	10	0	10	10	0
Maximum Green [s]	30	130	0	30	130	0	130	130	0	130	130	0
Amber [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
All red [s]	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0	1.0	1.0	0.0
Split [s]	14	30	0	25	41	0	15	29	0	26	40	0
Vehicle Extension [s]	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	0.0
Walk [s]	0	5	0	0	5	0	0	5	0	0	5	0
Pedestrian Clearance [s]	0	21	0	0	24	0	0	14	0	0	10	0
Delayed Vehicle Green [s]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Rest In Walk		No			No			No			No	
I1, Start-Up Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
I2, Clearance Lost Time [s]	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0	2.0	2.0	0.0
Minimum Recall	No	No		No	No		No	No		No	No	
Maximum Recall	No	No		No	No		No	No		No	No	
Pedestrian Recall	No	No		No	No		No	No		No	No	
Detector Location [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Detector Length [ft]	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Exclusive Pedestrian Phase

Pedestrian Signal Group	0
Pedestrian Walk [s]	0
Pedestrian Clearance [s]	0

Lane Group Calculations

Lane Group	L	C	R	L	C	L	C	R	L	C	C
C, Cycle Length [s]	110	110	110	110	110	110	110	110	110	110	110
L, Total Lost Time per Cycle [s]	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
l1_p, Permitted Start-Up Lost Time [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
l2, Clearance Lost Time [s]	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
g_i, Effective Green Time [s]	6	20	20	21	35	11	31	31	22	42	42
g / C, Green / Cycle	0.06	0.18	0.18	0.19	0.32	0.10	0.28	0.28	0.20	0.38	0.38
(v / s)_i Volume / Saturation Flow Rate	0.02	0.06	0.16	0.19	0.10	0.08	0.25	0.01	0.19	0.34	0.35
s, saturation flow rate [veh/h]	1714	1900	1615	3144	1741	1714	5176	1615	1714	3618	1616
c, Capacity [veh/h]	101	351	298	600	551	172	1445	451	343	1372	613
d1, Uniform Delay [s]	49.74	39.10	43.80	44.34	28.58	48.69	37.96	28.98	43.48	32.04	32.54
k, delay calibration	0.11	0.11	0.11	0.11	0.11	0.11	0.50	0.50	0.11	0.50	0.50
I, Upstream Filtering Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
d2, Incremental Delay [s]	1.93	0.58	9.88	19.12	0.32	11.32	8.91	0.19	17.17	10.07	27.34
d3, Initial Queue Delay [s]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Rp, platoon ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PF, progression factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Lane Group Results

X, volume / capacity	0.34	0.34	0.89	0.98	0.31	0.84	0.88	0.04	0.95	0.89	0.92
d, Delay for Lane Group [s/veh]	51.67	39.68	53.68	63.46	28.90	60.00	46.88	29.16	60.64	42.11	59.88
Lane Group LOS	D	D	D	E	C	E	D	C	E	D	E
Critical Lane Group	No	No	Yes	Yes	No	No	Yes	No	Yes	No	No
50th-Percentile Queue Length [veh/ln]	0.95	2.91	7.81	9.46	3.49	4.27	11.47	0.39	9.92	15.89	17.71
50th-Percentile Queue Length [ft/ln]	23.81	72.69	195.30	236.60	87.25	106.76	286.67	9.81	248.11	397.28	442.86
95th-Percentile Queue Length [veh/ln]	1.71	5.23	12.40	14.51	6.28	7.66	17.02	0.71	15.09	22.43	24.62
95th-Percentile Queue Length [ft/ln]	42.86	130.84	309.90	362.73	157.05	191.49	425.50	17.66	377.27	560.73	615.42

Movement, Approach, & Intersection Results

d_M, Delay for Movement [s/veh]	51.67	39.68	53.68	63.46	28.90	28.90	60.00	46.88	29.16	60.64	42.13	59.88
Movement LOS	D	D	D	E	C	C	E	D	C	E	D	E
d_A, Approach Delay [s/veh]	49.48			55.62			47.95			49.70		
Approach LOS	D			E			D			D		
d_I, Intersection Delay [s/veh]	50.10											
Intersection LOS	D											
Intersection V/C	0.848											

Other Modes

g_Walk,mi, Effective Walk Time [s]	9.0	9.0	9.0	9.0
M_corner, Corner Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
M_CW, Crosswalk Circulation Area [ft²/ped]	0.00	0.00	0.00	0.00
d_p, Pedestrian Delay [s]	46.41	46.41	46.41	46.41
l_p,int, Pedestrian LOS Score for Intersection	2.363	2.528	3.291	3.588
Crosswalk LOS	B	B	C	D
s_b, Saturation Flow Rate of the bicycle lane	2000	2000	2000	2000
c_b, Capacity of the bicycle lane [bicycles/h]	472	672	454	654
d_b, Bicycle Delay [s]	32.11	24.26	32.88	24.93
l_b,int, Bicycle LOS Score for Intersection	2.253	2.810	2.351	2.718
Bicycle LOS	B	C	B	B

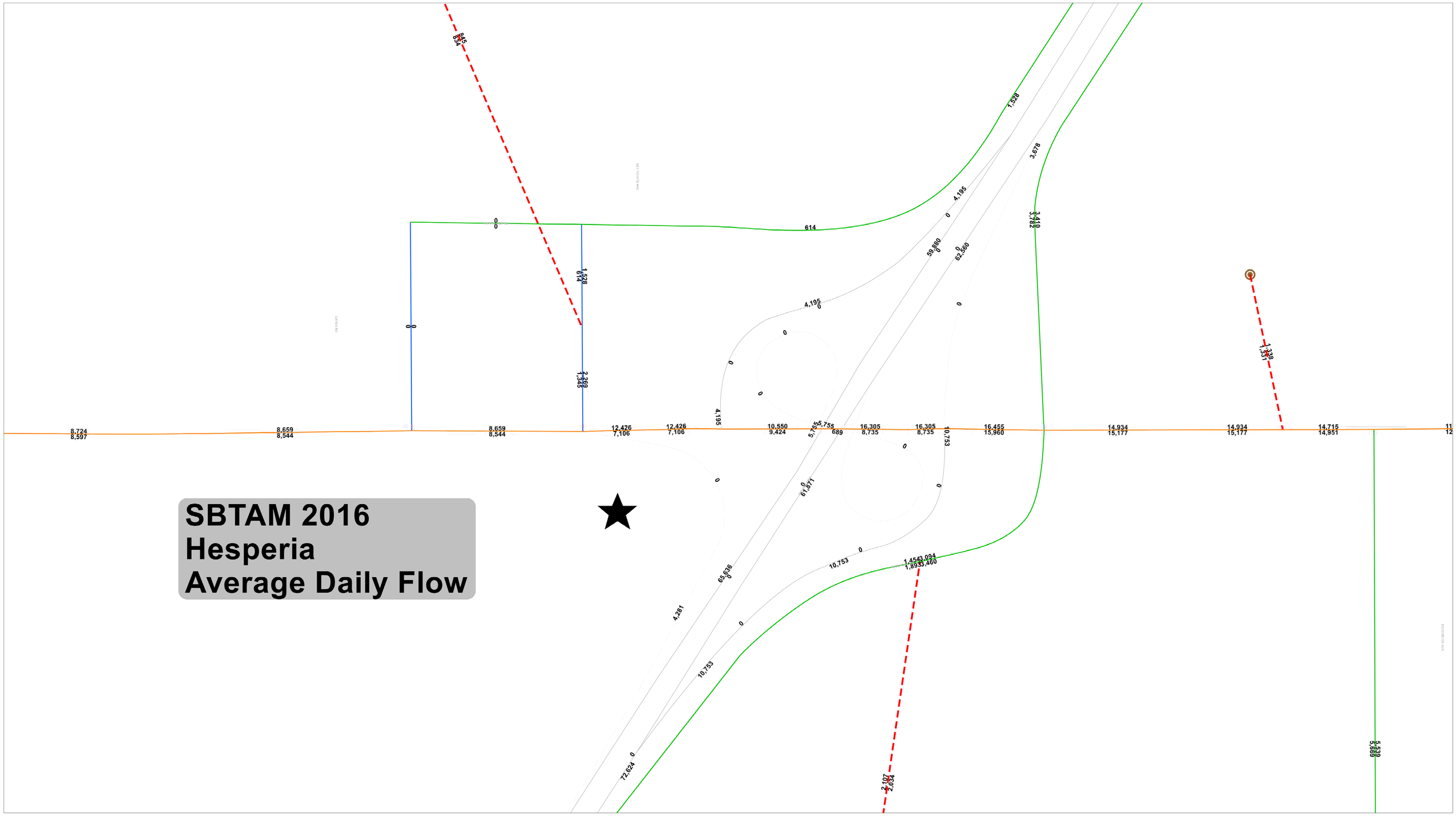
Sequence

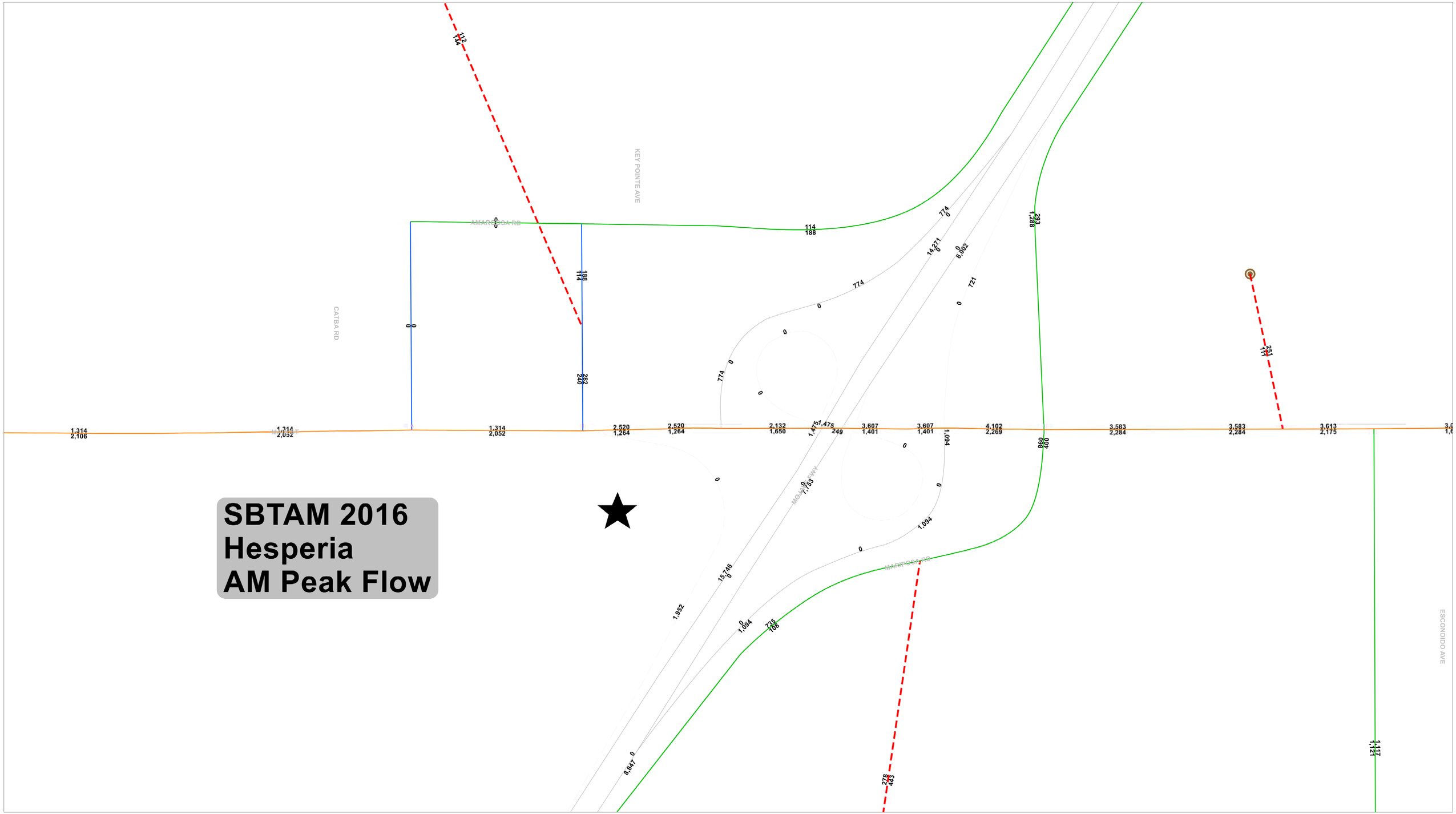
Ring 1	1	2	3	4	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 2	5	6	7	8	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Ring 4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

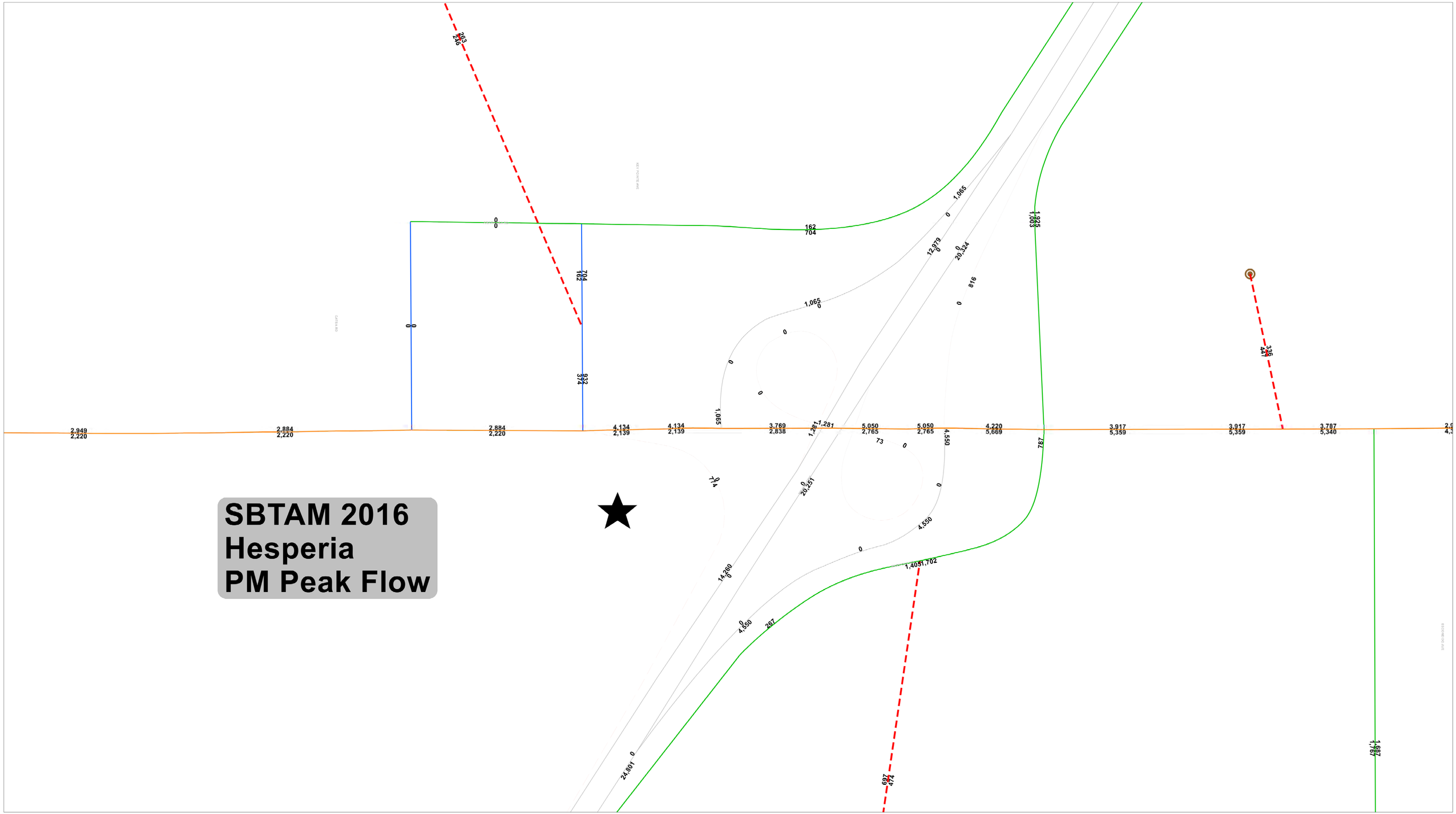


APPENDIX F

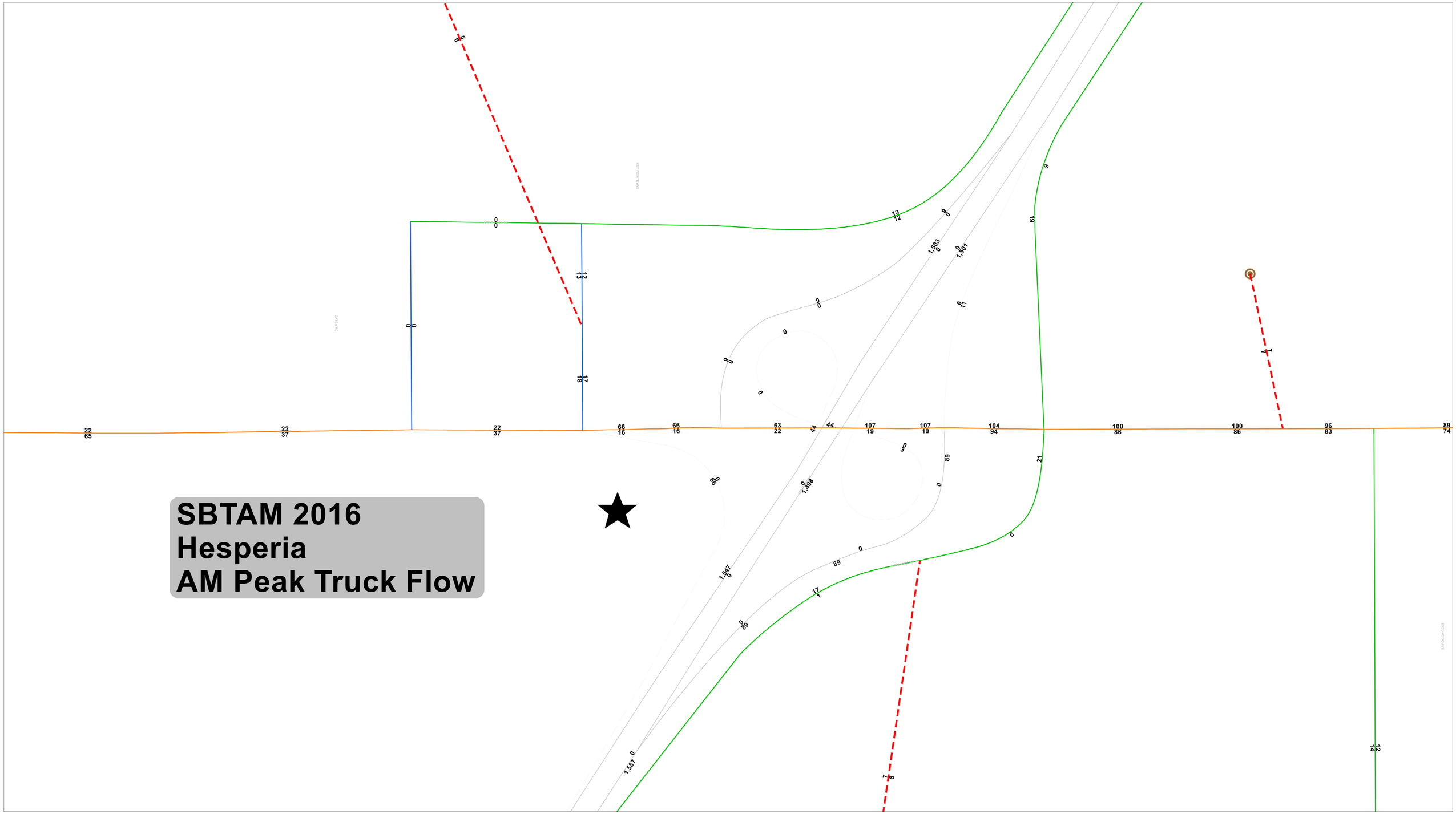
SBTAM MODEL PLOTS

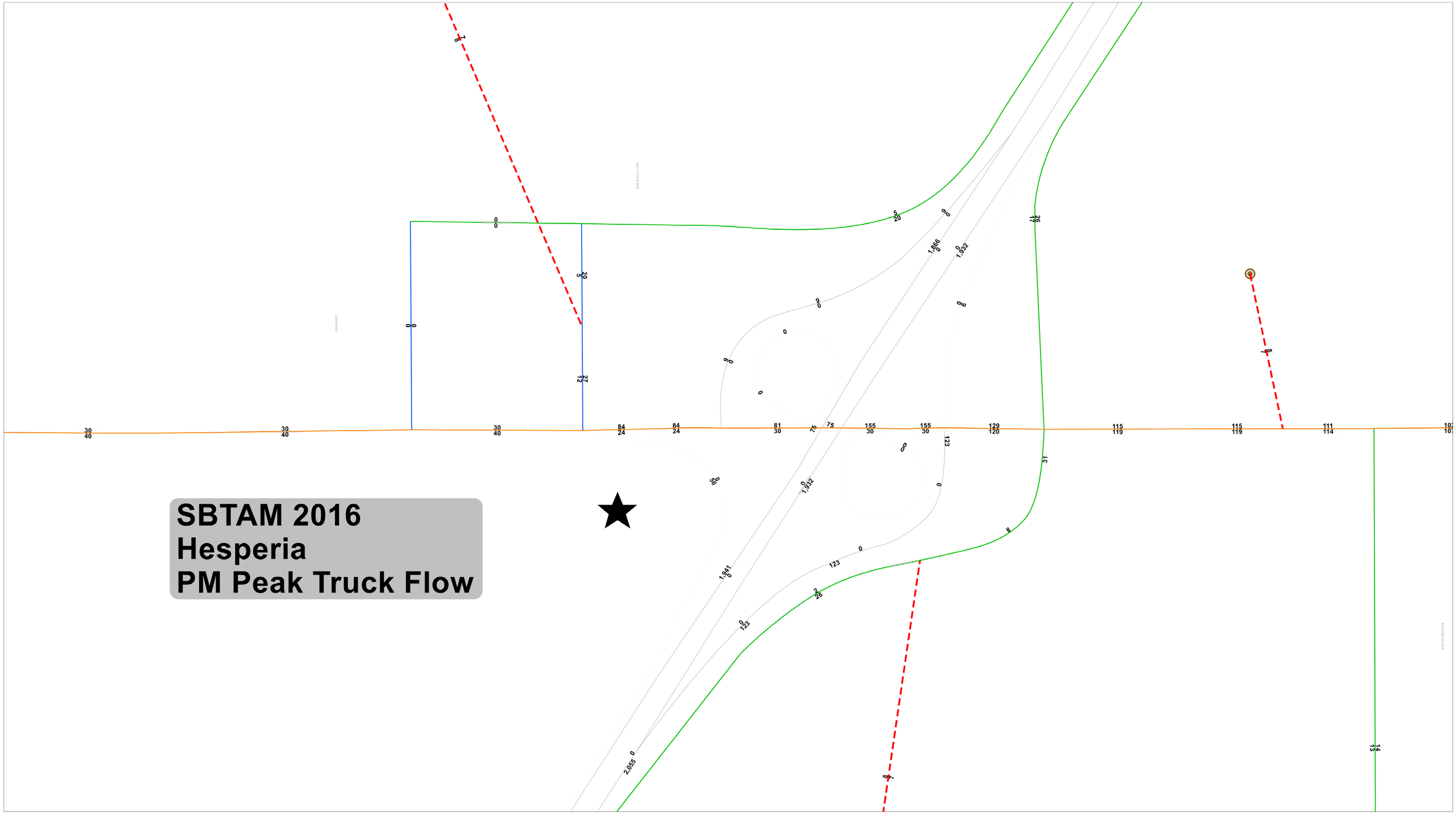

SBTAM 2016
Hesperia
Average Daily Flow

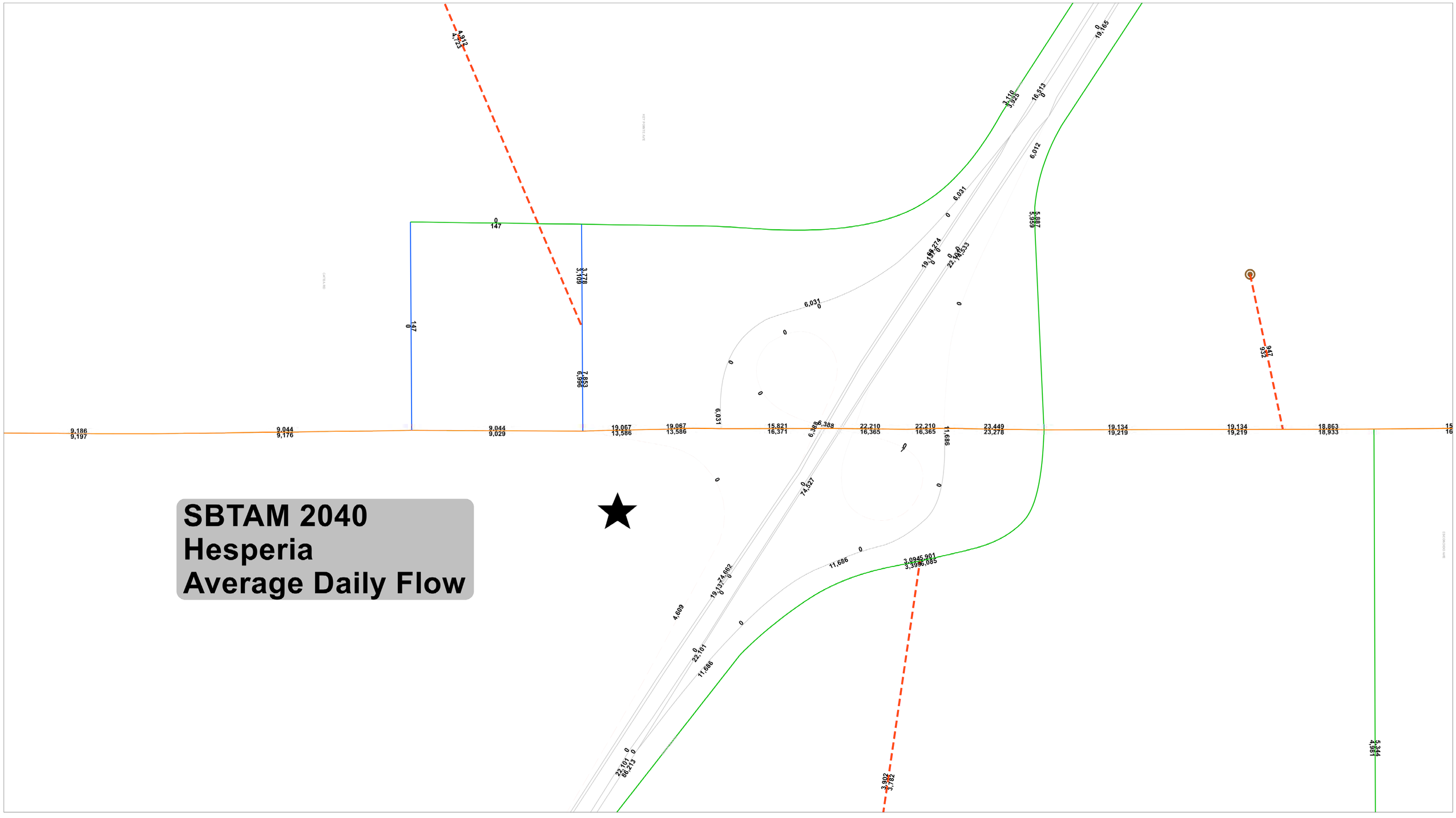

SBTAM 2016
Hesperia
AM Peak Flow
KEY POINTE AVE
CATBA RD
MOJAVE DR
MARIPOSA RD
ESCONDIDO AVE
1,314
2,106
1,314
2,052
1,314
2,052
2,520
1,264
2,520
1,264
2,132
1,650
1,475
249
1,475
3,607
1,401
3,607
1,401
4,102
2,269
3,583
2,284
3,583
2,284
3,613
2,175
1,417
1,121
114
188
188
114
282
240
774
14,271
8,002
721
1,094
15,746
1,952
735
108
8,847
278
443
1,153

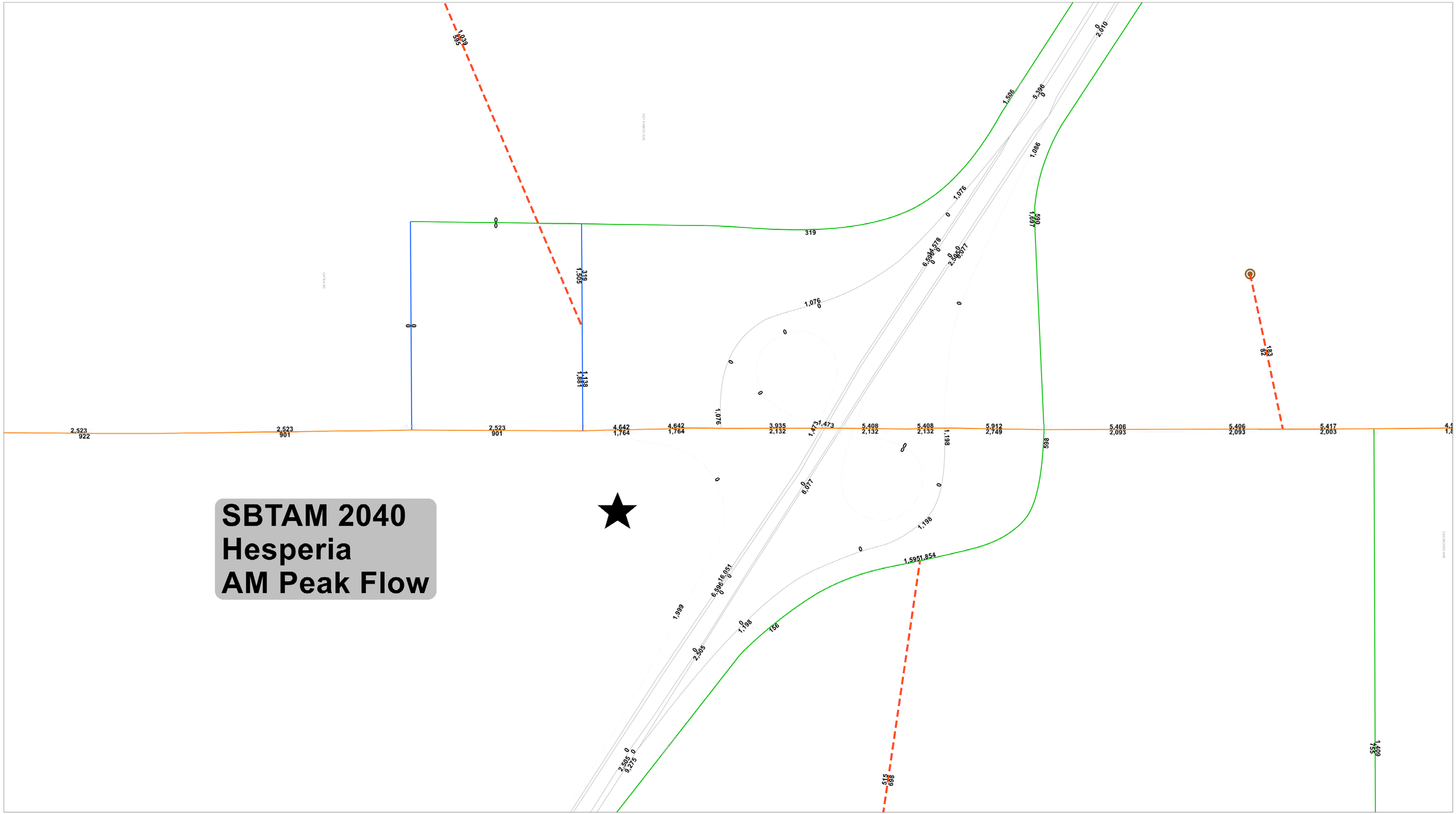

SBTAM 2016
Hesperia
PM Peak Flow

SBTAM 2016
Hesperia
Average Daily Truck Flow

SBTAM 2016
Hesperia
AM Peak Truck Flow


SBTAM 2016
Hesperia
PM Peak Truck Flow

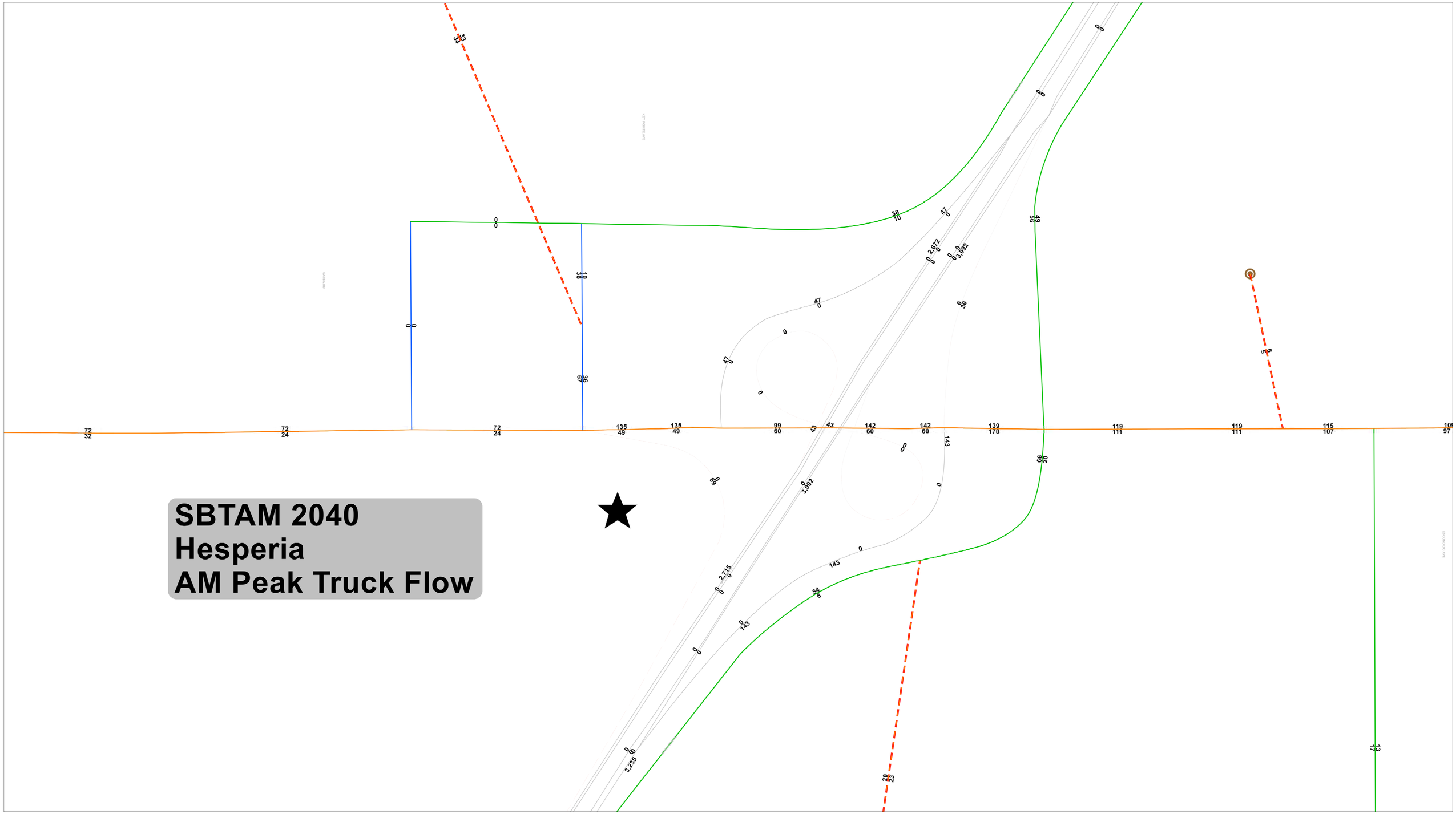

SBTAM 2040
Hesperia
Average Daily Flow

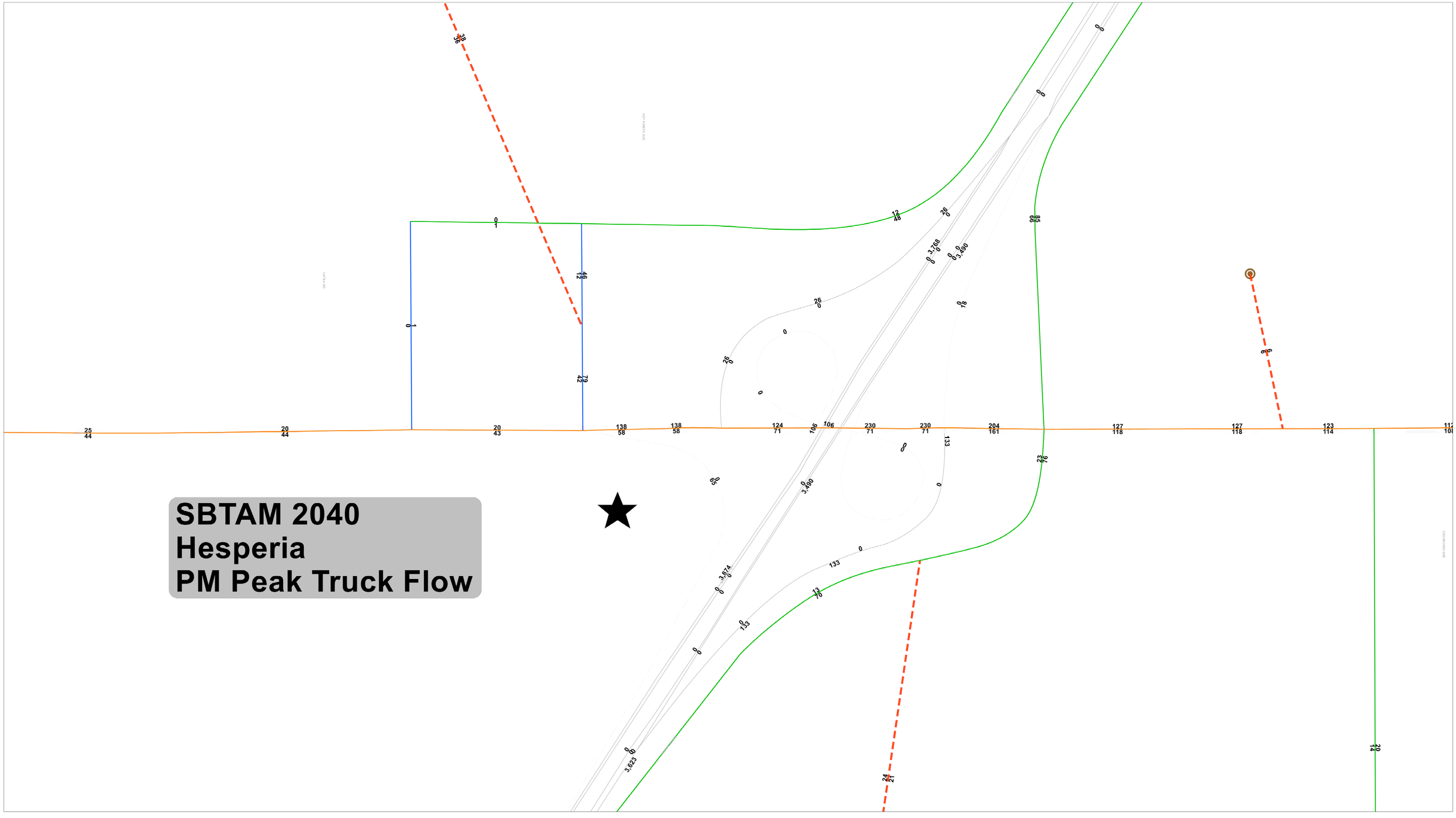

SBTAM 2040
Hesperia
AM Peak Flow

SBTAM 2040
Hesperia
AM Peak Flow


SBTAM 2040
Hesperia
Average Daily Truck Flow
CATBA RD
KEY POINTE AVE
ESCONDIDO AVE

SBTAM 2040
Hesperia
AM Peak Truck Flow




SBTAM 2040
Hesperia
PM Peak Truck Flow

APPENDIX G

POST-PROCESSING WORKSHEETS

INTERSECTION	LEG	CTP 2016 ADT	EXISTING 2022 ADT	CTP 2040 ADT	NEW 2040 ADT[1]	OPENING 2024 ADT
Amargosa Road at Palmetto Way	North	2,244	9,900	7,222	13,600	10,300
	South	2,244	9,900	7,222	13,600	10,300
	East	-	-	-	-	-
	West	-	-	-	-	-
Key Pointe Drive at Amargosa Road	North	-	-	-	-	-
	South	2,244	500	7,073	4,100	900
	East	2,244	7,500	7,222	11,200	7,900
	West	-	7,300	148	8,000	7,400
Key Pointe Drive at Main Street	North	3,774	7,300	15,374	16,000	8,300
	South	-	8,300	-	9,100	8,400
	East	24,616	35,000	38,630	45,500	36,200
	West	17,654	25,200	18,587	27,700	25,500
I-15 SB Ramps at Main Street	North	10,408	13,900	13,171	16,000	14,100
	South	-	-	-	-	-
	East	26,653	40,900	40,088	51,000	42,000
	West	20,058	35,100	33,647	45,300	36,200
I-15 NB Ramps at Main Street	North	3,744	4,700	6,177	6,500	4,900
	South	11,431	13,700	12,616	15,100	13,900
	East	33,711	47,800	48,912	59,200	49,100
	West	25,953	39,000	40,082	49,600	40,200

(1) Adjusted for minimum 10% growth over existing average daily traffic volumes for year 2040.

Amargosa Road (NS) / Palmetto Way (EW) - #1

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2022

			0	188	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	178	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2022

				188	178			
				v	^			
		0	<	IN =	366	<	0	
		0	>	OUT =	366	>	0	
				v	^			
				188	178			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	20	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	18	0			

PCE FACTORS BY AXLE:

2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2022

			0	208	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	196	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				114	188			
				v	^			
		0	<	IN =	302	<	0	
		0	>	OUT =	302	>	0	
				v	^			
				114	188			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				13	12			
				v	^			
		0	<	IN =	25	<	0	
		0	>	OUT =	25	>	0	
				v	^			
				13	12			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				48	75			
				v	^			
		0	<	IN =	123	<	0	
		0	>	OUT =	123	>	0	
				v	^			
				48	75			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				1506	319			
				v	^			
		0	<	IN =	1825	<	0	
		0	>	OUT =	1825	>	0	
				v	^			
				1506	319			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				38	10			
				v	^			
		0	<	IN =	48	<	0	
		0	>	OUT =	48	>	0	
				v	^			
				38	10			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				585	125			
				v	^			
		0	<	IN =	709	<	0	
		0	>	OUT =	709	>	0	
				v	^			
				585	125			

RAW GROWTH (PCEs): 2016 TO 2040

CONVERSION OF TRUCKS TO: 2040

FACTOR = 1.00

				537	49			
				v	^			
		0	<			<	0	
		0	>			>	0	
				v	^			
				537	49			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2022

			0	409	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			
			1	429	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2022

				409	429			
				v	^			
		1	<	IN =	839	<	0	
		0	>	OUT =	839	>	0	
				v	^			
				409	430			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	8	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			
			0	14	0			

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2022

			0	417	0			
			<	v	>			
0	^					^	0	
0	>					<	0	
0	v					v	0	
			<	^	>			
			1	443	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				162	704			
				v	^			
		0	<	IN =	866	<	0	
		0	>	OUT =	866	>	0	
				v	^			
				162	704			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				5	20			
				v	^			
		0	<	IN =	25	<	0	
		0	>	OUT =	25	>	0	
				v	^			
				5	20			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				47	202			
				v	^			
		0	<	IN =	249	<	0	
		0	>	OUT =	249	>	0	
				v	^			
				47	202			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				551	2417			
				v	^			
		0	<	IN =	2968	<	0	
		0	>	OUT =	2968	>	0	
				v	^			
				551	2417			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				12	48			
				v	^			
		0	<	IN =	60	<	0	
		0	>	OUT =	60	>	0	
				v	^			
				12	48			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				157	689			
				v	^			
		0	<	IN =	846	<	0	
		0	>	OUT =	846	>	0	
				v	^			
				157	689			

RAW GROWTH (PCEs): 2016 TO 2040

CONVERSION OF TRUCKS TO: 2040

FACTOR = 1.00

				111	487			
				v	^			
		0	<			<	0	
		0	>			>	0	
				v	^			
				111	487			

Amargosa Road (NS) / Palmetto Way (EW) - #1

MORNING PEAK HOUR	EVENING PEAK HOUR
ADJUSTED GROWTH (PCEs): 2016 TO 2040	ADJUSTED GROWTH (PCEs): 2016 TO 2040
10.00 MINIMUM GROWTH %	10 MINIMUM GROWTH %
540 50	110 490
v ^	v ^
0 < IN = 590 < 0	0 < IN = 600 < 0
0 > OUT = 590 > 0	0 > OUT = 600 > 0
v ^	v ^
540 50	110 490
PRORATED GROWTH (PCEs): 2022 TO 2040	PRORATED GROWTH (PCEs): 2022 TO 2040
18 YEARS	18 YEARS
410 40	80 370
v ^	v ^
0 < < 0	0 < < 0
0 > > 0	0 > > 0
v ^	v ^
410 40	80 370
NEW PROJECTED VOLUMES (PCEs): 2040	NEW PROJECTED VOLUMES (PCEs): 2040
620 240	500 810
v ^	v ^
0 < < 0	0 < < 0
0 > > 0	0 > > 0
v ^	v ^
620 240	500 810
YEAR 2024 GROWTH: 2022 TO 2024	YEAR 2024 GROWTH: 2022 TO 2024
2 YEARS	2 YEARS
50 0	10 40
v ^	v ^
0 < < 0	0 < < 0
0 > > 0	0 > > 0
v ^	v ^
50 0	10 40
INITIAL YEAR 2024 VOLUMES:	INITIAL YEAR 2024 VOLUMES:
2024	2024
260 200	430 480
v ^	v ^
0 < IN = 460 < 0	0 < IN = 910 < 0
0 > OUT = 460 > 0	0 > OUT = 910 > 0
v ^	v ^
260 200	430 480
BALANCED YEAR 2024 VOLUMES:	BALANCED YEAR 2024 VOLUMES:
2024	2024
260 200	430 480
v ^	v ^
0 < IN = 460 < 0	0 < IN = 910 < 0
0 > OUT = 460 > 0	0 > OUT = 910 > 0
v ^	v ^
260 200	430 480
ADT BY LEG:	ADT BY LEG:
2040	2040
13,600	13,600
N	N
0 W LEG E 0	0 W LEG E 0
S	S
13,600	13,600
ADT BY LEG:	ADT BY LEG:
2024	2024
10,300	10,300
N	N
0 W LEG E 0	0 W LEG E 0
S	S
10,300	10,300

Amargosa Road (NS) / Palmetto Way (EW) - #1

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**1**	SOUTH LEG	
BOUND	THRU	**196**	IN ...	**240**	BOUND	THRU	**443**	IN ...	**810**
	RIGHT	**0**	OUT ...	**620**		RIGHT	**0**	OUT ...	**500**
SOUTH	LEFT	**0**	NORTH LEG		SOUTH	LEFT	**0**	NORTH LEG	
BOUND	THRU	**208**	IN ...	**620**	BOUND	THRU	**417**	IN ...	**500**
	RIGHT	**0**	OUT ...	**240**		RIGHT	**0**	OUT ...	**810**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**0**	EAST LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**

YEAR 2040 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**1**	**1**	NORTH LEG
BOUND	THRU	**196**	**240**	RATIO **6.3%**	BOUND	THRU	**443**	**810**	RATIO **9.6%**
	RIGHT	**0**	**0**	ADT 13,600		RIGHT	**0**	**0**	ADT 13,600
SOUTH	LEFT	**0**	**0**	SOUTH LEG	SOUTH	LEFT	**0**	**0**	SOUTH LEG
BOUND	THRU	**208**	**620**	RATIO **6.3%**	BOUND	THRU	**417**	**500**	RATIO **9.6%**
	RIGHT	**0**	**0**	ADT 13,600		RIGHT	**0**	**0**	ADT 13,600
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**0**	**0**	RATIO **-**	BOUND	THRU	**0**	**0**	RATIO **-**
	RIGHT	**0**	**0**	ADT 0		RIGHT	**0**	**0**	ADT 0
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**0**	**0**	WEST LEG
BOUND	THRU	**0**	**0**	RATIO **-**	BOUND	THRU	**0**	**0**	RATIO **-**
	RIGHT	**0**	**0**	ADT 0		RIGHT	**0**	**0**	ADT 0

Key Pointe Drive (NS) / Amargosa Road (EW) - #2

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2022

			0	0	0			
			<	v	>			
		0	^			^	0	
		145	>			<	122	
		1	v			v	7	
			<	^	>			
			0	0	5			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2022

				0	0			
				v	^			
		122	<	IN =	280	<	129	
		146	>	OUT =	280	>	150	
				v	^			
				8	5			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	0			
			<	v	>			
		0	^			^	0	
		18	>			<	18	
		0	v			v	0	
			<	^	>			
			0	0	0			

PCE FACTORS BY AXLE:

2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2022

			0	0	0			
			<	v	>			
		0	^			^	0	
		163	>			<	140	
		1	v			v	7	
			<	^	>			
			0	0	5			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				0	0			
				v	^			
		0	<	IN =	302	<	114	
		0	>	OUT =	302	>	188	
				v	^			
				114	188			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				0	0			
				v	^			
		0	<	IN =	25	<	13	
		0	>	OUT =	25	>	12	
				v	^			
				13	12			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				0	0			
				v	^			
		0	<	IN =	123	<	48	
		0	>	OUT =	123	>	75	
				v	^			
				48	75			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				0	0			
				v	^			
		0	<	IN =	1825	<	1506	
		0	>	OUT =	1824	>	319	
				v	^			
				1505	319			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				0	0			
				v	^			
		0	<	IN =	48	<	38	
		0	>	OUT =	48	>	10	
				v	^			
				38	10			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				0	0			
				v	^			
		0	<	IN =	709	<	585	
		0	>	OUT =	709	>	125	
				v	^			
				585	125			

RAW GROWTH (PCEs): 2016 TO 2040

CONVERSION OF TRUCKS TO: 2040

FACTOR = 1.00

				0	0			
				v	^			
		0	<			<	537	
		0	>			>	49	
				v	^			
				537	49			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2022

			0	0	0			
			<	v	>			
		0	^			^	0	
		262	>			<	309	
		9	v			v	9	
			<	^	>			
			1	0	11			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2022

				0	0			
				v	^			
		310	<	IN =	601	<	318	
		271	>	OUT =	601	>	273	
				v	^			
				18	12			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	0			
			<	v	>			
		0	^			^	0	
		25	>			<	26	
		0	v			v	3	
			<	^	>			
			2	0	8			

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2022

			0	0	0			
			<	v	>			
		0	^			^	0	
		287	>			<	335	
		9	v			v	12	
			<	^	>			
			3	0	19			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				0	0			
				v	^			
		0	<	IN =	866	<	162	
		0	>	OUT =	866	>	704	
				v	^			
				162	704			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				0	0			
				v	^			
		0	<	IN =	25	<	5	
		0	>	OUT =	25	>	20	
				v	^			
				5	20			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				0	0			
				v	^			
		0	<	IN =	249	<	47	
		0	>	OUT =	249	>	202	
				v	^			
				47	202			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				0	0			
				v	^			
		0	<	IN =	2968	<	551	
		147	>	OUT =	2968	>	2417	
				v	^			
				551	2270			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				0	0			
				v	^			
		0	<	IN =	59	<	12	
		1	>	OUT =	60	>	48	
				v	^			
				12	46			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				0	0			
				v	^			
		0	<	IN =	846	<	157	
		41	>	OUT =	846	>	689	
				v	^			
				157	647			

RAW GROWTH (PCEs): 2016 TO 2040

CONVERSION OF TRUCKS TO: 2040

FACTOR = 1.00

				0	0			
				v	^			
		0	<			<	111	
		41	>			>	487	
				v	^			
				111	445			

Key Pointe Drive (NS) / Amargosa Road (EW) - #2

MORNING PEAK HOUR											EVENING PEAK HOUR										
ADJUSTED GROWTH (PCEs):	2016	TO	2040								ADJUSTED GROWTH (PCEs):	2016	TO	2040						
10.00 MINIMUM GROWTH %					0	0					10 MINIMUM GROWTH %					0	0			
					v	^										v	^			
			10	<	IN =	610	<	540					30	<	IN =	590	<	110		
			20	>	OUT =	600	>	50					40	>	OUT =	630	>	490		
					v	^										v	^			
					540	50										110	440			
PRORATED GROWTH (PCEs):	2022	TO	2040								PRORATED GROWTH (PCEs):	2022	TO	2040						
18 YEARS					0	0					18 YEARS					0	0			
					v	^										v	^			
			10	<			<	410					20	<			<	80		
			20	>			>	40					30	>			>	370		
					v	^										v	^			
					410	40										80	330			
NEW PROJECTED VOLUMES (PCEs):	2040										NEW PROJECTED VOLUMES (PCEs):	2040								
					0	0										0	0			
					v	^										v	^			
			150	<			<	560					360	<			<	430		
			180	>			>	210					330	>			>	680		
					v	^										v	^			
					420	50										100	350			
YEAR 2024 GROWTH:	2022	TO	2024								YEAR 2024 GROWTH:	2022	TO	2024						
2 YEARS					0	0					2 YEARS					0	0			
					v	^										v	^			
			0	<			<	50					0	<			<	10		
			0	>			>	0					0	>			>	40		
					v	^										v	^			
					50	0										10	40			
INITIAL YEAR 2024 VOLUMES:											INITIAL YEAR 2024 VOLUMES:										
2024					0	0					2024					0	0			
					v	^										v	^			
			140	<	IN =	370	<	200					340	<	IN =	720	<	360		
			160	>	OUT =	370	>	170					300	>	OUT =	720	>	350		
					v	^										v	^			
					60	10										30	60			
BALANCED YEAR 2024 VOLUMES:											BALANCED YEAR 2024 VOLUMES:										
2024					0	0					2024					0	0			
					v	^										v	^			
			140	<	IN =	370	<	200					340	<	IN =	720	<	360		
			160	>	OUT =	370	>	170					300	>	OUT =	720	>	350		
					v	^										v	^			
					60	10										30	60			
ADT BY LEG:											ADT BY LEG:										
2040					0						2040					0					
					N											N					
			8,000		W	LEG	E	11,200					8,000		W	LEG	E	11,200		
						S										S					
						4,100										4,100					
ADT BY LEG:											ADT BY LEG:										
2024					0						2024					0					
					N											N					
			7,400		W	LEG	E	7,900					7,400		W	LEG	E	7,900		
						S										S					
						900										900					

Key Pointe Drive (NS) / Amargosa Road (EW) - #2

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**3**	SOUTH LEG	
BOUND	THRU	**0**	IN ...	**50**	BOUND	THRU	**0**	IN ...	**350**
	RIGHT	**5**	OUT ...	**420**		RIGHT	**19**	OUT ...	**100**
SOUTH	LEFT	**0**	NORTH LEG		SOUTH	LEFT	**0**	NORTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**0**		RIGHT	**0**	OUT ...	**0**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**163**	IN ...	**180**	BOUND	THRU	**287**	IN ...	**330**
	RIGHT	**1**	OUT ...	**150**		RIGHT	**9**	OUT ...	**360**
WEST	LEFT	**7**	EAST LEG		WEST	LEFT	**12**	EAST LEG	
BOUND	THRU	**140**	IN ...	**560**	BOUND	THRU	**335**	IN ...	**430**
	RIGHT	**0**	OUT ...	**210**		RIGHT	**0**	OUT ...	**680**

YEAR 2040 TRAFFIC CONDITIONS									
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**3**	**18**	NORTH LEG
BOUND	THRU	**0**	**0**	RATIO **-**	BOUND	THRU	**0**	**0**	RATIO **-**
	RIGHT	**5**	**49**	ADT 0		RIGHT	**19**	**352**	ADT 0
SOUTH	LEFT	**0**	**0**	SOUTH LEG	SOUTH	LEFT	**0**	**0**	SOUTH LEG
BOUND	THRU	**0**	**0**	RATIO **11.4%**	BOUND	THRU	**0**	**0**	RATIO **11.5%**
	RIGHT	**0**	**0**	ADT 4,100		RIGHT	**0**	**0**	ADT 4,100
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG
BOUND	THRU	**163**	**179**	RATIO **7.0%**	BOUND	THRU	**287**	**328**	RATIO **10.1%**
	RIGHT	**1**	**17**	ADT 11,200		RIGHT	**9**	**21**	ADT 11,200
WEST	LEFT	**7**	**403**	WEST LEG	WEST	LEFT	**12**	**79**	WEST LEG
BOUND	THRU	**140**	**154**	RATIO **4.4%**	BOUND	THRU	**335**	**369**	RATIO **9.2%**
	RIGHT	**0**	**0**	ADT 8,000		RIGHT	**0**	**0**	ADT 8,000

Key Pointe Drive (NS) / Main Street (EW) - #3

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2022

			8	26	114			
			<	v	>			
19	^					^	115	
752	>					<	477	
8	v					v	184	
			<	^	>			
			4	12	91			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2022

				148	146			
				v	^			
489	<	IN =		1810		<	776	
779	>	OUT =		1810		>	957	
				v	^			
				218	107			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			3	0	23			
			<	v	>			
11	^					^	17	
174	>					<	130	
0	v					v	9	
			<	^	>			
			0	0	6			

PCE FACTORS BY AXLE:

2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2022

			11	26	137			
			<	v	>			
30	^					^	132	
926	>					<	607	
8	v					v	193	
			<	^	>			
			4	12	97			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				240	282			
				v	^			
1314	<	IN =		4812		<	2520	
2052	>	OUT =		4812		>	3216	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				18	17			
				v	^			
22	<	IN =		121		<	66	
37	>	OUT =		121		>	82	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				97	113			
				v	^			
507	<	IN =		1869		<	980	
792	>	OUT =		1869		>	1249	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				1881	1138			
				v	^			
2523	<	IN =		7424		<	4642	
901	>	OUT =		7424		>	3763	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				67	36			
				v	^			
72	<	IN =		226		<	135	
24	>	OUT =		226		>	118	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				737	444			
				v	^			
983	<	IN =		2896		<	1809	
350	>	OUT =		2896		>	1469	
				v	^			
				0	0			

RAW GROWTH (PCEs): 2016 TO 2040

CONVERSION OF TRUCKS TO: 2040

FACTOR = 1.00

				640	332			
				v	^			
476	<					<	829	
-442	>					>	220	
				v	^			
				0	0			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2022

			15	84	213			
			<	v	>			
44	^					^	182	
855	>					<	1015	
18	v					v	287	
			<	^	>			
			31	55	232			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2022

				312	281			
				v	^			
1061	<	IN =		3031		<	1484	
917	>	OUT =		3031		>	1300	
				v	^			
				389	318			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	23			
			<	v	>			
2	^					^	12	
115	>					<	96	
0	v					v	8	
			<	^	>			
			0	2	9			

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2022

			15	84	236			
			<	v	>			
46	^					^	194	
970	>					<	1111	
18	v					v	295	
			<	^	>			
			31	57	241			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				374	932			
				v	^			
2884	<	IN =		6728		<	4134	
2220	>	OUT =		6729		>	2913	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				12	27			
				v	^			
30	<	IN =		136		<	84	
40	>	OUT =		137		>	80	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				108	268			
				v	^			
815	<	IN =		1918		<	1179	
632	>	OUT =		1918		>	836	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				1834	3276			
				v	^			
1450	<	IN =		10378		<	5023	
3521	>	OUT =		10378		>	5652	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				42	79			
				v	^			
20	<	IN =		223		<	138	
43	>	OUT =		222		>	123	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				524	937			
				v	^			
411	<	IN =		2962		<	1441	
997	>	OUT =		2961		>	1613	
				v	^			
				0	0			

RAW GROWTH (PCEs): 2016 TO 2040

CONVERSION OF TRUCKS TO: 2040

FACTOR = 1.00

				416	669			
				v	^			
-404	<					<	262	
365	>					>	778	
				v	^			
				0	0			

Key Pointe Drive (NS) / Main Street (EW) - #3

MORNING PEAK HOUR										EVENING PEAK HOUR									
ADJUSTED GROWTH (PCEs):	2016	TO	2040							ADJUSTED GROWTH (PCEs):	2016	TO	2040						
10.00 MINIMUM GROWTH %					640	330				10 MINIMUM GROWTH %					420	670			
					v	^									v	^			
			480	<	IN =	1570	<	830					120	<	IN =	1050	<	260	
			100	>	OUT =	1030	>	220					370	>	OUT =	1570	>	780	
					v	^									v	^			
					0	0									0	0			
PRORATED GROWTH (PCEs):	2022	TO	2040							PRORATED GROWTH (PCEs):	2022	TO	2040						
18 YEARS					480	250				18 YEARS					320	500			
					v	^									v	^			
			360	<			<	620					90	<			<	200	
			80	>			>	170					280	>			>	590	
					v	^									v	^			
					0	0									0	0			
NEW PROJECTED VOLUMES (PCEs):	2040									NEW PROJECTED VOLUMES (PCEs):	2040								
					650	420									660	800			
					v	^									v	^			
			980	<			<	1550					1250	<			<	1800	
			1040	>			>	1330					1310	>			>	2040	
					v	^									v	^			
					230	110									400	330			
YEAR 2024 GROWTH:	2022	TO	2024							YEAR 2024 GROWTH:	2022	TO	2024						
2 YEARS					50	30				2 YEARS					40	60			
					v	^									v	^			
			40	<			<	70					10	<			<	20	
			10	>			>	20					30	>			>	70	
					v	^									v	^			
					0	0									0	0			
INITIAL YEAR 2024 VOLUMES:										INITIAL YEAR 2024 VOLUMES:									
2024					220	200				2024					380	360			
					v	^									v	^			
			660	<	IN =	2300	<	1000					1170	<	IN =	3390	<	1620	
			970	>	OUT =	2270	>	1180					1060	>	OUT =	3450	>	1520	
					v	^									v	^			
					230	110									400	330			
BALANCED YEAR 2024 VOLUMES:										BALANCED YEAR 2024 VOLUMES:									
2024					220	200				2024					390	360			
					v	^									v	^			
			670	<	IN =	2300	<	1000					1170	<	IN =	3460	<	1650	
			970	>	OUT =	2300	>	1200					1080	>	OUT =	3450	>	1520	
					v	^									v	^			
					230	110									400	340			
ADT BY LEG:										ADT BY LEG:									
2040					16,000					2040					16,000				
					N										N				
			27,700	W	LEG	E		45,500					27,700	W	LEG	E		45,500	
					S										S				
					9,100										9,100				
ADT BY LEG:										ADT BY LEG:									
2024					8,300					2024					8,300				
					N										N				
			25,500	W	LEG	E		36,200					25,500	W	LEG	E		36,200	
					S										S				
					8,400										8,400				

Key Pointe Drive (NS) / Main Street (EW) - #3

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**4**	SOUTH LEG		NORTH	LEFT	**31**	SOUTH LEG	
BOUND	THRU	**12**	IN ...	**110**	BOUND	THRU	**57**	IN ...	**330**
	RIGHT	**97**	OUT ...	**230**		RIGHT	**241**	OUT ...	**400**
SOUTH	LEFT	**137**	NORTH LEG		SOUTH	LEFT	**236**	NORTH LEG	
BOUND	THRU	**26**	IN ...	**650**	BOUND	THRU	**84**	IN ...	**660**
	RIGHT	**11**	OUT ...	**420**		RIGHT	**15**	OUT ...	**800**
EAST	LEFT	**30**	WEST LEG		EAST	LEFT	**46**	WEST LEG	
BOUND	THRU	**926**	IN ...	**1,040**	BOUND	THRU	**970**	IN ...	**1,310**
	RIGHT	**8**	OUT ...	**980**		RIGHT	**18**	OUT ...	**1,250**
WEST	LEFT	**193**	EAST LEG		WEST	LEFT	**295**	EAST LEG	
BOUND	THRU	**607**	IN ...	**1,550**	BOUND	THRU	**1,111**	IN ...	**1,800**
	RIGHT	**132**	OUT ...	**1,330**		RIGHT	**194**	OUT ...	**2,040**

YEAR 2040 TRAFFIC CONDITIONS										
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**4**	**5**	NORTH LEG	NORTH	LEFT	**31**	**34**	NORTH LEG	
BOUND	THRU	**12**	**23**	RATIO **6.2%**	BOUND	THRU	**57**	**121**	RATIO **9.5%**	
	RIGHT	**97**	**107**	ADT 16,000		RIGHT	**241**	**265**	ADT 16,000	
SOUTH	LEFT	**137**	**436**	SOUTH LEG	SOUTH	LEFT	**236**	**551**	SOUTH LEG	
BOUND	THRU	**26**	**73**	RATIO **4.7%**	BOUND	THRU	**84**	**139**	RATIO **9.9%**	
	RIGHT	**11**	**60**	ADT 9,100		RIGHT	**15**	**32**	ADT 9,100	
EAST	LEFT	**30**	**74**	EAST LEG	EAST	LEFT	**46**	**143**	EAST LEG	
BOUND	THRU	**926**	**1,019**	RATIO **6.6%**	BOUND	THRU	**970**	**1,274**	RATIO **9.2%**	
	RIGHT	**8**	**9**	ADT 45,500		RIGHT	**18**	**20**	ADT 45,500	
WEST	LEFT	**193**	**212**	WEST LEG	WEST	LEFT	**295**	**325**	WEST LEG	
BOUND	THRU	**607**	**916**	RATIO **7.5%**	BOUND	THRU	**1,111**	**1,222**	RATIO **9.8%**	
	RIGHT	**132**	**323**	ADT 27,700		RIGHT	**194**	**536**	ADT 27,700	

I-15 SB Ramps (NS) / Main Street (EW) - #4

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2022

			145	0	252			
			<	v	>			
	0	^				^	363	
	848	>				<	632	
	111	v				v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2022

				397	363			
				v	^			
	777	<	IN =	2351		<	995	
	959	>	OUT =	2351		>	1100	
				v	^			
				111	0			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			32	0	56			
			<	v	>			
	0	^				^	148	
	161	>				<	124	
	42	v				v	0	
			<	^	>			
			0	0	0			

PCE FACTORS BY AXLE:

2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2022

			177	0	308			
			<	v	>			
	0	^				^	511	
	1009	>				<	756	
	153	v				v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				774	1475			
				v	^			
	2520	<	IN =	5645		<	3607	
	1264	>	OUT =	5645		>	1650	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				9	44			
				v	^			
	66	<	IN =	132		<	107	
	16	>	OUT =	132		>	22	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				297	575			
				v	^			
	980	<	IN =	2189		<	1406	
	486	>	OUT =	2189		>	634	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				1076	1473			
				v	^			
	4642	<	IN =	8248		<	5408	
	1764	>	OUT =	8247		>	2132	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				47	43			
				v	^			
	135	<	IN =	238		<	142	
	49	>	OUT =	238		>	60	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				425	574			
				v	^			
	1809	<	IN =	3213		<	2102	
	687	>	OUT =	3213		>	830	
				v	^			
				0	0			

RAW GROWTH (PCEs): 2016 TO 2040

CONVERSION OF TRUCKS TO: 2040

FACTOR = 1.00

				127	-1			
				v	^			
	829	<				<	696	
	201	>				>	196	
				v	^			
				0	0			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2022

			313	0	418			
			<	v	>			
	0	^				^	337	
	1161	>				<	1172	
	142	v				v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2022

				731	337			
				v	^			
	1485	<	IN =	3543		<	1509	
	1303	>	OUT =	3543		>	1579	
				v	^			
				142	0			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			38	0	25			
			<	v	>			
	0	^				^	81	
	111	>				<	81	
	36	v				v	0	
			<	^	>			
			0	0	0			

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2022

			351	0	443			
			<	v	>			
	0	^				^	418	
	1272	>				<	1253	
	178	v				v	0	
			<	^	>			
			0	0	0			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				1065	1281			
				v	^			
	4134	<	IN =	8254		<	5050	
	2139	>	OUT =	8253		>	2838	
				v	^			
				0	0			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				9	75			
				v	^			
	84	<	IN =	189		<	156	
	24	>	OUT =	189		>	30	
				v	^			
				0	0			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				300	377			
				v	^			
	1179	<	IN =	2358		<	1453	
	605	>	OUT =	2358		>	802	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				1631	1242			
				v	^			
	5023	<	IN =	12124		<	5605	
	4888	>	OUT =	12124		>	5859	
				v	^			
				0	0			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				26	106			
				v	^			
	138	<	IN =	314		<	230	
	58	>	OUT =	315		>	71	
				v	^			
				0	0			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				463	374			
				v	^			
	1441	<	IN =	3473		<	1627	
	1383	>	OUT =	3473		>	1658	
				v	^			
				0	0			

RAW GROWTH (PCEs): 2016 TO 2040

CONVERSION OF TRUCKS TO: 2040

FACTOR = 1.00

				163	-3			
				v	^			
	262	<				<	174	
	778	>				>	856	
				v	^			
				0	0			

I-15 SB Ramps (NS) / Main Street (EW) - #4

MORNING PEAK HOUR										EVENING PEAK HOUR									
ADJUSTED GROWTH (PCEs):	2016	TO	2040							ADJUSTED GROWTH (PCEs):	2016	TO	2040						
10.00 MINIMUM GROWTH %					130	50				10 MINIMUM GROWTH %					160	40			
					v	^									v	^			
			830	<	IN =	1030	<	700					260	<	IN =	1110	<	170	
			200	>	OUT =	1080	>	200					780	>	OUT =	1160	>	860	
					v	^									v	^			
					0	0									0	0			
PRORATED GROWTH (PCEs):	2022	TO	2040							PRORATED GROWTH (PCEs):	2022	TO	2040						
18 YEARS					100	40				18 YEARS					120	30			
					v	^									v	^			
			620	<			<	530					200	<			<	130	
			150	>			>	150					590	>			>	650	
					v	^									v	^			
					0	0									0	0			
NEW PROJECTED VOLUMES (PCEs):	2040									NEW PROJECTED VOLUMES (PCEs):	2040								
					590	550									910	450			
					v	^									v	^			
			1550	<			<	1800					1800	<			<	1800	
			1310	>			>	1470					2040	>			>	2370	
					v	^									v	^			
					150	0									180	0			
YEAR 2024 GROWTH:	2022	TO	2024							YEAR 2024 GROWTH:	2022	TO	2024						
2 YEARS					10	0				2 YEARS					10	0			
					v	^									v	^			
			70	<			<	60					20	<			<	10	
			20	>			>	20					70	>			>	70	
					v	^									v	^			
					0	0									0	0			
INITIAL YEAR 2024 VOLUMES:										INITIAL YEAR 2024 VOLUMES:									
2024					500	510				2024					800	420			
					v	^									v	^			
			1000	<	IN =	3010	<	1330					1620	<	IN =	4000	<	1680	
			1180	>	OUT =	3000	>	1340					1520	>	OUT =	4010	>	1790	
					v	^									v	^			
					150	0									180	0			
BALANCED YEAR 2024 VOLUMES:										BALANCED YEAR 2024 VOLUMES:									
2024					500	510				2024					800	420			
					v	^									v	^			
			1000	<	IN =	3010	<	1330					1620	<	IN =	4000	<	1680	
			1180	>	OUT =	3000	>	1340					1520	>	OUT =	4010	>	1790	
					v	^									v	^			
					150	0									180	0			
ADT BY LEG:										ADT BY LEG:									
2040					16,000					2040					16,000				
					N										N				
			45,300	W	LEG	E		51,000					45,300	W	LEG	E		51,000	
					S										S				
					0										0				
ADT BY LEG:										ADT BY LEG:									
2024					14,100					2024					14,100				
					N										N				
			36,200	W	LEG	E		42,000					36,200	W	LEG	E		42,000	
					S										S				
					0										0				

I-15 SB Ramps (NS) / Main Street (EW) - #4

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**0**	SOUTH LEG		NORTH	LEFT	**0**	SOUTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**150**		RIGHT	**0**	OUT ...	**180**
SOUTH	LEFT	**308**	NORTH LEG		SOUTH	LEFT	**443**	NORTH LEG	
BOUND	THRU	**0**	IN ...	**590**	BOUND	THRU	**0**	IN ...	**910**
	RIGHT	**177**	OUT ...	**550**		RIGHT	**351**	OUT ...	**450**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**1,009**	IN ...	**1,310**	BOUND	THRU	**1,272**	IN ...	**2,040**
	RIGHT	**153**	OUT ...	**1,550**		RIGHT	**178**	OUT ...	**1,800**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**0**	EAST LEG	
BOUND	THRU	**756**	IN ...	**1,800**	BOUND	THRU	**1,253**	IN ...	**1,800**
	RIGHT	**511**	OUT ...	**1,470**		RIGHT	**418**	OUT ...	**2,370**

YEAR 2040 TRAFFIC CONDITIONS										
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**0**	**0**	NORTH LEG	NORTH	LEFT	**0**	**0**	NORTH LEG	
BOUND	THRU	**0**	**0**	RATIO **7.3%**	BOUND	THRU	**0**	**0**	RATIO **8.6%**	
	RIGHT	**0**	**0**	ADT 16,000		RIGHT	**0**	**0**	ADT 16,000	
SOUTH	LEFT	**308**	**339**	SOUTH LEG	SOUTH	LEFT	**443**	**496**	SOUTH LEG	
BOUND	THRU	**0**	**0**	RATIO **-**	BOUND	THRU	**0**	**0**	RATIO **-**	
	RIGHT	**177**	**274**	ADT 0		RIGHT	**351**	**423**	ADT 0	
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG	
BOUND	THRU	**1,009**	**1,152**	RATIO **6.5%**	BOUND	THRU	**1,272**	**1,874**	RATIO **8.3%**	
	RIGHT	**153**	**168**	ADT 51,000		RIGHT	**178**	**196**	ADT 51,000	
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**0**	**0**	WEST LEG	
BOUND	THRU	**756**	**1,276**	RATIO **6.3%**	BOUND	THRU	**1,253**	**1,378**	RATIO **8.5%**	
	RIGHT	**511**	**562**	ADT 45,300		RIGHT	**418**	**460**	ADT 45,300	

I-15 NB Ramps (NS) / Main Street (EW) - #5

MORNING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2022

			0	0	0			
			<	v	>			
		0	^			^	394	
		886	>			<	894	
		251	v			v	0	
			<	^	>			
			54	1	293			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2022

				0	395			
				v	^			
		948	<	IN =	2773	<	1288	
		1137	>	OUT =	2773	>	1179	
				v	^			
				251	348			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	0			
			<	v	>			
		0	^			^	67	
		130	>			<	209	
		52	v			v	0	
			<	^	>			
			28	2	118			

PCE FACTORS BY AXLE:

2: 1.5 3: 2.0 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2022

			0	0	0			
			<	v	>			
		0	^			^	461	
		1016	>			<	1103	
		303	v			v	0	
			<	^	>			
			82	3	411			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				0	721			
				v	^			
		3607	<	IN =	6597	<	4102	
		1401	>	OUT =	6597	>	2269	
				v	^			
				0	1094			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				0	11			
				v	^			
		107	<	IN =	212	<	104	
		19	>	OUT =	212	>	94	
				v	^			
				0	89			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				0	278			
				v	^			
		1406	<	IN =	2577	<	1593	
		539	>	OUT =	2577	>	894	
				v	^			
				0	445			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				0	1086			
				v	^			
		5408	<	IN =	9242	<	5912	
		2132	>	OUT =	9243	>	2749	
				v	^			
				0	1198			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				0	30			
				v	^			
		142	<	IN =	342	<	139	
		60	>	OUT =	342	>	170	
				v	^			
				0	143			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.38

PHF FOR TRUCKS: 0.333

				0	423			
				v	^			
		2102	<	IN =	3626	<	2293	
		830	>	OUT =	3626	>	1101	
				v	^			
				0	503			

RAW GROWTH (PCEs): 2016 TO 2040

CONVERSION OF TRUCKS TO: 2040

FACTOR = 1.00

				0	145			
				v	^			
		696	<			<	699	
		291	>			>	208	
				v	^			
				0	58			

EVENING PEAK HOUR

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (AUTOS):

2022

			0	0	0			
			<	v	>			
		0	^			^	365	
		1332	>			<	1366	
		198	v			v	0	
			<	^	>			
			176	4	641			

EXISTING PEAK HOUR COUNT YEAR (AUTOS):

2022

				0	369			
				v	^			
		1542	<	IN =	4082	<	1731	
		1530	>	OUT =	4082	>	1973	
				v	^			
				198	821			

EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (TRUCKS IN PCEs):

			0	0	0			
			<	v	>			
		0	^			^	39	
		116	>			<	163	
		27	v			v	0	
			<	^	>			
			14	0	131			

PCE FACTORS BY AXLE:

2: 1.5 3: 2 4+: 3.0

TOTAL EXISTING PEAK HOUR TURNING MOVEMENT VOLUMES (PCEs):

2022

			0	0	0			
			<	v	>			
		0	^			^	404	
		1448	>			<	1529	
		225	v			v	0	
			<	^	>			
			190	4	772			

EXISTING PEAK PERIOD MODEL YEAR (AUTO):

2016

				0	816			
				v	^			
		5050	<	IN =	11535	<	4220	
		2765	>	OUT =	11535	>	5669	
				v	^			
				0	4550			

EXISTING PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2016

				0	6			
				v	^			
		155	<	IN =	282	<	129	
		30	>	OUT =	281	>	120	
				v	^			
				0	123			

EXISTING PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				0	230			
				v	^			
		1453	<	IN =	3300	<	1214	
		782	>	OUT =	3300	>	1617	
				v	^			
				0	1305			

FUTURE PEAK PERIOD MODEL YEAR (AUTO):

2040

				0	1576			
				v	^			
		5604	<	IN =	15238	<	5222	
		5854	>	OUT =	15237	>	8057	
				v	^			
				0	4162			

FUTURE PEAK PERIOD MODEL YEAR (TRUCKS IN PCEs):

2040

				0	18			
				v	^			
		230	<	IN =	408	<	204	
		71	>	OUT =	409	>	161	
				v	^			
				0	133			

FUTURE PEAK HOUR MODEL YEAR (PCEs):

PHF FOR CARS: 0.28

PHF FOR TRUCKS: 0.25

				0	446			
				v	^			
		1627	<	IN =	4369	<	1513	
		1657	>	OUT =	4369	>	2296	
				v	^			
				0	1199			

RAW GROWTH (PCEs): 2016 TO 2040

CONVERSION OF TRUCKS TO: 2040

FACTOR = 1.00

				0	216			
				v	^			
		174	<			<	299	
		875	>			>	679	
				v	^			
				0	-106			

I-15 NB Ramps (NS) / Main Street (EW) - #5

MORNING PEAK HOUR											EVENING PEAK HOUR										
ADJUSTED GROWTH (PCEs):	2016	TO	2040								ADJUSTED GROWTH (PCEs):	2016	TO	2040						
10.00 MINIMUM GROWTH %					0	150					10 MINIMUM GROWTH %					0	220			
					v	^										v	^			
			700	<	IN =	1050	<	700						170	<	IN =	1190	<	300	
			290	>	OUT =	1070	>	210						880	>	OUT =	1070	>	680	
					v	^										v	^			
					10	60										0	10			
PRORATED GROWTH (PCEs):	2022	TO	2040								PRORATED GROWTH (PCEs):	2022	TO	2040						
18 YEARS					0	110					18 YEARS					0	170			
					v	^										v	^			
			530	<			<	530						130	<			<	230	
			220	>			>	160						660	>			>	510	
					v	^										v	^			
					10	50										0	10			
NEW PROJECTED VOLUMES (PCEs):	2040										NEW PROJECTED VOLUMES (PCEs):	2040								
					0	570										0	580			
					v	^										v	^			
			1720	<			<	2090						1850	<			<	2160	
			1540	>			>	1590						2330	>			>	2730	
					v	^										v	^			
					310	550										230	980			
YEAR 2024 GROWTH:	2022	TO	2024								YEAR 2024 GROWTH:	2022	TO	2024						
2 YEARS					0	10					2 YEARS					0	20			
					v	^										v	^			
			60	<			<	60						10	<			<	30	
			20	>			>	20						70	>			>	60	
					v	^										v	^			
					0	10										0	0			
INITIAL YEAR 2024 VOLUMES:											INITIAL YEAR 2024 VOLUMES:										
2024					0	470					2024					0	430			
					v	^										v	^			
			1250	<	IN =	3470	<	1620						1730	<	IN =	4670	<	1960	
			1340	>	OUT =	3470	>	1450						1740	>	OUT =	4670	>	2280	
					v	^										v	^			
					300	510										230	970			
BALANCED YEAR 2024 VOLUMES:											BALANCED YEAR 2024 VOLUMES:										
2024					0	470					2024					0	430			
					v	^										v	^			
			1250	<	IN =	3470	<	1620						1730	<	IN =	4670	<	1960	
			1340	>	OUT =	3470	>	1450						1740	>	OUT =	4670	>	2280	
					v	^										v	^			
					300	510										230	970			
ADT BY LEG:											ADT BY LEG:										
2040					6,500						2040					6,500				
					N											N				
			49,600	W	LEG	E		59,200						49,600	W	LEG	E		59,200	
					S											S				
					15,100											15,100				
ADT BY LEG:											ADT BY LEG:										
2024					4,900						2024					4,900				
					N											N				
			40,200	W	LEG	E		49,100						40,200	W	LEG	E		49,100	
					S											S				
					13,900											13,900				

I-15 NB Ramps (NS) / Main Street (EW) - #5

FUTURE DIRECTIONAL TURN VOLUMES FROM FUTURE DIRECTIONAL LINK VOLUMES

NCHRP 255

YEAR 2040 TRAFFIC CONDITIONS									
MORNING PEAK HOUR INPUT DATA					EVENING PEAK HOUR INPUT DATA				
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	APPROACH	YEAR 2040 TOTAL
NORTH	LEFT	**82**	SOUTH LEG		NORTH	LEFT	**190**	SOUTH LEG	
BOUND	THRU	**3**	IN ...	**550**	BOUND	THRU	**4**	IN ...	**980**
	RIGHT	**411**	OUT ...	**310**		RIGHT	**772**	OUT ...	**230**
SOUTH	LEFT	**0**	NORTH LEG		SOUTH	LEFT	**0**	NORTH LEG	
BOUND	THRU	**0**	IN ...	**0**	BOUND	THRU	**0**	IN ...	**0**
	RIGHT	**0**	OUT ...	**570**		RIGHT	**0**	OUT ...	**580**
EAST	LEFT	**0**	WEST LEG		EAST	LEFT	**0**	WEST LEG	
BOUND	THRU	**1,016**	IN ...	**1,540**	BOUND	THRU	**1,448**	IN ...	**2,330**
	RIGHT	**303**	OUT ...	**1,720**		RIGHT	**225**	OUT ...	**1,850**
WEST	LEFT	**0**	EAST LEG		WEST	LEFT	**0**	EAST LEG	
BOUND	THRU	**1,103**	IN ...	**2,090**	BOUND	THRU	**1,529**	IN ...	**2,160**
	RIGHT	**461**	OUT ...	**1,590**		RIGHT	**404**	OUT ...	**2,730**

YEAR 2040 TRAFFIC CONDITIONS										
MORNING PEAK HOUR RESULTS					EVENING PEAK HOUR RESULTS					
APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	APPROACH	TURNING MOVEMENT	BASE YEAR COUNT	YEAR 2040 FORECAST	PEAK - DAILY RELATIONSHIP	
NORTH	LEFT	**82**	**137**	NORTH LEG	NORTH	LEFT	**190**	**245**	NORTH LEG	
BOUND	THRU	**3**	**4**	RATIO **8.8%**	BOUND	THRU	**4**	**7**	RATIO **8.9%**	
	RIGHT	**411**	**452**	ADT 6,500		RIGHT	**772**	**849**	ADT 6,500	
SOUTH	LEFT	**0**	**0**	SOUTH LEG	SOUTH	LEFT	**0**	**0**	SOUTH LEG	
BOUND	THRU	**0**	**0**	RATIO **6.1%**	BOUND	THRU	**0**	**0**	RATIO **8.9%**	
	RIGHT	**0**	**0**	ADT 15,100		RIGHT	**0**	**0**	ADT 15,100	
EAST	LEFT	**0**	**0**	EAST LEG	EAST	LEFT	**0**	**0**	EAST LEG	
BOUND	THRU	**1,016**	**1,189**	RATIO **6.4%**	BOUND	THRU	**1,448**	**2,024**	RATIO **8.7%**	
	RIGHT	**303**	**333**	ADT 59,200		RIGHT	**225**	**248**	ADT 59,200	
WEST	LEFT	**0**	**0**	WEST LEG	WEST	LEFT	**0**	**0**	WEST LEG	
BOUND	THRU	**1,103**	**1,583**	RATIO **6.5%**	BOUND	THRU	**1,529**	**1,682**	RATIO **8.5%**	
	RIGHT	**461**	**566**	ADT 49,600		RIGHT	**404**	**573**	ADT 49,600	



GANDDINI GROUP INC.

714.795.3100 | ganddini.com

APPENDIX L
Amargosa and Palmetto High-Cube Warehouse Trip Generation Comparison Analysis

September 6, 2023

Mr. Ramin Namvar
RACHAMIN 5, LLC
6001 East Slauson Avenue
Commerce, California 90040

RE: Amargosa and Palmeto High-Cube Warehouse Truck Trip Generation Comparison Analysis
Project No.: 19522

Dear Mr. Namvar:

Ganddini Group, Inc. is pleased to provide this Truck Trip Generation Comparison Analysis for the proposed Amargosa and Palmeto High-Cube Warehouse Project. The purpose of this trip generation comparison analysis is to evaluate the change in truck trip generation that can be expected between the proposed project and an alternative land use consisting of commercial retail. This Truck Trip Generation Comparison Analysis supplements the Amargosa and *Palmetto High-Cube Warehouse Traffic Impact Analysis* (Ganddini Group, Inc., August 18, 2022). We trust the findings of this analysis will aid you and the City of Hesperia in assessing the project.

PROJECT DESCRIPTION

The project site is located on the northwest corner of Amargosa Road and Palmetto Way in the City of Hesperia. The project site is currently undeveloped. Figure 1 illustrates the project location map.

The 30.52-acre project site is proposed to include a 499,850 square foot high-cube fulfillment center warehouse building. The proposed project is anticipated to be constructed and fully operational by year 2024. The project site is proposed to provide three access driveways on Palmetto Way. All three project driveways are proposed to be full access. The project west driveway will be truck only. The project central driveway and project east driveway will provide access for both auto and trucks. Figure 2 illustrates the project site plan.

PROJECT TRIP GENERATION

Table 1 shows the project trip generation based upon rates obtained from the Institute of Transportation Engineers (ITE) *Trip Generation Manual* (11th Edition, 2021). ITE land use code 155 (High-Cube Fulfillment Center Non-Sort) has been used to estimate the site-specific trip generation estimates for up to 499,700 square feet of high-cube fulfillment center (non-sort) use.

The project vehicle trips are converted to Passenger Car Equivalent (PCE) trips based on truck rates (as a percentage of a total vehicle trips) from the ITE *Trip Generation Manual* and truck axle mix data recommended by the South Coast Air Quality Management District (SCAQMD).

As shown in Table 1, the proposed project is forecast to generate approximately 1,083 daily PCE trips, including 90 PCE trips during the AM peak hour and 81 PCE trips during the PM peak hour.

Mr. Ramin Namvar
RACHAMIN 5, LLC
September 6, 2023

ALTERNATIVE LAND USE DETERMINATION

To determine the truck trips generated for a comparative commercial retail development, juxtaposed to the proposed industrial project, existing commercial retail developments near the project site were considered for analysis. It was determined that the Dunia Plaza development located approximately 2.5 miles northeast of the project along Amargosa Road south of Bear Valley Road provides the ideal location. This shopping center provides various commercial retail land uses, has driveways that allow for the ability to conduct project specific trip generation without interaction with other land uses, and has a total building square footage near the 500,000 square foot proposed project square footage.

It should be noted that this commercial retail development, like the proposed development, is also located along Amargosa Road between Bear Valley Road to the north and Main Street to the south.

Figure 3 shows the commercial retail development that was analyzed. This includes Dunia Plaza, Restaurant Row, and Cracker Barrel Old Country Store. The 16 driveway locations that provide access to/from the commercial retail development are depicted in Figure 3.

The Dunia Plaza development is 601,781 square feet. The Restaurant Row development is 14,750 square feet with Cracker Barrel Old Country Store providing an additional 9,113 square feet. The commercial retail development is a combined 625,644 square feet. Project square footage information for Dunia Plaza was provide by GVD Commercial Properties, Inc. (project management company for Dunia Plaza). Restaurant Row square footage was provided through the City of Victorville Planning Commission Staff Report (September 14, 2016) for PLN16-00014 with the Cracker Barrel Old Country Store square footage provided via LoopNet. Attachment A includes this information.

TRIP GENERATION SURVEY FOR THE EXISTING COMMERCIAL DEVELOPMENT

Existing volumes are based upon 24-hour roadway segment counts separating passenger cars and trucks by axle obtained on Tuesday, August 15, 2023 during typical weekday conditions when schools were in session. The weekday AM peak period was counted between 7:00 AM and 9:00 AM and the weekday PM peak period was counted between 4:00 PM and 6:00 PM; these periods generally capture the peak times for commuter traffic when the roadway system is typically experiencing peak demand. The actual peak hour within each two-hour count period is determined based on the sum of the four consecutive 15-minute periods with the highest total volume. Thus, the weekday PM peak hour may be 4:45 PM to 5:45 PM if those four consecutive 15-minute periods have the highest total volume. Attachment B includes the traffic counts.

Table 2 shows the inbound traffic volumes combined for all 16 driveways and Table 3 shows the outbound traffic volumes combined for all 16 driveways. Table 4 shows the total inbound and outbound traffic volumes combined for all 16 driveways.

ALTERNATIVE LAND USE TRIP GENERATION

Table 5 shows the alternative land use (commercial retail) trip generation based on the traffic volume counts (Tables B-1 to Table B-32 in Attachment B) for 625,644 square feet of commercial retail use.

As shown in Table 5, the alternative (commercial retail) land use currently generates a total of approximately 33,057 daily trips, including 1,182 trips during the AM peak hour and 2,643 trips during the PM peak hour.

As also shown in Table 5, the alternative (commercial retail) land use currently generates a total of approximately 34,145 PCE daily trips, including 1,262 PCE trips during the AM peak hour and 2,691 trips during the PM peak hour.

Table 5 also shows the number of daily, AM peak hour, and PM peak hour truck volumes. The alternative (commercial retail) land use currently generates a total of approximately 1,093 daily truck trips, including 67 truck trips during the AM peak hour and 49 truck trips during the PM peak hour.

ALTERNATIVE LAND USE TRIP GENERATION WITH COMPARATIVE SQUARE FOOTAGE

Table 6 shows the alternative land use (commercial retail) trip generation based on the trip generation rates established through the existing traffic count surveys (see Table 37) for the commercial retail development selected for analysis, for a comparative 499,850 square foot commercial retail development.

As shown in Table 6, the alternative (499,850 square feet of commercial retail) land use is projected to generate a total of approximately 26,410 daily trips, including 944 trips during the AM peak hour and 2,112 trips during the PM peak hour.

As also shown in Table 6, the alternative (499,850 square feet of commercial retail) land use is projected to generate a total of approximately 27,280 PCE daily trips, including 1,007 PCE trips during the AM peak hour and 2,149 trips during the PM peak hour.

Table 6 also shows the number of daily, AM peak hour, and PM peak hour truck volumes. The alternative (499,850 square feet of commercial retail) land use is projected to generate a total of approximately 873 daily truck trips, including 54 truck trips during the AM peak hour and 39 truck trips during the PM peak hour.

TRIP GENERATION COMPARISON

Table 7 shows the difference in project trip generation between the proposed project and the alternative (499,850 square feet of commercial retail) land use. As shown in Table 7, the proposed project is forecast to generate approximately 25,505 fewer daily trips compared to a shopping center land use of equivalent size, including 870 fewer trips during the AM peak hour and 2,035 fewer trips during the PM peak hour.

As also shown in Table 7, the proposed project is forecast to generate approximately 758 fewer daily truck trips compared to a shopping center land use of equivalent size, including 44 fewer truck trips during the AM peak hour and 37 fewer truck trips during the PM peak hour. Therefore, the proposed project is forecast to generate a 659% reduction of daily truck trips compared to a shopping center land use of equivalent size, including a 435% reduction in truck trips during the AM peak hour and a 1,857% reduction in truck trips during the PM peak hour.

Mr. Ramin Namvar
RACHAMIN 5, LLC
September 6, 2023

CONCLUSION

Based on the trip generation comparison analysis, the proposed project consisting of a 499,850 square foot high-cube fulfillment center warehouse building is forecast to generate substantially fewer truck trips (up to 659% fewer daily truck trips) compared to an alternative land use composed of 499,850 square feet of commercial retail.

We appreciate the opportunity to assist you on this project. Should you have any questions or if we can be of further assistance, please do not hesitate to call at (714) 795-3100 x 103.

Sincerely,

GANDDINI GROUP, INC.
Bryan Crawford | Senior Associate
Giancarlo Ganddini, PE, PTP | Principal



Table 1
Project Trip Generation

Land Use: High-Cube Fulfillment Center Warehouse (Non-Sort)
Size: 499.850 TSF

TRIP GENERATION RATES PER TSF[1]								
		AM Peak Hour			PM Peak Hour			Daily
Vehicle Type	Source[2]	In	Out	Rate	In	Out	Rate	Rate
All Vehicles	ITE 155	81%	19%	0.150	39%	61%	0.160	1.810
Trucks Only	ITE 155	50%	50%	0.020	46%	54%	0.010	0.230
Passenger Car (86.7% AM, 93.8% PM, 87.3% Daily)		0.105	0.025	0.130	0.059	0.092	0.151	1.580
Truck (13.3% AM, 6.3% PM, 12.7% Daily)		0.010	0.010	0.020	0.005	0.005	0.010	0.230
Truck Mix:	SCAQMD							
2-Axle Trucks (16.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.038
3-Axle Trucks (20.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.048
4+ Axle Trucks (62.6%)		0.006	0.006	0.012	0.003	0.003	0.006	0.144

VEHICLE TRIPS GENERATED							
	AM Peak Hour			PM Peak Hour			
Vehicle Type	In	Out	Total	In	Out	Total	Daily
Passenger Car	52	12	64	29	46	75	790
Trucks							
2-Axle Trucks	1	1	2	0	0	0	19
3-Axle Trucks	1	1	2	0	0	0	24
4+ Axle Trucks	3	3	6	1	1	2	72
Subtotal	5	5	10	1	1	2	115
Total Vehicle Trips Generated	**57**	**17**	**74**	**30**	**47**	**77**	**905**

PCE[3] TRIPS GENERATED								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	PCE Factor[4]	In	Out	Total	In	Out	Total	Daily
Passenger Car	1.0	52	12	64	29	46	75	790
Trucks								
2-Axle Trucks	1.5	2	2	4	0	0	0	29
3-Axle Trucks	2.0	2	2	4	0	0	0	48
4+ Axle Trucks	3.0	9	9	18	3	3	6	216
Subtotal		13	13	26	3	3	6	293
Total PCE Trips Generated		**65**	**25**	**90**	**32**	**49**	**81**	**1,083**

Notes:
(1) TSF = Thousand Square Feet
(2) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = ITE Land Use Code.
(3) PCE = Passenger Car Equivalent
(4) Source: San Bernardino County Congestion Management Program (2016), Appendix B.

Table 2
Driveways Combined Total (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	8	0	0	0	0	0	8	12:00 PM - 12:15 PM	345	5	1	2	0	2	355
12:15 AM - 12:30 AM	17	0	0	0	0	0	17	12:15 PM - 12:30 PM	326	10	2	0	0	2	340
12:30 AM - 12:45 AM	12	1	0	0	0	0	13	12:30 PM - 12:45 PM	346	7	1	2	0	1	357
12:45 AM - 1:00 AM	8	0	0	2	0	0	10	12:45 PM - 1:00 PM	296	6	0	1	0	0	303
1:00 AM - 1:15 AM	8	1	0	0	0	0	9	1:00 PM - 1:15 PM	289	7	0	0	0	2	298
1:15 AM - 1:30 AM	13	0	0	1	0	0	14	1:15 PM - 1:30 PM	299	8	0	1	2	3	313
1:30 AM - 1:45 AM	4	0	0	1	0	0	5	1:30 PM - 1:45 PM	286	8	1	6	1	0	302
1:45 AM - 2:00 AM	6	1	0	1	0	0	8	1:45 PM - 2:00 PM	286	8	2	2	0	1	299
2:00 AM - 2:15 AM	3	0	0	0	0	0	3	2:00 PM - 2:15 PM	244	9	0	2	0	2	257
2:15 AM - 2:30 AM	4	0	0	0	0	0	4	2:15 PM - 2:30 PM	263	8	2	0	1	2	276
2:30 AM - 2:45 AM	10	0	0	1	0	0	11	2:30 PM - 2:45 PM	267	8	3	2	0	1	281
2:45 AM - 3:00 AM	6	0	0	2	0	0	8	2:45 PM - 3:00 PM	304	7	2	2	0	0	315
3:00 AM - 3:15 AM	8	0	0	0	0	0	8	3:00 PM - 3:15 PM	265	6	0	0	0	1	272
3:15 AM - 3:30 AM	9	3	0	0	0	0	12	3:15 PM - 3:30 PM	317	2	0	0	1	2	322
3:30 AM - 3:45 AM	14	2	0	1	0	0	17	3:30 PM - 3:45 PM	318	5	0	0	0	2	325
3:45 AM - 4:00 AM	20	0	0	0	0	0	20	3:45 PM - 4:00 PM	325	5	1	1	0	1	333
4:00 AM - 4:15 AM	11	1	0	0	0	0	12	4:00 PM - 4:15 PM	301	4	0	1	0	1	307
4:15 AM - 4:30 AM	15	1	0	1	0	0	17	4:15 PM - 4:30 PM	271	3	1	2	0	1	278
4:30 AM - 4:45 AM	30	3	0	0	0	0	33	4:30 PM - 4:45 PM	317	4	1	2	0	1	325
4:45 AM - 5:00 AM	56	0	0	0	0	0	56	4:45 PM - 5:00 PM	365	4	0	0	0	2	371
5:00 AM - 5:15 AM	28	7	0	0	0	0	35	5:00 PM - 5:15 PM	318	3	0	0	0	2	323
5:15 AM - 5:30 AM	26	3	0	1	0	0	30	5:15 PM - 5:30 PM	341	2	0	1	0	0	344
5:30 AM - 5:45 AM	29	4	0	0	0	0	33	5:30 PM - 5:45 PM	294	5	0	1	0	0	300
5:45 AM - 6:00 AM	52	2	0	0	0	0	54	5:45 PM - 6:00 PM	327	4	0	1	1	3	336
6:00 AM - 6:15 AM	58	1	1	1	0	1	62	6:00 PM - 6:15 PM	296	4	1	1	0	0	302
6:15 AM - 6:30 AM	60	3	1	0	0	0	64	6:15 PM - 6:30 PM	305	1	0	0	0	1	307
6:30 AM - 6:45 AM	79	4	1	0	0	0	84	6:30 PM - 6:45 PM	269	1	0	1	0	0	271
6:45 AM - 7:00 AM	96	5	2	1	0	1	105	6:45 PM - 7:00 PM	306	1	1	2	0	1	311
7:00 AM - 7:15 AM	89	5	2	3	1	1	101	7:00 PM - 7:15 PM	263	4	0	0	0	0	267
7:15 AM - 7:30 AM	110	4	0	2	0	0	116	7:15 PM - 7:30 PM	249	1	0	0	0	1	251
7:30 AM - 7:45 AM	107	3	1	0	0	0	111	7:30 PM - 7:45 PM	252	0	0	1	0	0	253
7:45 AM - 8:00 AM	126	6	0	0	0	1	133	7:45 PM - 8:00 PM	222	1	0	1	0	0	224
8:00 AM - 8:15 AM	133	5	0	5	0	1	144	8:00 PM - 8:15 PM	218	3	0	1	0	1	223
8:15 AM - 8:30 AM	151	4	1	4	0	0	160	8:15 PM - 8:30 PM	190	1	0	1	0	1	193
8:30 AM - 8:45 AM	185	4	0	2	0	0	191	8:30 PM - 8:45 PM	155	1	0	3	0	0	159
8:45 AM - 9:00 AM	206	4	2	3	0	1	216	8:45 PM - 9:00 PM	159	0	0	0	0	0	159
9:00 AM - 9:15 AM	259	11	5	4	0	2	281	9:00 PM - 9:15 PM	121	1	1	0	0	2	125
9:15 AM - 9:30 AM	225	10	1	2	0	1	239	9:15 PM - 9:30 PM	116	0	0	1	0	0	117
9:30 AM - 9:45 AM	217	5	0	1	1	1	225	9:30 PM - 9:45 PM	107	0	0	1	0	0	108
9:45 AM - 10:00 AM	252	8	0	1	0	0	261	9:45 PM - 10:00 PM	101	2	0	1	0	0	104
10:00 AM - 10:15 AM	264	6	1	1	0	2	274	10:00 PM - 10:15 PM	77	0	0	0	0	0	77
10:15 AM - 10:30 AM	284	5	1	1	0	1	292	10:15 PM - 10:30 PM	54	1	0	1	0	0	56
10:30 AM - 10:45 AM	278	4	1	1	0	1	285	10:30 PM - 10:45 PM	54	0	1	1	0	0	56
10:45 AM - 11:00 AM	279	12	2	1	0	2	296	10:45 PM - 11:00 PM	33	0	0	0	0	0	33
11:00 AM - 11:15 AM	319	3	0	0	0	3	325	11:00 PM - 11:15 PM	22	0	0	1	0	0	23
11:15 AM - 11:30 AM	287	5	1	3	0	1	297	11:15 PM - 11:30 PM	18	0	0	1	0	0	19
11:30 AM - 11:45 AM	292	9	2	2	0	1	306	11:30 PM - 11:45 PM	15	2	0	0	0	0	17
11:45 AM - 12:00 PM	309	5	0	2	0	1	317	11:45 PM - 12:00 AM	8	2	0	0	0	0	10
Total	5,062	160	25	51	2	22	5,322	Total	10,920	164	21	47	6	39	11,197
								Total AM + PM	15,982	324	46	98	8	61	16,519

Peak Hour															
8:00 AM - 9:00 AM	675	17	3	14	0	2	711	4:45 PM - 5:45 PM	1,318	14	0	2	0	4	1,338

Table 3
Driveways Combined Total (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	43	0	0	0	0	0	43	12:00 PM - 12:15 PM	280	3	1	0	0	3	287
12:15 AM - 12:30 AM	27	0	0	0	0	0	27	12:15 PM - 12:30 PM	330	11	0	1	0	2	344
12:30 AM - 12:45 AM	28	1	0	0	0	0	29	12:30 PM - 12:45 PM	328	4	1	2	0	1	336
12:45 AM - 1:00 AM	13	0	0	0	0	0	13	12:45 PM - 1:00 PM	328	6	0	3	0	0	337
1:00 AM - 1:15 AM	16	0	0	0	0	0	16	1:00 PM - 1:15 PM	327	12	1	1	0	1	342
1:15 AM - 1:30 AM	11	1	0	0	0	0	12	1:15 PM - 1:30 PM	326	4	0	1	0	3	334
1:30 AM - 1:45 AM	9	0	0	0	0	0	9	1:30 PM - 1:45 PM	313	9	2	3	1	1	329
1:45 AM - 2:00 AM	8	0	0	1	0	0	9	1:45 PM - 2:00 PM	304	7	1	2	0	0	314
2:00 AM - 2:15 AM	9	0	0	0	0	0	9	2:00 PM - 2:15 PM	288	12	1	3	1	2	307
2:15 AM - 2:30 AM	6	0	0	1	0	0	7	2:15 PM - 2:30 PM	299	11	1	3	1	3	318
2:30 AM - 2:45 AM	5	0	0	2	0	0	7	2:30 PM - 2:45 PM	274	4	1	1	0	1	281
2:45 AM - 3:00 AM	9	2	0	0	0	0	11	2:45 PM - 3:00 PM	287	9	2	1	0	0	299
3:00 AM - 3:15 AM	9	0	0	0	0	0	9	3:00 PM - 3:15 PM	294	9	2	2	0	1	308
3:15 AM - 3:30 AM	6	0	0	3	0	0	9	3:15 PM - 3:30 PM	289	4	0	0	0	2	295
3:30 AM - 3:45 AM	10	2	0	1	0	0	13	3:30 PM - 3:45 PM	294	5	3	2	0	2	306
3:45 AM - 4:00 AM	9	4	0	0	0	0	13	3:45 PM - 4:00 PM	303	8	0	0	0	0	311
4:00 AM - 4:15 AM	8	0	0	0	0	0	8	4:00 PM - 4:15 PM	298	3	2	0	0	2	305
4:15 AM - 4:30 AM	12	3	0	0	0	0	15	4:15 PM - 4:30 PM	296	6	0	1	0	1	304
4:30 AM - 4:45 AM	8	4	0	0	0	0	12	4:30 PM - 4:45 PM	276	4	1	2	1	1	285
4:45 AM - 5:00 AM	24	0	0	0	0	0	24	4:45 PM - 5:00 PM	325	4	1	0	0	2	332
5:00 AM - 5:15 AM	18	3	0	0	0	0	21	5:00 PM - 5:15 PM	322	6	0	2	1	2	333
5:15 AM - 5:30 AM	14	3	0	0	0	0	17	5:15 PM - 5:30 PM	319	3	0	2	0	0	324
5:30 AM - 5:45 AM	26	3	0	0	0	0	29	5:30 PM - 5:45 PM	310	6	0	0	0	0	316
5:45 AM - 6:00 AM	9	2	0	0	0	0	11	5:45 PM - 6:00 PM	335	6	0	0	0	1	342
6:00 AM - 6:15 AM	37	3	0	1	0	1	42	6:00 PM - 6:15 PM	333	7	0	0	0	2	342
6:15 AM - 6:30 AM	33	1	0	0	0	0	34	6:15 PM - 6:30 PM	302	2	1	0	0	1	306
6:30 AM - 6:45 AM	51	6	1	0	0	0	58	6:30 PM - 6:45 PM	306	0	0	0	0	0	306
6:45 AM - 7:00 AM	70	5	1	2	0	1	79	6:45 PM - 7:00 PM	316	2	0	0	0	1	319
7:00 AM - 7:15 AM	93	7	0	1	0	1	102	7:00 PM - 7:15 PM	296	3	0	0	0	0	299
7:15 AM - 7:30 AM	74	7	3	2	0	0	86	7:15 PM - 7:30 PM	273	0	1	3	0	1	278
7:30 AM - 7:45 AM	99	4	1	2	0	0	106	7:30 PM - 7:45 PM	263	3	0	2	0	0	268
7:45 AM - 8:00 AM	89	8	1	2	1	1	102	7:45 PM - 8:00 PM	248	3	0	1	0	0	252
8:00 AM - 8:15 AM	93	7	0	2	0	1	103	8:00 PM - 8:15 PM	281	2	0	0	0	1	284
8:15 AM - 8:30 AM	102	3	0	2	0	0	107	8:15 PM - 8:30 PM	264	0	0	1	0	1	266
8:30 AM - 8:45 AM	115	4	1	2	0	0	122	8:30 PM - 8:45 PM	241	1	0	1	0	0	243
8:45 AM - 9:00 AM	130	2	1	5	0	1	139	8:45 PM - 9:00 PM	219	0	0	0	0	0	219
9:00 AM - 9:15 AM	173	4	3	2	0	2	184	9:00 PM - 9:15 PM	183	2	0	2	0	2	189
9:15 AM - 9:30 AM	153	7	2	3	0	1	166	9:15 PM - 9:30 PM	174	1	0	0	0	0	175
9:30 AM - 9:45 AM	205	5	1	1	0	1	213	9:30 PM - 9:45 PM	161	0	0	1	0	0	162
9:45 AM - 10:00 AM	209	8	2	2	0	0	221	9:45 PM - 10:00 PM	111	0	0	0	0	0	111
10:00 AM - 10:15 AM	225	8	0	0	0	1	234	10:00 PM - 10:15 PM	144	1	0	0	0	0	145
10:15 AM - 10:30 AM	183	5	1	2	0	1	192	10:15 PM - 10:30 PM	95	0	0	2	0	0	97
10:30 AM - 10:45 AM	246	6	1	1	0	1	255	10:30 PM - 10:45 PM	76	0	0	1	0	0	77
10:45 AM - 11:00 AM	258	10	3	2	1	2	276	10:45 PM - 11:00 PM	85	1	0	1	0	0	87
11:00 AM - 11:15 AM	281	5	2	0	0	2	290	11:00 PM - 11:15 PM	73	0	0	0	0	0	73
11:15 AM - 11:30 AM	271	3	1	0	0	0	275	11:15 PM - 11:30 PM	48	1	1	0	0	0	50
11:30 AM - 11:45 AM	280	2	1	1	0	2	286	11:30 PM - 11:45 PM	27	1	0	1	0	0	29
11:45 AM - 12:00 PM	276	11	0	3	0	2	292	11:45 PM - 12:00 AM	35	0	0	0	0	0	35
Total	4,083	159	26	46	2	21	4,337	Total	11,899	186	23	48	5	40	12,201
								Total AM + PM	15,982	345	49	94	7	61	16,538

Peak Hour															
8:00 AM - 9:00 AM	440	16	2	11	0	2	471	4:45 PM - 5:45 PM	1,276	19	1	4	1	4	1,305

Table 4
Driveways Combined Total (Tuesday, August 15, 2023) - Inbound + Outbound

Inbound + Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	51	0	0	0	0	0	51	12:00 PM - 12:15 PM	625	8	2	2	0	5	642
12:15 AM - 12:30 AM	44	0	0	0	0	0	44	12:15 PM - 12:30 PM	656	21	2	1	0	4	684
12:30 AM - 12:45 AM	40	2	0	0	0	0	42	12:30 PM - 12:45 PM	674	11	2	4	0	2	693
12:45 AM - 1:00 AM	21	0	0	2	0	0	23	12:45 PM - 1:00 PM	624	12	0	4	0	0	640
1:00 AM - 1:15 AM	24	1	0	0	0	0	25	1:00 PM - 1:15 PM	616	19	1	1	0	3	640
1:15 AM - 1:30 AM	24	1	0	1	0	0	26	1:15 PM - 1:30 PM	625	12	0	2	2	6	647
1:30 AM - 1:45 AM	13	0	0	1	0	0	14	1:30 PM - 1:45 PM	599	17	3	9	2	1	631
1:45 AM - 2:00 AM	14	1	0	2	0	0	17	1:45 PM - 2:00 PM	590	15	3	4	0	1	613
2:00 AM - 2:15 AM	12	0	0	0	0	0	12	2:00 PM - 2:15 PM	532	21	1	5	1	4	564
2:15 AM - 2:30 AM	10	0	0	1	0	0	11	2:15 PM - 2:30 PM	562	19	3	3	2	5	594
2:30 AM - 2:45 AM	15	0	0	3	0	0	18	2:30 PM - 2:45 PM	541	12	4	3	0	2	562
2:45 AM - 3:00 AM	15	2	0	2	0	0	19	2:45 PM - 3:00 PM	591	16	4	3	0	0	614
3:00 AM - 3:15 AM	17	0	0	0	0	0	17	3:00 PM - 3:15 PM	559	15	2	2	0	2	580
3:15 AM - 3:30 AM	15	3	0	3	0	0	21	3:15 PM - 3:30 PM	606	6	0	0	1	4	617
3:30 AM - 3:45 AM	24	4	0	2	0	0	30	3:30 PM - 3:45 PM	612	10	3	2	0	4	631
3:45 AM - 4:00 AM	29	4	0	0	0	0	33	3:45 PM - 4:00 PM	628	13	1	1	0	1	644
4:00 AM - 4:15 AM	19	1	0	0	0	0	20	4:00 PM - 4:15 PM	599	7	2	1	0	3	612
4:15 AM - 4:30 AM	27	4	0	1	0	0	32	4:15 PM - 4:30 PM	567	9	1	3	0	2	582
4:30 AM - 4:45 AM	38	7	0	0	0	0	45	4:30 PM - 4:45 PM	593	8	2	4	1	2	610
4:45 AM - 5:00 AM	80	0	0	0	0	0	80	4:45 PM - 5:00 PM	690	8	1	0	0	4	703
5:00 AM - 5:15 AM	46	10	0	0	0	0	56	5:00 PM - 5:15 PM	640	9	0	2	1	4	656
5:15 AM - 5:30 AM	40	6	0	1	0	0	47	5:15 PM - 5:30 PM	660	5	0	3	0	0	668
5:30 AM - 5:45 AM	55	7	0	0	0	0	62	5:30 PM - 5:45 PM	604	11	0	1	0	0	616
5:45 AM - 6:00 AM	61	4	0	0	0	0	65	5:45 PM - 6:00 PM	662	10	0	1	1	4	678
6:00 AM - 6:15 AM	95	4	1	2	0	2	104	6:00 PM - 6:15 PM	629	11	1	1	0	2	644
6:15 AM - 6:30 AM	93	4	1	0	0	0	98	6:15 PM - 6:30 PM	607	3	1	0	0	2	613
6:30 AM - 6:45 AM	130	10	2	0	0	0	142	6:30 PM - 6:45 PM	575	1	0	1	0	0	577
6:45 AM - 7:00 AM	166	10	3	3	0	2	184	6:45 PM - 7:00 PM	622	3	1	2	0	2	630
7:00 AM - 7:15 AM	182	12	2	4	1	2	203	7:00 PM - 7:15 PM	559	7	0	0	0	0	566
7:15 AM - 7:30 AM	184	11	3	4	0	0	202	7:15 PM - 7:30 PM	522	1	1	3	0	2	529
7:30 AM - 7:45 AM	206	7	2	2	0	0	217	7:30 PM - 7:45 PM	515	3	0	3	0	0	521
7:45 AM - 8:00 AM	215	14	1	2	1	2	235	7:45 PM - 8:00 PM	470	4	0	2	0	0	476
8:00 AM - 8:15 AM	226	12	0	7	0	2	247	8:00 PM - 8:15 PM	499	5	0	1	0	2	507
8:15 AM - 8:30 AM	253	7	1	6	0	0	267	8:15 PM - 8:30 PM	454	1	0	2	0	2	459
8:30 AM - 8:45 AM	300	8	1	4	0	0	313	8:30 PM - 8:45 PM	396	2	0	4	0	0	402
8:45 AM - 9:00 AM	336	6	3	8	0	2	355	8:45 PM - 9:00 PM	378	0	0	0	0	0	378
9:00 AM - 9:15 AM	432	15	8	6	0	4	465	9:00 PM - 9:15 PM	304	3	1	2	0	4	314
9:15 AM - 9:30 AM	378	17	3	5	0	2	405	9:15 PM - 9:30 PM	290	1	0	1	0	0	292
9:30 AM - 9:45 AM	422	10	1	2	1	2	438	9:30 PM - 9:45 PM	268	0	0	2	0	0	270
9:45 AM - 10:00 AM	461	16	2	3	0	0	482	9:45 PM - 10:00 PM	212	2	0	1	0	0	215
10:00 AM - 10:15 AM	489	14	1	1	0	3	508	10:00 PM - 10:15 PM	221	1	0	0	0	0	222
10:15 AM - 10:30 AM	467	10	2	3	0	2	484	10:15 PM - 10:30 PM	149	1	0	3	0	0	153
10:30 AM - 10:45 AM	524	10	2	2	0	2	540	10:30 PM - 10:45 PM	130	0	1	2	0	0	133
10:45 AM - 11:00 AM	537	22	5	3	1	4	572	10:45 PM - 11:00 PM	118	1	0	1	0	0	120
11:00 AM - 11:15 AM	600	8	2	0	0	5	615	11:00 PM - 11:15 PM	95	0	0	1	0	0	96
11:15 AM - 11:30 AM	558	8	2	3	0	1	572	11:15 PM - 11:30 PM	66	1	1	1	0	0	69
11:30 AM - 11:45 AM	572	11	3	3	0	3	592	11:30 PM - 11:45 PM	42	3	0	1	0	0	46
11:45 AM - 12:00 PM	585	16	0	5	0	3	609	11:45 PM - 12:00 AM	43	2	0	0	0	0	45
Total	9,145	319	51	97	4	43	9,659	Total	22,819	350	44	95	11	79	23,398
								Total AM + PM	31,964	669	95	192	15	122	33,057

Peak Period															
Morning								Evening							
	Number of Vehicles								Number of Vehicles						
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
7:00 AM - 8:00 AM	787	44	8	12	2	4	857	4:00 PM - 5:00 PM	2,449	32	6	8	1	11	2,507
7:15 AM - 8:15 AM	831	44	6	15	1	4	901	4:15 PM - 5:15 PM	2,490	34	4	9	2	12	2,551
7:30 AM - 8:30 AM	900	40	4	17	1	4	966	4:30 PM - 5:30 PM	2,583	30	3	9	2	10	2,637
7:45 AM - 8:45 AM	994	41	3	19	1	4	1,062	4:45 PM - 5:45 PM	2,594	33	1	6	1	8	2,643
8:00 AM - 9:00 AM	1,115	33	5	25	0	4	1,182	5:00 PM - 6:00 PM	2,566	35	0	7	2	8	2,618
Peak Hour															
8:00 AM - 9:00 AM	1,115	33	5	25	0	4	1,182	4:45 PM - 5:45 PM	2,594	33	1	6	1	8	2,643

Table 5
Commercial Retail Surveyed Trip Generation

Land Use: Commercial Retail
Size: 625.644 TSF

TRIP GENERATION RATES PER TSF[1]								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	Source[2]	In	Out	Rate	In	Out	Rate	Daily Rate
All Vehicles	Counts	60%	40%	1.889	51%	49%	4.224	52.837
Trucks Only	Counts	54%	46%	0.107	41%	59%	0.078	1.747
Passenger Car (94.3% AM, 98.1% PM, 96.7% Daily)		1.072	0.710	1.782	2.099	2.047	4.146	51.090
Truck (5.7% AM, 1.9% PM, 3.3% Daily)		0.058	0.050	0.107	0.032	0.046	0.078	1.747
Truck Mix:	Counts							
2-Axle Trucks (49.3% AM, 67.3% PM, 61.2% Daily)		0.028	0.024	0.053	0.022	0.031	0.053	1.069
3-Axle Trucks (7.5% AM, 2.0% PM, 8.7% Daily)		0.004	0.004	0.008	0.001	0.001	0.002	0.152
4+ Axle Trucks (43.3% AM, 30.6% PM, 30.1% Daily)		0.025	0.021	0.046	0.010	0.014	0.024	0.526

VEHICLE TRIPS GENERATED							
	AM Peak Hour			PM Peak Hour			
Vehicle Type	In	Out	Total	In	Out	Total	Daily
Passenger Car	675	440	1,115	1,318	1,276	2,594	31,964
Trucks							
2-Axle Trucks	17	16	33	14	19	33	669
3-Axle Trucks	3	2	5	0	1	1	95
4+ Axle Trucks	16	13	29	6	9	15	329
Subtotal	36	31	67	20	29	49	1,093
Total Vehicle Trips Generated	**711**	**471**	**1,182**	**1,338**	**1,305**	**2,643**	**33,057**

PCE[3] TRIPS GENERATED								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	PCE Factor[4]	In	Out	Total	In	Out	Total	Daily
Passenger Car	1.0	675	440	1,115	1,318	1,276	2,594	31,964
Trucks								
2-Axle Trucks	1.5	26	24	50	21	29	50	1,004
3-Axle Trucks	2.0	6	4	10	0	2	2	190
4+ Axle Trucks	3.0	48	39	87	18	27	45	987
Subtotal		80	67	147	39	58	97	2,181
Total PCE Trips Generated		**755**	**507**	**1,262**	**1,357**	**1,334**	**2,691**	**34,145**

Notes:
(1) TSF = Thousand Square Feet

(2) Traffic counts conducted at project driveways of commercial retail site.

(3) PCE = Passenger Car Equivalent

(4) Source: San Bernardino County Congestion Management Program (2016), Appendix B.

Table 6
Commercial Retail Surveyed Trip Generation Comparative Square Footage

Land Use: Commercial Retail
Size: 499.850 TSF

TRIP GENERATION RATES PER TSF[1]								
		AM Peak Hour			PM Peak Hour			Daily
Vehicle Type	Source[2]	In	Out	Rate	In	Out	Rate	Rate
All Vehicles	Counts	60%	40%	1.889	51%	49%	4.224	52.837
Trucks Only	Counts	54%	46%	0.107	41%	59%	0.078	1.747
Passenger Car (94.3% AM, 98.1% PM, 96.7% Daily)		1.072	0.710	1.782	2.099	2.047	4.146	51.090
Truck (5.7% AM, 1.9% PM, 3.3% Daily)		0.058	0.050	0.107	0.032	0.046	0.078	1.747
Truck Mix:	Counts							
2-Axle Trucks (49.3% AM, 67.3% PM, 61.2% Daily)		0.028	0.024	0.053	0.022	0.031	0.053	1.069
3-Axle Trucks (7.5% AM, 2.0% PM, 8.7% Daily)		0.004	0.004	0.008	0.001	0.001	0.002	0.152
4+ Axle Trucks (43.3% AM, 30.6% PM, 30.1% Daily)		0.025	0.021	0.046	0.010	0.014	0.024	0.526

VEHICLE TRIPS GENERATED							
	AM Peak Hour			PM Peak Hour			
Vehicle Type	In	Out	Total	In	Out	Total	Daily
Passenger Car	536	355	891	1,049	1,023	2,072	25,537
Trucks							
2-Axle Trucks	14	12	26	11	16	26	534
3-Axle Trucks	2	2	4	0	0	1	76
4+ Axle Trucks	12	11	23	5	7	12	263
Subtotal	29	25	54	16	23	39	873
Total Vehicle Trips Generated	**565**	**380**	**944**	**1,065**	**1,046**	**2,112**	**26,410**

PCE[3] TRIPS GENERATED								
		AM Peak Hour			PM Peak Hour			
Vehicle Type	PCE Factor[4]	In	Out	Total	In	Out	Total	Daily
Passenger Car	1.0	536	355	891	1,049	1,023	2,072	25,537
Trucks								
2-Axle Trucks	1.5	21	18	39	16	23	39	802
3-Axle Trucks	2.0	4	4	8	1	1	2	152
4+ Axle Trucks	3.0	37	32	69	15	21	36	789
Subtotal		62	54	116	32	45	77	1,743
Total PCE Trips Generated		**598**	**409**	**1,007**	**1,081**	**1,068**	**2,149**	**27,280**

Notes:
(1) TSF = Thousand Square Feet

(2) See Table 5

(3) PCE = Passenger Car Equivalent

(4) Source: San Bernardino County Congestion Management Program (2016), Appendix B.

Table 7
Project Trip Generation Comparison

Land Use	Trips Generated						
	AM Peak Hour			PM Peak Hour			
	In	Out	Total	In	Out	Total	Daily
Project[1]							
- Passenger Cars	52	12	64	29	46	75	790
- Trucks	5	5	10	1	1	2	115
Total	57	17	74	30	47	77	905
Alternative Land Use[2]							
- Passenger Cars	536	355	891	1,049	1,023	2,072	25,537
- Trucks	29	25	54	16	23	39	873
Total	565	380	944	1,065	1,046	2,112	26,410
Difference in Passenger Cars	**-484**	**-343**	**-827**	**-1,020**	**-977**	**-1,997**	**-24,747**
	-930%	**-2,858%**	**-1,292%**	**-3,518%**	**-2,125%**	**-2,663%**	**-3,133%**
Difference in Trucks	**-24**	**-20**	**-44**	**-15**	**-22**	**-37**	**-758**
	-475%	**-395%**	**-435%**	**-1,498%**	**-2,217%**	**-1,857%**	**-659%**
Total Difference	**-508**	**-363**	**-870**	**-1,035**	**-999**	**-2,035**	**-25,505**
	-891%	**-2134%**	**-1176%**	**-3450%**	**-2,126%**	**-2,642%**	**-2,818%**

Notes:
(1) See Table 1.

(2) See Table 6.



Figure 1
Project Location Map

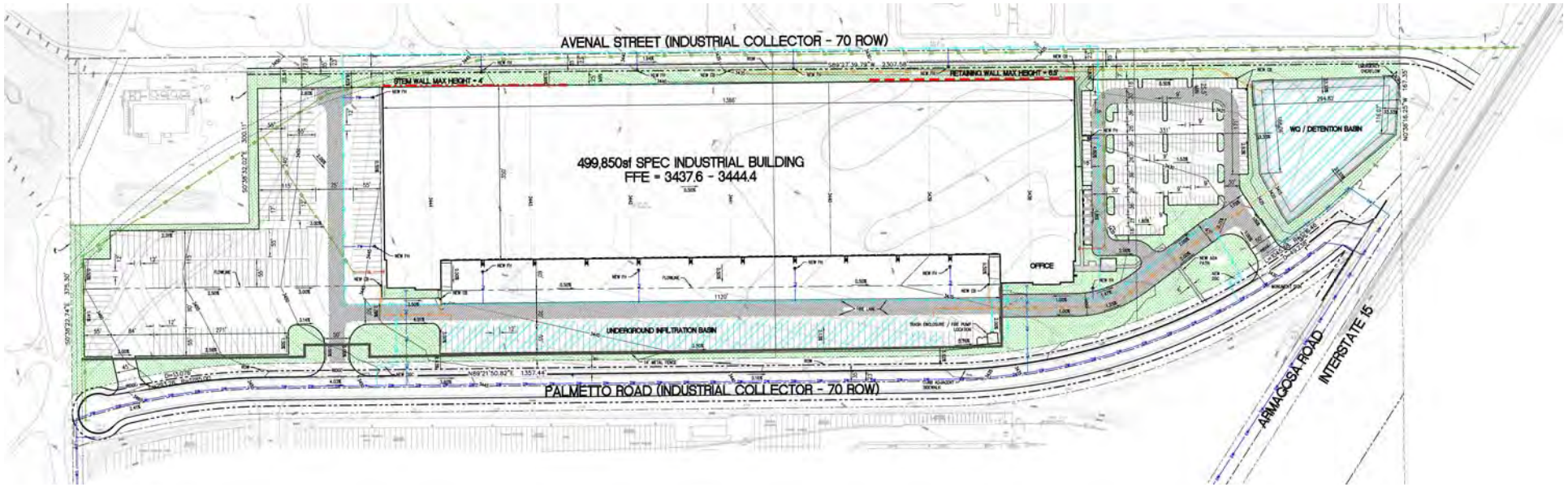


Figure 2
Site Plan



Legend
(#) Study Driveway

Figure 3
Commercial Retail Development

ATTACHMENT A

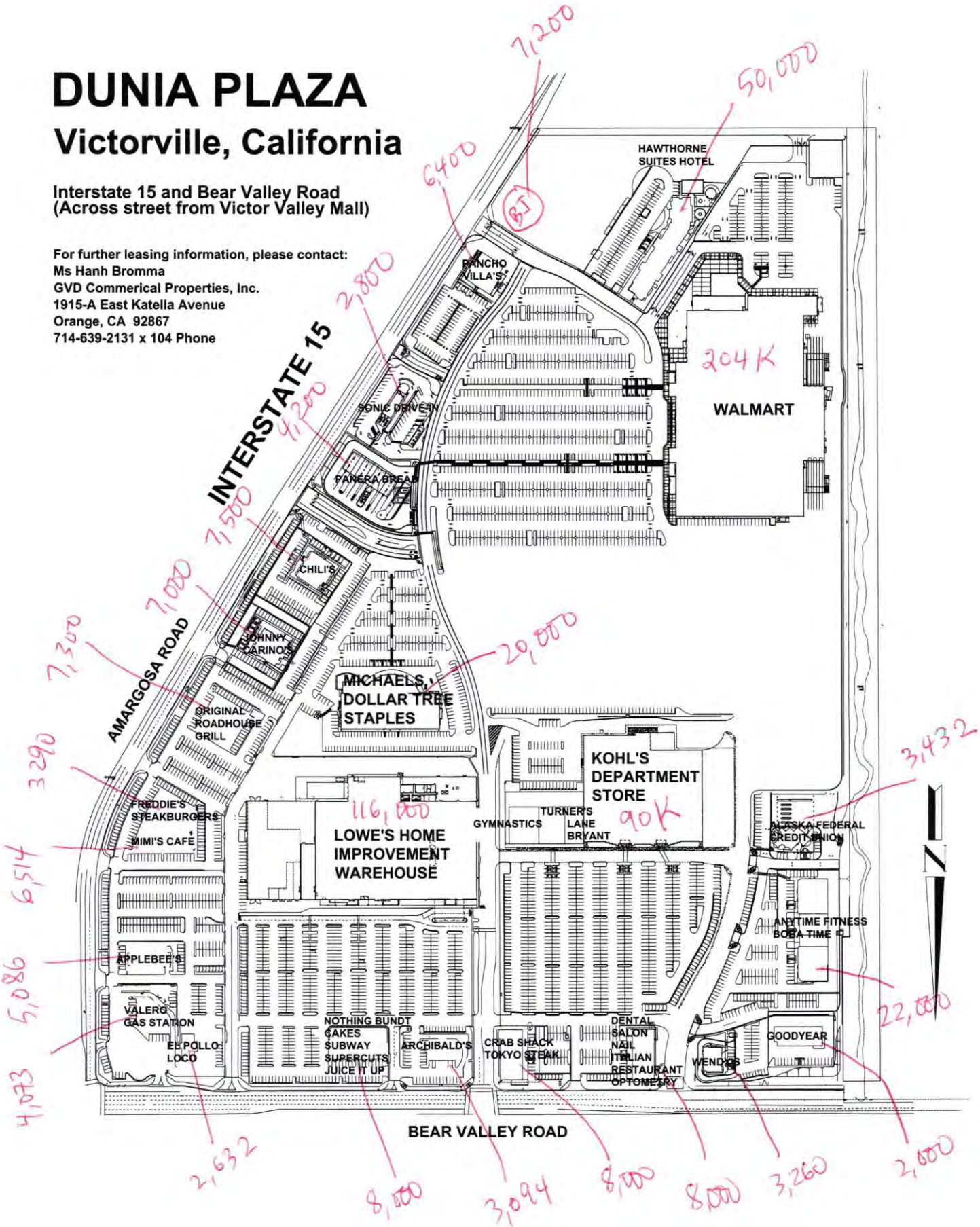
COMMERCIAL SITE INFORMATION

DUNIA PLAZA

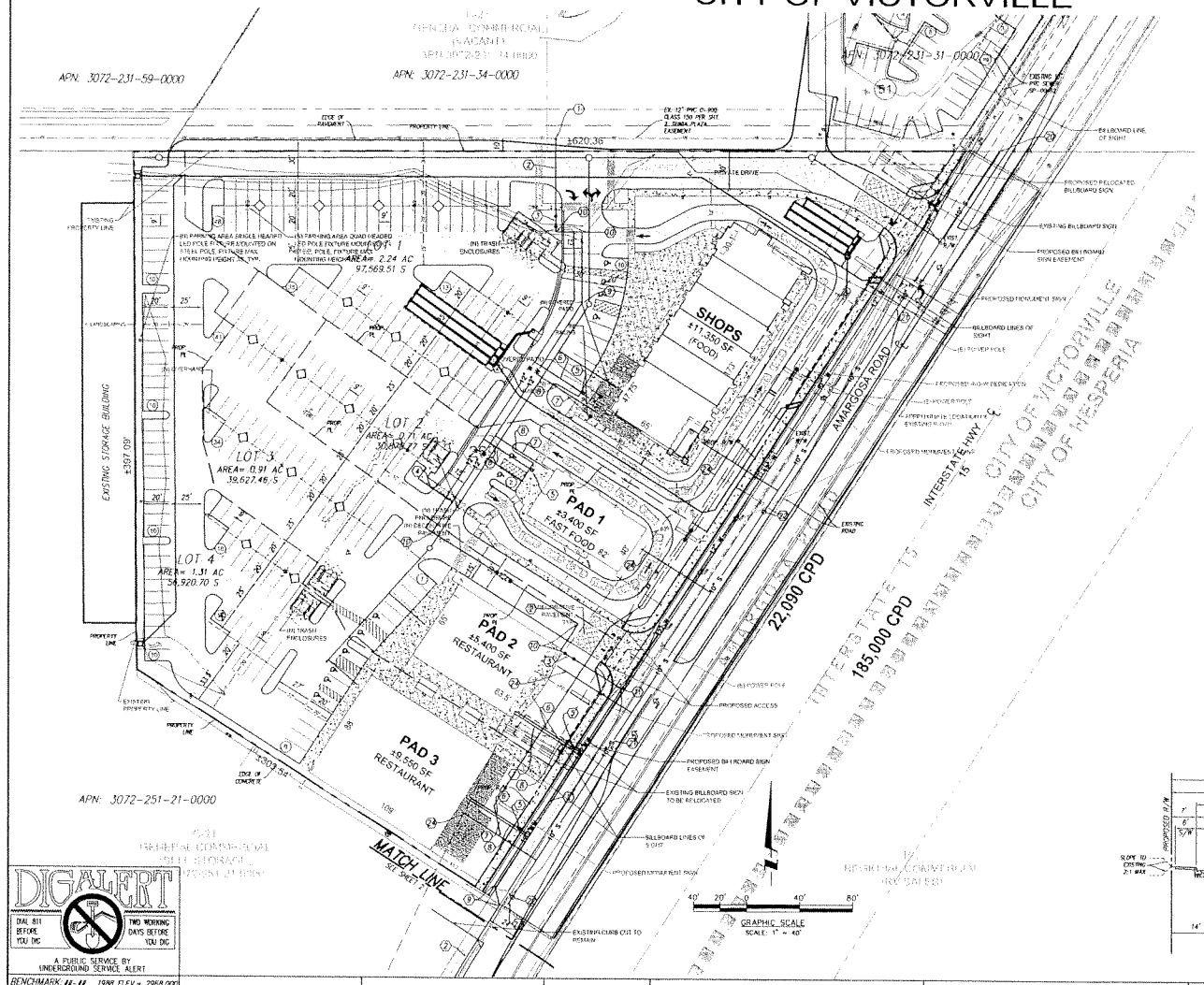
Victorville, California

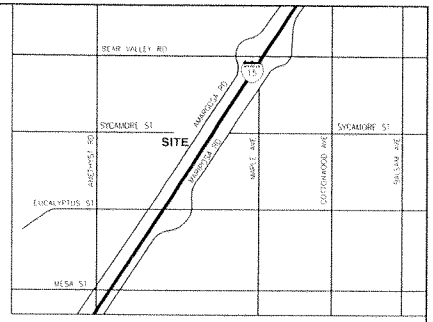
Interstate 15 and Bear Valley Road
(Across street from Victor Valley Mall)

For further leasing information, please contact:
Ms Hanh Bromma
GVD Commerical Properties, Inc.
1915-A East Katella Avenue
Orange, CA 92867
714-639-2131 x 104 Phone



CONCEPTUAL UTILITY PLAN
PARCEL MAP 19766
CITY OF VICTORVILLE





VICINITY MAP
SECTION 1 TOWNSHIP 4 NORTH RANGE 5 WEST
NOT TO SCALE

LEGEND

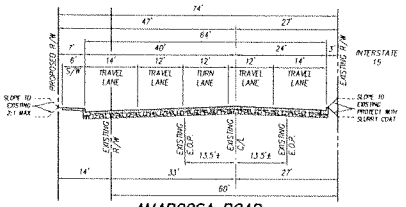
	EXISTING PROPERTY LINE
	EXISTING RIGHT OF WAY
	EXISTING CENTERLINE
	EXISTING EASEMENT
AC.	ACRES
S.F.	SQUARE FEET
C/L	CENTERLINE
R/W	RIGHT OF WAY
S/W	SIDEWALK
EXIST.	EXISTING
T.B.R.	TO BE REMOVED
O.D.E.	OFFER OF DEDICATION
PROP.	PROPOSED

WATER LINE CONSTRUCTION NOTES

1. INSTALL 12" SLEEVE X HOT TAP & VALVE
2. INSTALL 12" PVC C-900 CLASS 150
3. INSTALL 12" BACKFLOW PREVENTER
4. INSTALL FIRE HYDRANT ASSEMBLY
5. INSTALL 2" WATER METER
6. INSTALL 2" DOMESTIC WATER SERVICE
7. INSTALL 8" FIRE WATER LINE
8. INSTALL FDC
9. INSTALL 12" 45° BEND
10. INSTALL 12" 90° BEND
11. INSTALL 12" TEE
12. REMOVE EX. FLGD END CAP W/ THRUST BLOCK AND CONNECT

SEWER CONSTRUCTION NOTES

20. REMOVE CAP AND JOIN EX. 10" SEWER LINE
21. INSTALL 10" SEWER MAIN
22. CONSTRUCT SEWER MANHOLE PER
23. INSTALL 10" SEWER STUB AND CAP
24. INSTALL 6" SEWER LATERAL



OWNER/DEVELOPER

VANTAGECRE REAL ESTATE INVESTMENTS, LLC
4 CORPORATE PLAZA DRIVE, SUITE 210
NEWPORT BEACH, CA 92660
PHONE: (949) 631-6620
CONTACT: TOM ROBINSON

ENGINEER

PSOMAS
1500 IOWA AVENUE, SUITE 210
RIVERSIDE, CA 92507
PHONE: (951) 787-8421
CONTACT: FRANSISCO CALDERON

LEGAL DESCRIPTION

PARCEL 2 OF PARCEL MAP NO. 8318, IN THE CITY OF VICTORVILLE, COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 86, PAGE 78 OF PARCEL MAPS, SAN BERNARDINO COUNTY RECORDS.

FLOOD ZONE

NO FEMA FLOOD DESIGNATION - AREA NOT INCLUDED IN FLOOD MAP

UTILITY PROVIDERS

WATER AND SEWER: CITY OF VICTORVILLE	(760) 955-5001
ELECTRIC: SOUTHERN CALIFORNIA EDISON	(800) 655-4555
TELEPHONE: VERIZON	(800) 483-4090
GAS: SOUTHWEST GAS CORPORATION	(877) 860-6020
CABLE TV: CHARTER COMMUNICATIONS	(866) 499-8080

ZONING/LAND USE/GENERAL PLAN

EXISTING ZONING: C-2T (GENERAL COMMERCIAL, TRANSITIONAL)
EXISTING LAND USE: VACANT
PROPOSED ZONING: C-2T (GENERAL COMMERCIAL, TRANSITIONAL)
PROPOSED LAND USE: COMMERCIAL / RESTAURANT

ACREAGE

APN: 3072-251-22-0-000	5.38 ACRES
LOT A	0.27 ACRES
NET	5.16 ACRES
LOT 1	2.24 ACRES
LOT 2	0.71 ACRES
LOT 3	0.91 ACRES
LOT 4	1.31 ACRES

DIGALERT
DIAL 811 BEFORE YOU DIG — TWO WORKING DAYS BEFORE YOU DIG
A PUBLIC SERVICE BY UNDERGROUND SERVICE ALERT

BENCHMARK: II-II 1988 ELEV.= 2968.000
CITY OF VICTORVILLE
P.K. NAIL AND CITY ENGINEER TAG IN THE .....

PSOMAS
1500 IOWA AVENUE, SUITE 210
RIVERSIDE, CA 92507
(951) 787-8421 WWW.PSOMAS.COM

PREPARED BY: _____ R.C.E. NO. _____ DATE: _____

REVISIONS			
No.	Description	Date	Approved

CITY CASE NO. (to be assigned at plan submittal)

CITY OF VICTORVILLE
ENGINEERING DEPARTMENT
14343 Civic Drive, Victorville, CA 92392 (760) 955-5000

Approved By: _____
Brian W. Gengler, RCE C44730
City Engineer — DATE

CONCEPTUAL COMPOSITE UTILITY PLAN

PARCEL MAP 19766

HORIZ. SCALE: VERT. SCALE: SHEET 1 OF 1 J.N. TVAN0201.00

LoopNet™ Log In Sign Up

This Retail Property is no longer advertised on LoopNet.com.

11612 Amargosa Rd
Victorville, CA 92392

Cracker Barrel | 13.5Y Corp. Ground Lease · Retail Property For Sale

Restaurants / California / Victorville /
11612 Amargosa Rd, Victorville, CA 92392



INVESTMENT HIGHLIGHTS

- Brand new 2018 Construction
- NNN Lease with 10% Increases every 5 years
- Southern California Freeway Location, Explosive Trade Area Growth
- Publicly Traded (NASDAQ: CBRL) Corporate Guaranty
- 15-Year Fee Interest Ground Lease - Most Secure Form of Ownership

PROPERTY FACTS

Property Type	**Retail**
Property Subtype	**Restaurant**
Building Size	**9,113 SF**
Building Class	**B**
Year Built	**2018**
Tenancy	**Single**
Building Height	**1 Story**
Building FAR	**0.09**
Land Acres	**2.22 AC**
Zoning	**GC**
Frontage	**216 FT on Amargosa Rd**

ABOUT 11612 AMARGOSA RD VICTORVILLE, CA 92392

Marcus and Millichap has been selected to exclusively represent the sale of Restaurant Row in Victorville, California, a portfolio of category leading national and regional restaurants. The subject property

consists of newly constructed prototypical Cracker Barrel restaurant consisting of 9,113 square feet sitting on an approximate 2.2 acre parcel of land.
The building was tastefully constructed with all of the rustic features Cracker Barrel Old Country Store restaurants are well known for, covered front porch with rocking chairs, brown paneled siding, metal roof and authentic Americana antiques. The offering is a 15 year corporate ground lease (fee interest), with publicly traded Cracker Barrel restaurant (Nasdaq:CBRL) with 10% rent increases every 5 years. This is southern California's first Cracker Barrel and the grand opening was an overwhelming success that generated a tremendous wait from loyal Cracker Barrel patrons. Cracker Barrel has a cult following throughout the country and this location is well positioned along Amorgosa Road and the I-15 freeway. Cracker Barrel Old Country Store, Inc. was established in 1969 in Lebanon, Tennessee. There are currently 640 locations throughout the U.S.
The real estate is well positioned in the trade located adjacent to the I-15 Freeway and Bear Valley Road on and off ramps. Fronting both Amargosa Road and the I-15 freeway the property has excellent identity and traffic

exposure.
The location is prime in the trade area as evidenced by the new development that includes a new 75 room Wyndham Hotel and resort, Super Walmart, Kohl's and Home Goods, TJ Max, 24 Hour Fitness currently under construction at the site. Additionally, a proposed 128 bed trauma center, medical office building, physician village, day care, spiritual care development with a hotel has been approved with all entitlements. This project is comprised of 98 acres along Amargosa Road between Bear Valley and Main Street just 2.8 miles from the subject property. The project part is of the St. Joseph / St. Mary Healthcare system. Restaurant Row is a synergistic mix of restaurants consisting of Starbucks Coffee, nectar juice bar, Which Wich Sandwiches, Pieology Pizza, Ono Hawaiian Barbeque, Café Rio Mexican Grill, Habit Burger and Bj's Pizza. Access points and drive aisles provide excellent ingress and egress from the Wyndham, Walmart and Kohl's for easy access to all of the restaurants. 76% of the leasable area (4 of 6 tenants) have corporate signature absolute net leases. The remaining two tenants are strong franchisees with excellent operational histories and personal rent

guarantees.
The investment provides annual rent growth with increasing cash flow and yield, protecting against inflation with a diversified base of strong restaurant tenants.
The Victor Valley includes the communities of Adelanto, Apple Valley, Hesperia, Lucerne Valley, Oak Hills, Phelan, Victorville and Wrightwood.
Victorville is the business hub of the area and draws consumers from well beyond its immediate area. It is the largest commercial center between San Bernardino and the Nevada border.
The city of Victorville is home to a large and diverse pool of workers and is home to 34 universities, colleges and technical schools providing an abundant supply of skilled labor.

TRANSPORTATION

COMMUTER RAIL

Fontana Commuter Rail (San Bernardino Line) METROLINK.	39 min drive	32.7 mi
Rialto Commuter Rail (San Bernardino Line) METROLINK.	43 min drive	34.4 mi
San Bernardino Commuter Rail (San Bernardino, Inland Empire-Orange	40 min drive	34.5 mi

COMMUTER RAIL

County Lines) METROLINK		
Rancho Cucamonga Commuter Rail (San Bernardino Line) METROLINK	43 min drive	36.9 mi
Upland Commuter Rail (San Bernardino Line) METROLINK	51 min drive	43.8 mi

AIRPORT

Southern California Logistics Airport	19 min drive	12.1 mi
Ontario International Airport	48 min drive	40.8 mi

PROPERTY TAXES

Parcel Number	3072-251-41	Improvements Assessment	$2,444,940
Land Assessment	$3,017,160	Total Assessment	$5,462,100

YOU MAY ALSO LIKE



Multiple Locations - A...
$78,988,250



324-328 S Myrtle Ave - ...
$6,500,000

Listing ID: 14447975 **Date Created:** 11/20/2018 **Last Updated:**

Address: 11612 Amargosa Rd, Victorville, CA

More public record information on 11612 Amargosa Rd, Victorville, CA 92392

The Retail Property at 11612 Amargosa Rd, **Victorville**, CA **92392** is no longer being advertised on LoopNet.com. Contact the broker for information on availability.

NEARBY LISTINGS

17222 Bear Valley Rd, Victorville CA

17100 Bear Valley Rd, Victorville CA

14029 Amargosa Rd, Victorville CA

14895 Bear Valley Rd, Hesperia CA

14073 Main St, Hesperia CA

14330 7th St, Victorville CA

14595 Seventh St, Victorville CA

14670 7th St, Victorville CA

12180 Amargosa Rd, Victorville CA

12220 Hesperia Rd, Victorville CA

15439 Bear Valley Rd, Hesperia CA

14096 Green Tree Blvd, Victorville CA

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ATTACHMENT B

TRAFFIC COUNTS

Table B-1
Driveway 1 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	47	0	0	0	0	0	47
12:15 AM - 12:30 AM	4	0	0	0	0	0	4	12:15 PM - 12:30 PM	45	2	0	0	0	0	47
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	58	0	0	0	0	0	58
12:45 AM - 1:00 AM	0	0	0	1	0	0	1	12:45 PM - 1:00 PM	46	4	0	0	0	0	50
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	53	0	0	0	0	0	53
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	60	0	0	0	1	0	61
1:30 AM - 1:45 AM	0	0	0	1	0	0	1	1:30 PM - 1:45 PM	35	2	1	1	0	0	39
1:45 AM - 2:00 AM	2	0	0	0	0	0	2	1:45 PM - 2:00 PM	48	1	1	0	0	0	50
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	42	0	0	0	0	0	42
2:15 AM - 2:30 AM	1	0	0	0	0	0	1	2:15 PM - 2:30 PM	51	3	0	0	0	0	54
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	33	1	1	0	0	0	35
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	60	0	0	0	0	0	60
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	40	0	0	0	0	0	40
3:15 AM - 3:30 AM	2	1	0	0	0	0	3	3:15 PM - 3:30 PM	56	0	0	0	0	0	56
3:30 AM - 3:45 AM	1	0	0	1	0	0	2	3:30 PM - 3:45 PM	68	2	0	0	0	0	70
3:45 AM - 4:00 AM	2	0	0	0	0	0	2	3:45 PM - 4:00 PM	59	0	0	0	0	0	59
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	40	0	0	0	0	0	40
4:15 AM - 4:30 AM	2	0	0	0	0	0	2	4:15 PM - 4:30 PM	46	1	1	0	0	0	48
4:30 AM - 4:45 AM	3	0	0	0	0	0	3	4:30 PM - 4:45 PM	58	0	0	0	0	0	58
4:45 AM - 5:00 AM	7	0	0	0	0	0	7	4:45 PM - 5:00 PM	56	1	0	0	0	0	57
5:00 AM - 5:15 AM	1	3	0	0	0	0	4	5:00 PM - 5:15 PM	47	0	0	0	0	0	47
5:15 AM - 5:30 AM	4	0	0	0	0	0	4	5:15 PM - 5:30 PM	47	0	0	0	0	0	47
5:30 AM - 5:45 AM	7	0	0	0	0	0	7	5:30 PM - 5:45 PM	44	0	0	0	0	0	44
5:45 AM - 6:00 AM	7	0	0	0	0	0	7	5:45 PM - 6:00 PM	51	1	0	0	0	0	52
6:00 AM - 6:15 AM	3	0	0	1	0	0	4	6:00 PM - 6:15 PM	38	1	1	1	0	0	41
6:15 AM - 6:30 AM	8	0	0	0	0	0	8	6:15 PM - 6:30 PM	50	0	0	0	0	0	50
6:30 AM - 6:45 AM	15	0	0	0	0	0	15	6:30 PM - 6:45 PM	50	1	0	0	0	0	51
6:45 AM - 7:00 AM	17	1	2	0	0	0	20	6:45 PM - 7:00 PM	37	0	0	1	0	0	38
7:00 AM - 7:15 AM	13	0	1	0	1	0	15	7:00 PM - 7:15 PM	33	1	0	0	0	0	34
7:15 AM - 7:30 AM	18	1	0	0	0	0	19	7:15 PM - 7:30 PM	36	0	0	0	0	0	36
7:30 AM - 7:45 AM	14	1	0	0	0	0	15	7:30 PM - 7:45 PM	38	0	0	0	0	0	38
7:45 AM - 8:00 AM	25	0	0	0	0	0	25	7:45 PM - 8:00 PM	27	0	0	0	0	0	27
8:00 AM - 8:15 AM	20	1	0	0	0	0	21	8:00 PM - 8:15 PM	28	0	0	0	0	0	28
8:15 AM - 8:30 AM	19	0	0	1	0	0	20	8:15 PM - 8:30 PM	25	0	0	1	0	0	26
8:30 AM - 8:45 AM	29	0	0	1	0	0	30	8:30 PM - 8:45 PM	20	0	0	0	0	0	20
8:45 AM - 9:00 AM	38	0	0	0	0	0	38	8:45 PM - 9:00 PM	22	0	0	0	0	0	22
9:00 AM - 9:15 AM	45	1	0	2	0	0	48	9:00 PM - 9:15 PM	14	0	0	0	0	0	14
9:15 AM - 9:30 AM	46	2	0	0	0	0	48	9:15 PM - 9:30 PM	7	0	0	0	0	0	7
9:30 AM - 9:45 AM	37	1	0	1	0	0	39	9:30 PM - 9:45 PM	7	0	0	1	0	0	8
9:45 AM - 10:00 AM	42	2	0	1	0	0	45	9:45 PM - 10:00 PM	13	0	0	1	0	0	14
10:00 AM - 10:15 AM	54	1	0	1	0	0	56	10:00 PM - 10:15 PM	6	0	0	0	0	0	6
10:15 AM - 10:30 AM	46	1	0	0	0	1	48	10:15 PM - 10:30 PM	5	0	0	1	0	0	6
10:30 AM - 10:45 AM	46	1	1	0	0	0	48	10:30 PM - 10:45 PM	10	0	0	0	0	0	10
10:45 AM - 11:00 AM	40	2	1	0	0	0	43	10:45 PM - 11:00 PM	6	0	0	0	0	0	6
11:00 AM - 11:15 AM	45	0	0	0	0	0	45	11:00 PM - 11:15 PM	6	0	0	0	0	0	6
11:15 AM - 11:30 AM	52	0	0	1	0	0	53	11:15 PM - 11:30 PM	4	0	0	0	0	0	4
11:30 AM - 11:45 AM	42	3	0	1	0	1	47	11:30 PM - 11:45 PM	1	0	0	0	0	0	1
11:45 AM - 12:00 PM	51	1	0	0	0	0	52	11:45 PM - 12:00 AM	1	0	0	0	0	0	1
Total	808	23	5	13	1	2	852	Total	1,674	21	5	7	1	0	1,708
								Total AM + PM	2,482	44	10	20	2	2	2,560

Table B-2
Driveway 1 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	9	0	0	0	0	0	9	12:00 PM - 12:15 PM	63	0	0	0	0	0	63
12:15 AM - 12:30 AM	3	0	0	0	0	0	3	12:15 PM - 12:30 PM	66	2	0	0	0	0	68
12:30 AM - 12:45 AM	4	0	0	0	0	0	4	12:30 PM - 12:45 PM	63	0	0	0	0	0	63
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	67	1	0	1	0	0	69
1:00 AM - 1:15 AM	3	0	0	0	0	0	3	1:00 PM - 1:15 PM	56	0	0	0	0	0	56
1:15 AM - 1:30 AM	4	0	0	0	0	0	4	1:15 PM - 1:30 PM	59	0	0	0	0	0	59
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	58	0	0	0	0	0	58
1:45 AM - 2:00 AM	0	0	0	1	0	0	1	1:45 PM - 2:00 PM	59	1	1	2	0	0	63
2:00 AM - 2:15 AM	1	0	0	0	0	0	1	2:00 PM - 2:15 PM	59	1	0	0	0	0	60
2:15 AM - 2:30 AM	0	0	0	1	0	0	1	2:15 PM - 2:30 PM	67	0	0	0	0	0	67
2:30 AM - 2:45 AM	1	0	0	0	0	0	1	2:30 PM - 2:45 PM	54	1	1	0	0	0	56
2:45 AM - 3:00 AM	1	0	0	0	0	0	1	2:45 PM - 3:00 PM	64	3	1	0	0	0	68
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	55	1	0	0	0	0	56
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	55	0	0	0	0	0	55
3:30 AM - 3:45 AM	3	0	0	0	0	0	3	3:30 PM - 3:45 PM	62	1	0	0	0	0	63
3:45 AM - 4:00 AM	2	1	0	0	0	0	3	3:45 PM - 4:00 PM	65	2	0	0	0	0	67
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	59	1	0	0	0	0	60
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	75	0	0	0	0	0	75
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	64	0	1	1	0	0	66
4:45 AM - 5:00 AM	1	0	0	0	0	0	1	4:45 PM - 5:00 PM	66	1	0	0	0	0	67
5:00 AM - 5:15 AM	1	0	0	0	0	0	1	5:00 PM - 5:15 PM	62	1	0	0	0	0	63
5:15 AM - 5:30 AM	1	0	0	0	0	0	1	5:15 PM - 5:30 PM	59	0	0	1	0	0	60
5:30 AM - 5:45 AM	3	2	0	0	0	0	5	5:30 PM - 5:45 PM	57	0	0	0	0	0	57
5:45 AM - 6:00 AM	1	0	0	0	0	0	1	5:45 PM - 6:00 PM	64	1	0	0	0	0	65
6:00 AM - 6:15 AM	1	0	0	1	0	0	2	6:00 PM - 6:15 PM	68	2	0	0	0	0	70
6:15 AM - 6:30 AM	6	0	0	0	0	0	6	6:15 PM - 6:30 PM	64	1	0	0	0	0	65
6:30 AM - 6:45 AM	3	0	0	0	0	0	3	6:30 PM - 6:45 PM	71	0	0	0	0	0	71
6:45 AM - 7:00 AM	9	1	1	0	0	0	11	6:45 PM - 7:00 PM	44	0	0	0	0	0	44
7:00 AM - 7:15 AM	10	1	0	0	0	0	11	7:00 PM - 7:15 PM	52	1	0	0	0	0	53
7:15 AM - 7:30 AM	17	1	0	0	0	0	18	7:15 PM - 7:30 PM	59	0	0	0	0	0	59
7:30 AM - 7:45 AM	16	1	0	0	0	0	17	7:30 PM - 7:45 PM	46	1	0	0	0	0	47
7:45 AM - 8:00 AM	21	1	0	1	0	0	23	7:45 PM - 8:00 PM	49	0	0	0	0	0	49
8:00 AM - 8:15 AM	14	0	0	0	0	0	14	8:00 PM - 8:15 PM	56	0	0	0	0	0	56
8:15 AM - 8:30 AM	23	1	0	1	0	0	25	8:15 PM - 8:30 PM	53	0	0	0	0	0	53
8:30 AM - 8:45 AM	23	0	1	1	0	0	25	8:30 PM - 8:45 PM	45	0	0	0	0	0	45
8:45 AM - 9:00 AM	30	0	0	1	0	0	31	8:45 PM - 9:00 PM	38	0	0	0	0	0	38
9:00 AM - 9:15 AM	30	0	1	1	0	1	33	9:00 PM - 9:15 PM	33	0	0	0	0	0	33
9:15 AM - 9:30 AM	26	0	0	0	0	0	26	9:15 PM - 9:30 PM	22	0	0	0	0	0	22
9:30 AM - 9:45 AM	39	1	0	0	0	0	40	9:30 PM - 9:45 PM	21	0	0	0	0	0	21
9:45 AM - 10:00 AM	43	0	0	1	0	0	44	9:45 PM - 10:00 PM	16	0	0	0	0	0	16
10:00 AM - 10:15 AM	36	2	0	0	0	0	38	10:00 PM - 10:15 PM	20	0	0	0	0	0	20
10:15 AM - 10:30 AM	35	1	0	1	0	0	37	10:15 PM - 10:30 PM	10	0	0	1	0	0	11
10:30 AM - 10:45 AM	46	3	1	1	0	0	51	10:30 PM - 10:45 PM	9	0	0	0	0	0	9
10:45 AM - 11:00 AM	57	1	0	0	0	0	58	10:45 PM - 11:00 PM	10	1	0	1	0	0	12
11:00 AM - 11:15 AM	51	1	0	0	0	0	52	11:00 PM - 11:15 PM	15	0	0	0	0	0	15
11:15 AM - 11:30 AM	56	1	0	0	0	0	57	11:15 PM - 11:30 PM	7	0	0	0	0	0	7
11:30 AM - 11:45 AM	35	0	0	0	0	0	35	11:30 PM - 11:45 PM	3	0	0	0	0	0	3
11:45 AM - 12:00 PM	47	0	0	0	0	1	48	11:45 PM - 12:00 AM	2	0	0	0	0	0	2
Total	712	19	4	11	0	2	748	Total	2,291	23	4	7	0	0	2,325
								Total AM + PM	3,003	42	8	18	0	2	3,073

Table B-3
Driveway 2 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	1	0	0	0	0	0	1	12:15 PM - 12:30 PM	2	0	0	0	0	0	2
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	1	0	0	0	0	0	1
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	2	0	0	0	0	0	2
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	1	0	0	0	0	0	1
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	3	0	0	0	0	0	3
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	2	0	0	0	0	0	2
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	3	1	0	0	0	0	4
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	2	0	0	0	0	0	2
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	0	1	0	0	0	0	1
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	1	0	0	0	0	0	1
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	1	0	0	0	0	0	1
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	2	0	0	0	0	0	2
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	1	0	0	0	0	0	1
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	1	0	0	0	0	0	1
3:45 AM - 4:00 AM	2	0	0	0	0	0	2	3:45 PM - 4:00 PM	3	0	0	0	0	0	3
4:00 AM - 4:15 AM	0	1	0	0	0	0	1	4:00 PM - 4:15 PM	2	0	0	0	0	0	2
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	1	0	0	0	0	0	1
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	1	0	0	0	0	0	1
4:45 AM - 5:00 AM	1	0	0	0	0	0	1	4:45 PM - 5:00 PM	2	0	0	0	0	0	2
5:00 AM - 5:15 AM	0	0	0	0	0	0	0	5:00 PM - 5:15 PM	1	0	0	0	0	0	1
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	3	0	0	0	0	0	3
5:30 AM - 5:45 AM	0	0	0	0	0	0	0	5:30 PM - 5:45 PM	1	0	0	0	0	0	1
5:45 AM - 6:00 AM	0	0	0	0	0	0	0	5:45 PM - 6:00 PM	3	0	0	0	0	0	3
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	6:00 PM - 6:15 PM	3	0	0	0	0	0	3
6:15 AM - 6:30 AM	1	0	0	0	0	0	1	6:15 PM - 6:30 PM	1	0	0	0	0	0	1
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	6:30 PM - 6:45 PM	3	0	0	0	0	0	3
6:45 AM - 7:00 AM	1	0	0	0	0	0	1	6:45 PM - 7:00 PM	3	0	0	0	0	0	3
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	7:00 PM - 7:15 PM	4	0	0	0	0	0	4
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	7:15 PM - 7:30 PM	2	0	0	0	0	0	2
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	7:30 PM - 7:45 PM	1	0	0	0	0	0	1
7:45 AM - 8:00 AM	1	0	0	0	0	0	1	7:45 PM - 8:00 PM	2	0	0	0	0	0	2
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	8:00 PM - 8:15 PM	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	8:15 PM - 8:30 PM	1	0	0	0	0	0	1
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	8:30 PM - 8:45 PM	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	8:45 PM - 9:00 PM	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	2	0	0	0	0	0	2	9:00 PM - 9:15 PM	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	2	0	0	0	0	0	2	9:15 PM - 9:30 PM	2	0	0	0	0	0	2
9:30 AM - 9:45 AM	2	0	0	0	1	0	3	9:30 PM - 9:45 PM	1	0	0	0	0	0	1
9:45 AM - 10:00 AM	1	0	0	0	0	0	1	9:45 PM - 10:00 PM	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	1	0	0	0	0	0	1	10:00 PM - 10:15 PM	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	2	0	0	0	0	0	2	10:15 PM - 10:30 PM	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	5	0	0	0	0	0	5	10:30 PM - 10:45 PM	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	2	0	0	0	0	0	2	10:45 PM - 11:00 PM	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	2	0	0	0	0	0	2	11:00 PM - 11:15 PM	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	5	0	0	0	0	0	5	11:15 PM - 11:30 PM	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	2	0	0	0	0	0	2	11:30 PM - 11:45 PM	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	2	0	0	0	0	0	2	11:45 PM - 12:00 AM	0	0	0	0	0	0	0
Total	35	1	0	0	1	0	37	Total	62	2	0	0	0	0	64
								Total AM + PM	97	3	0	0	1	0	101

Table B-4
Driveway 2 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	2	0	0	0	0	0	2
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	5	0	0	0	0	0	5
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	5	0	0	1	0	0	6
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	6	0	0	0	0	0	6
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	10	0	0	0	0	0	10
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	4	0	0	0	0	0	4
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	10	0	0	0	0	0	10
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	4	0	0	0	0	0	4
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	3	1	0	0	0	0	4
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	5	1	0	0	0	0	6
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	11	0	0	0	0	0	11
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	3	1	0	0	0	0	4
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	5	0	0	0	0	0	5
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	5	0	0	0	0	0	5
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	3	0	0	0	0	0	3
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	5	1	0	0	0	0	6
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	6	0	0	0	0	0	6
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	3	0	0	0	0	0	3
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	3	0	0	0	0	0	3
4:45 AM - 5:00 AM	1	0	0	0	0	0	1	4:45 PM - 5:00 PM	3	0	0	0	0	0	3
5:00 AM - 5:15 AM	0	0	0	0	0	0	0	5:00 PM - 5:15 PM	6	0	0	0	0	0	6
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	8	0	0	0	0	0	8
5:30 AM - 5:45 AM	0	0	0	0	0	0	0	5:30 PM - 5:45 PM	6	1	0	0	0	0	7
5:45 AM - 6:00 AM	0	0	0	0	0	0	0	5:45 PM - 6:00 PM	4	0	0	0	0	0	4
6:00 AM - 6:15 AM	1	0	0	0	0	0	1	6:00 PM - 6:15 PM	12	0	0	0	0	0	12
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	6:15 PM - 6:30 PM	5	0	0	0	0	0	5
6:30 AM - 6:45 AM	1	0	0	0	0	0	1	6:30 PM - 6:45 PM	6	0	0	0	0	0	6
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	6:45 PM - 7:00 PM	7	0	0	0	0	0	7
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	7:00 PM - 7:15 PM	9	0	0	0	0	0	9
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	7:15 PM - 7:30 PM	2	0	0	0	0	0	2
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	7:30 PM - 7:45 PM	2	0	0	0	0	0	2
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	7:45 PM - 8:00 PM	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	8:00 PM - 8:15 PM	9	0	0	0	0	0	9
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	8:15 PM - 8:30 PM	4	0	0	0	0	0	4
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	8:30 PM - 8:45 PM	3	0	0	0	0	0	3
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	8:45 PM - 9:00 PM	6	0	0	0	0	0	6
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	9:00 PM - 9:15 PM	0	1	0	0	0	0	1
9:15 AM - 9:30 AM	1	0	0	0	0	0	1	9:15 PM - 9:30 PM	1	0	0	0	0	0	1
9:30 AM - 9:45 AM	2	0	0	0	0	0	2	9:30 PM - 9:45 PM	1	0	0	0	0	0	1
9:45 AM - 10:00 AM	3	0	0	0	0	0	3	9:45 PM - 10:00 PM	1	0	0	0	0	0	1
10:00 AM - 10:15 AM	2	0	0	0	0	0	2	10:00 PM - 10:15 PM	3	0	0	0	0	0	3
10:15 AM - 10:30 AM	3	0	0	0	0	0	3	10:15 PM - 10:30 PM	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	4	0	0	0	0	0	4	10:30 PM - 10:45 PM	2	0	0	0	0	0	2
10:45 AM - 11:00 AM	5	1	0	0	0	0	6	10:45 PM - 11:00 PM	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	1	0	0	0	0	0	1	11:00 PM - 11:15 PM	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	4	0	0	0	0	0	4	11:15 PM - 11:30 PM	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	7	0	0	0	0	0	7	11:30 PM - 11:45 PM	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	5	0	0	0	0	0	5	11:45 PM - 12:00 AM	0	0	0	0	0	0	0
Total	40	1	0	0	0	0	41	Total	198	6	0	1	0	0	205
								Total AM + PM	238	7	0	1	0	0	246

Table B-5
Driveway 3 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	99	4	0	1	0	1	105
12:15 AM - 12:30 AM	4	0	0	0	0	0	4	12:15 PM - 12:30 PM	99	1	1	0	0	1	102
12:30 AM - 12:45 AM	1	0	0	0	0	0	1	12:30 PM - 12:45 PM	106	5	1	2	0	1	115
12:45 AM - 1:00 AM	1	0	0	1	0	0	2	12:45 PM - 1:00 PM	93	1	0	0	0	0	94
1:00 AM - 1:15 AM	1	0	0	0	0	0	1	1:00 PM - 1:15 PM	92	3	0	0	0	1	96
1:15 AM - 1:30 AM	4	0	0	1	0	0	5	1:15 PM - 1:30 PM	81	2	0	0	0	1	84
1:30 AM - 1:45 AM	1	0	0	0	0	0	1	1:30 PM - 1:45 PM	101	1	0	1	0	0	103
1:45 AM - 2:00 AM	1	0	0	0	0	0	1	1:45 PM - 2:00 PM	83	2	0	1	0	0	86
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	76	6	0	1	0	1	84
2:15 AM - 2:30 AM	1	0	0	0	0	0	1	2:15 PM - 2:30 PM	79	0	2	0	0	1	82
2:30 AM - 2:45 AM	3	0	0	1	0	0	4	2:30 PM - 2:45 PM	80	2	2	2	0	1	87
2:45 AM - 3:00 AM	1	0	0	2	0	0	3	2:45 PM - 3:00 PM	79	3	0	1	0	0	83
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	74	2	0	0	0	0	76
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	96	2	0	0	0	1	99
3:30 AM - 3:45 AM	2	0	0	0	0	0	2	3:30 PM - 3:45 PM	79	1	0	0	0	1	81
3:45 AM - 4:00 AM	3	0	0	0	0	0	3	3:45 PM - 4:00 PM	99	1	0	1	0	1	102
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	89	2	0	0	0	0	91
4:15 AM - 4:30 AM	3	0	0	0	0	0	3	4:15 PM - 4:30 PM	77	2	0	2	0	1	82
4:30 AM - 4:45 AM	2	0	0	0	0	0	2	4:30 PM - 4:45 PM	76	3	0	0	0	0	79
4:45 AM - 5:00 AM	16	0	0	0	0	0	16	4:45 PM - 5:00 PM	102	3	0	0	0	1	106
5:00 AM - 5:15 AM	7	1	0	0	0	0	8	5:00 PM - 5:15 PM	99	2	0	0	0	1	102
5:15 AM - 5:30 AM	6	0	0	0	0	0	6	5:15 PM - 5:30 PM	96	0	0	0	0	0	96
5:30 AM - 5:45 AM	6	1	0	0	0	0	7	5:30 PM - 5:45 PM	81	4	0	0	0	0	85
5:45 AM - 6:00 AM	10	2	0	0	0	0	12	5:45 PM - 6:00 PM	110	1	0	1	1	1	114
6:00 AM - 6:15 AM	14	1	1	0	0	1	17	6:00 PM - 6:15 PM	100	0	0	0	0	0	100
6:15 AM - 6:30 AM	13	1	0	0	0	0	14	6:15 PM - 6:30 PM	83	0	0	0	0	1	84
6:30 AM - 6:45 AM	14	2	1	0	0	0	17	6:30 PM - 6:45 PM	67	0	0	0	0	0	67
6:45 AM - 7:00 AM	18	0	0	1	0	0	19	6:45 PM - 7:00 PM	103	0	1	0	0	0	104
7:00 AM - 7:15 AM	14	1	1	2	0	1	19	7:00 PM - 7:15 PM	77	2	0	0	0	0	79
7:15 AM - 7:30 AM	24	2	0	0	0	0	26	7:15 PM - 7:30 PM	73	0	0	0	0	1	74
7:30 AM - 7:45 AM	30	1	0	0	0	0	31	7:30 PM - 7:45 PM	68	0	0	0	0	0	68
7:45 AM - 8:00 AM	33	3	0	0	0	0	36	7:45 PM - 8:00 PM	59	1	0	1	0	0	61
8:00 AM - 8:15 AM	31	2	0	1	0	1	35	8:00 PM - 8:15 PM	50	0	0	0	0	0	50
8:15 AM - 8:30 AM	40	2	1	1	0	0	44	8:15 PM - 8:30 PM	49	0	0	0	0	1	50
8:30 AM - 8:45 AM	51	3	0	0	0	0	54	8:30 PM - 8:45 PM	41	0	0	0	0	0	41
8:45 AM - 9:00 AM	58	0	0	3	0	0	61	8:45 PM - 9:00 PM	34	0	0	0	0	0	34
9:00 AM - 9:15 AM	86	6	3	1	0	1	97	9:00 PM - 9:15 PM	28	0	0	0	0	1	29
9:15 AM - 9:30 AM	63	4	0	1	0	0	68	9:15 PM - 9:30 PM	21	0	0	1	0	0	22
9:30 AM - 9:45 AM	67	1	0	0	0	1	69	9:30 PM - 9:45 PM	20	0	0	0	0	0	20
9:45 AM - 10:00 AM	73	2	0	0	0	0	75	9:45 PM - 10:00 PM	20	1	0	0	0	0	21
10:00 AM - 10:15 AM	76	3	1	0	0	1	81	10:00 PM - 10:15 PM	11	0	0	0	0	0	11
10:15 AM - 10:30 AM	89	3	1	0	0	0	93	10:15 PM - 10:30 PM	9	1	0	0	0	0	10
10:30 AM - 10:45 AM	79	0	0	0	0	0	79	10:30 PM - 10:45 PM	8	0	0	0	0	0	8
10:45 AM - 11:00 AM	106	3	1	0	0	1	111	10:45 PM - 11:00 PM	6	0	0	0	0	0	6
11:00 AM - 11:15 AM	104	2	0	0	0	2	108	11:00 PM - 11:15 PM	4	0	0	0	0	0	4
11:15 AM - 11:30 AM	78	1	0	1	0	1	81	11:15 PM - 11:30 PM	1	0	0	0	0	0	1
11:30 AM - 11:45 AM	88	2	1	0	0	0	91	11:30 PM - 11:45 PM	1	0	0	0	0	0	1
11:45 AM - 12:00 PM	90	1	0	0	0	0	91	11:45 PM - 12:00 AM	2	0	0	0	0	0	2
Total	1,412	50	11	16	0	10	1,499	Total	3,081	58	7	15	1	19	3,181
								Total AM + PM	4,493	108	18	31	1	29	4,680

Table B-6
Driveway 3 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	7	0	0	0	0	0	7	12:00 PM - 12:15 PM	80	2	0	0	0	2	84
12:15 AM - 12:30 AM	5	0	0	0	0	0	5	12:15 PM - 12:30 PM	88	4	0	1	0	1	94
12:30 AM - 12:45 AM	6	0	0	0	0	0	6	12:30 PM - 12:45 PM	101	2	1	0	0	0	104
12:45 AM - 1:00 AM	5	0	0	0	0	0	5	12:45 PM - 1:00 PM	90	2	0	1	0	0	93
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	89	4	0	0	0	1	94
1:15 AM - 1:30 AM	2	0	0	0	0	0	2	1:15 PM - 1:30 PM	87	1	0	1	0	2	91
1:30 AM - 1:45 AM	1	0	0	0	0	0	1	1:30 PM - 1:45 PM	87	3	2	1	0	0	93
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	74	2	0	0	0	0	76
2:00 AM - 2:15 AM	1	0	0	0	0	0	1	2:00 PM - 2:15 PM	78	3	0	1	1	2	85
2:15 AM - 2:30 AM	1	0	0	0	0	0	1	2:15 PM - 2:30 PM	84	4	0	2	0	1	91
2:30 AM - 2:45 AM	2	0	0	0	0	0	2	2:30 PM - 2:45 PM	78	2	0	0	0	0	80
2:45 AM - 3:00 AM	1	2	0	0	0	0	3	2:45 PM - 3:00 PM	72	1	1	0	0	0	74
3:00 AM - 3:15 AM	1	0	0	0	0	0	1	3:00 PM - 3:15 PM	77	4	1	1	0	1	84
3:15 AM - 3:30 AM	1	0	0	0	0	0	1	3:15 PM - 3:30 PM	81	2	0	0	0	1	84
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	76	0	0	0	0	1	77
3:45 AM - 4:00 AM	1	0	0	0	0	0	1	3:45 PM - 4:00 PM	82	2	0	0	0	0	84
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	79	1	0	0	0	1	81
4:15 AM - 4:30 AM	1	1	0	0	0	0	2	4:15 PM - 4:30 PM	86	2	0	1	0	0	89
4:30 AM - 4:45 AM	2	0	0	0	0	0	2	4:30 PM - 4:45 PM	60	2	0	1	0	1	64
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	85	0	0	0	0	1	86
5:00 AM - 5:15 AM	0	0	0	0	0	0	0	5:00 PM - 5:15 PM	90	3	0	1	0	1	95
5:15 AM - 5:30 AM	2	0	0	0	0	0	2	5:15 PM - 5:30 PM	102	2	0	0	0	0	104
5:30 AM - 5:45 AM	4	0	0	0	0	0	4	5:30 PM - 5:45 PM	67	2	0	0	0	0	69
5:45 AM - 6:00 AM	1	0	0	0	0	0	1	5:45 PM - 6:00 PM	93	2	0	0	0	1	96
6:00 AM - 6:15 AM	5	1	0	0	0	0	6	6:00 PM - 6:15 PM	85	1	0	0	0	1	87
6:15 AM - 6:30 AM	7	0	0	0	0	0	7	6:15 PM - 6:30 PM	88	1	1	0	0	0	90
6:30 AM - 6:45 AM	11	0	0	0	0	0	11	6:30 PM - 6:45 PM	83	0	0	0	0	0	83
6:45 AM - 7:00 AM	15	2	0	0	0	1	18	6:45 PM - 7:00 PM	92	0	0	0	0	1	93
7:00 AM - 7:15 AM	17	0	0	0	0	0	17	7:00 PM - 7:15 PM	94	0	0	0	0	0	94
7:15 AM - 7:30 AM	8	1	3	1	0	0	13	7:15 PM - 7:30 PM	63	0	0	0	0	0	63
7:30 AM - 7:45 AM	18	3	0	0	0	0	21	7:30 PM - 7:45 PM	78	1	0	1	0	0	80
7:45 AM - 8:00 AM	22	2	0	1	1	1	27	7:45 PM - 8:00 PM	60	1	0	0	0	0	61
8:00 AM - 8:15 AM	26	0	0	0	0	0	26	8:00 PM - 8:15 PM	76	0	0	0	0	1	77
8:15 AM - 8:30 AM	18	0	0	0	0	0	18	8:15 PM - 8:30 PM	56	0	0	0	0	0	56
8:30 AM - 8:45 AM	19	3	0	0	0	0	22	8:30 PM - 8:45 PM	54	0	0	0	0	0	54
8:45 AM - 9:00 AM	27	0	0	2	0	1	30	8:45 PM - 9:00 PM	64	0	0	0	0	0	64
9:00 AM - 9:15 AM	48	1	0	1	0	0	50	9:00 PM - 9:15 PM	46	1	0	1	0	1	49
9:15 AM - 9:30 AM	33	2	1	0	0	1	37	9:15 PM - 9:30 PM	53	0	0	0	0	0	53
9:30 AM - 9:45 AM	50	0	1	1	0	0	52	9:30 PM - 9:45 PM	46	0	0	0	0	0	46
9:45 AM - 10:00 AM	58	5	1	1	0	0	65	9:45 PM - 10:00 PM	30	0	0	0	0	0	30
10:00 AM - 10:15 AM	67	1	0	0	0	1	69	10:00 PM - 10:15 PM	27	1	0	0	0	0	28
10:15 AM - 10:30 AM	57	1	0	1	0	0	59	10:15 PM - 10:30 PM	19	0	0	0	0	0	19
10:30 AM - 10:45 AM	71	1	0	0	0	1	73	10:30 PM - 10:45 PM	24	0	0	0	0	0	24
10:45 AM - 11:00 AM	66	4	1	0	0	1	72	10:45 PM - 11:00 PM	18	0	0	0	0	0	18
11:00 AM - 11:15 AM	69	1	1	0	0	1	72	11:00 PM - 11:15 PM	14	0	0	0	0	0	14
11:15 AM - 11:30 AM	67	0	0	0	0	0	67	11:15 PM - 11:30 PM	10	0	0	0	0	0	10
11:30 AM - 11:45 AM	90	2	0	0	0	0	92	11:30 PM - 11:45 PM	6	0	0	0	0	0	6
11:45 AM - 12:00 PM	73	1	0	0	0	1	75	11:45 PM - 12:00 AM	10	0	0	0	0	0	10
Total	986	34	8	8	1	9	1,046	Total	3,182	58	6	13	1	21	3,281
								Total AM + PM	4,168	92	14	21	2	30	4,327

Table B-7
Driveway 4 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	16	0	0	0	0	0	16
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	9	3	0	0	0	0	12
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	13	0	0	0	0	0	13
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	11	0	0	0	0	0	11
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	14	0	0	0	0	0	14
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	6	0	0	0	0	0	6
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	11	0	0	0	0	0	11
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	10	0	0	0	0	0	10
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	5	0	0	0	0	0	5
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	7	1	0	0	0	0	8
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	15	1	0	0	0	0	16
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	16	0	0	0	0	0	16
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	5	0	0	0	0	0	5
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	10	0	0	0	0	0	10
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	12	0	0	0	0	0	12
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	14	1	0	0	0	0	15
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	10	0	0	1	0	0	11
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	7	0	0	0	0	0	7
4:30 AM - 4:45 AM	1	0	0	0	0	0	1	4:30 PM - 4:45 PM	15	0	0	0	0	0	15
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	25	0	0	0	0	0	25
5:00 AM - 5:15 AM	1	0	0	0	0	0	1	5:00 PM - 5:15 PM	15	0	0	0	0	0	15
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	13	0	0	0	0	0	13
5:30 AM - 5:45 AM	0	0	0	0	0	0	0	5:30 PM - 5:45 PM	17	0	0	0	0	0	17
5:45 AM - 6:00 AM	2	0	0	0	0	0	2	5:45 PM - 6:00 PM	10	0	0	0	0	0	10
6:00 AM - 6:15 AM	1	0	0	0	0	0	1	6:00 PM - 6:15 PM	6	0	0	0	0	0	6
6:15 AM - 6:30 AM	2	0	0	0	0	0	2	6:15 PM - 6:30 PM	7	0	0	0	0	0	7
6:30 AM - 6:45 AM	2	0	0	0	0	0	2	6:30 PM - 6:45 PM	5	0	0	0	0	0	5
6:45 AM - 7:00 AM	1	0	0	0	0	0	1	6:45 PM - 7:00 PM	7	0	0	0	0	0	7
7:00 AM - 7:15 AM	1	0	0	0	0	0	1	7:00 PM - 7:15 PM	6	0	0	0	0	0	6
7:15 AM - 7:30 AM	1	0	0	0	0	0	1	7:15 PM - 7:30 PM	1	0	0	0	0	0	1
7:30 AM - 7:45 AM	1	0	0	0	0	0	1	7:30 PM - 7:45 PM	9	0	0	0	0	0	9
7:45 AM - 8:00 AM	4	0	0	0	0	0	4	7:45 PM - 8:00 PM	7	0	0	0	0	0	7
8:00 AM - 8:15 AM	4	0	0	0	0	0	4	8:00 PM - 8:15 PM	6	0	0	0	0	0	6
8:15 AM - 8:30 AM	4	0	0	0	0	0	4	8:15 PM - 8:30 PM	4	0	0	0	0	0	4
8:30 AM - 8:45 AM	5	1	0	0	0	0	6	8:30 PM - 8:45 PM	3	0	0	0	0	0	3
8:45 AM - 9:00 AM	4	0	0	0	0	0	4	8:45 PM - 9:00 PM	5	0	0	0	0	0	5
9:00 AM - 9:15 AM	5	0	1	0	0	0	6	9:00 PM - 9:15 PM	1	0	0	0	0	0	1
9:15 AM - 9:30 AM	5	0	0	0	0	0	5	9:15 PM - 9:30 PM	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	9	0	0	0	0	0	9	9:30 PM - 9:45 PM	2	0	0	0	0	0	2
9:45 AM - 10:00 AM	4	0	0	0	0	0	4	9:45 PM - 10:00 PM	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	8	0	0	0	0	0	8	10:00 PM - 10:15 PM	1	0	0	0	0	0	1
10:15 AM - 10:30 AM	7	1	0	0	0	0	8	10:15 PM - 10:30 PM	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	7	0	0	0	0	0	7	10:30 PM - 10:45 PM	0	0	0	1	0	0	1
10:45 AM - 11:00 AM	8	0	0	0	0	0	8	10:45 PM - 11:00 PM	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	15	0	0	0	0	0	15	11:00 PM - 11:15 PM	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	9	0	0	0	0	0	9	11:15 PM - 11:30 PM	1	0	0	0	0	0	1
11:30 AM - 11:45 AM	8	1	0	0	0	0	9	11:30 PM - 11:45 PM	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	11	0	0	0	0	0	11	11:45 PM - 12:00 AM	0	0	0	0	0	0	0
Total	130	3	1	0	0	0	134	Total	357	6	0	2	0	0	365
								Total AM + PM	487	9	1	2	0	0	499

Table B-8
Driveway 4 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	7	0	0	0	0	0	7
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	13	0	0	0	0	0	13
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	12	1	0	0	0	0	13
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	8	1	0	0	0	0	9
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	19	1	0	0	0	0	20
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	13	0	0	0	0	0	13
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	9	1	0	0	0	0	10
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	13	0	0	0	0	0	13
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	14	0	0	0	0	0	14
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	7	0	0	0	0	0	7
2:30 AM - 2:45 AM	0	0	0	1	0	0	1	2:30 PM - 2:45 PM	9	0	0	0	0	0	9
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	8	2	0	0	0	0	10
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	6	0	0	0	0	0	6
3:15 AM - 3:30 AM	0	0	0	3	0	0	3	3:15 PM - 3:30 PM	7	0	0	0	0	0	7
3:30 AM - 3:45 AM	0	0	0	1	0	0	1	3:30 PM - 3:45 PM	16	1	0	0	0	0	17
3:45 AM - 4:00 AM	0	2	0	0	0	0	2	3:45 PM - 4:00 PM	12	0	0	0	0	0	12
4:00 AM - 4:15 AM	1	0	0	0	0	0	1	4:00 PM - 4:15 PM	9	0	0	0	0	0	9
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	4	0	0	0	0	0	4
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	6	0	0	0	0	0	6
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	10	0	0	0	0	0	10
5:00 AM - 5:15 AM	1	0	0	0	0	0	1	5:00 PM - 5:15 PM	9	1	0	0	0	0	10
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	9	1	0	0	0	0	10
5:30 AM - 5:45 AM	0	0	0	0	0	0	0	5:30 PM - 5:45 PM	13	0	0	0	0	0	13
5:45 AM - 6:00 AM	0	1	0	0	0	0	1	5:45 PM - 6:00 PM	8	1	0	0	0	0	9
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	6:00 PM - 6:15 PM	11	0	0	0	0	0	11
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	6:15 PM - 6:30 PM	6	0	0	0	0	0	6
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	6:30 PM - 6:45 PM	1	0	0	0	0	0	1
6:45 AM - 7:00 AM	1	0	0	0	0	0	1	6:45 PM - 7:00 PM	10	0	0	0	0	0	10
7:00 AM - 7:15 AM	1	1	0	1	0	0	3	7:00 PM - 7:15 PM	7	0	0	0	0	0	7
7:15 AM - 7:30 AM	2	0	0	0	0	0	2	7:15 PM - 7:30 PM	11	0	0	0	0	0	11
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	7:30 PM - 7:45 PM	9	0	0	0	0	0	9
7:45 AM - 8:00 AM	3	0	0	0	0	0	3	7:45 PM - 8:00 PM	4	0	0	0	0	0	4
8:00 AM - 8:15 AM	3	1	0	0	0	0	4	8:00 PM - 8:15 PM	6	0	0	0	0	0	6
8:15 AM - 8:30 AM	4	1	0	0	0	0	5	8:15 PM - 8:30 PM	7	0	0	0	0	0	7
8:30 AM - 8:45 AM	3	0	0	0	0	0	3	8:30 PM - 8:45 PM	3	1	0	0	0	0	4
8:45 AM - 9:00 AM	2	1	0	0	0	0	3	8:45 PM - 9:00 PM	1	0	0	0	0	0	1
9:00 AM - 9:15 AM	5	0	0	0	0	0	5	9:00 PM - 9:15 PM	2	0	0	0	0	0	2
9:15 AM - 9:30 AM	7	0	0	1	0	0	8	9:15 PM - 9:30 PM	2	0	0	0	0	0	2
9:30 AM - 9:45 AM	5	1	0	0	0	0	6	9:30 PM - 9:45 PM	1	0	0	1	0	0	2
9:45 AM - 10:00 AM	5	1	0	0	0	0	6	9:45 PM - 10:00 PM	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	5	0	0	0	0	0	5	10:00 PM - 10:15 PM	1	0	0	0	0	0	1
10:15 AM - 10:30 AM	7	0	0	0	0	0	7	10:15 PM - 10:30 PM	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	10	0	0	0	0	0	10	10:30 PM - 10:45 PM	1	0	0	0	0	0	1
10:45 AM - 11:00 AM	8	0	0	0	0	0	8	10:45 PM - 11:00 PM	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	14	0	1	0	0	0	15	11:00 PM - 11:15 PM	3	0	0	0	0	0	3
11:15 AM - 11:30 AM	13	0	1	0	0	0	14	11:15 PM - 11:30 PM	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	12	0	0	0	0	0	12	11:30 PM - 11:45 PM	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	8	1	0	0	0	0	9	11:45 PM - 12:00 AM	1	0	0	0	0	0	1
Total	120	10	2	7	0	0	139	Total	328	11	0	1	0	0	340
								Total AM + PM	448	21	2	8	0	0	479

Table B-9
Driveway 5 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	10	0	0	0	0	0	10
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	7	1	0	0	0	0	8
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	8	0	0	0	0	0	8
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	7	0	0	0	0	0	7
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	2	0	0	0	0	0	2
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	7	1	0	0	0	0	8
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	5	1	0	0	0	0	6
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	5	0	0	0	0	0	5
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	7	0	0	0	0	0	7
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	7	1	0	0	1	0	9
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	12	0	0	0	0	0	12
2:45 AM - 3:00 AM	1	0	0	0	0	0	1	2:45 PM - 3:00 PM	9	0	0	0	0	0	9
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	8	1	0	0	0	0	9
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	10	0	0	0	0	0	10
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	11	0	0	0	0	0	11
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	8	0	0	0	0	0	8
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	8	0	0	0	0	0	8
4:15 AM - 4:30 AM	1	0	0	0	0	0	1	4:15 PM - 4:30 PM	5	0	0	0	0	0	5
4:30 AM - 4:45 AM	1	0	0	0	0	0	1	4:30 PM - 4:45 PM	9	0	0	0	0	0	9
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	21	0	0	0	0	0	21
5:00 AM - 5:15 AM	0	0	0	0	0	0	0	5:00 PM - 5:15 PM	12	0	0	0	0	0	12
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	9	0	0	0	0	0	9
5:30 AM - 5:45 AM	1	0	0	0	0	0	1	5:30 PM - 5:45 PM	2	0	0	0	0	0	2
5:45 AM - 6:00 AM	1	0	0	0	0	0	1	5:45 PM - 6:00 PM	7	0	0	0	0	0	7
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	6:00 PM - 6:15 PM	6	0	0	0	0	0	6
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	6:15 PM - 6:30 PM	6	1	0	0	0	0	7
6:30 AM - 6:45 AM	1	0	0	0	0	0	1	6:30 PM - 6:45 PM	4	0	0	0	0	0	4
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	6:45 PM - 7:00 PM	5	0	0	0	0	0	5
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	7:00 PM - 7:15 PM	10	0	0	0	0	0	10
7:15 AM - 7:30 AM	2	0	0	0	0	0	2	7:15 PM - 7:30 PM	8	0	0	0	0	0	8
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	7:30 PM - 7:45 PM	5	0	0	0	0	0	5
7:45 AM - 8:00 AM	1	0	0	0	0	0	1	7:45 PM - 8:00 PM	8	0	0	0	0	0	8
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	8:00 PM - 8:15 PM	6	0	0	0	0	0	6
8:15 AM - 8:30 AM	1	0	0	0	0	0	1	8:15 PM - 8:30 PM	2	0	0	0	0	0	2
8:30 AM - 8:45 AM	3	0	0	0	0	0	3	8:30 PM - 8:45 PM	5	0	0	0	0	0	5
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	8:45 PM - 9:00 PM	3	0	0	0	0	0	3
9:00 AM - 9:15 AM	3	0	0	0	0	0	3	9:00 PM - 9:15 PM	3	0	0	0	0	0	3
9:15 AM - 9:30 AM	1	0	0	0	0	0	1	9:15 PM - 9:30 PM	6	0	0	0	0	0	6
9:30 AM - 9:45 AM	4	0	0	0	0	0	4	9:30 PM - 9:45 PM	5	0	0	0	0	0	5
9:45 AM - 10:00 AM	6	0	0	0	0	0	6	9:45 PM - 10:00 PM	1	0	0	0	0	0	1
10:00 AM - 10:15 AM	5	0	0	0	0	0	5	10:00 PM - 10:15 PM	4	0	0	0	0	0	4
10:15 AM - 10:30 AM	6	0	0	0	0	0	6	10:15 PM - 10:30 PM	1	0	0	0	0	0	1
10:30 AM - 10:45 AM	6	0	0	0	0	0	6	10:30 PM - 10:45 PM	1	0	0	0	0	0	1
10:45 AM - 11:00 AM	7	0	0	0	0	0	7	10:45 PM - 11:00 PM	1	0	0	0	0	0	1
11:00 AM - 11:15 AM	10	0	0	0	0	0	10	11:00 PM - 11:15 PM	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	5	0	0	0	0	0	5	11:15 PM - 11:30 PM	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	10	0	0	0	0	0	10	11:30 PM - 11:45 PM	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	10	0	0	0	0	0	10	11:45 PM - 12:00 AM	0	0	0	0	0	0	0
Total	86	0	0	0	0	0	86	Total	286	6	0	0	1	0	293
								Total AM + PM	372	6	0	0	1	0	379

Table B-10
Driveway 5 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	17	0	0	0	0	0	17
12:15 AM - 12:30 AM	1	0	0	0	0	0	1	12:15 PM - 12:30 PM	19	0	0	0	0	0	19
12:30 AM - 12:45 AM	1	0	0	0	0	0	1	12:30 PM - 12:45 PM	21	1	0	0	0	0	22
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	22	0	0	0	0	0	22
1:00 AM - 1:15 AM	1	0	0	0	0	0	1	1:00 PM - 1:15 PM	14	1	0	0	0	0	15
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	18	0	0	0	0	0	18
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	15	1	0	0	0	0	16
1:45 AM - 2:00 AM	1	0	0	0	0	0	1	1:45 PM - 2:00 PM	13	1	0	0	0	0	14
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	11	1	0	0	0	0	12
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	15	1	0	0	0	0	16
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	17	0	0	0	0	0	17
2:45 AM - 3:00 AM	1	0	0	0	0	0	1	2:45 PM - 3:00 PM	16	1	0	0	0	0	17
3:00 AM - 3:15 AM	1	0	0	0	0	0	1	3:00 PM - 3:15 PM	22	1	0	1	0	0	24
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	21	0	0	0	0	0	21
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	17	0	0	1	0	0	18
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	18	1	0	0	0	0	19
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	17	0	1	0	0	0	18
4:15 AM - 4:30 AM	2	0	0	0	0	0	2	4:15 PM - 4:30 PM	17	0	0	0	0	0	17
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	15	0	0	0	0	0	15
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	21	1	1	0	0	0	23
5:00 AM - 5:15 AM	0	0	0	0	0	0	0	5:00 PM - 5:15 PM	16	0	0	0	0	0	16
5:15 AM - 5:30 AM	1	0	0	0	0	0	1	5:15 PM - 5:30 PM	18	0	0	0	0	0	18
5:30 AM - 5:45 AM	0	0	0	0	0	0	0	5:30 PM - 5:45 PM	20	0	0	0	0	0	20
5:45 AM - 6:00 AM	0	0	0	0	0	0	0	5:45 PM - 6:00 PM	12	0	0	0	0	0	12
6:00 AM - 6:15 AM	1	0	0	0	0	0	1	6:00 PM - 6:15 PM	15	1	0	0	0	0	16
6:15 AM - 6:30 AM	0	1	0	0	0	0	1	6:15 PM - 6:30 PM	19	0	0	0	0	0	19
6:30 AM - 6:45 AM	0	2	0	0	0	0	2	6:30 PM - 6:45 PM	22	0	0	0	0	0	22
6:45 AM - 7:00 AM	3	0	0	0	0	0	3	6:45 PM - 7:00 PM	11	0	0	0	0	0	11
7:00 AM - 7:15 AM	2	0	0	0	0	0	2	7:00 PM - 7:15 PM	19	0	0	0	0	0	19
7:15 AM - 7:30 AM	1	0	0	0	0	0	1	7:15 PM - 7:30 PM	17	0	0	0	0	0	17
7:30 AM - 7:45 AM	2	0	0	0	0	0	2	7:30 PM - 7:45 PM	10	0	0	0	0	0	10
7:45 AM - 8:00 AM	1	0	0	0	0	0	1	7:45 PM - 8:00 PM	15	0	0	0	0	0	15
8:00 AM - 8:15 AM	3	1	0	0	0	0	4	8:00 PM - 8:15 PM	12	0	0	0	0	0	12
8:15 AM - 8:30 AM	5	0	0	0	0	0	5	8:15 PM - 8:30 PM	12	0	0	0	0	0	12
8:30 AM - 8:45 AM	3	1	0	0	0	0	4	8:30 PM - 8:45 PM	13	0	0	0	0	0	13
8:45 AM - 9:00 AM	5	0	0	0	0	0	5	8:45 PM - 9:00 PM	10	0	0	0	0	0	10
9:00 AM - 9:15 AM	4	1	0	0	0	0	5	9:00 PM - 9:15 PM	7	0	0	0	0	0	7
9:15 AM - 9:30 AM	6	1	0	2	0	0	9	9:15 PM - 9:30 PM	5	0	0	0	0	0	5
9:30 AM - 9:45 AM	8	0	0	0	0	0	8	9:30 PM - 9:45 PM	6	0	0	0	0	0	6
9:45 AM - 10:00 AM	11	1	0	0	0	0	12	9:45 PM - 10:00 PM	4	0	0	0	0	0	4
10:00 AM - 10:15 AM	14	0	0	0	0	0	14	10:00 PM - 10:15 PM	13	0	0	0	0	0	13
10:15 AM - 10:30 AM	3	2	0	0	0	0	5	10:15 PM - 10:30 PM	5	0	0	1	0	0	6
10:30 AM - 10:45 AM	12	1	0	0	0	0	13	10:30 PM - 10:45 PM	5	0	0	1	0	0	6
10:45 AM - 11:00 AM	15	0	1	1	0	0	17	10:45 PM - 11:00 PM	1	0	0	0	0	0	1
11:00 AM - 11:15 AM	20	2	0	0	0	0	22	11:00 PM - 11:15 PM	4	0	0	0	0	0	4
11:15 AM - 11:30 AM	10	0	0	0	0	0	10	11:15 PM - 11:30 PM	7	0	0	0	0	0	7
11:30 AM - 11:45 AM	16	0	0	1	0	1	18	11:30 PM - 11:45 PM	2	0	0	1	0	0	3
11:45 AM - 12:00 PM	13	0	0	3	0	0	16	11:45 PM - 12:00 AM	1	0	0	0	0	0	1
Total	167	13	1	7	0	1	189	Total	647	11	2	5	0	0	665
								Total AM + PM	814	24	3	12	0	1	854

Table B-11
Driveway 6 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	1	0	0	0	0	0	1	12:00 PM - 12:15 PM	7	0	1	0	0	0	8
12:15 AM - 12:30 AM	2	0	0	0	0	0	2	12:15 PM - 12:30 PM	4	0	0	0	0	0	4
12:30 AM - 12:45 AM	1	0	0	0	0	0	1	12:30 PM - 12:45 PM	3	0	0	0	0	0	3
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	7	0	0	0	0	0	7
1:00 AM - 1:15 AM	2	0	0	0	0	0	2	1:00 PM - 1:15 PM	9	0	0	0	0	0	9
1:15 AM - 1:30 AM	4	0	0	0	0	0	4	1:15 PM - 1:30 PM	11	1	0	0	0	0	12
1:30 AM - 1:45 AM	1	0	0	0	0	0	1	1:30 PM - 1:45 PM	5	0	0	0	0	0	5
1:45 AM - 2:00 AM	1	0	0	0	0	0	1	1:45 PM - 2:00 PM	6	1	1	0	0	0	8
2:00 AM - 2:15 AM	2	0	0	0	0	0	2	2:00 PM - 2:15 PM	5	1	0	0	0	0	6
2:15 AM - 2:30 AM	1	0	0	0	0	0	1	2:15 PM - 2:30 PM	3	1	0	0	0	0	4
2:30 AM - 2:45 AM	5	0	0	0	0	0	5	2:30 PM - 2:45 PM	8	1	0	0	0	0	9
2:45 AM - 3:00 AM	1	0	0	0	0	0	1	2:45 PM - 3:00 PM	4	0	0	0	0	0	4
3:00 AM - 3:15 AM	2	0	0	0	0	0	2	3:00 PM - 3:15 PM	4	0	0	0	0	0	4
3:15 AM - 3:30 AM	5	0	0	0	0	0	5	3:15 PM - 3:30 PM	6	0	0	0	0	0	6
3:30 AM - 3:45 AM	4	0	0	0	0	0	4	3:30 PM - 3:45 PM	7	1	0	0	0	0	8
3:45 AM - 4:00 AM	3	0	0	0	0	0	3	3:45 PM - 4:00 PM	6	0	0	0	0	0	6
4:00 AM - 4:15 AM	5	0	0	0	0	0	5	4:00 PM - 4:15 PM	10	0	0	0	0	0	10
4:15 AM - 4:30 AM	4	0	0	0	0	0	4	4:15 PM - 4:30 PM	6	0	0	0	0	0	6
4:30 AM - 4:45 AM	8	3	0	0	0	0	11	4:30 PM - 4:45 PM	9	0	0	0	0	0	9
4:45 AM - 5:00 AM	7	0	0	0	0	0	7	4:45 PM - 5:00 PM	9	0	0	0	0	0	9
5:00 AM - 5:15 AM	4	2	0	0	0	0	6	5:00 PM - 5:15 PM	8	0	0	0	0	0	8
5:15 AM - 5:30 AM	4	2	0	0	0	0	6	5:15 PM - 5:30 PM	8	0	0	0	0	0	8
5:30 AM - 5:45 AM	3	0	0	0	0	0	3	5:30 PM - 5:45 PM	9	0	0	0	0	0	9
5:45 AM - 6:00 AM	1	0	0	0	0	0	1	5:45 PM - 6:00 PM	5	0	0	0	0	0	5
6:00 AM - 6:15 AM	2	0	0	0	0	0	2	6:00 PM - 6:15 PM	4	0	0	0	0	0	4
6:15 AM - 6:30 AM	6	1	0	0	0	0	7	6:15 PM - 6:30 PM	7	0	0	0	0	0	7
6:30 AM - 6:45 AM	4	0	0	0	0	0	4	6:30 PM - 6:45 PM	4	0	0	0	0	0	4
6:45 AM - 7:00 AM	4	1	0	0	0	0	5	6:45 PM - 7:00 PM	6	0	0	0	0	0	6
7:00 AM - 7:15 AM	7	0	0	0	0	0	7	7:00 PM - 7:15 PM	4	1	0	0	0	0	5
7:15 AM - 7:30 AM	5	0	0	1	0	0	6	7:15 PM - 7:30 PM	6	0	0	0	0	0	6
7:30 AM - 7:45 AM	5	0	0	0	0	0	5	7:30 PM - 7:45 PM	10	0	0	0	0	0	10
7:45 AM - 8:00 AM	3	0	0	0	0	0	3	7:45 PM - 8:00 PM	6	0	0	0	0	0	6
8:00 AM - 8:15 AM	4	2	0	0	0	0	6	8:00 PM - 8:15 PM	4	0	0	0	0	0	4
8:15 AM - 8:30 AM	7	0	0	0	0	0	7	8:15 PM - 8:30 PM	2	0	0	0	0	0	2
8:30 AM - 8:45 AM	7	0	0	0	0	0	7	8:30 PM - 8:45 PM	1	0	0	1	0	0	2
8:45 AM - 9:00 AM	5	0	0	0	0	0	5	8:45 PM - 9:00 PM	5	0	0	0	0	0	5
9:00 AM - 9:15 AM	7	0	1	0	0	0	8	9:00 PM - 9:15 PM	8	0	1	0	0	0	9
9:15 AM - 9:30 AM	8	0	0	0	0	0	8	9:15 PM - 9:30 PM	5	0	0	0	0	0	5
9:30 AM - 9:45 AM	6	1	0	0	0	0	7	9:30 PM - 9:45 PM	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	4	0	0	0	0	0	4	9:45 PM - 10:00 PM	1	0	0	0	0	0	1
10:00 AM - 10:15 AM	5	0	0	0	0	0	5	10:00 PM - 10:15 PM	3	0	0	0	0	0	3
10:15 AM - 10:30 AM	2	0	0	0	0	0	2	10:15 PM - 10:30 PM	1	0	0	0	0	0	1
10:30 AM - 10:45 AM	5	0	0	0	0	0	5	10:30 PM - 10:45 PM	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	4	0	0	0	0	0	4	10:45 PM - 11:00 PM	2	0	0	0	0	0	2
11:00 AM - 11:15 AM	7	0	0	0	0	0	7	11:00 PM - 11:15 PM	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	6	0	0	0	0	0	6	11:15 PM - 11:30 PM	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	3	0	0	0	0	0	3	11:30 PM - 11:45 PM	3	1	0	0	0	0	4
11:45 AM - 12:00 PM	5	1	0	0	0	0	6	11:45 PM - 12:00 AM	2	0	0	0	0	0	2
Total	192	13	1	1	0	0	207	Total	243	8	3	1	0	0	255
								Total AM + PM	435	21	4	2	0	0	462

Table B-12
Driveway 6 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	2	0	0	0	0	0	2	12:00 PM - 12:15 PM	3	0	0	0	0	0	3
12:15 AM - 12:30 AM	4	0	0	0	0	0	4	12:15 PM - 12:30 PM	6	0	0	0	0	0	6
12:30 AM - 12:45 AM	1	0	0	0	0	0	1	12:30 PM - 12:45 PM	1	0	0	1	0	0	2
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	5	0	0	0	0	0	5
1:00 AM - 1:15 AM	1	0	0	0	0	0	1	1:00 PM - 1:15 PM	7	0	0	0	0	0	7
1:15 AM - 1:30 AM	1	0	0	0	0	0	1	1:15 PM - 1:30 PM	14	0	0	0	0	0	14
1:30 AM - 1:45 AM	2	0	0	0	0	0	2	1:30 PM - 1:45 PM	4	0	0	0	1	0	5
1:45 AM - 2:00 AM	1	0	0	0	0	0	1	1:45 PM - 2:00 PM	4	0	0	0	0	0	4
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	5	0	0	0	0	0	5
2:15 AM - 2:30 AM	1	0	0	0	0	0	1	2:15 PM - 2:30 PM	5	0	0	0	0	0	5
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	7	0	0	0	0	0	7
2:45 AM - 3:00 AM	3	0	0	0	0	0	3	2:45 PM - 3:00 PM	4	0	0	0	0	0	4
3:00 AM - 3:15 AM	3	0	0	0	0	0	3	3:00 PM - 3:15 PM	10	0	0	0	0	0	10
3:15 AM - 3:30 AM	1	0	0	0	0	0	1	3:15 PM - 3:30 PM	5	0	0	0	0	0	5
3:30 AM - 3:45 AM	5	0	0	0	0	0	5	3:30 PM - 3:45 PM	5	0	0	0	0	0	5
3:45 AM - 4:00 AM	1	1	0	0	0	0	2	3:45 PM - 4:00 PM	4	0	0	0	0	0	4
4:00 AM - 4:15 AM	2	0	0	0	0	0	2	4:00 PM - 4:15 PM	5	0	0	0	0	0	5
4:15 AM - 4:30 AM	4	0	0	0	0	0	4	4:15 PM - 4:30 PM	6	1	0	0	0	0	7
4:30 AM - 4:45 AM	2	0	0	0	0	0	2	4:30 PM - 4:45 PM	5	0	0	0	0	0	5
4:45 AM - 5:00 AM	8	0	0	0	0	0	8	4:45 PM - 5:00 PM	9	1	0	0	0	0	10
5:00 AM - 5:15 AM	3	1	0	0	0	0	4	5:00 PM - 5:15 PM	9	0	0	0	0	0	9
5:15 AM - 5:30 AM	3	0	0	0	0	0	3	5:15 PM - 5:30 PM	4	0	0	0	0	0	4
5:30 AM - 5:45 AM	7	1	0	0	0	0	8	5:30 PM - 5:45 PM	8	0	0	0	0	0	8
5:45 AM - 6:00 AM	1	0	0	0	0	0	1	5:45 PM - 6:00 PM	11	0	0	0	0	0	11
6:00 AM - 6:15 AM	1	0	0	0	0	0	1	6:00 PM - 6:15 PM	8	1	0	0	0	0	9
6:15 AM - 6:30 AM	2	0	0	0	0	0	2	6:15 PM - 6:30 PM	3	0	0	0	0	0	3
6:30 AM - 6:45 AM	2	2	0	0	0	0	4	6:30 PM - 6:45 PM	4	0	0	0	0	0	4
6:45 AM - 7:00 AM	4	1	0	0	0	0	5	6:45 PM - 7:00 PM	4	0	0	0	0	0	4
7:00 AM - 7:15 AM	5	0	0	0	0	0	5	7:00 PM - 7:15 PM	4	1	0	0	0	0	5
7:15 AM - 7:30 AM	5	0	0	1	0	0	6	7:15 PM - 7:30 PM	2	0	0	0	0	0	2
7:30 AM - 7:45 AM	7	0	0	0	0	0	7	7:30 PM - 7:45 PM	6	0	0	0	0	0	6
7:45 AM - 8:00 AM	1	2	0	0	0	0	3	7:45 PM - 8:00 PM	6	0	0	0	0	0	6
8:00 AM - 8:15 AM	1	0	0	0	0	0	1	8:00 PM - 8:15 PM	4	1	0	0	0	0	5
8:15 AM - 8:30 AM	4	0	0	0	0	0	4	8:15 PM - 8:30 PM	2	0	0	0	0	0	2
8:30 AM - 8:45 AM	7	0	0	0	0	0	7	8:30 PM - 8:45 PM	5	0	0	0	0	0	5
8:45 AM - 9:00 AM	3	0	0	0	0	0	3	8:45 PM - 9:00 PM	6	0	0	0	0	0	6
9:00 AM - 9:15 AM	6	1	1	0	0	0	8	9:00 PM - 9:15 PM	6	0	0	0	0	0	6
9:15 AM - 9:30 AM	5	0	0	0	0	0	5	9:15 PM - 9:30 PM	5	0	0	0	0	0	5
9:30 AM - 9:45 AM	7	0	0	0	0	0	7	9:30 PM - 9:45 PM	4	0	0	0	0	0	4
9:45 AM - 10:00 AM	6	0	0	0	0	0	6	9:45 PM - 10:00 PM	2	0	0	0	0	0	2
10:00 AM - 10:15 AM	6	0	0	0	0	0	6	10:00 PM - 10:15 PM	1	0	0	0	0	0	1
10:15 AM - 10:30 AM	4	0	0	0	0	0	4	10:15 PM - 10:30 PM	3	0	0	0	0	0	3
10:30 AM - 10:45 AM	3	0	0	0	0	0	3	10:30 PM - 10:45 PM	2	0	0	0	0	0	2
10:45 AM - 11:00 AM	5	0	1	0	0	0	6	10:45 PM - 11:00 PM	1	0	0	0	0	0	1
11:00 AM - 11:15 AM	4	0	0	0	0	0	4	11:00 PM - 11:15 PM	1	0	0	0	0	0	1
11:15 AM - 11:30 AM	4	0	0	0	0	0	4	11:15 PM - 11:30 PM	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	6	0	0	0	0	0	6	11:30 PM - 11:45 PM	2	1	0	0	0	0	3
11:45 AM - 12:00 PM	3	1	0	0	0	0	4	11:45 PM - 12:00 AM	3	0	0	0	0	0	3
Total	157	10	2	1	0	0	170	Total	230	6	0	1	1	0	238
								Total AM + PM	387	16	2	2	1	0	408

Table B-13
Driveway 7 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	6	0	0	0	0	0	6
12:15 AM - 12:30 AM	2	0	0	0	0	0	2	12:15 PM - 12:30 PM	8	0	0	0	0	0	8
12:30 AM - 12:45 AM	2	1	0	0	0	0	3	12:30 PM - 12:45 PM	3	0	0	0	0	0	3
12:45 AM - 1:00 AM	3	0	0	0	0	0	3	12:45 PM - 1:00 PM	4	0	0	0	0	0	4
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	5	0	0	0	0	0	5
1:15 AM - 1:30 AM	1	0	0	0	0	0	1	1:15 PM - 1:30 PM	6	0	0	0	0	0	6
1:30 AM - 1:45 AM	2	0	0	0	0	0	2	1:30 PM - 1:45 PM	4	0	0	0	0	0	4
1:45 AM - 2:00 AM	1	1	0	0	0	0	2	1:45 PM - 2:00 PM	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	1	0	0	0	0	0	1	2:00 PM - 2:15 PM	4	0	0	0	0	0	4
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	7	0	0	0	0	0	7
2:30 AM - 2:45 AM	1	0	0	0	0	0	1	2:30 PM - 2:45 PM	2	0	0	0	0	0	2
2:45 AM - 3:00 AM	1	0	0	0	0	0	1	2:45 PM - 3:00 PM	2	0	0	0	0	0	2
3:00 AM - 3:15 AM	1	0	0	0	0	0	1	3:00 PM - 3:15 PM	10	1	0	0	0	0	11
3:15 AM - 3:30 AM	1	0	0	0	0	0	1	3:15 PM - 3:30 PM	6	0	0	0	0	0	6
3:30 AM - 3:45 AM	3	0	0	0	0	0	3	3:30 PM - 3:45 PM	5	0	0	0	0	0	5
3:45 AM - 4:00 AM	1	0	0	0	0	0	1	3:45 PM - 4:00 PM	4	1	0	0	0	0	5
4:00 AM - 4:15 AM	3	0	0	0	0	0	3	4:00 PM - 4:15 PM	4	1	0	0	0	0	5
4:15 AM - 4:30 AM	3	1	0	0	0	0	4	4:15 PM - 4:30 PM	1	0	0	0	0	0	1
4:30 AM - 4:45 AM	2	0	0	0	0	0	2	4:30 PM - 4:45 PM	1	0	0	0	0	0	1
4:45 AM - 5:00 AM	5	0	0	0	0	0	5	4:45 PM - 5:00 PM	7	0	0	0	0	0	7
5:00 AM - 5:15 AM	0	0	0	0	0	0	0	5:00 PM - 5:15 PM	6	0	0	0	0	0	6
5:15 AM - 5:30 AM	2	0	0	0	0	0	2	5:15 PM - 5:30 PM	5	0	0	0	0	0	5
5:30 AM - 5:45 AM	0	0	0	0	0	0	0	5:30 PM - 5:45 PM	7	0	0	0	0	0	7
5:45 AM - 6:00 AM	2	0	0	0	0	0	2	5:45 PM - 6:00 PM	4	0	0	0	0	0	4
6:00 AM - 6:15 AM	1	0	0	0	0	0	1	6:00 PM - 6:15 PM	5	1	0	0	0	0	6
6:15 AM - 6:30 AM	0	1	0	0	0	0	1	6:15 PM - 6:30 PM	4	0	0	0	0	0	4
6:30 AM - 6:45 AM	1	0	0	0	0	0	1	6:30 PM - 6:45 PM	9	0	0	0	0	0	9
6:45 AM - 7:00 AM	3	0	0	0	0	0	3	6:45 PM - 7:00 PM	3	0	0	0	0	0	3
7:00 AM - 7:15 AM	4	1	0	0	0	0	5	7:00 PM - 7:15 PM	6	0	0	0	0	0	6
7:15 AM - 7:30 AM	6	0	0	0	0	0	6	7:15 PM - 7:30 PM	4	0	0	0	0	0	4
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	7:30 PM - 7:45 PM	3	0	0	0	0	0	3
7:45 AM - 8:00 AM	2	0	0	0	0	0	2	7:45 PM - 8:00 PM	1	0	0	0	0	0	1
8:00 AM - 8:15 AM	2	0	0	0	0	0	2	8:00 PM - 8:15 PM	7	1	0	0	0	0	8
8:15 AM - 8:30 AM	3	0	0	0	0	0	3	8:15 PM - 8:30 PM	4	0	0	0	0	0	4
8:30 AM - 8:45 AM	2	0	0	0	0	0	2	8:30 PM - 8:45 PM	5	0	0	0	0	0	5
8:45 AM - 9:00 AM	3	0	0	0	0	0	3	8:45 PM - 9:00 PM	3	0	0	0	0	0	3
9:00 AM - 9:15 AM	3	0	0	0	0	0	3	9:00 PM - 9:15 PM	3	0	0	0	0	0	3
9:15 AM - 9:30 AM	7	0	0	0	0	0	7	9:15 PM - 9:30 PM	6	0	0	0	0	0	6
9:30 AM - 9:45 AM	4	0	0	0	0	0	4	9:30 PM - 9:45 PM	6	0	0	0	0	0	6
9:45 AM - 10:00 AM	4	0	0	0	0	0	4	9:45 PM - 10:00 PM	6	0	0	0	0	0	6
10:00 AM - 10:15 AM	4	0	0	0	0	0	4	10:00 PM - 10:15 PM	5	0	0	0	0	0	5
10:15 AM - 10:30 AM	6	0	0	0	0	0	6	10:15 PM - 10:30 PM	3	0	0	0	0	0	3
10:30 AM - 10:45 AM	6	1	0	0	0	0	7	10:30 PM - 10:45 PM	3	0	0	0	0	0	3
10:45 AM - 11:00 AM	5	0	0	0	0	0	5	10:45 PM - 11:00 PM	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	5	0	0	0	0	0	5	11:00 PM - 11:15 PM	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	6	0	1	0	0	0	7	11:15 PM - 11:30 PM	2	0	0	0	0	0	2
11:30 AM - 11:45 AM	5	0	0	0	0	0	5	11:30 PM - 11:45 PM	2	0	0	0	0	0	2
11:45 AM - 12:00 PM	7	0	0	0	0	0	7	11:45 PM - 12:00 AM	0	1	0	0	0	0	1
Total	126	6	1	0	0	0	133	Total	201	6	0	0	0	0	207
								Total AM + PM	327	12	1	0	0	0	340

Table B-14
Driveway 7 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	0	0	0	0	0	0	0
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	0	0	0	0	0	0	0
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	0	0	0	0	0	0	0
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	0	0	0	0	0	0	0
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	0	0	0	0	0	0	0
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	0	0	0	0	0	0	0
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	0	0	0	0	0	0	0
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	0	0	0	0	0	0	0
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	0	0	0	0	0	0	0
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	0	0	0	0	0	0	0
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	0	0	0	0	0	0	0
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	0	0	0	0	0	0	0
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	0	0	0	0	0	0	0
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	0	0	0	0	0	0	0
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	0	0	0	0	0	0	0
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	0	0	0	0	0	0	0
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	0	0	0	0	0	0	0
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	0	0	0	0	0	0	0
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	1	0	0	0	0	0	1
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	0	0	0	0	0	0	0
5:00 AM - 5:15 AM	0	0	0	0	0	0	0	5:00 PM - 5:15 PM	0	0	0	0	0	0	0
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	0	0	0	0	0	0	0
5:30 AM - 5:45 AM	0	0	0	0	0	0	0	5:30 PM - 5:45 PM	0	0	0	0	0	0	0
5:45 AM - 6:00 AM	0	0	0	0	0	0	0	5:45 PM - 6:00 PM	0	0	0	0	0	0	0
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	6:00 PM - 6:15 PM	0	0	0	0	0	0	0
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	6:15 PM - 6:30 PM	0	0	0	0	0	0	0
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	6:30 PM - 6:45 PM	0	0	0	0	0	0	0
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	6:45 PM - 7:00 PM	0	0	0	0	0	0	0
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	7:00 PM - 7:15 PM	0	0	0	0	0	0	0
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	7:15 PM - 7:30 PM	0	0	0	0	0	0	0
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	7:30 PM - 7:45 PM	0	0	0	0	0	0	0
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	7:45 PM - 8:00 PM	0	0	0	0	0	0	0
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	8:00 PM - 8:15 PM	0	0	0	0	0	0	0
8:15 AM - 8:30 AM	0	0	0	0	0	0	0	8:15 PM - 8:30 PM	0	0	0	0	0	0	0
8:30 AM - 8:45 AM	0	0	0	0	0	0	0	8:30 PM - 8:45 PM	0	0	0	0	0	0	0
8:45 AM - 9:00 AM	0	0	0	0	0	0	0	8:45 PM - 9:00 PM	0	0	0	0	0	0	0
9:00 AM - 9:15 AM	0	0	0	0	0	0	0	9:00 PM - 9:15 PM	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	0	0	0	0	0	0	0	9:15 PM - 9:30 PM	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	9:30 PM - 9:45 PM	0	0	0	0	0	0	0
9:45 AM - 10:00 AM	0	0	0	0	0	0	0	9:45 PM - 10:00 PM	0	0	0	0	0	0	0
10:00 AM - 10:15 AM	0	0	0	0	0	0	0	10:00 PM - 10:15 PM	0	0	0	0	0	0	0
10:15 AM - 10:30 AM	0	0	0	0	0	0	0	10:15 PM - 10:30 PM	1	0	0	0	0	0	1
10:30 AM - 10:45 AM	0	0	0	0	0	0	0	10:30 PM - 10:45 PM	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	0	0	0	0	0	0	0	10:45 PM - 11:00 PM	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	0	0	0	0	0	0	0	11:00 PM - 11:15 PM	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	0	0	0	0	0	0	0	11:15 PM - 11:30 PM	1	0	0	0	0	0	1
11:30 AM - 11:45 AM	0	0	0	0	0	0	0	11:30 PM - 11:45 PM	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	0	0	0	0	0	0	0	11:45 PM - 12:00 AM	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	Total	4	0	0	0	0	0	4
								Total AM + PM	4	0	0	0	0	0	4

Table B-15
Driveway 8 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	2	0	0	0	0	0	2	12:00 PM - 12:15 PM	14	0	0	1	0	0	15
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	12	0	0	0	0	0	12
12:30 AM - 12:45 AM	1	0	0	0	0	0	1	12:30 PM - 12:45 PM	12	0	0	0	0	0	12
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	11	0	0	1	0	0	12
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	5	0	0	0	0	0	5
1:15 AM - 1:30 AM	1	0	0	0	0	0	1	1:15 PM - 1:30 PM	11	1	0	0	1	1	14
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	4	1	0	1	0	0	6
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	8	1	0	0	0	0	9
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	4	1	0	0	0	0	5
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	7	0	0	0	0	0	7
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	15	0	0	0	0	0	15
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	7	0	0	0	0	0	7
3:00 AM - 3:15 AM	3	0	0	0	0	0	3	3:00 PM - 3:15 PM	16	0	0	0	0	0	16
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	11	0	0	0	0	0	11
3:30 AM - 3:45 AM	1	2	0	0	0	0	3	3:30 PM - 3:45 PM	15	0	0	0	0	0	15
3:45 AM - 4:00 AM	1	0	0	0	0	0	1	3:45 PM - 4:00 PM	10	0	0	0	0	0	10
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	15	0	0	0	0	0	15
4:15 AM - 4:30 AM	1	0	0	0	0	0	1	4:15 PM - 4:30 PM	12	0	0	0	0	0	12
4:30 AM - 4:45 AM	1	0	0	0	0	0	1	4:30 PM - 4:45 PM	9	1	0	0	0	0	10
4:45 AM - 5:00 AM	4	0	0	0	0	0	4	4:45 PM - 5:00 PM	6	0	0	0	0	0	6
5:00 AM - 5:15 AM	2	0	0	0	0	0	2	5:00 PM - 5:15 PM	7	0	0	0	0	0	7
5:15 AM - 5:30 AM	2	0	0	0	0	0	2	5:15 PM - 5:30 PM	17	1	0	0	0	0	18
5:30 AM - 5:45 AM	1	1	0	0	0	0	2	5:30 PM - 5:45 PM	12	0	0	0	0	0	12
5:45 AM - 6:00 AM	4	0	0	0	0	0	4	5:45 PM - 6:00 PM	9	1	0	0	0	0	10
6:00 AM - 6:15 AM	2	0	0	0	0	0	2	6:00 PM - 6:15 PM	12	0	0	0	0	0	12
6:15 AM - 6:30 AM	2	0	0	0	0	0	2	6:15 PM - 6:30 PM	15	0	0	0	0	0	15
6:30 AM - 6:45 AM	2	1	0	0	0	0	3	6:30 PM - 6:45 PM	9	0	0	0	0	0	9
6:45 AM - 7:00 AM	3	0	0	0	0	0	3	6:45 PM - 7:00 PM	17	0	0	0	0	0	17
7:00 AM - 7:15 AM	4	0	0	0	0	0	4	7:00 PM - 7:15 PM	16	0	0	0	0	0	16
7:15 AM - 7:30 AM	5	0	0	0	0	0	5	7:15 PM - 7:30 PM	10	0	0	0	0	0	10
7:30 AM - 7:45 AM	6	1	1	0	0	0	8	7:30 PM - 7:45 PM	12	0	0	0	0	0	12
7:45 AM - 8:00 AM	3	2	0	0	0	0	5	7:45 PM - 8:00 PM	7	0	0	0	0	0	7
8:00 AM - 8:15 AM	3	0	0	1	0	0	4	8:00 PM - 8:15 PM	7	0	0	0	0	0	7
8:15 AM - 8:30 AM	3	0	0	0	0	0	3	8:15 PM - 8:30 PM	11	0	0	0	0	0	11
8:30 AM - 8:45 AM	7	0	0	1	0	0	8	8:30 PM - 8:45 PM	4	0	0	0	0	0	4
8:45 AM - 9:00 AM	7	2	1	0	0	0	10	8:45 PM - 9:00 PM	6	0	0	0	0	0	6
9:00 AM - 9:15 AM	6	0	0	0	0	0	6	9:00 PM - 9:15 PM	8	0	0	0	0	0	8
9:15 AM - 9:30 AM	7	1	0	0	0	0	8	9:15 PM - 9:30 PM	18	0	0	0	0	0	18
9:30 AM - 9:45 AM	9	0	0	0	0	0	9	9:30 PM - 9:45 PM	14	0	0	0	0	0	14
9:45 AM - 10:00 AM	8	0	0	0	0	0	8	9:45 PM - 10:00 PM	4	1	0	0	0	0	5
10:00 AM - 10:15 AM	9	0	0	0	0	0	9	10:00 PM - 10:15 PM	9	0	0	0	0	0	9
10:15 AM - 10:30 AM	5	0	0	0	0	0	5	10:15 PM - 10:30 PM	3	0	0	0	0	0	3
10:30 AM - 10:45 AM	4	0	0	0	0	0	4	10:30 PM - 10:45 PM	9	0	0	0	0	0	9
10:45 AM - 11:00 AM	5	1	0	1	0	0	7	10:45 PM - 11:00 PM	5	0	0	0	0	0	5
11:00 AM - 11:15 AM	7	0	0	0	0	0	7	11:00 PM - 11:15 PM	1	0	0	1	0	0	2
11:15 AM - 11:30 AM	10	0	0	0	0	0	10	11:15 PM - 11:30 PM	4	0	0	0	0	0	4
11:30 AM - 11:45 AM	6	1	0	0	0	0	7	11:30 PM - 11:45 PM	1	1	0	0	0	0	2
11:45 AM - 12:00 PM	15	0	0	1	0	0	16	11:45 PM - 12:00 AM	1	0	0	0	0	0	1
Total	162	12	2	4	0	0	180	Total	452	9	0	4	1	1	467
								Total AM + PM	614	21	2	8	1	1	647

Table B-16
Driveway 8 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	6	0	0	0	0	0	6	12:00 PM - 12:15 PM	7	0	0	0	0	0	7
12:15 AM - 12:30 AM	5	0	0	0	0	0	5	12:15 PM - 12:30 PM	5	0	0	0	0	0	5
12:30 AM - 12:45 AM	2	1	0	0	0	0	3	12:30 PM - 12:45 PM	9	0	0	0	0	0	9
12:45 AM - 1:00 AM	5	0	0	0	0	0	5	12:45 PM - 1:00 PM	7	0	0	0	0	0	7
1:00 AM - 1:15 AM	2	0	0	0	0	0	2	1:00 PM - 1:15 PM	1	0	0	0	0	0	1
1:15 AM - 1:30 AM	1	0	0	0	0	0	1	1:15 PM - 1:30 PM	6	0	0	0	0	0	6
1:30 AM - 1:45 AM	4	0	0	0	0	0	4	1:30 PM - 1:45 PM	5	0	0	0	0	0	5
1:45 AM - 2:00 AM	2	0	0	0	0	0	2	1:45 PM - 2:00 PM	3	0	0	0	0	0	3
2:00 AM - 2:15 AM	2	0	0	0	0	0	2	2:00 PM - 2:15 PM	7	4	1	0	0	0	12
2:15 AM - 2:30 AM	3	0	0	0	0	0	3	2:15 PM - 2:30 PM	7	1	0	0	0	0	8
2:30 AM - 2:45 AM	2	0	0	0	0	0	2	2:30 PM - 2:45 PM	5	0	0	0	0	0	5
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	4	0	0	0	0	0	4
3:00 AM - 3:15 AM	1	0	0	0	0	0	1	3:00 PM - 3:15 PM	7	1	0	0	0	0	8
3:15 AM - 3:30 AM	2	0	0	0	0	0	2	3:15 PM - 3:30 PM	6	0	0	0	0	0	6
3:30 AM - 3:45 AM	1	0	0	0	0	0	1	3:30 PM - 3:45 PM	10	0	0	0	0	0	10
3:45 AM - 4:00 AM	4	0	0	0	0	0	4	3:45 PM - 4:00 PM	6	0	0	0	0	0	6
4:00 AM - 4:15 AM	4	0	0	0	0	0	4	4:00 PM - 4:15 PM	7	0	0	0	0	0	7
4:15 AM - 4:30 AM	4	2	0	0	0	0	6	4:15 PM - 4:30 PM	7	0	0	0	0	0	7
4:30 AM - 4:45 AM	2	4	0	0	0	0	6	4:30 PM - 4:45 PM	6	0	0	0	0	0	6
4:45 AM - 5:00 AM	6	0	0	0	0	0	6	4:45 PM - 5:00 PM	5	0	0	0	0	0	5
5:00 AM - 5:15 AM	3	0	0	0	0	0	3	5:00 PM - 5:15 PM	4	0	0	0	0	0	4
5:15 AM - 5:30 AM	0	2	0	0	0	0	2	5:15 PM - 5:30 PM	7	0	0	0	0	0	7
5:30 AM - 5:45 AM	2	0	0	0	0	0	2	5:30 PM - 5:45 PM	11	0	0	0	0	0	11
5:45 AM - 6:00 AM	1	1	0	0	0	0	2	5:45 PM - 6:00 PM	9	0	0	0	0	0	9
6:00 AM - 6:15 AM	3	1	0	0	0	0	4	6:00 PM - 6:15 PM	9	0	0	0	0	0	9
6:15 AM - 6:30 AM	6	0	0	0	0	0	6	6:15 PM - 6:30 PM	9	0	0	0	0	0	9
6:30 AM - 6:45 AM	4	0	0	0	0	0	4	6:30 PM - 6:45 PM	11	0	0	0	0	0	11
6:45 AM - 7:00 AM	3	0	0	0	0	0	3	6:45 PM - 7:00 PM	8	0	0	0	0	0	8
7:00 AM - 7:15 AM	2	1	0	0	0	0	3	7:00 PM - 7:15 PM	7	0	0	0	0	0	7
7:15 AM - 7:30 AM	4	1	0	0	0	0	5	7:15 PM - 7:30 PM	8	0	1	0	0	0	9
7:30 AM - 7:45 AM	5	0	0	0	0	0	5	7:30 PM - 7:45 PM	10	0	0	0	0	0	10
7:45 AM - 8:00 AM	3	0	1	0	0	0	4	7:45 PM - 8:00 PM	5	0	0	0	0	0	5
8:00 AM - 8:15 AM	2	3	0	1	0	0	6	8:00 PM - 8:15 PM	11	0	0	0	0	0	11
8:15 AM - 8:30 AM	3	0	0	0	0	0	3	8:15 PM - 8:30 PM	9	0	0	0	0	0	9
8:30 AM - 8:45 AM	4	0	0	0	0	0	4	8:30 PM - 8:45 PM	3	0	0	1	0	0	4
8:45 AM - 9:00 AM	5	0	0	0	0	0	5	8:45 PM - 9:00 PM	4	0	0	0	0	0	4
9:00 AM - 9:15 AM	2	1	1	0	0	0	4	9:00 PM - 9:15 PM	12	0	0	0	0	0	12
9:15 AM - 9:30 AM	9	0	0	0	0	0	9	9:15 PM - 9:30 PM	5	0	0	0	0	0	5
9:30 AM - 9:45 AM	10	1	0	0	0	0	11	9:30 PM - 9:45 PM	12	0	0	0	0	0	12
9:45 AM - 10:00 AM	5	0	0	0	0	0	5	9:45 PM - 10:00 PM	4	0	0	0	0	0	4
10:00 AM - 10:15 AM	2	0	0	0	0	0	2	10:00 PM - 10:15 PM	9	0	0	0	0	0	9
10:15 AM - 10:30 AM	2	0	0	0	0	0	2	10:15 PM - 10:30 PM	7	0	0	0	0	0	7
10:30 AM - 10:45 AM	6	0	0	0	0	0	6	10:30 PM - 10:45 PM	1	0	0	0	0	0	1
10:45 AM - 11:00 AM	9	1	0	0	0	0	10	10:45 PM - 11:00 PM	7	0	0	0	0	0	7
11:00 AM - 11:15 AM	6	0	0	0	0	0	6	11:00 PM - 11:15 PM	3	0	0	0	0	0	3
11:15 AM - 11:30 AM	8	0	0	0	0	0	8	11:15 PM - 11:30 PM	3	0	0	0	0	0	3
11:30 AM - 11:45 AM	2	0	1	0	0	0	3	11:30 PM - 11:45 PM	4	0	0	0	0	0	4
11:45 AM - 12:00 PM	6	0	0	0	0	0	6	11:45 PM - 12:00 AM	2	0	0	0	0	0	2
Total	175	19	3	1	0	0	198	Total	314	6	2	1	0	0	323
								Total AM + PM	489	25	5	2	0	0	521

Table B-17
Driveway 9 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	7	0	0	0	0	0	7
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	4	0	0	0	0	0	4
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	5	0	0	0	0	0	5
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	3	0	0	0	0	0	3
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	4	0	0	0	0	0	4
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	3	0	0	0	0	0	3
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	6	0	0	1	0	0	7
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	2	1	0	0	0	0	3
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	5	0	0	0	0	0	5
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	4	0	0	0	0	0	4
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	7	0	0	0	0	0	7
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	9	1	0	0	0	0	10
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	5	0	0	0	0	0	5
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	8	0	0	0	0	0	8
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	7	0	0	0	0	0	7
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	8	0	0	0	0	0	8
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	6	0	0	0	0	0	6
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	4	0	0	0	0	0	4
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	9	0	0	1	0	0	10
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	5	0	0	0	0	0	5
5:00 AM - 5:15 AM	0	0	0	0	0	0	0	5:00 PM - 5:15 PM	10	0	0	0	0	0	10
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	9	0	0	1	0	0	10
5:30 AM - 5:45 AM	0	1	0	0	0	0	1	5:30 PM - 5:45 PM	4	0	0	0	0	0	4
5:45 AM - 6:00 AM	2	0	0	0	0	0	2	5:45 PM - 6:00 PM	5	0	0	0	0	0	5
6:00 AM - 6:15 AM	1	0	0	0	0	0	1	6:00 PM - 6:15 PM	6	0	0	0	0	0	6
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	6:15 PM - 6:30 PM	6	0	0	0	0	0	6
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	6:30 PM - 6:45 PM	2	0	0	0	0	0	2
6:45 AM - 7:00 AM	2	0	0	0	0	0	2	6:45 PM - 7:00 PM	3	0	0	0	0	0	3
7:00 AM - 7:15 AM	3	0	0	0	0	0	3	7:00 PM - 7:15 PM	2	0	0	0	0	0	2
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	7:15 PM - 7:30 PM	6	0	0	0	0	0	6
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	7:30 PM - 7:45 PM	3	0	0	0	0	0	3
7:45 AM - 8:00 AM	1	0	0	0	0	0	1	7:45 PM - 8:00 PM	6	0	0	0	0	0	6
8:00 AM - 8:15 AM	2	0	0	0	0	0	2	8:00 PM - 8:15 PM	5	1	0	0	0	0	6
8:15 AM - 8:30 AM	3	0	0	0	0	0	3	8:15 PM - 8:30 PM	2	0	0	0	0	0	2
8:30 AM - 8:45 AM	4	0	0	0	0	0	4	8:30 PM - 8:45 PM	2	0	0	0	0	0	2
8:45 AM - 9:00 AM	4	0	0	0	0	0	4	8:45 PM - 9:00 PM	2	0	0	0	0	0	2
9:00 AM - 9:15 AM	3	0	0	0	0	0	3	9:00 PM - 9:15 PM	3	0	0	0	0	0	3
9:15 AM - 9:30 AM	5	0	0	0	0	0	5	9:15 PM - 9:30 PM	0	0	0	0	0	0	0
9:30 AM - 9:45 AM	2	0	0	0	0	0	2	9:30 PM - 9:45 PM	3	0	0	0	0	0	3
9:45 AM - 10:00 AM	9	0	0	0	0	0	9	9:45 PM - 10:00 PM	3	0	0	0	0	0	3
10:00 AM - 10:15 AM	4	0	0	0	0	0	4	10:00 PM - 10:15 PM	2	0	0	0	0	0	2
10:15 AM - 10:30 AM	6	0	0	0	0	0	6	10:15 PM - 10:30 PM	2	0	0	0	0	0	2
10:30 AM - 10:45 AM	9	0	0	0	0	0	9	10:30 PM - 10:45 PM	1	0	0	0	0	0	1
10:45 AM - 11:00 AM	6	0	0	0	0	0	6	10:45 PM - 11:00 PM	1	0	0	0	0	0	1
11:00 AM - 11:15 AM	5	0	0	0	0	0	5	11:00 PM - 11:15 PM	1	0	0	0	0	0	1
11:15 AM - 11:30 AM	7	0	0	0	0	0	7	11:15 PM - 11:30 PM	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	5	0	1	0	0	0	6	11:30 PM - 11:45 PM	1	0	0	0	0	0	1
11:45 AM - 12:00 PM	6	0	0	0	0	0	6	11:45 PM - 12:00 AM	0	0	0	0	0	0	0
Total	89	1	1	0	0	0	91	Total	201	3	0	3	0	0	207
								Total AM + PM	290	4	1	3	0	0	298

Table B-18
Driveway 9 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	1	0	0	0	0	0	1	12:00 PM - 12:15 PM	5	0	0	0	0	0	5
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	5	0	0	0	0	0	5
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	8	0	0	0	0	0	8
12:45 AM - 1:00 AM	1	0	0	0	0	0	1	12:45 PM - 1:00 PM	7	0	0	0	0	0	7
1:00 AM - 1:15 AM	1	0	0	0	0	0	1	1:00 PM - 1:15 PM	6	0	0	0	0	0	6
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	4	0	0	0	0	0	4
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	5	0	0	0	0	0	5
1:45 AM - 2:00 AM	1	0	0	0	0	0	1	1:45 PM - 2:00 PM	6	1	0	0	0	0	7
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	6	0	0	0	0	0	6
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	5	1	0	0	0	0	6
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	5	0	0	0	0	0	5
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	4	0	0	0	0	0	4
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	2	0	0	0	0	0	2
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	4	0	0	0	0	0	4
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	3	1	0	0	0	0	4
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	3	0	0	0	0	0	3
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	4	0	0	0	0	0	4
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	3	1	0	0	0	0	4
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	0	0	0	0	0	0	0
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	7	0	0	0	0	0	7
5:00 AM - 5:15 AM	1	0	0	0	0	0	1	5:00 PM - 5:15 PM	5	0	0	0	0	0	5
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	7	0	0	0	0	0	7
5:30 AM - 5:45 AM	0	0	0	0	0	0	0	5:30 PM - 5:45 PM	7	0	0	0	0	0	7
5:45 AM - 6:00 AM	0	0	0	0	0	0	0	5:45 PM - 6:00 PM	10	0	0	0	0	0	10
6:00 AM - 6:15 AM	0	0	0	0	0	0	0	6:00 PM - 6:15 PM	2	0	0	0	0	0	2
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	6:15 PM - 6:30 PM	4	0	0	0	0	0	4
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	6:30 PM - 6:45 PM	10	0	0	0	0	0	10
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	6:45 PM - 7:00 PM	6	0	0	0	0	0	6
7:00 AM - 7:15 AM	1	0	0	0	0	0	1	7:00 PM - 7:15 PM	3	0	0	0	0	0	3
7:15 AM - 7:30 AM	2	0	0	0	0	0	2	7:15 PM - 7:30 PM	3	0	0	0	0	0	3
7:30 AM - 7:45 AM	0	0	0	1	0	0	1	7:30 PM - 7:45 PM	2	0	0	0	0	0	2
7:45 AM - 8:00 AM	1	0	0	0	0	0	1	7:45 PM - 8:00 PM	4	0	0	0	0	0	4
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	8:00 PM - 8:15 PM	1	0	0	0	0	0	1
8:15 AM - 8:30 AM	1	1	0	0	0	0	2	8:15 PM - 8:30 PM	3	0	0	0	0	0	3
8:30 AM - 8:45 AM	1	0	0	0	0	0	1	8:30 PM - 8:45 PM	7	0	0	0	0	0	7
8:45 AM - 9:00 AM	2	0	0	0	0	0	2	8:45 PM - 9:00 PM	1	0	0	0	0	0	1
9:00 AM - 9:15 AM	3	0	0	0	0	0	3	9:00 PM - 9:15 PM	4	0	0	0	0	0	4
9:15 AM - 9:30 AM	2	0	0	0	0	0	2	9:15 PM - 9:30 PM	3	0	0	0	0	0	3
9:30 AM - 9:45 AM	0	0	0	0	0	0	0	9:30 PM - 9:45 PM	2	0	0	0	0	0	2
9:45 AM - 10:00 AM	6	0	0	0	0	0	6	9:45 PM - 10:00 PM	4	0	0	0	0	0	4
10:00 AM - 10:15 AM	3	1	0	0	0	0	4	10:00 PM - 10:15 PM	1	0	0	0	0	0	1
10:15 AM - 10:30 AM	1	0	0	0	0	0	1	10:15 PM - 10:30 PM	5	0	0	0	0	0	5
10:30 AM - 10:45 AM	5	0	0	0	0	0	5	10:30 PM - 10:45 PM	1	0	0	0	0	0	1
10:45 AM - 11:00 AM	2	0	0	0	0	0	2	10:45 PM - 11:00 PM	2	0	0	0	0	0	2
11:00 AM - 11:15 AM	6	0	0	0	0	0	6	11:00 PM - 11:15 PM	3	0	0	0	0	0	3
11:15 AM - 11:30 AM	1	0	0	0	0	0	1	11:15 PM - 11:30 PM	1	1	0	0	0	0	2
11:30 AM - 11:45 AM	7	0	0	0	0	0	7	11:30 PM - 11:45 PM	1	0	0	0	0	0	1
11:45 AM - 12:00 PM	2	0	0	0	0	0	2	11:45 PM - 12:00 AM	2	0	0	0	0	0	2
Total	51	2	0	1	0	0	54	Total	196	5	0	0	0	0	201
								Total AM + PM	247	7	0	1	0	0	255

Table B-19
Driveway 10 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	1	0	0	0	0	0	1	12:00 PM - 12:15 PM	11	0	0	0	0	0	11
12:15 AM - 12:30 AM	1	0	0	0	0	0	1	12:15 PM - 12:30 PM	11	0	0	0	0	0	11
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	15	0	0	0	0	0	15
12:45 AM - 1:00 AM	1	0	0	0	0	0	1	12:45 PM - 1:00 PM	4	0	0	0	0	0	4
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	7	1	0	0	0	0	8
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	8	0	0	0	0	0	8
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	5	1	0	0	0	0	6
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	10	0	0	0	0	0	10
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	8	1	0	0	0	0	9
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	6	0	0	0	0	0	6
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	6	0	0	0	0	0	6
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	8	0	0	0	0	0	8
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	8	0	0	0	0	0	8
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	10	0	0	0	0	0	10
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	14	0	0	0	0	0	14
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	13	0	0	0	0	0	13
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	6	0	0	0	0	0	6
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	7	0	0	0	0	0	7
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	9	0	0	0	0	0	9
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	10	0	0	0	0	0	10
5:00 AM - 5:15 AM	0	0	0	0	0	0	0	5:00 PM - 5:15 PM	10	0	0	0	0	0	10
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	8	0	0	0	0	0	8
5:30 AM - 5:45 AM	0	0	0	0	0	0	0	5:30 PM - 5:45 PM	5	0	0	0	0	0	5
5:45 AM - 6:00 AM	0	0	0	0	0	0	0	5:45 PM - 6:00 PM	15	0	0	0	0	0	15
6:00 AM - 6:15 AM	1	0	0	0	0	0	1	6:00 PM - 6:15 PM	9	1	0	0	0	0	10
6:15 AM - 6:30 AM	2	0	0	0	0	0	2	6:15 PM - 6:30 PM	7	0	0	0	0	0	7
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	6:30 PM - 6:45 PM	4	0	0	0	0	0	4
6:45 AM - 7:00 AM	1	0	0	0	0	0	1	6:45 PM - 7:00 PM	5	0	0	1	0	0	6
7:00 AM - 7:15 AM	0	0	0	1	0	0	1	7:00 PM - 7:15 PM	8	0	0	0	0	0	8
7:15 AM - 7:30 AM	1	0	0	1	0	0	2	7:15 PM - 7:30 PM	8	0	0	0	0	0	8
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	7:30 PM - 7:45 PM	5	0	0	0	0	0	5
7:45 AM - 8:00 AM	1	0	0	0	0	0	1	7:45 PM - 8:00 PM	10	0	0	0	0	0	10
8:00 AM - 8:15 AM	4	0	0	0	0	0	4	8:00 PM - 8:15 PM	5	0	0	0	0	0	5
8:15 AM - 8:30 AM	2	0	0	0	0	0	2	8:15 PM - 8:30 PM	9	0	0	0	0	0	9
8:30 AM - 8:45 AM	2	0	0	0	0	0	2	8:30 PM - 8:45 PM	7	0	0	0	0	0	7
8:45 AM - 9:00 AM	3	0	0	0	0	0	3	8:45 PM - 9:00 PM	5	0	0	0	0	0	5
9:00 AM - 9:15 AM	7	1	0	0	0	0	8	9:00 PM - 9:15 PM	5	0	0	0	0	0	5
9:15 AM - 9:30 AM	3	0	0	0	0	0	3	9:15 PM - 9:30 PM	3	0	0	0	0	0	3
9:30 AM - 9:45 AM	3	0	0	0	0	0	3	9:30 PM - 9:45 PM	2	0	0	0	0	0	2
9:45 AM - 10:00 AM	6	1	0	0	0	0	7	9:45 PM - 10:00 PM	4	0	0	0	0	0	4
10:00 AM - 10:15 AM	4	1	0	0	0	0	5	10:00 PM - 10:15 PM	1	0	0	0	0	0	1
10:15 AM - 10:30 AM	5	0	0	0	0	0	5	10:15 PM - 10:30 PM	1	0	0	0	0	0	1
10:30 AM - 10:45 AM	3	0	0	1	0	0	4	10:30 PM - 10:45 PM	1	0	0	0	0	0	1
10:45 AM - 11:00 AM	5	0	0	0	0	0	5	10:45 PM - 11:00 PM	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	7	0	0	0	0	0	7	11:00 PM - 11:15 PM	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	8	0	0	0	0	0	8	11:15 PM - 11:30 PM	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	12	0	0	0	0	0	12	11:30 PM - 11:45 PM	1	0	0	0	0	0	1
11:45 AM - 12:00 PM	5	0	0	1	0	0	6	11:45 PM - 12:00 AM	0	1	0	0	0	0	1
Total	88	3	0	4	0	0	95	Total	314	5	0	1	0	0	320
								Total AM + PM	402	8	0	5	0	0	415

Table B-20
Driveway 10 (Tuesday, August 15, 2023) - Outbound

Oubound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	3	1	1	0	0	0	5
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	2	1	0	0	0	0	3
12:30 AM - 12:45 AM	1	0	0	0	0	0	1	12:30 PM - 12:45 PM	9	0	0	0	0	0	9
12:45 AM - 1:00 AM	1	0	0	0	0	0	1	12:45 PM - 1:00 PM	6	0	0	0	0	0	6
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	8	1	0	0	0	0	9
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	7	0	0	0	0	0	7
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	8	2	0	0	0	0	10
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	12	0	0	0	0	0	12
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	5	0	0	0	0	0	5
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	4	1	0	0	0	0	5
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	4	0	0	0	0	0	4
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	8	1	0	0	0	0	9
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	5	0	0	0	0	0	5
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	5	0	0	0	0	0	5
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	9	0	1	0	0	0	10
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	5	1	0	0	0	0	6
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	6	0	0	0	0	0	6
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	11	0	0	0	0	0	11
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	7	0	0	0	0	0	7
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	8	0	0	0	0	0	8
5:00 AM - 5:15 AM	0	0	0	0	0	0	0	5:00 PM - 5:15 PM	6	0	0	0	0	0	6
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	4	0	0	0	0	0	4
5:30 AM - 5:45 AM	0	0	0	0	0	0	0	5:30 PM - 5:45 PM	8	0	0	0	0	0	8
5:45 AM - 6:00 AM	0	0	0	0	0	0	0	5:45 PM - 6:00 PM	8	0	0	0	0	0	8
6:00 AM - 6:15 AM	1	0	0	0	0	0	1	6:00 PM - 6:15 PM	5	0	0	0	0	0	5
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	6:15 PM - 6:30 PM	7	0	0	0	0	0	7
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	6:30 PM - 6:45 PM	3	0	0	0	0	0	3
6:45 AM - 7:00 AM	2	0	0	0	0	0	2	6:45 PM - 7:00 PM	10	0	0	0	0	0	10
7:00 AM - 7:15 AM	1	0	0	0	0	0	1	7:00 PM - 7:15 PM	4	0	0	0	0	0	4
7:15 AM - 7:30 AM	0	1	0	0	0	0	1	7:15 PM - 7:30 PM	6	0	0	0	0	0	6
7:30 AM - 7:45 AM	1	0	0	0	0	0	1	7:30 PM - 7:45 PM	4	0	0	0	0	0	4
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	7:45 PM - 8:00 PM	5	1	0	0	0	0	6
8:00 AM - 8:15 AM	2	0	0	0	0	0	2	8:00 PM - 8:15 PM	6	0	0	0	0	0	6
8:15 AM - 8:30 AM	1	0	0	0	0	0	1	8:15 PM - 8:30 PM	4	0	0	0	0	0	4
8:30 AM - 8:45 AM	2	0	0	0	0	0	2	8:30 PM - 8:45 PM	4	0	0	0	0	0	4
8:45 AM - 9:00 AM	1	0	0	0	0	0	1	8:45 PM - 9:00 PM	8	0	0	0	0	0	8
9:00 AM - 9:15 AM	1	0	0	0	0	0	1	9:00 PM - 9:15 PM	5	0	0	0	0	0	5
9:15 AM - 9:30 AM	2	0	0	0	0	0	2	9:15 PM - 9:30 PM	5	0	0	0	0	0	5
9:30 AM - 9:45 AM	2	0	0	0	0	0	2	9:30 PM - 9:45 PM	6	0	0	0	0	0	6
9:45 AM - 10:00 AM	4	0	0	0	0	0	4	9:45 PM - 10:00 PM	2	0	0	0	0	0	2
10:00 AM - 10:15 AM	2	0	0	0	0	0	2	10:00 PM - 10:15 PM	1	0	0	0	0	0	1
10:15 AM - 10:30 AM	4	0	0	0	0	0	4	10:15 PM - 10:30 PM	1	0	0	0	0	0	1
10:30 AM - 10:45 AM	3	0	0	0	0	0	3	10:30 PM - 10:45 PM	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	2	0	0	0	0	0	2	10:45 PM - 11:00 PM	1	0	0	0	0	0	1
11:00 AM - 11:15 AM	9	0	0	0	0	0	9	11:00 PM - 11:15 PM	1	0	0	0	0	0	1
11:15 AM - 11:30 AM	8	1	0	0	0	0	9	11:15 PM - 11:30 PM	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	4	0	0	0	0	0	4	11:30 PM - 11:45 PM	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	5	0	0	0	0	0	5	11:45 PM - 12:00 AM	0	0	0	0	0	0	0
Total	59	2	0	0	0	0	61	Total	246	9	2	0	0	0	257
								Total AM + PM	305	11	2	0	0	0	318

Table B-21
Driveway 11 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	16	1	0	0	0	0	17
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	17	0	1	0	0	0	18
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	12	1	0	0	0	0	13
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	6	0	0	0	0	0	6
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	6	0	0	0	0	0	6
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	6	1	0	0	0	0	7
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	13	1	0	1	0	0	15
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	11	0	0	0	0	0	11
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	6	0	0	1	0	0	7
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	2	0	0	0	0	0	2
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	4	0	0	0	0	0	4
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	7	0	1	1	0	0	9
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	11	0	0	0	0	0	11
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	8	0	0	0	0	0	8
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	5	0	0	0	0	0	5
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	10	0	0	0	0	0	10
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	13	0	0	0	0	0	13
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	13	0	0	0	0	0	13
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	10	0	0	0	0	0	10
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	7	0	0	0	0	0	7
5:00 AM - 5:15 AM	0	0	0	0	0	0	0	5:00 PM - 5:15 PM	7	1	0	0	0	0	8
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	13	0	0	0	0	0	13
5:30 AM - 5:45 AM	0	0	0	0	0	0	0	5:30 PM - 5:45 PM	9	0	0	0	0	0	9
5:45 AM - 6:00 AM	1	0	0	0	0	0	1	5:45 PM - 6:00 PM	9	0	0	0	0	0	9
6:00 AM - 6:15 AM	2	0	0	0	0	0	2	6:00 PM - 6:15 PM	10	0	0	0	0	0	10
6:15 AM - 6:30 AM	1	0	0	0	0	0	1	6:15 PM - 6:30 PM	14	0	0	0	0	0	14
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	6:30 PM - 6:45 PM	16	0	0	0	0	0	16
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	6:45 PM - 7:00 PM	11	0	0	0	0	0	11
7:00 AM - 7:15 AM	1	0	0	0	0	0	1	7:00 PM - 7:15 PM	4	0	0	0	0	0	4
7:15 AM - 7:30 AM	2	0	0	0	0	0	2	7:15 PM - 7:30 PM	14	0	0	0	0	0	14
7:30 AM - 7:45 AM	2	0	0	0	0	0	2	7:30 PM - 7:45 PM	2	0	0	0	0	0	2
7:45 AM - 8:00 AM	1	0	0	0	0	0	1	7:45 PM - 8:00 PM	8	0	0	0	0	0	8
8:00 AM - 8:15 AM	5	0	0	0	0	0	5	8:00 PM - 8:15 PM	9	0	0	0	0	0	9
8:15 AM - 8:30 AM	2	0	0	0	0	0	2	8:15 PM - 8:30 PM	7	0	0	0	0	0	7
8:30 AM - 8:45 AM	7	0	0	0	0	0	7	8:30 PM - 8:45 PM	2	0	0	0	0	0	2
8:45 AM - 9:00 AM	4	0	0	0	0	0	4	8:45 PM - 9:00 PM	5	0	0	0	0	0	5
9:00 AM - 9:15 AM	4	0	0	0	0	0	4	9:00 PM - 9:15 PM	0	0	0	0	0	0	0
9:15 AM - 9:30 AM	9	1	0	0	0	0	10	9:15 PM - 9:30 PM	2	0	0	0	0	0	2
9:30 AM - 9:45 AM	3	0	0	0	0	0	3	9:30 PM - 9:45 PM	3	0	0	0	0	0	3
9:45 AM - 10:00 AM	2	1	0	0	0	0	3	9:45 PM - 10:00 PM	1	0	0	0	0	0	1
10:00 AM - 10:15 AM	4	0	0	0	0	0	4	10:00 PM - 10:15 PM	2	0	0	0	0	0	2
10:15 AM - 10:30 AM	5	0	0	1	0	0	6	10:15 PM - 10:30 PM	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	6	0	0	0	0	0	6	10:30 PM - 10:45 PM	0	0	0	0	0	0	0
10:45 AM - 11:00 AM	4	0	0	0	0	0	4	10:45 PM - 11:00 PM	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	10	0	0	0	0	0	10	11:00 PM - 11:15 PM	1	0	0	0	0	0	1
11:15 AM - 11:30 AM	6	2	0	0	0	0	8	11:15 PM - 11:30 PM	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	9	0	0	0	0	0	9	11:30 PM - 11:45 PM	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	11	0	0	0	0	0	11	11:45 PM - 12:00 AM	0	0	0	0	0	0	0
Total	101	4	0	1	0	0	106	Total	332	5	2	3	0	0	342
								Total AM + PM	433	9	2	4	0	0	448

Table B-22
Driveway 11 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	5	0	0	0	0	0	5
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	7	1	0	0	0	0	8
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	1	0	0	0	0	0	1
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	6	0	0	0	0	0	6
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	6	0	0	1	0	0	7
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	10	0	0	0	0	0	10
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	13	0	0	0	0	0	13
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	4	0	0	0	0	0	4
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	2	1	0	1	0	0	4
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	11	0	0	0	0	0	11
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	4	0	0	0	0	0	4
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	7	0	0	0	0	0	7
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	10	0	0	0	0	0	10
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	5	0	0	0	0	0	5
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	4	0	0	0	0	0	4
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	9	0	0	0	0	0	9
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	4	1	0	0	0	0	5
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	4	1	0	0	0	0	5
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	4	0	0	0	0	0	4
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	8	0	0	0	0	0	8
5:00 AM - 5:15 AM	0	0	0	0	0	0	0	5:00 PM - 5:15 PM	14	0	0	0	0	0	14
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	9	0	0	1	0	0	10
5:30 AM - 5:45 AM	0	0	0	0	0	0	0	5:30 PM - 5:45 PM	11	0	0	0	0	0	11
5:45 AM - 6:00 AM	0	0	0	0	0	0	0	5:45 PM - 6:00 PM	8	0	0	0	0	0	8
6:00 AM - 6:15 AM	1	0	0	0	0	0	1	6:00 PM - 6:15 PM	7	1	0	0	0	0	8
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	6:15 PM - 6:30 PM	3	0	0	0	0	0	3
6:30 AM - 6:45 AM	0	0	0	0	0	0	0	6:30 PM - 6:45 PM	11	0	0	0	0	0	11
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	6:45 PM - 7:00 PM	6	0	0	0	0	0	6
7:00 AM - 7:15 AM	0	0	0	0	0	0	0	7:00 PM - 7:15 PM	9	0	0	0	0	0	9
7:15 AM - 7:30 AM	0	0	0	0	0	0	0	7:15 PM - 7:30 PM	5	0	0	1	0	0	6
7:30 AM - 7:45 AM	0	0	0	0	0	0	0	7:30 PM - 7:45 PM	5	0	0	0	0	0	5
7:45 AM - 8:00 AM	0	0	0	0	0	0	0	7:45 PM - 8:00 PM	10	0	0	0	0	0	10
8:00 AM - 8:15 AM	0	0	0	0	0	0	0	8:00 PM - 8:15 PM	5	0	0	0	0	0	5
8:15 AM - 8:30 AM	5	0	0	1	0	0	6	8:15 PM - 8:30 PM	6	0	0	0	0	0	6
8:30 AM - 8:45 AM	1	0	0	0	0	0	1	8:30 PM - 8:45 PM	10	0	0	0	0	0	10
8:45 AM - 9:00 AM	4	0	0	0	0	0	4	8:45 PM - 9:00 PM	9	0	0	0	0	0	9
9:00 AM - 9:15 AM	4	0	0	0	0	0	4	9:00 PM - 9:15 PM	2	0	0	1	0	0	3
9:15 AM - 9:30 AM	6	1	0	0	0	0	7	9:15 PM - 9:30 PM	5	0	0	0	0	0	5
9:30 AM - 9:45 AM	6	0	0	0	0	0	6	9:30 PM - 9:45 PM	7	0	0	0	0	0	7
9:45 AM - 10:00 AM	4	1	0	0	0	0	5	9:45 PM - 10:00 PM	4	0	0	0	0	0	4
10:00 AM - 10:15 AM	3	1	0	0	0	0	4	10:00 PM - 10:15 PM	4	0	0	0	0	0	4
10:15 AM - 10:30 AM	5	0	0	0	0	0	5	10:15 PM - 10:30 PM	0	0	0	0	0	0	0
10:30 AM - 10:45 AM	8	0	0	0	0	0	8	10:30 PM - 10:45 PM	1	0	0	0	0	0	1
10:45 AM - 11:00 AM	4	0	0	0	0	0	4	10:45 PM - 11:00 PM	0	0	0	0	0	0	0
11:00 AM - 11:15 AM	6	0	0	0	0	0	6	11:00 PM - 11:15 PM	0	0	0	0	0	0	0
11:15 AM - 11:30 AM	1	0	0	0	0	0	1	11:15 PM - 11:30 PM	1	0	0	0	0	0	1
11:30 AM - 11:45 AM	3	0	0	0	0	0	3	11:30 PM - 11:45 PM	2	0	0	0	0	0	2
11:45 AM - 12:00 PM	5	1	0	0	0	0	6	11:45 PM - 12:00 AM	1	0	0	0	0	0	1
Total	66	4	0	1	0	0	71	Total	279	5	0	5	0	0	289
								Total AM + PM	345	9	0	6	0	0	360

Table B-23
Driveway 12 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	1	0	0	0	0	0	1	12:00 PM - 12:15 PM	47	0	0	0	0	1	48
12:15 AM - 12:30 AM	2	0	0	0	0	0	2	12:15 PM - 12:30 PM	49	1	0	0	0	1	51
12:30 AM - 12:45 AM	1	0	0	0	0	0	1	12:30 PM - 12:45 PM	54	0	0	0	0	0	54
12:45 AM - 1:00 AM	2	0	0	0	0	0	2	12:45 PM - 1:00 PM	43	0	0	0	0	0	43
1:00 AM - 1:15 AM	3	0	0	0	0	0	3	1:00 PM - 1:15 PM	46	0	0	0	0	1	47
1:15 AM - 1:30 AM	1	0	0	0	0	0	1	1:15 PM - 1:30 PM	46	0	0	0	0	1	47
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	38	1	0	0	0	0	39
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	48	1	0	0	0	1	50
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	30	0	0	0	0	1	31
2:15 AM - 2:30 AM	1	0	0	0	0	0	1	2:15 PM - 2:30 PM	42	0	0	0	0	1	43
2:30 AM - 2:45 AM	1	0	0	0	0	0	1	2:30 PM - 2:45 PM	41	1	0	0	0	0	42
2:45 AM - 3:00 AM	1	0	0	0	0	0	1	2:45 PM - 3:00 PM	43	1	1	0	0	0	45
3:00 AM - 3:15 AM	1	0	0	0	0	0	1	3:00 PM - 3:15 PM	44	0	0	0	0	1	45
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	42	0	0	0	0	1	43
3:30 AM - 3:45 AM	1	0	0	0	0	0	1	3:30 PM - 3:45 PM	51	1	0	0	0	1	53
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	53	0	1	0	0	0	54
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	39	0	0	0	0	1	40
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	49	0	0	0	0	0	49
4:30 AM - 4:45 AM	4	0	0	0	0	0	4	4:30 PM - 4:45 PM	49	0	1	1	0	1	52
4:45 AM - 5:00 AM	6	0	0	0	0	0	6	4:45 PM - 5:00 PM	53	0	0	0	0	1	54
5:00 AM - 5:15 AM	1	1	0	0	0	0	2	5:00 PM - 5:15 PM	33	0	0	0	0	1	34
5:15 AM - 5:30 AM	1	1	0	0	0	0	2	5:15 PM - 5:30 PM	54	0	0	0	0	0	54
5:30 AM - 5:45 AM	3	1	0	0	0	0	4	5:30 PM - 5:45 PM	46	0	0	1	0	0	47
5:45 AM - 6:00 AM	8	0	0	0	0	0	8	5:45 PM - 6:00 PM	35	0	0	0	0	2	37
6:00 AM - 6:15 AM	17	0	0	0	0	0	17	6:00 PM - 6:15 PM	41	0	0	0	0	0	41
6:15 AM - 6:30 AM	10	0	1	0	0	0	11	6:15 PM - 6:30 PM	43	0	0	0	0	0	43
6:30 AM - 6:45 AM	17	0	0	0	0	0	17	6:30 PM - 6:45 PM	38	0	0	0	0	0	38
6:45 AM - 7:00 AM	15	0	0	0	0	1	16	6:45 PM - 7:00 PM	51	0	0	0	0	1	52
7:00 AM - 7:15 AM	18	1	0	0	0	0	19	7:00 PM - 7:15 PM	45	0	0	0	0	0	45
7:15 AM - 7:30 AM	16	0	0	0	0	0	16	7:15 PM - 7:30 PM	28	1	0	0	0	0	29
7:30 AM - 7:45 AM	14	0	0	0	0	0	14	7:30 PM - 7:45 PM	43	0	0	0	0	0	43
7:45 AM - 8:00 AM	16	0	0	0	0	1	17	7:45 PM - 8:00 PM	38	0	0	0	0	0	38
8:00 AM - 8:15 AM	26	0	0	1	0	0	27	8:00 PM - 8:15 PM	44	0	0	1	0	1	46
8:15 AM - 8:30 AM	36	1	0	1	0	0	38	8:15 PM - 8:30 PM	25	1	0	0	0	0	26
8:30 AM - 8:45 AM	32	0	0	0	0	0	32	8:30 PM - 8:45 PM	36	1	0	1	0	0	38
8:45 AM - 9:00 AM	33	0	0	0	0	1	34	8:45 PM - 9:00 PM	30	0	0	0	0	0	30
9:00 AM - 9:15 AM	35	1	0	1	0	1	38	9:00 PM - 9:15 PM	21	0	0	0	0	1	22
9:15 AM - 9:30 AM	37	0	0	0	0	1	38	9:15 PM - 9:30 PM	25	0	0	0	0	0	25
9:30 AM - 9:45 AM	28	0	0	0	0	0	28	9:30 PM - 9:45 PM	21	0	0	0	0	0	21
9:45 AM - 10:00 AM	46	1	0	0	0	0	47	9:45 PM - 10:00 PM	13	0	0	0	0	0	13
10:00 AM - 10:15 AM	46	0	0	0	0	1	47	10:00 PM - 10:15 PM	13	0	0	0	0	0	13
10:15 AM - 10:30 AM	51	0	0	0	0	0	51	10:15 PM - 10:30 PM	11	0	0	0	0	0	11
10:30 AM - 10:45 AM	48	2	0	0	0	1	51	10:30 PM - 10:45 PM	6	0	1	0	0	0	7
10:45 AM - 11:00 AM	42	1	0	0	0	1	44	10:45 PM - 11:00 PM	7	0	0	0	0	0	7
11:00 AM - 11:15 AM	48	0	0	0	0	1	49	11:00 PM - 11:15 PM	2	0	0	0	0	0	2
11:15 AM - 11:30 AM	44	0	0	0	0	0	44	11:15 PM - 11:30 PM	2	0	0	0	0	0	2
11:30 AM - 11:45 AM	46	1	0	0	0	0	47	11:30 PM - 11:45 PM	1	0	0	0	0	0	1
11:45 AM - 12:00 PM	45	0	0	0	0	1	46	11:45 PM - 12:00 AM	0	0	0	0	0	0	0
Total	804	11	1	3	0	10	829	Total	1,659	9	4	4	0	19	1,695
								Total AM + PM	2,463	20	5	7	0	29	2,524

Table B-24
Driveway 12 (Tuesday, August 15, 2023) - Outbound

Oubound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	2	0	0	0	0	0	2	12:00 PM - 12:15 PM	48	0	0	0	0	1	49
12:15 AM - 12:30 AM	4	0	0	0	0	0	4	12:15 PM - 12:30 PM	51	3	0	0	0	1	55
12:30 AM - 12:45 AM	1	0	0	0	0	0	1	12:30 PM - 12:45 PM	45	0	0	0	0	1	46
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	49	1	0	1	0	0	51
1:00 AM - 1:15 AM	4	0	0	0	0	0	4	1:00 PM - 1:15 PM	59	0	0	0	0	0	59
1:15 AM - 1:30 AM	1	0	0	0	0	0	1	1:15 PM - 1:30 PM	42	0	0	0	0	1	43
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	42	1	0	1	0	1	45
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	48	0	0	0	0	0	48
2:00 AM - 2:15 AM	1	0	0	0	0	0	1	2:00 PM - 2:15 PM	52	1	0	0	0	0	53
2:15 AM - 2:30 AM	1	0	0	0	0	0	1	2:15 PM - 2:30 PM	38	1	1	0	0	2	42
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	34	0	0	0	0	1	35
2:45 AM - 3:00 AM	1	0	0	0	0	0	1	2:45 PM - 3:00 PM	49	0	0	1	0	0	50
3:00 AM - 3:15 AM	1	0	0	0	0	0	1	3:00 PM - 3:15 PM	47	1	1	0	0	0	49
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	42	2	0	0	0	1	45
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	42	1	0	0	0	1	44
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	44	1	0	0	0	0	45
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	54	0	0	0	0	1	55
4:15 AM - 4:30 AM	1	0	0	0	0	0	1	4:15 PM - 4:30 PM	45	0	0	0	0	1	46
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	59	0	0	0	0	0	59
4:45 AM - 5:00 AM	1	0	0	0	0	0	1	4:45 PM - 5:00 PM	41	0	0	0	0	1	42
5:00 AM - 5:15 AM	2	1	0	0	0	0	3	5:00 PM - 5:15 PM	55	1	0	1	0	1	58
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	38	0	0	0	0	0	38
5:30 AM - 5:45 AM	1	0	0	0	0	0	1	5:30 PM - 5:45 PM	41	0	0	0	0	0	41
5:45 AM - 6:00 AM	1	0	0	0	0	0	1	5:45 PM - 6:00 PM	57	0	0	0	0	0	57
6:00 AM - 6:15 AM	9	0	0	0	0	1	10	6:00 PM - 6:15 PM	45	1	0	0	0	1	47
6:15 AM - 6:30 AM	8	0	0	0	0	0	8	6:15 PM - 6:30 PM	44	0	0	0	0	1	45
6:30 AM - 6:45 AM	12	0	1	0	0	0	13	6:30 PM - 6:45 PM	35	0	0	0	0	0	35
6:45 AM - 7:00 AM	19	0	0	1	0	0	20	6:45 PM - 7:00 PM	60	1	0	0	0	0	61
7:00 AM - 7:15 AM	18	1	0	0	0	1	20	7:00 PM - 7:15 PM	45	1	0	0	0	0	46
7:15 AM - 7:30 AM	19	1	0	0	0	0	20	7:15 PM - 7:30 PM	41	0	0	1	0	1	43
7:30 AM - 7:45 AM	22	0	0	0	0	0	22	7:30 PM - 7:45 PM	39	0	0	1	0	0	40
7:45 AM - 8:00 AM	16	0	0	0	0	0	16	7:45 PM - 8:00 PM	42	0	0	1	0	0	43
8:00 AM - 8:15 AM	14	0	0	0	0	1	15	8:00 PM - 8:15 PM	39	0	0	0	0	0	39
8:15 AM - 8:30 AM	15	0	0	0	0	0	15	8:15 PM - 8:30 PM	56	0	0	1	0	1	58
8:30 AM - 8:45 AM	32	0	0	0	0	0	32	8:30 PM - 8:45 PM	43	0	0	0	0	0	43
8:45 AM - 9:00 AM	27	0	0	1	0	0	28	8:45 PM - 9:00 PM	33	0	0	0	0	0	33
9:00 AM - 9:15 AM	32	0	0	0	0	1	33	9:00 PM - 9:15 PM	28	0	0	0	0	1	29
9:15 AM - 9:30 AM	29	1	0	0	0	0	30	9:15 PM - 9:30 PM	24	1	0	0	0	0	25
9:30 AM - 9:45 AM	39	1	0	0	0	1	41	9:30 PM - 9:45 PM	24	0	0	0	0	0	24
9:45 AM - 10:00 AM	33	0	0	0	0	0	33	9:45 PM - 10:00 PM	17	0	0	0	0	0	17
10:00 AM - 10:15 AM	41	1	0	0	0	0	42	10:00 PM - 10:15 PM	23	0	0	0	0	0	23
10:15 AM - 10:30 AM	32	0	0	0	0	1	33	10:15 PM - 10:30 PM	18	0	0	0	0	0	18
10:30 AM - 10:45 AM	38	0	0	0	0	0	38	10:30 PM - 10:45 PM	14	0	0	0	0	0	14
10:45 AM - 11:00 AM	45	2	0	0	1	1	49	10:45 PM - 11:00 PM	22	0	0	0	0	0	22
11:00 AM - 11:15 AM	49	1	0	0	0	1	51	11:00 PM - 11:15 PM	13	0	0	0	0	0	13
11:15 AM - 11:30 AM	50	0	0	0	0	0	50	11:15 PM - 11:30 PM	6	0	1	0	0	0	7
11:30 AM - 11:45 AM	42	0	0	0	0	1	43	11:30 PM - 11:45 PM	3	0	0	0	0	0	3
11:45 AM - 12:00 PM	51	0	0	0	0	0	51	11:45 PM - 12:00 AM	6	0	0	0	0	0	6
Total	714	9	1	2	1	9	736	Total	1,842	17	3	8	0	19	1,889
								Total AM + PM	2,556	26	4	10	1	28	2,625

Table B-25
Driveway 13 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	1	0	0	0	0	0	1	12:00 PM - 12:15 PM	20	0	0	0	0	0	20
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	10	0	0	0	0	0	10
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	19	0	0	0	0	0	19
12:45 AM - 1:00 AM	1	0	0	0	0	0	1	12:45 PM - 1:00 PM	17	0	0	0	0	0	17
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	15	0	0	0	0	0	15
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	25	2	0	1	0	0	28
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	21	0	0	0	0	0	21
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	18	0	0	0	0	0	18
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	20	0	0	0	0	0	20
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	22	1	0	0	0	0	23
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	13	0	0	0	0	0	13
2:45 AM - 3:00 AM	1	0	0	0	0	0	1	2:45 PM - 3:00 PM	17	1	0	0	0	0	18
3:00 AM - 3:15 AM	1	0	0	0	0	0	1	3:00 PM - 3:15 PM	11	0	0	0	0	0	11
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	21	0	0	0	0	0	21
3:30 AM - 3:45 AM	1	0	0	0	0	0	1	3:30 PM - 3:45 PM	14	0	0	0	0	0	14
3:45 AM - 4:00 AM	2	0	0	0	0	0	2	3:45 PM - 4:00 PM	14	1	0	0	0	0	15
4:00 AM - 4:15 AM	1	0	0	0	0	0	1	4:00 PM - 4:15 PM	19	0	0	0	0	0	19
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	23	0	0	0	0	0	23
4:30 AM - 4:45 AM	2	0	0	0	0	0	2	4:30 PM - 4:45 PM	27	0	0	0	0	0	27
4:45 AM - 5:00 AM	1	0	0	0	0	0	1	4:45 PM - 5:00 PM	14	0	0	0	0	0	14
5:00 AM - 5:15 AM	4	0	0	0	0	0	4	5:00 PM - 5:15 PM	20	0	0	0	0	0	20
5:15 AM - 5:30 AM	3	0	0	0	0	0	3	5:15 PM - 5:30 PM	16	0	0	0	0	0	16
5:30 AM - 5:45 AM	2	0	0	0	0	0	2	5:30 PM - 5:45 PM	17	1	0	0	0	0	18
5:45 AM - 6:00 AM	6	0	0	0	0	0	6	5:45 PM - 6:00 PM	13	0	0	0	0	0	13
6:00 AM - 6:15 AM	3	0	0	0	0	0	3	6:00 PM - 6:15 PM	18	0	0	0	0	0	18
6:15 AM - 6:30 AM	10	0	0	0	0	0	10	6:15 PM - 6:30 PM	26	0	0	0	0	0	26
6:30 AM - 6:45 AM	8	0	0	0	0	0	8	6:30 PM - 6:45 PM	20	0	0	1	0	0	21
6:45 AM - 7:00 AM	13	3	0	0	0	0	16	6:45 PM - 7:00 PM	21	0	0	0	0	0	21
7:00 AM - 7:15 AM	4	1	0	0	0	0	5	7:00 PM - 7:15 PM	16	0	0	0	0	0	16
7:15 AM - 7:30 AM	10	0	0	0	0	0	10	7:15 PM - 7:30 PM	15	0	0	0	0	0	15
7:30 AM - 7:45 AM	9	0	0	0	0	0	9	7:30 PM - 7:45 PM	11	0	0	1	0	0	12
7:45 AM - 8:00 AM	3	0	0	0	0	0	3	7:45 PM - 8:00 PM	15	0	0	0	0	0	15
8:00 AM - 8:15 AM	9	0	0	0	0	0	9	8:00 PM - 8:15 PM	19	0	0	0	0	0	19
8:15 AM - 8:30 AM	5	0	0	0	0	0	5	8:15 PM - 8:30 PM	15	0	0	0	0	0	15
8:30 AM - 8:45 AM	9	0	0	0	0	0	9	8:30 PM - 8:45 PM	11	0	0	0	0	0	11
8:45 AM - 9:00 AM	11	0	0	0	0	0	11	8:45 PM - 9:00 PM	17	0	0	0	0	0	17
9:00 AM - 9:15 AM	24	0	0	0	0	0	24	9:00 PM - 9:15 PM	11	1	0	0	0	0	12
9:15 AM - 9:30 AM	11	0	0	0	0	0	11	9:15 PM - 9:30 PM	10	0	0	0	0	0	10
9:30 AM - 9:45 AM	17	0	0	0	0	0	17	9:30 PM - 9:45 PM	6	0	0	0	0	0	6
9:45 AM - 10:00 AM	17	1	0	0	0	0	18	9:45 PM - 10:00 PM	23	0	0	0	0	0	23
10:00 AM - 10:15 AM	20	0	0	0	0	0	20	10:00 PM - 10:15 PM	8	0	0	0	0	0	8
10:15 AM - 10:30 AM	20	0	0	0	0	0	20	10:15 PM - 10:30 PM	6	0	0	0	0	0	6
10:30 AM - 10:45 AM	24	0	0	0	0	0	24	10:30 PM - 10:45 PM	5	0	0	0	0	0	5
10:45 AM - 11:00 AM	18	0	0	0	0	0	18	10:45 PM - 11:00 PM	1	0	0	0	0	0	1
11:00 AM - 11:15 AM	25	0	0	0	0	0	25	11:00 PM - 11:15 PM	1	0	0	0	0	0	1
11:15 AM - 11:30 AM	11	0	0	0	0	0	11	11:15 PM - 11:30 PM	1	0	0	0	0	0	1
11:30 AM - 11:45 AM	26	0	0	1	0	0	27	11:30 PM - 11:45 PM	3	0	0	0	0	0	3
11:45 AM - 12:00 PM	16	0	0	0	0	0	16	11:45 PM - 12:00 AM	0	0	0	0	0	0	0
Total	349	5	0	1	0	0	355	Total	705	7	0	3	0	0	715
								Total AM + PM	1,054	12	0	4	0	0	1,070

Table B-26
Driveway 13 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	4	0	0	0	0	0	4	12:00 PM - 12:15 PM	15	0	0	0	0	0	15
12:15 AM - 12:30 AM	1	0	0	0	0	0	1	12:15 PM - 12:30 PM	13	0	0	0	0	0	13
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	20	0	0	0	0	0	20
12:45 AM - 1:00 AM	1	0	0	0	0	0	1	12:45 PM - 1:00 PM	18	0	0	0	0	0	18
1:00 AM - 1:15 AM	1	0	0	0	0	0	1	1:00 PM - 1:15 PM	14	2	1	0	0	0	17
1:15 AM - 1:30 AM	1	0	0	0	0	0	1	1:15 PM - 1:30 PM	20	0	0	0	0	0	20
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	19	0	0	0	0	0	19
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	24	1	0	0	0	0	25
2:00 AM - 2:15 AM	2	0	0	0	0	0	2	2:00 PM - 2:15 PM	26	0	0	0	0	0	26
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	16	1	0	1	1	0	19
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	17	1	0	0	0	0	18
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	21	0	0	0	0	0	21
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	13	0	0	0	0	0	13
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	19	0	0	0	0	0	19
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	17	0	1	1	0	0	19
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	23	0	0	0	0	0	23
4:00 AM - 4:15 AM	1	0	0	0	0	0	1	4:00 PM - 4:15 PM	28	0	0	0	0	0	28
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	19	0	0	0	0	0	19
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	13	1	0	0	0	0	14
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	27	0	0	0	0	0	27
5:00 AM - 5:15 AM	1	0	0	0	0	0	1	5:00 PM - 5:15 PM	19	0	0	0	0	0	19
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	18	0	0	0	0	0	18
5:30 AM - 5:45 AM	1	0	0	0	0	0	1	5:30 PM - 5:45 PM	23	0	0	0	0	0	23
5:45 AM - 6:00 AM	1	0	0	0	0	0	1	5:45 PM - 6:00 PM	16	0	0	0	0	0	16
6:00 AM - 6:15 AM	1	0	0	0	0	0	1	6:00 PM - 6:15 PM	25	0	0	0	0	0	25
6:15 AM - 6:30 AM	2	0	0	0	0	0	2	6:15 PM - 6:30 PM	16	0	0	0	0	0	16
6:30 AM - 6:45 AM	6	0	0	0	0	0	6	6:30 PM - 6:45 PM	15	0	0	0	0	0	15
6:45 AM - 7:00 AM	0	0	0	0	0	0	0	6:45 PM - 7:00 PM	17	1	0	0	0	0	18
7:00 AM - 7:15 AM	19	1	0	0	0	0	20	7:00 PM - 7:15 PM	14	0	0	0	0	0	14
7:15 AM - 7:30 AM	4	0	0	0	0	0	4	7:15 PM - 7:30 PM	21	0	0	0	0	0	21
7:30 AM - 7:45 AM	3	0	0	0	0	0	3	7:30 PM - 7:45 PM	16	0	0	0	0	0	16
7:45 AM - 8:00 AM	3	0	0	0	0	0	3	7:45 PM - 8:00 PM	23	0	0	0	0	0	23
8:00 AM - 8:15 AM	10	0	0	0	0	0	10	8:00 PM - 8:15 PM	18	0	0	0	0	0	18
8:15 AM - 8:30 AM	5	0	0	0	0	0	5	8:15 PM - 8:30 PM	15	0	0	0	0	0	15
8:30 AM - 8:45 AM	3	0	0	0	0	0	3	8:30 PM - 8:45 PM	15	0	0	0	0	0	15
8:45 AM - 9:00 AM	7	0	0	0	0	0	7	8:45 PM - 9:00 PM	15	0	0	0	0	0	15
9:00 AM - 9:15 AM	10	0	0	0	0	0	10	9:00 PM - 9:15 PM	17	0	0	0	0	0	17
9:15 AM - 9:30 AM	9	1	0	0	0	0	10	9:15 PM - 9:30 PM	18	0	0	0	0	0	18
9:30 AM - 9:45 AM	11	0	0	0	0	0	11	9:30 PM - 9:45 PM	13	0	0	0	0	0	13
9:45 AM - 10:00 AM	13	0	0	0	0	0	13	9:45 PM - 10:00 PM	5	0	0	0	0	0	5
10:00 AM - 10:15 AM	14	2	0	0	0	0	16	10:00 PM - 10:15 PM	13	0	0	0	0	0	13
10:15 AM - 10:30 AM	12	1	0	0	0	0	13	10:15 PM - 10:30 PM	10	0	0	0	0	0	10
10:30 AM - 10:45 AM	17	1	0	0	0	0	18	10:30 PM - 10:45 PM	5	0	0	0	0	0	5
10:45 AM - 11:00 AM	17	0	0	0	0	0	17	10:45 PM - 11:00 PM	7	0	0	0	0	0	7
11:00 AM - 11:15 AM	19	0	0	0	0	0	19	11:00 PM - 11:15 PM	6	0	0	0	0	0	6
11:15 AM - 11:30 AM	24	1	0	0	0	0	25	11:15 PM - 11:30 PM	3	0	0	0	0	0	3
11:30 AM - 11:45 AM	17	0	0	0	0	0	17	11:30 PM - 11:45 PM	1	0	0	0	0	0	1
11:45 AM - 12:00 PM	20	0	0	0	0	0	20	11:45 PM - 12:00 AM	2	0	0	0	0	0	2
Total	260	7	0	0	0	0	267	Total	768	7	2	2	1	0	780
								Total AM + PM	1,028	14	2	2	1	0	1,047

Table B-27
Driveway 14 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	1	0	0	0	0	0	1	12:00 PM - 12:15 PM	6	0	0	0	0	0	6
12:15 AM - 12:30 AM	1	0	0	0	0	0	1	12:15 PM - 12:30 PM	18	1	0	0	0	0	19
12:30 AM - 12:45 AM	3	0	0	0	0	0	3	12:30 PM - 12:45 PM	12	0	0	0	0	0	12
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	20	0	0	0	0	0	20
1:00 AM - 1:15 AM	0	1	0	0	0	0	1	1:00 PM - 1:15 PM	10	0	0	0	0	0	10
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	7	0	0	0	0	0	7
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	13	0	0	0	1	0	14
1:45 AM - 2:00 AM	1	0	0	0	0	0	1	1:45 PM - 2:00 PM	15	0	0	0	0	0	15
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	9	0	0	0	0	0	9
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	13	0	0	0	0	0	13
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	11	0	0	0	0	0	11
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	14	1	0	0	0	0	15
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	8	0	0	0	0	0	8
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	13	0	0	0	0	0	13
3:30 AM - 3:45 AM	1	0	0	0	0	0	1	3:30 PM - 3:45 PM	12	0	0	0	0	0	12
3:45 AM - 4:00 AM	3	0	0	0	0	0	3	3:45 PM - 4:00 PM	15	1	0	0	0	0	16
4:00 AM - 4:15 AM	1	0	0	0	0	0	1	4:00 PM - 4:15 PM	19	1	0	0	0	0	20
4:15 AM - 4:30 AM	1	0	0	0	0	0	1	4:15 PM - 4:30 PM	10	0	0	0	0	0	10
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	16	0	0	0	0	0	16
4:45 AM - 5:00 AM	3	0	0	0	0	0	3	4:45 PM - 5:00 PM	20	0	0	0	0	0	20
5:00 AM - 5:15 AM	2	0	0	0	0	0	2	5:00 PM - 5:15 PM	19	0	0	0	0	0	19
5:15 AM - 5:30 AM	0	0	0	0	0	0	0	5:15 PM - 5:30 PM	18	1	0	0	0	0	19
5:30 AM - 5:45 AM	1	0	0	0	0	0	1	5:30 PM - 5:45 PM	11	0	0	0	0	0	11
5:45 AM - 6:00 AM	1	0	0	0	0	0	1	5:45 PM - 6:00 PM	19	1	0	0	0	0	20
6:00 AM - 6:15 AM	3	0	0	0	0	0	3	6:00 PM - 6:15 PM	16	1	0	0	0	0	17
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	6:15 PM - 6:30 PM	9	0	0	0	0	0	9
6:30 AM - 6:45 AM	1	0	0	0	0	0	1	6:30 PM - 6:45 PM	19	0	0	0	0	0	19
6:45 AM - 7:00 AM	8	0	0	0	0	0	8	6:45 PM - 7:00 PM	12	0	0	0	0	0	12
7:00 AM - 7:15 AM	4	1	0	0	0	0	5	7:00 PM - 7:15 PM	8	0	0	0	0	0	8
7:15 AM - 7:30 AM	6	1	0	0	0	0	7	7:15 PM - 7:30 PM	19	0	0	0	0	0	19
7:30 AM - 7:45 AM	4	0	0	0	0	0	4	7:30 PM - 7:45 PM	14	0	0	0	0	0	14
7:45 AM - 8:00 AM	7	0	0	0	0	0	7	7:45 PM - 8:00 PM	6	0	0	0	0	0	6
8:00 AM - 8:15 AM	3	0	0	1	0	0	4	8:00 PM - 8:15 PM	16	1	0	0	0	0	17
8:15 AM - 8:30 AM	9	0	0	0	0	0	9	8:15 PM - 8:30 PM	17	0	0	0	0	0	17
8:30 AM - 8:45 AM	6	0	0	0	0	0	6	8:30 PM - 8:45 PM	6	0	0	1	0	0	7
8:45 AM - 9:00 AM	6	0	0	0	0	0	6	8:45 PM - 9:00 PM	11	0	0	0	0	0	11
9:00 AM - 9:15 AM	9	2	0	0	0	0	11	9:00 PM - 9:15 PM	7	0	0	0	0	0	7
9:15 AM - 9:30 AM	8	2	0	1	0	0	11	9:15 PM - 9:30 PM	5	0	0	0	0	0	5
9:30 AM - 9:45 AM	9	1	0	0	0	0	10	9:30 PM - 9:45 PM	5	0	0	0	0	0	5
9:45 AM - 10:00 AM	11	0	0	0	0	0	11	9:45 PM - 10:00 PM	6	0	0	0	0	0	6
10:00 AM - 10:15 AM	10	1	0	0	0	0	11	10:00 PM - 10:15 PM	6	0	0	0	0	0	6
10:15 AM - 10:30 AM	5	0	0	0	0	0	5	10:15 PM - 10:30 PM	5	0	0	0	0	0	5
10:30 AM - 10:45 AM	7	0	0	0	0	0	7	10:30 PM - 10:45 PM	6	0	0	0	0	0	6
10:45 AM - 11:00 AM	12	0	0	0	0	0	12	10:45 PM - 11:00 PM	2	0	0	0	0	0	2
11:00 AM - 11:15 AM	15	0	0	0	0	0	15	11:00 PM - 11:15 PM	2	0	0	0	0	0	2
11:15 AM - 11:30 AM	9	1	0	1	0	0	11	11:15 PM - 11:30 PM	1	0	0	1	0	0	2
11:30 AM - 11:45 AM	13	0	0	0	0	0	13	11:30 PM - 11:45 PM	1	0	0	0	0	0	1
11:45 AM - 12:00 PM	11	1	0	0	0	0	12	11:45 PM - 12:00 AM	0	0	0	0	0	0	0
Total	195	11	0	3	0	0	209	Total	527	8	0	2	1	0	538
								Total AM + PM	722	19	0	5	1	0	747

Table B-28
Driveway 14 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	4	0	0	0	0	0	4	12:00 PM - 12:15 PM	7	0	0	0	0	0	7
12:15 AM - 12:30 AM	3	0	0	0	0	0	3	12:15 PM - 12:30 PM	15	0	0	0	0	0	15
12:30 AM - 12:45 AM	10	0	0	0	0	0	10	12:30 PM - 12:45 PM	12	0	0	0	0	0	12
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	8	1	0	0	0	0	9
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	10	0	0	0	0	0	10
1:15 AM - 1:30 AM	1	1	0	0	0	0	2	1:15 PM - 1:30 PM	20	0	0	0	0	0	20
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	17	1	0	1	0	0	19
1:45 AM - 2:00 AM	1	0	0	0	0	0	1	1:45 PM - 2:00 PM	11	0	0	0	0	0	11
2:00 AM - 2:15 AM	2	0	0	0	0	0	2	2:00 PM - 2:15 PM	3	0	0	0	0	0	3
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	6	0	0	0	0	0	6
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	11	0	0	0	0	0	11
2:45 AM - 3:00 AM	2	0	0	0	0	0	2	2:45 PM - 3:00 PM	11	0	0	0	0	0	11
3:00 AM - 3:15 AM	2	0	0	0	0	0	2	3:00 PM - 3:15 PM	18	0	0	0	0	0	18
3:15 AM - 3:30 AM	2	0	0	0	0	0	2	3:15 PM - 3:30 PM	19	0	0	0	0	0	19
3:30 AM - 3:45 AM	1	0	0	0	0	0	1	3:30 PM - 3:45 PM	10	0	0	0	0	0	10
3:45 AM - 4:00 AM	1	0	0	0	0	0	1	3:45 PM - 4:00 PM	10	0	0	0	0	0	10
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	9	0	1	0	0	0	10
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	11	0	0	0	0	0	11
4:30 AM - 4:45 AM	1	0	0	0	0	0	1	4:30 PM - 4:45 PM	16	0	0	0	0	0	16
4:45 AM - 5:00 AM	0	0	0	0	0	0	0	4:45 PM - 5:00 PM	12	1	0	0	0	0	13
5:00 AM - 5:15 AM	1	1	0	0	0	0	2	5:00 PM - 5:15 PM	9	0	0	0	1	0	10
5:15 AM - 5:30 AM	2	1	0	0	0	0	3	5:15 PM - 5:30 PM	17	0	0	0	0	0	17
5:30 AM - 5:45 AM	4	0	0	0	0	0	4	5:30 PM - 5:45 PM	12	1	0	0	0	0	13
5:45 AM - 6:00 AM	0	0	0	0	0	0	0	5:45 PM - 6:00 PM	13	2	0	0	0	0	15
6:00 AM - 6:15 AM	4	1	0	0	0	0	5	6:00 PM - 6:15 PM	13	0	0	0	0	0	13
6:15 AM - 6:30 AM	0	0	0	0	0	0	0	6:15 PM - 6:30 PM	15	0	0	0	0	0	15
6:30 AM - 6:45 AM	2	1	0	0	0	0	3	6:30 PM - 6:45 PM	14	0	0	0	0	0	14
6:45 AM - 7:00 AM	4	0	0	0	0	0	4	6:45 PM - 7:00 PM	16	0	0	0	0	0	16
7:00 AM - 7:15 AM	5	2	0	0	0	0	7	7:00 PM - 7:15 PM	7	0	0	0	0	0	7
7:15 AM - 7:30 AM	4	2	0	0	0	0	6	7:15 PM - 7:30 PM	26	0	0	1	0	0	27
7:30 AM - 7:45 AM	5	0	1	0	0	0	6	7:30 PM - 7:45 PM	14	0	0	0	0	0	14
7:45 AM - 8:00 AM	3	2	0	0	0	0	5	7:45 PM - 8:00 PM	8	1	0	0	0	0	9
8:00 AM - 8:15 AM	7	2	0	1	0	0	10	8:00 PM - 8:15 PM	20	0	0	0	0	0	20
8:15 AM - 8:30 AM	5	0	0	0	0	0	5	8:15 PM - 8:30 PM	12	0	0	0	0	0	12
8:30 AM - 8:45 AM	4	0	0	0	0	0	4	8:30 PM - 8:45 PM	11	0	0	0	0	0	11
8:45 AM - 9:00 AM	9	1	0	0	0	0	10	8:45 PM - 9:00 PM	10	0	0	0	0	0	10
9:00 AM - 9:15 AM	6	0	0	0	0	0	6	9:00 PM - 9:15 PM	11	0	0	0	0	0	11
9:15 AM - 9:30 AM	7	0	0	0	0	0	7	9:15 PM - 9:30 PM	12	0	0	0	0	0	12
9:30 AM - 9:45 AM	6	0	0	0	0	0	6	9:30 PM - 9:45 PM	10	0	0	0	0	0	10
9:45 AM - 10:00 AM	6	0	0	0	0	0	6	9:45 PM - 10:00 PM	10	0	0	0	0	0	10
10:00 AM - 10:15 AM	14	0	0	0	0	0	14	10:00 PM - 10:15 PM	17	0	0	0	0	0	17
10:15 AM - 10:30 AM	4	0	1	0	0	0	5	10:15 PM - 10:30 PM	10	0	0	0	0	0	10
10:30 AM - 10:45 AM	11	0	0	0	0	0	11	10:30 PM - 10:45 PM	3	0	0	0	0	0	3
10:45 AM - 11:00 AM	11	0	0	1	0	0	12	10:45 PM - 11:00 PM	7	0	0	0	0	0	7
11:00 AM - 11:15 AM	5	0	0	0	0	0	5	11:00 PM - 11:15 PM	5	0	0	0	0	0	5
11:15 AM - 11:30 AM	12	0	0	0	0	0	12	11:15 PM - 11:30 PM	4	0	0	0	0	0	4
11:30 AM - 11:45 AM	7	0	0	0	0	0	7	11:30 PM - 11:45 PM	1	0	0	0	0	0	1
11:45 AM - 12:00 PM	17	1	0	0	0	0	18	11:45 PM - 12:00 AM	3	0	0	0	0	0	3
Total	195	15	2	2	0	0	214	Total	546	7	1	2	1	0	557
								Total AM + PM	741	22	3	4	1	0	771

Table B-29
Driveway 15 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	1	0	0	0	0	0	1	12:00 PM - 12:15 PM	27	0	0	0	0	0	27
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	20	0	0	0	0	0	20
12:30 AM - 12:45 AM	3	0	0	0	0	0	3	12:30 PM - 12:45 PM	15	1	0	0	0	0	16
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	12	1	0	0	0	0	13
1:00 AM - 1:15 AM	2	0	0	0	0	0	2	1:00 PM - 1:15 PM	11	1	0	0	0	0	12
1:15 AM - 1:30 AM	1	0	0	0	0	0	1	1:15 PM - 1:30 PM	11	0	0	0	0	0	11
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	16	0	0	0	0	0	16
1:45 AM - 2:00 AM	0	0	0	1	0	0	1	1:45 PM - 2:00 PM	13	0	0	0	0	0	13
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	15	0	0	0	0	0	15
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	10	0	0	0	0	0	10
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	13	1	0	0	0	0	14
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	16	0	0	0	0	0	16
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	11	1	0	0	0	0	12
3:15 AM - 3:30 AM	1	0	0	0	0	0	1	3:15 PM - 3:30 PM	15	0	0	0	0	0	15
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	11	0	0	0	0	0	11
3:45 AM - 4:00 AM	3	0	0	0	0	0	3	3:45 PM - 4:00 PM	3	0	0	0	0	0	3
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	14	0	0	0	0	0	14
4:15 AM - 4:30 AM	0	0	0	1	0	0	1	4:15 PM - 4:30 PM	0	0	0	0	0	0	0
4:30 AM - 4:45 AM	4	0	0	0	0	0	4	4:30 PM - 4:45 PM	12	0	0	0	0	0	12
4:45 AM - 5:00 AM	3	0	0	0	0	0	3	4:45 PM - 5:00 PM	17	0	0	0	0	0	17
5:00 AM - 5:15 AM	5	0	0	0	0	0	5	5:00 PM - 5:15 PM	15	0	0	0	0	0	15
5:15 AM - 5:30 AM	1	0	0	0	0	0	1	5:15 PM - 5:30 PM	17	0	0	0	0	0	17
5:30 AM - 5:45 AM	4	0	0	0	0	0	4	5:30 PM - 5:45 PM	18	0	0	0	0	0	18
5:45 AM - 6:00 AM	6	0	0	0	0	0	6	5:45 PM - 6:00 PM	23	0	0	0	0	0	23
6:00 AM - 6:15 AM	6	0	0	0	0	0	6	6:00 PM - 6:15 PM	14	0	0	0	0	0	14
6:15 AM - 6:30 AM	3	0	0	0	0	0	3	6:15 PM - 6:30 PM	19	0	0	0	0	0	19
6:30 AM - 6:45 AM	11	1	0	0	0	0	12	6:30 PM - 6:45 PM	16	0	0	0	0	0	16
6:45 AM - 7:00 AM	9	0	0	0	0	0	9	6:45 PM - 7:00 PM	16	1	0	0	0	0	17
7:00 AM - 7:15 AM	12	0	0	0	0	0	12	7:00 PM - 7:15 PM	19	0	0	0	0	0	19
7:15 AM - 7:30 AM	10	0	0	0	0	0	10	7:15 PM - 7:30 PM	13	0	0	0	0	0	13
7:30 AM - 7:45 AM	12	0	0	0	0	0	12	7:30 PM - 7:45 PM	17	0	0	0	0	0	17
7:45 AM - 8:00 AM	15	1	0	0	0	0	16	7:45 PM - 8:00 PM	17	0	0	0	0	0	17
8:00 AM - 8:15 AM	13	0	0	0	0	0	13	8:00 PM - 8:15 PM	10	0	0	0	0	0	10
8:15 AM - 8:30 AM	10	0	0	0	0	0	10	8:15 PM - 8:30 PM	10	0	0	0	0	0	10
8:30 AM - 8:45 AM	9	0	0	0	0	0	9	8:30 PM - 8:45 PM	9	0	0	0	0	0	9
8:45 AM - 9:00 AM	17	1	1	0	0	0	19	8:45 PM - 9:00 PM	9	0	0	0	0	0	9
9:00 AM - 9:15 AM	14	0	0	0	0	0	14	9:00 PM - 9:15 PM	7	0	0	0	0	0	7
9:15 AM - 9:30 AM	7	0	1	0	0	0	8	9:15 PM - 9:30 PM	4	0	0	0	0	0	4
9:30 AM - 9:45 AM	9	1	0	0	0	0	10	9:30 PM - 9:45 PM	11	0	0	0	0	0	11
9:45 AM - 10:00 AM	11	0	0	0	0	0	11	9:45 PM - 10:00 PM	3	0	0	0	0	0	3
10:00 AM - 10:15 AM	12	0	0	0	0	0	12	10:00 PM - 10:15 PM	5	0	0	0	0	0	5
10:15 AM - 10:30 AM	17	0	0	0	0	0	17	10:15 PM - 10:30 PM	5	0	0	0	0	0	5
10:30 AM - 10:45 AM	15	0	0	0	0	0	15	10:30 PM - 10:45 PM	3	0	0	0	0	0	3
10:45 AM - 11:00 AM	10	4	0	0	0	0	14	10:45 PM - 11:00 PM	1	0	0	0	0	0	1
11:00 AM - 11:15 AM	13	1	0	0	0	0	14	11:00 PM - 11:15 PM	3	0	0	0	0	0	3
11:15 AM - 11:30 AM	16	1	0	0	0	0	17	11:15 PM - 11:30 PM	2	0	0	0	0	0	2
11:30 AM - 11:45 AM	5	0	0	0	0	0	5	11:30 PM - 11:45 PM	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	13	0	0	0	0	0	13	11:45 PM - 12:00 AM	2	0	0	0	0	0	2
Total	303	10	2	2	0	0	317	Total	550	6	0	0	0	0	556
								Total AM + PM	853	16	2	2	0	0	873

Table B-30
Driveway 15 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	7	0	0	0	0	0	7	12:00 PM - 12:15 PM	9	0	0	0	0	0	9
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	22	0	0	0	0	0	22
12:30 AM - 12:45 AM	1	0	0	0	0	0	1	12:30 PM - 12:45 PM	10	0	0	0	0	0	10
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	15	0	0	0	0	0	15
1:00 AM - 1:15 AM	2	0	0	0	0	0	2	1:00 PM - 1:15 PM	15	0	0	0	0	0	15
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	16	2	0	0	0	0	18
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	13	0	0	0	0	0	13
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	20	1	0	0	0	0	21
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	11	0	0	0	0	0	11
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	14	0	0	0	0	0	14
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	13	0	0	0	0	0	13
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	9	0	0	0	0	0	9
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	10	1	0	0	0	0	11
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	8	0	0	0	0	0	8
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	12	1	0	0	0	0	13
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	10	0	0	0	0	0	10
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	7	0	0	0	0	0	7
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	0	0	0	0	0	0	0
4:30 AM - 4:45 AM	1	0	0	0	0	0	1	4:30 PM - 4:45 PM	10	1	0	0	0	0	11
4:45 AM - 5:00 AM	5	0	0	0	0	0	5	4:45 PM - 5:00 PM	16	0	0	0	0	0	16
5:00 AM - 5:15 AM	2	0	0	0	0	0	2	5:00 PM - 5:15 PM	12	0	0	0	0	0	12
5:15 AM - 5:30 AM	3	0	0	0	0	0	3	5:15 PM - 5:30 PM	14	0	0	0	0	0	14
5:30 AM - 5:45 AM	2	0	0	0	0	0	2	5:30 PM - 5:45 PM	19	2	0	0	0	0	21
5:45 AM - 6:00 AM	2	0	0	0	0	0	2	5:45 PM - 6:00 PM	13	0	0	0	0	0	13
6:00 AM - 6:15 AM	4	0	0	0	0	0	4	6:00 PM - 6:15 PM	16	0	0	0	0	0	16
6:15 AM - 6:30 AM	1	0	0	0	0	0	1	6:15 PM - 6:30 PM	15	0	0	0	0	0	15
6:30 AM - 6:45 AM	6	1	0	0	0	0	7	6:30 PM - 6:45 PM	15	0	0	0	0	0	15
6:45 AM - 7:00 AM	8	1	0	1	0	0	10	6:45 PM - 7:00 PM	19	0	0	0	0	0	19
7:00 AM - 7:15 AM	6	0	0	0	0	0	6	7:00 PM - 7:15 PM	16	0	0	0	0	0	16
7:15 AM - 7:30 AM	6	0	0	0	0	0	6	7:15 PM - 7:30 PM	3	0	0	0	0	0	3
7:30 AM - 7:45 AM	18	0	0	1	0	0	19	7:30 PM - 7:45 PM	13	1	0	0	0	0	14
7:45 AM - 8:00 AM	10	1	0	0	0	0	11	7:45 PM - 8:00 PM	13	0	0	0	0	0	13
8:00 AM - 8:15 AM	6	0	0	0	0	0	6	8:00 PM - 8:15 PM	14	0	0	0	0	0	14
8:15 AM - 8:30 AM	7	0	0	0	0	0	7	8:15 PM - 8:30 PM	18	0	0	0	0	0	18
8:30 AM - 8:45 AM	5	0	0	1	0	0	6	8:30 PM - 8:45 PM	16	0	0	0	0	0	16
8:45 AM - 9:00 AM	4	0	0	0	0	0	4	8:45 PM - 9:00 PM	10	0	0	0	0	0	10
9:00 AM - 9:15 AM	15	0	0	0	0	0	15	9:00 PM - 9:15 PM	8	0	0	0	0	0	8
9:15 AM - 9:30 AM	6	0	1	0	0	0	7	9:15 PM - 9:30 PM	12	0	0	0	0	0	12
9:30 AM - 9:45 AM	14	1	0	0	0	0	15	9:30 PM - 9:45 PM	5	0	0	0	0	0	5
9:45 AM - 10:00 AM	7	0	0	0	0	0	7	9:45 PM - 10:00 PM	9	0	0	0	0	0	9
10:00 AM - 10:15 AM	11	0	0	0	0	0	11	10:00 PM - 10:15 PM	6	0	0	0	0	0	6
10:15 AM - 10:30 AM	5	0	0	0	0	0	5	10:15 PM - 10:30 PM	3	0	0	0	0	0	3
10:30 AM - 10:45 AM	7	0	0	0	0	0	7	10:30 PM - 10:45 PM	3	0	0	0	0	0	3
10:45 AM - 11:00 AM	6	0	0	0	0	0	6	10:45 PM - 11:00 PM	6	0	0	0	0	0	6
11:00 AM - 11:15 AM	12	0	0	0	0	0	12	11:00 PM - 11:15 PM	4	0	0	0	0	0	4
11:15 AM - 11:30 AM	7	0	0	0	0	0	7	11:15 PM - 11:30 PM	2	0	0	0	0	0	2
11:30 AM - 11:45 AM	18	0	0	0	0	0	18	11:30 PM - 11:45 PM	2	0	0	0	0	0	2
11:45 AM - 12:00 PM	15	5	0	0	0	0	20	11:45 PM - 12:00 AM	1	0	0	0	0	0	1
Total	229	9	1	3	0	0	242	Total	527	9	0	0	0	0	536
								Total AM + PM	756	18	1	3	0	0	778

Table B-31
Driveway 16 (Tuesday, August 15, 2023) - Inbound

Inbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	0	0	0	0	0	0	0	12:00 PM - 12:15 PM	12	0	0	0	0	0	12
12:15 AM - 12:30 AM	0	0	0	0	0	0	0	12:15 PM - 12:30 PM	11	1	0	0	0	0	12
12:30 AM - 12:45 AM	0	0	0	0	0	0	0	12:30 PM - 12:45 PM	10	0	0	0	0	0	10
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	10	0	0	0	0	0	10
1:00 AM - 1:15 AM	0	0	0	0	0	0	0	1:00 PM - 1:15 PM	9	2	0	0	0	0	11
1:15 AM - 1:30 AM	1	0	0	0	0	0	1	1:15 PM - 1:30 PM	8	0	0	0	0	0	8
1:30 AM - 1:45 AM	0	0	0	0	0	0	0	1:30 PM - 1:45 PM	7	0	0	1	0	0	8
1:45 AM - 2:00 AM	0	0	0	0	0	0	0	1:45 PM - 2:00 PM	6	0	0	1	0	0	7
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	6	0	0	0	0	0	6
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	3	0	0	0	0	0	3
2:30 AM - 2:45 AM	0	0	0	0	0	0	0	2:30 PM - 2:45 PM	6	1	0	0	0	0	7
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	12	0	0	0	0	0	12
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	8	1	0	0	0	0	9
3:15 AM - 3:30 AM	0	2	0	0	0	0	2	3:15 PM - 3:30 PM	4	0	0	0	1	0	5
3:30 AM - 3:45 AM	0	0	0	0	0	0	0	3:30 PM - 3:45 PM	6	0	0	0	0	0	6
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	6	0	0	0	0	0	6
4:00 AM - 4:15 AM	1	0	0	0	0	0	1	4:00 PM - 4:15 PM	7	0	0	0	0	0	7
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	10	0	0	0	0	0	10
4:30 AM - 4:45 AM	2	0	0	0	0	0	2	4:30 PM - 4:45 PM	7	0	0	0	0	0	7
4:45 AM - 5:00 AM	3	0	0	0	0	0	3	4:45 PM - 5:00 PM	11	0	0	0	0	0	11
5:00 AM - 5:15 AM	1	0	0	0	0	0	1	5:00 PM - 5:15 PM	9	0	0	0	0	0	9
5:15 AM - 5:30 AM	3	0	0	1	0	0	4	5:15 PM - 5:30 PM	8	0	0	0	0	0	8
5:30 AM - 5:45 AM	1	0	0	0	0	0	1	5:30 PM - 5:45 PM	11	0	0	0	0	0	11
5:45 AM - 6:00 AM	1	0	0	0	0	0	1	5:45 PM - 6:00 PM	9	0	0	0	0	0	9
6:00 AM - 6:15 AM	2	0	0	0	0	0	2	6:00 PM - 6:15 PM	8	0	0	0	0	0	8
6:15 AM - 6:30 AM	2	0	0	0	0	0	2	6:15 PM - 6:30 PM	8	0	0	0	0	0	8
6:30 AM - 6:45 AM	3	0	0	0	0	0	3	6:30 PM - 6:45 PM	3	0	0	0	0	0	3
6:45 AM - 7:00 AM	1	0	0	0	0	0	1	6:45 PM - 7:00 PM	6	0	0	0	0	0	6
7:00 AM - 7:15 AM	4	0	0	0	0	0	4	7:00 PM - 7:15 PM	5	0	0	0	0	0	5
7:15 AM - 7:30 AM	4	0	0	0	0	0	4	7:15 PM - 7:30 PM	6	0	0	0	0	0	6
7:30 AM - 7:45 AM	10	0	0	0	0	0	10	7:30 PM - 7:45 PM	11	0	0	0	0	0	11
7:45 AM - 8:00 AM	10	0	0	0	0	0	10	7:45 PM - 8:00 PM	5	0	0	0	0	0	5
8:00 AM - 8:15 AM	7	0	0	1	0	0	8	8:00 PM - 8:15 PM	2	0	0	0	0	0	2
8:15 AM - 8:30 AM	7	1	0	1	0	0	9	8:15 PM - 8:30 PM	7	0	0	0	0	0	7
8:30 AM - 8:45 AM	12	0	0	0	0	0	12	8:30 PM - 8:45 PM	3	0	0	0	0	0	3
8:45 AM - 9:00 AM	13	1	0	0	0	0	14	8:45 PM - 9:00 PM	2	0	0	0	0	0	2
9:00 AM - 9:15 AM	6	0	0	0	0	0	6	9:00 PM - 9:15 PM	2	0	0	0	0	0	2
9:15 AM - 9:30 AM	6	0	0	0	0	0	6	9:15 PM - 9:30 PM	2	0	0	0	0	0	2
9:30 AM - 9:45 AM	8	0	0	0	0	0	8	9:30 PM - 9:45 PM	1	0	0	0	0	0	1
9:45 AM - 10:00 AM	8	0	0	0	0	0	8	9:45 PM - 10:00 PM	3	0	0	0	0	0	3
10:00 AM - 10:15 AM	2	0	0	0	0	0	2	10:00 PM - 10:15 PM	1	0	0	0	0	0	1
10:15 AM - 10:30 AM	12	0	0	0	0	0	12	10:15 PM - 10:30 PM	2	0	0	0	0	0	2
10:30 AM - 10:45 AM	8	0	0	0	0	0	8	10:30 PM - 10:45 PM	1	0	0	0	0	0	1
10:45 AM - 11:00 AM	5	1	0	0	0	0	6	10:45 PM - 11:00 PM	1	0	0	0	0	0	1
11:00 AM - 11:15 AM	1	0	0	0	0	0	1	11:00 PM - 11:15 PM	1	0	0	0	0	0	1
11:15 AM - 11:30 AM	15	0	0	0	0	0	15	11:15 PM - 11:30 PM	0	0	0	0	0	0	0
11:30 AM - 11:45 AM	12	1	0	0	0	0	13	11:30 PM - 11:45 PM	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	11	1	0	0	0	0	12	11:45 PM - 12:00 AM	0	0	0	0	0	0	0
Total	182	7	0	3	0	0	192	Total	276	5	0	2	1	0	284
								Total AM + PM	458	12	0	5	1	0	476

Table B-32
Driveway 16 (Tuesday, August 15, 2023) - Outbound

Outbound																
	Number of Vehicles								Number of Vehicles							
Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total	Time Period	Passenger Car	2-Axle Trucks	3-Axle Trucks	4+-Axle Trucks	RV	Buses	Total
12:00 AM - 12:15 AM	1	0	0	0	0	0	1	12:00 PM - 12:15 PM	9	0	0	0	0	0	9
12:15 AM - 12:30 AM	1	0	0	0	0	0	1	12:15 PM - 12:30 PM	13	0	0	0	0	0	13
12:30 AM - 12:45 AM	1	0	0	0	0	0	1	12:30 PM - 12:45 PM	11	0	0	0	0	0	11
12:45 AM - 1:00 AM	0	0	0	0	0	0	0	12:45 PM - 1:00 PM	14	0	0	0	0	0	14
1:00 AM - 1:15 AM	1	0	0	0	0	0	1	1:00 PM - 1:15 PM	13	3	0	0	0	0	16
1:15 AM - 1:30 AM	0	0	0	0	0	0	0	1:15 PM - 1:30 PM	6	1	0	0	0	0	7
1:30 AM - 1:45 AM	2	0	0	0	0	0	2	1:30 PM - 1:45 PM	8	0	0	0	0	0	8
1:45 AM - 2:00 AM	2	0	0	0	0	0	2	1:45 PM - 2:00 PM	9	0	0	0	0	0	9
2:00 AM - 2:15 AM	0	0	0	0	0	0	0	2:00 PM - 2:15 PM	6	0	0	1	0	0	7
2:15 AM - 2:30 AM	0	0	0	0	0	0	0	2:15 PM - 2:30 PM	15	0	0	0	0	0	15
2:30 AM - 2:45 AM	0	0	0	1	0	0	1	2:30 PM - 2:45 PM	5	0	0	1	0	0	6
2:45 AM - 3:00 AM	0	0	0	0	0	0	0	2:45 PM - 3:00 PM	7	0	0	0	0	0	7
3:00 AM - 3:15 AM	0	0	0	0	0	0	0	3:00 PM - 3:15 PM	7	0	0	0	0	0	7
3:15 AM - 3:30 AM	0	0	0	0	0	0	0	3:15 PM - 3:30 PM	7	0	0	0	0	0	7
3:30 AM - 3:45 AM	0	2	0	0	0	0	2	3:30 PM - 3:45 PM	8	0	1	0	0	0	9
3:45 AM - 4:00 AM	0	0	0	0	0	0	0	3:45 PM - 4:00 PM	7	0	0	0	0	0	7
4:00 AM - 4:15 AM	0	0	0	0	0	0	0	4:00 PM - 4:15 PM	4	0	0	0	0	0	4
4:15 AM - 4:30 AM	0	0	0	0	0	0	0	4:15 PM - 4:30 PM	5	1	0	0	0	0	6
4:30 AM - 4:45 AM	0	0	0	0	0	0	0	4:30 PM - 4:45 PM	7	0	0	0	1	0	8
4:45 AM - 5:00 AM	2	0	0	0	0	0	2	4:45 PM - 5:00 PM	7	0	0	0	0	0	7
5:00 AM - 5:15 AM	3	0	0	0	0	0	3	5:00 PM - 5:15 PM	6	0	0	0	0	0	6
5:15 AM - 5:30 AM	2	0	0	0	0	0	2	5:15 PM - 5:30 PM	5	0	0	0	0	0	5
5:30 AM - 5:45 AM	2	0	0	0	0	0	2	5:30 PM - 5:45 PM	7	0	0	0	0	0	7
5:45 AM - 6:00 AM	1	0	0	0	0	0	1	5:45 PM - 6:00 PM	9	0	0	0	0	0	9
6:00 AM - 6:15 AM	5	0	0	0	0	0	5	6:00 PM - 6:15 PM	12	0	0	0	0	0	12
6:15 AM - 6:30 AM	1	0	0	0	0	0	1	6:15 PM - 6:30 PM	4	0	0	0	0	0	4
6:30 AM - 6:45 AM	4	0	0	0	0	0	4	6:30 PM - 6:45 PM	5	0	0	0	0	0	5
6:45 AM - 7:00 AM	2	0	0	0	0	0	2	6:45 PM - 7:00 PM	6	0	0	0	0	0	6
7:00 AM - 7:15 AM	6	0	0	0	0	0	6	7:00 PM - 7:15 PM	6	0	0	0	0	0	6
7:15 AM - 7:30 AM	2	0	0	0	0	0	2	7:15 PM - 7:30 PM	6	0	0	0	0	0	6
7:30 AM - 7:45 AM	2	0	0	0	0	0	2	7:30 PM - 7:45 PM	9	0	0	0	0	0	9
7:45 AM - 8:00 AM	5	0	0	0	0	0	5	7:45 PM - 8:00 PM	4	0	0	0	0	0	4
8:00 AM - 8:15 AM	5	0	0	0	0	0	5	8:00 PM - 8:15 PM	4	1	0	0	0	0	5
8:15 AM - 8:30 AM	6	0	0	0	0	0	6	8:15 PM - 8:30 PM	7	0	0	0	0	0	7
8:30 AM - 8:45 AM	8	0	0	0	0	0	8	8:30 PM - 8:45 PM	9	0	0	0	0	0	9
8:45 AM - 9:00 AM	4	0	1	1	0	0	6	8:45 PM - 9:00 PM	4	0	0	0	0	0	4
9:00 AM - 9:15 AM	7	0	0	0	0	0	7	9:00 PM - 9:15 PM	2	0	0	0	0	0	2
9:15 AM - 9:30 AM	5	1	0	0	0	0	6	9:15 PM - 9:30 PM	2	0	0	0	0	0	2
9:30 AM - 9:45 AM	6	0	0	0	0	0	6	9:30 PM - 9:45 PM	3	0	0	0	0	0	3
9:45 AM - 10:00 AM	5	0	1	0	0	0	6	9:45 PM - 10:00 PM	3	0	0	0	0	0	3
10:00 AM - 10:15 AM	5	0	0	0	0	0	5	10:00 PM - 10:15 PM	5	0	0	0	0	0	5
10:15 AM - 10:30 AM	9	0	0	0	0	0	9	10:15 PM - 10:30 PM	3	0	0	0	0	0	3
10:30 AM - 10:45 AM	5	0	0	0	0	0	5	10:30 PM - 10:45 PM	5	0	0	0	0	0	5
10:45 AM - 11:00 AM	6	1	0	0	0	0	7	10:45 PM - 11:00 PM	3	0	0	0	0	0	3
11:00 AM - 11:15 AM	10	0	0	0	0	0	10	11:00 PM - 11:15 PM	1	0	0	0	0	0	1
11:15 AM - 11:30 AM	6	0	0	0	0	0	6	11:15 PM - 11:30 PM	3	0	0	0	0	0	3
11:30 AM - 11:45 AM	14	0	0	0	0	0	14	11:30 PM - 11:45 PM	0	0	0	0	0	0	0
11:45 AM - 12:00 PM	6	1	0	0	0	0	7	11:45 PM - 12:00 AM	0	0	0	0	0	0	0
Total	152	5	2	2	0	0	161	Total	301	6	1	2	1	0	311
								Total AM + PM	453	11	3	4	1	0	472

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY1 Western dwy south of Bear Valley Rd (west of Mall Blvd)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	47	0	0	0	0	0	47
0:15	4	0	0	0	0	0	4	12:15	45	2	0	0	0	0	47
0:30	0	0	0	0	0	0	0	12:30	58	0	0	0	0	0	58
0:45	0	0	0	1	0	0	1	12:45	46	4	0	0	0	0	50
1:00	0	0	0	0	0	0	0	13:00	53	0	0	0	0	0	53
1:15	0	0	0	0	0	0	0	13:15	60	0	0	0	1	0	61
1:30	0	0	0	1	0	0	1	13:30	35	2	1	1	0	0	39
1:45	2	0	0	0	0	0	2	13:45	48	1	1	0	0	0	50
2:00	0	0	0	0	0	0	0	14:00	42	0	0	0	0	0	42
2:15	1	0	0	0	0	0	1	14:15	51	3	0	0	0	0	54
2:30	0	0	0	0	0	0	0	14:30	33	1	1	0	0	0	35
2:45	0	0	0	0	0	0	0	14:45	60	0	0	0	0	0	60
3:00	0	0	0	0	0	0	0	15:00	40	0	0	0	0	0	40
3:15	2	1	0	0	0	0	3	15:15	56	0	0	0	0	0	56
3:30	1	0	0	1	0	0	2	15:30	68	2	0	0	0	0	70
3:45	2	0	0	0	0	0	2	15:45	59	0	0	0	0	0	59
4:00	0	0	0	0	0	0	0	16:00	40	0	0	0	0	0	40
4:15	2	0	0	0	0	0	2	16:15	46	1	1	0	0	0	48
4:30	3	0	0	0	0	0	3	16:30	58	0	0	0	0	0	58
4:45	7	0	0	0	0	0	7	16:45	56	1	0	0	0	0	57
5:00	1	3	0	0	0	0	4	17:00	47	0	0	0	0	0	47
5:15	4	0	0	0	0	0	4	17:15	47	0	0	0	0	0	47
5:30	7	0	0	0	0	0	7	17:30	44	0	0	0	0	0	44
5:45	7	0	0	0	0	0	7	17:45	51	1	0	0	0	0	52
6:00	3	0	0	1	0	0	4	18:00	38	1	1	1	0	0	41
6:15	8	0	0	0	0	0	8	18:15	50	0	0	0	0	0	50
6:30	15	0	0	0	0	0	15	18:30	50	1	0	0	0	0	51
6:45	17	1	2	0	0	0	20	18:45	37	0	0	1	0	0	38
7:00	13	0	1	0	1	0	15	19:00	33	1	0	0	0	0	34
7:15	18	1	0	0	0	0	19	19:15	36	0	0	0	0	0	36
7:30	14	1	0	0	0	0	15	19:30	38	0	0	0	0	0	38
7:45	25	0	0	0	0	0	25	19:45	27	0	0	0	0	0	27
8:00	20	1	0	0	0	0	21	20:00	28	0	0	0	0	0	28
8:15	19	0	0	1	0	0	20	20:15	25	0	0	1	0	0	26
8:30	29	0	0	1	0	0	30	20:30	20	0	0	0	0	0	20
8:45	38	0	0	0	0	0	38	20:45	22	0	0	0	0	0	22
9:00	45	1	0	2	0	0	48	21:00	14	0	0	0	0	0	14
9:15	46	2	0	0	0	0	48	21:15	7	0	0	0	0	0	7
9:30	37	1	0	1	0	0	39	21:30	7	0	0	1	0	0	8
9:45	42	2	0	1	0	0	45	21:45	13	0	0	1	0	0	14
10:00	54	1	0	1	0	0	56	22:00	6	0	0	0	0	0	6
10:15	46	1	0	0	0	1	48	22:15	5	0	0	1	0	0	6
10:30	46	1	1	0	0	0	48	22:30	10	0	0	0	0	0	10
10:45	40	2	1	0	0	0	43	22:45	6	0	0	0	0	0	6
11:00	45	0	0	0	0	0	45	23:00	6	0	0	0	0	0	6
11:15	52	0	0	1	0	0	53	23:15	4	0	0	0	0	0	4
11:30	42	3	0	1	0	1	47	23:30	1	0	0	0	0	0	1
11:45	51	1	0	0	0	0	52	23:45	1	0	0	0	0	0	1
TOTAL	808	23	5	13	1	2	852	**TOTAL**	1,674	21	5	7	1	0	1,708

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	197

AM PEAK HOUR	2:45 PM
AM PEAK VOLUME	226

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	2,482	44	10	20	2	2	2,560
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	97.0%	1.7%	0.4%	0.8%	0.1%	0.1%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	**TOTAL: ALL**	5,485	86	18	38	2	4	5,633
CLASS 6	Buses	**% OF TOTAL**	97.4%	1.5%	0.3%	0.7%	0.0%	0.1%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY1 Western dwy south of Bear Valley Rd (west of Mall Blvd)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	9	0	0	0	0	0	9
0:15	3	0	0	0	0	0	3
0:30	4	0	0	0	0	0	4
0:45	0	0	0	0	0	0	0
1:00	3	0	0	0	0	0	3
1:15	4	0	0	0	0	0	4
1:30	0	0	0	0	0	0	0
1:45	0	0	0	1	0	0	1
2:00	1	0	0	0	0	0	1
2:15	0	0	0	1	0	0	1
2:30	1	0	0	0	0	0	1
2:45	1	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0
3:30	3	0	0	0	0	0	3
3:45	2	1	0	0	0	0	3
4:00	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0
4:45	1	0	0	0	0	0	1
5:00	1	0	0	0	0	0	1
5:15	1	0	0	0	0	0	1
5:30	3	2	0	0	0	0	5
5:45	1	0	0	0	0	0	1
6:00	1	0	0	1	0	0	2
6:15	6	0	0	0	0	0	6
6:30	3	0	0	0	0	0	3
6:45	9	1	1	0	0	0	11
7:00	10	1	0	0	0	0	11
7:15	17	1	0	0	0	0	18
7:30	16	1	0	0	0	0	17
7:45	21	1	0	1	0	0	23
8:00	14	0	0	0	0	0	14
8:15	23	1	0	1	0	0	25
8:30	23	0	1	1	0	0	25
8:45	30	0	0	1	0	0	31
9:00	30	0	1	1	0	1	33
9:15	26	0	0	0	0	0	26
9:30	39	1	0	0	0	0	40
9:45	43	0	0	1	0	0	44
10:00	36	2	0	0	0	0	38
10:15	35	1	0	1	0	0	37
10:30	46	3	1	1	0	0	51
10:45	57	1	0	0	0	0	58
11:00	51	1	0	0	0	0	52
11:15	56	1	0	0	0	0	57
11:30	35	0	0	0	0	0	35
11:45	47	0	0	0	0	1	48
TOTAL	712	19	4	11	0	2	748

AM PEAK HOUR	10:30 AM
AM PEAK VOLUME	218

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	63	0	0	0	0	0	63
12:15	66	2	0	0	0	0	68
12:30	63	0	0	0	0	0	63
12:45	67	1	0	1	0	0	69
13:00	56	0	0	0	0	0	56
13:15	59	0	0	0	0	0	59
13:30	58	0	0	0	0	0	58
13:45	59	1	1	2	0	0	63
14:00	59	1	0	0	0	0	60
14:15	67	0	0	0	0	0	67
14:30	54	1	1	0	0	0	56
14:45	64	3	1	0	0	0	68
15:00	55	1	0	0	0	0	56
15:15	55	0	0	0	0	0	55
15:30	62	1	0	0	0	0	63
15:45	65	2	0	0	0	0	67
16:00	59	1	0	0	0	0	60
16:15	75	0	0	0	0	0	75
16:30	64	0	1	1	0	0	66
16:45	66	1	0	0	0	0	67
17:00	62	1	0	0	0	0	63
17:15	59	0	0	1	0	0	60
17:30	57	0	0	0	0	0	57
17:45	64	1	0	0	0	0	65
18:00	68	2	0	0	0	0	70
18:15	64	1	0	0	0	0	65
18:30	71	0	0	0	0	0	71
18:45	44	0	0	0	0	0	44
19:00	52	1	0	0	0	0	53
19:15	59	0	0	0	0	0	59
19:30	46	1	0	0	0	0	47
19:45	49	0	0	0	0	0	49
20:00	56	0	0	0	0	0	56
20:15	53	0	0	0	0	0	53
20:30	45	0	0	0	0	0	45
20:45	38	0	0	0	0	0	38
21:00	33	0	0	0	0	0	33
21:15	22	0	0	0	0	0	22
21:30	21	0	0	0	0	0	21
21:45	16	0	0	0	0	0	16
22:00	20	0	0	0	0	0	20
22:15	10	0	0	1	0	0	11
22:30	9	0	0	0	0	0	9
22:45	10	1	0	1	0	0	12
23:00	15	0	0	0	0	0	15
23:15	7	0	0	0	0	0	7
23:30	3	0	0	0	0	0	3
23:45	2	0	0	0	0	0	2
TOTAL	2,291	23	4	7	0	0	2,325

AM PEAK HOUR	5:45 PM
AM PEAK VOLUME	271

TOTAL: AM+PM	3,003	42	8	18	0	2	3,073
% OF TOTAL	97.7%	1.4%	0.3%	0.6%	0.0%	0.1%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY1 Western dwy south of Bear Valley Rd (west of Mall Blvd)

AM	COMBINED						
TIME	1	2	3	4	5	6	TOTAL
0:00	9	0	0	0	0	0	9
0:15	7	0	0	0	0	0	7
0:30	4	0	0	0	0	0	4
0:45	0	0	0	1	0	0	1
1:00	3	0	0	0	0	0	3
1:15	4	0	0	0	0	0	4
1:30	0	0	0	1	0	0	1
1:45	2	0	0	1	0	0	3
2:00	1	0	0	0	0	0	1
2:15	1	0	0	1	0	0	2
2:30	1	0	0	0	0	0	1
2:45	1	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0
3:15	2	1	0	0	0	0	3
3:30	4	0	0	1	0	0	5
3:45	4	1	0	0	0	0	5
4:00	0	0	0	0	0	0	0
4:15	2	0	0	0	0	0	2
4:30	3	0	0	0	0	0	3
4:45	8	0	0	0	0	0	8
5:00	2	3	0	0	0	0	5
5:15	5	0	0	0	0	0	5
5:30	10	2	0	0	0	0	12
5:45	8	0	0	0	0	0	8
6:00	4	0	0	2	0	0	6
6:15	14	0	0	0	0	0	14
6:30	18	0	0	0	0	0	18
6:45	26	2	3	0	0	0	31
7:00	23	1	1	0	1	0	26
7:15	35	2	0	0	0	0	37
7:30	30	2	0	0	0	0	32
7:45	46	1	0	1	0	0	48
8:00	34	1	0	0	0	0	35
8:15	42	1	0	2	0	0	45
8:30	52	0	1	2	0	0	55
8:45	68	0	0	1	0	0	69
9:00	75	1	1	3	0	1	81
9:15	72	2	0	0	0	0	74
9:30	76	2	0	1	0	0	79
9:45	85	2	0	2	0	0	89
10:00	90	3	0	1	0	0	94
10:15	81	2	0	1	0	1	85
10:30	92	4	2	1	0	0	99
10:45	97	3	1	0	0	0	101
11:00	96	1	0	0	0	0	97
11:15	108	1	0	1	0	0	110
11:30	77	3	0	1	0	1	82
11:45	98	1	0	0	0	1	100
TOTAL	1,520	42	9	24	1	4	1,600

AM PEAK HOUR	10:30 AM
AM PEAK VOLUME	407

PM	COMBINED						
Time	1	2	3	4	5	6	TOTAL
12:00	110	0	0	0	0	0	110
12:15	111	4	0	0	0	0	115
12:30	121	0	0	0	0	0	121
12:45	113	5	0	1	0	0	119
13:00	109	0	0	0	0	0	109
13:15	119	0	0	0	1	0	120
13:30	93	2	1	1	0	0	97
13:45	107	2	2	2	0	0	113
14:00	101	1	0	0	0	0	102
14:15	118	3	0	0	0	0	121
14:30	87	2	2	0	0	0	91
14:45	124	3	1	0	0	0	128
15:00	95	1	0	0	0	0	96
15:15	111	0	0	0	0	0	111
15:30	130	3	0	0	0	0	133
15:45	124	2	0	0	0	0	126
16:00	99	1	0	0	0	0	100
16:15	121	1	1	0	0	0	123
16:30	122	0	1	1	0	0	124
16:45	122	2	0	0	0	0	124
17:00	109	1	0	0	0	0	110
17:15	106	0	0	1	0	0	107
17:30	101	0	0	0	0	0	101
17:45	115	2	0	0	0	0	117
18:00	106	3	1	1	0	0	111
18:15	114	1	0	0	0	0	115
18:30	121	1	0	0	0	0	122
18:45	81	0	0	1	0	0	82
19:00	85	2	0	0	0	0	87
19:15	95	0	0	0	0	0	95
19:30	84	1	0	0	0	0	85
19:45	76	0	0	0	0	0	76
20:00	84	0	0	0	0	0	84
20:15	78	0	0	1	0	0	79
20:30	65	0	0	0	0	0	65
20:45	60	0	0	0	0	0	60
21:00	47	0	0	0	0	0	47
21:15	29	0	0	0	0	0	29
21:30	28	0	0	1	0	0	29
21:45	29	0	0	1	0	0	30
22:00	26	0	0	0	0	0	26
22:15	15	0	0	2	0	0	17
22:30	19	0	0	0	0	0	19
22:45	16	1	0	1	0	0	18
23:00	21	0	0	0	0	0	21
23:15	11	0	0	0	0	0	11
23:30	4	0	0	0	0	0	4
23:45	3	0	0	0	0	0	3
TOTAL	3,965	44	9	14	1	0	4,033

AM PEAK HOUR	3:30 PM
AM PEAK VOLUME	482

TOTAL: AM+PM	5,485	86	18	38	2	4	5,633
% OF TOTAL	97.4%	1.5%	0.3%	0.7%	0.0%	0.1%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY2 Middle dwy south of Bear Valley Rd (west of Mall Blvd)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	0	0	0	0	0	0	0
0:15	1	0	0	0	0	0	1	12:15	2	0	0	0	0	0	2
0:30	0	0	0	0	0	0	0	12:30	1	0	0	0	0	0	1
0:45	0	0	0	0	0	0	0	12:45	2	0	0	0	0	0	2
1:00	0	0	0	0	0	0	0	13:00	1	0	0	0	0	0	1
1:15	0	0	0	0	0	0	0	13:15	3	0	0	0	0	0	3
1:30	0	0	0	0	0	0	0	13:30	2	0	0	0	0	0	2
1:45	0	0	0	0	0	0	0	13:45	3	1	0	0	0	0	4
2:00	0	0	0	0	0	0	0	14:00	2	0	0	0	0	0	2
2:15	0	0	0	0	0	0	0	14:15	0	1	0	0	0	0	1
2:30	0	0	0	0	0	0	0	14:30	1	0	0	0	0	0	1
2:45	0	0	0	0	0	0	0	14:45	1	0	0	0	0	0	1
3:00	0	0	0	0	0	0	0	15:00	2	0	0	0	0	0	2
3:15	0	0	0	0	0	0	0	15:15	1	0	0	0	0	0	1
3:30	0	0	0	0	0	0	0	15:30	1	0	0	0	0	0	1
3:45	2	0	0	0	0	0	2	15:45	3	0	0	0	0	0	3
4:00	0	1	0	0	0	0	1	16:00	2	0	0	0	0	0	2
4:15	0	0	0	0	0	0	0	16:15	1	0	0	0	0	0	1
4:30	0	0	0	0	0	0	0	16:30	1	0	0	0	0	0	1
4:45	1	0	0	0	0	0	1	16:45	2	0	0	0	0	0	2
5:00	0	0	0	0	0	0	0	17:00	1	0	0	0	0	0	1
5:15	0	0	0	0	0	0	0	17:15	3	0	0	0	0	0	3
5:30	0	0	0	0	0	0	0	17:30	1	0	0	0	0	0	1
5:45	0	0	0	0	0	0	0	17:45	3	0	0	0	0	0	3
6:00	0	0	0	0	0	0	0	18:00	3	0	0	0	0	0	3
6:15	1	0	0	0	0	0	1	18:15	1	0	0	0	0	0	1
6:30	0	0	0	0	0	0	0	18:30	3	0	0	0	0	0	3
6:45	1	0	0	0	0	0	1	18:45	3	0	0	0	0	0	3
7:00	0	0	0	0	0	0	0	19:00	4	0	0	0	0	0	4
7:15	0	0	0	0	0	0	0	19:15	2	0	0	0	0	0	2
7:30	0	0	0	0	0	0	0	19:30	1	0	0	0	0	0	1
7:45	1	0	0	0	0	0	1	19:45	2	0	0	0	0	0	2
8:00	0	0	0	0	0	0	0	20:00	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0	20:15	1	0	0	0	0	0	1
8:30	0	0	0	0	0	0	0	20:30	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0	20:45	0	0	0	0	0	0	0
9:00	2	0	0	0	0	0	2	21:00	0	0	0	0	0	0	0
9:15	2	0	0	0	0	0	2	21:15	2	0	0	0	0	0	2
9:30	2	0	0	0	1	0	3	21:30	1	0	0	0	0	0	1
9:45	1	0	0	0	0	0	1	21:45	0	0	0	0	0	0	0
10:00	1	0	0	0	0	0	1	22:00	0	0	0	0	0	0	0
10:15	2	0	0	0	0	0	2	22:15	0	0	0	0	0	0	0
10:30	5	0	0	0	0	0	5	22:30	0	0	0	0	0	0	0
10:45	2	0	0	0	0	0	2	22:45	0	0	0	0	0	0	0
11:00	2	0	0	0	0	0	2	23:00	0	0	0	0	0	0	0
11:15	5	0	0	0	0	0	5	23:15	0	0	0	0	0	0	0
11:30	2	0	0	0	0	0	2	23:30	0	0	0	0	0	0	0
11:45	2	0	0	0	0	0	2	23:45	0	0	0	0	0	0	0
TOTAL	35	1	0	0	1	0	37	TOTAL	62	2	0	0	0	0	64

AM PEAK HOUR	10:30 AM
AM PEAK VOLUME	14

AM PEAK HOUR	6:30 PM
AM PEAK VOLUME	12

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	97	3	0	0	1	0	101
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	96.0%	3.0%	0.0%	0.0%	1.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	335	10	0	1	1	0	347
CLASS 6	Buses	% OF TOTAL	96.5%	2.9%	0.0%	0.3%	0.3%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY2 Middle dwy south of Bear Valley Rd (west of Mall Blvd)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0
0:15	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0
4:45	1	0	0	0	0	0	1
5:00	0	0	0	0	0	0	0
5:15	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0
6:00	1	0	0	0	0	0	1
6:15	0	0	0	0	0	0	0
6:30	1	0	0	0	0	0	1
6:45	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0
9:00	0	0	0	0	0	0	0
9:15	1	0	0	0	0	0	1
9:30	2	0	0	0	0	0	2
9:45	3	0	0	0	0	0	3
10:00	2	0	0	0	0	0	2
10:15	3	0	0	0	0	0	3
10:30	4	0	0	0	0	0	4
10:45	5	1	0	0	0	0	6
11:00	1	0	0	0	0	0	1
11:15	4	0	0	0	0	0	4
11:30	7	0	0	0	0	0	7
11:45	5	0	0	0	0	0	5
TOTAL	40	1	0	0	0	0	41

AM PEAK HOUR	10:45 AM
AM PEAK VOLUME	18

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	2	0	0	0	0	0	2
12:15	5	0	0	0	0	0	5
12:30	5	0	0	1	0	0	6
12:45	6	0	0	0	0	0	6
13:00	10	0	0	0	0	0	10
13:15	4	0	0	0	0	0	4
13:30	10	0	0	0	0	0	10
13:45	4	0	0	0	0	0	4
14:00	3	1	0	0	0	0	4
14:15	5	1	0	0	0	0	6
14:30	11	0	0	0	0	0	11
14:45	3	1	0	0	0	0	4
15:00	5	0	0	0	0	0	5
15:15	5	0	0	0	0	0	5
15:30	3	0	0	0	0	0	3
15:45	5	1	0	0	0	0	6
16:00	6	0	0	0	0	0	6
16:15	3	0	0	0	0	0	3
16:30	3	0	0	0	0	0	3
16:45	3	0	0	0	0	0	3
17:00	6	0	0	0	0	0	6
17:15	8	0	0	0	0	0	8
17:30	6	1	0	0	0	0	7
17:45	4	0	0	0	0	0	4
18:00	12	0	0	0	0	0	12
18:15	5	0	0	0	0	0	5
18:30	6	0	0	0	0	0	6
18:45	7	0	0	0	0	0	7
19:00	9	0	0	0	0	0	9
19:15	2	0	0	0	0	0	2
19:30	2	0	0	0	0	0	2
19:45	0	0	0	0	0	0	0
20:00	9	0	0	0	0	0	9
20:15	4	0	0	0	0	0	4
20:30	3	0	0	0	0	0	3
20:45	6	0	0	0	0	0	6
21:00	0	1	0	0	0	0	1
21:15	1	0	0	0	0	0	1
21:30	1	0	0	0	0	0	1
21:45	1	0	0	0	0	0	1
22:00	3	0	0	0	0	0	3
22:15	0	0	0	0	0	0	0
22:30	2	0	0	0	0	0	2
22:45	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0
23:15	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0
TOTAL	198	6	0	1	0	0	205

AM PEAK HOUR	5:15 PM
AM PEAK VOLUME	31

TOTAL: AM+PM	238	7	0	1	0	0	246
% OF TOTAL	96.7%	2.8%	0.0%	0.4%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY2 Middle dwy south of Bear Valley Rd (west of Mall Blvd)

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	2	0	0	0	0	0	2
0:15	1	0	0	0	0	0	1	12:15	7	0	0	0	0	0	7
0:30	0	0	0	0	0	0	0	12:30	6	0	0	1	0	0	7
0:45	0	0	0	0	0	0	0	12:45	8	0	0	0	0	0	8
1:00	0	0	0	0	0	0	0	13:00	11	0	0	0	0	0	11
1:15	0	0	0	0	0	0	0	13:15	7	0	0	0	0	0	7
1:30	0	0	0	0	0	0	0	13:30	12	0	0	0	0	0	12
1:45	0	0	0	0	0	0	0	13:45	7	1	0	0	0	0	8
2:00	0	0	0	0	0	0	0	14:00	5	1	0	0	0	0	6
2:15	0	0	0	0	0	0	0	14:15	5	2	0	0	0	0	7
2:30	0	0	0	0	0	0	0	14:30	12	0	0	0	0	0	12
2:45	0	0	0	0	0	0	0	14:45	4	1	0	0	0	0	5
3:00	0	0	0	0	0	0	0	15:00	7	0	0	0	0	0	7
3:15	0	0	0	0	0	0	0	15:15	6	0	0	0	0	0	6
3:30	0	0	0	0	0	0	0	15:30	4	0	0	0	0	0	4
3:45	2	0	0	0	0	0	2	15:45	8	1	0	0	0	0	9
4:00	0	1	0	0	0	0	1	16:00	8	0	0	0	0	0	8
4:15	0	0	0	0	0	0	0	16:15	4	0	0	0	0	0	4
4:30	0	0	0	0	0	0	0	16:30	4	0	0	0	0	0	4
4:45	2	0	0	0	0	0	2	16:45	5	0	0	0	0	0	5
5:00	0	0	0	0	0	0	0	17:00	7	0	0	0	0	0	7
5:15	0	0	0	0	0	0	0	17:15	11	0	0	0	0	0	11
5:30	0	0	0	0	0	0	0	17:30	7	1	0	0	0	0	8
5:45	0	0	0	0	0	0	0	17:45	7	0	0	0	0	0	7
6:00	1	0	0	0	0	0	1	18:00	15	0	0	0	0	0	15
6:15	1	0	0	0	0	0	1	18:15	6	0	0	0	0	0	6
6:30	1	0	0	0	0	0	1	18:30	9	0	0	0	0	0	9
6:45	1	0	0	0	0	0	1	18:45	10	0	0	0	0	0	10
7:00	0	0	0	0	0	0	0	19:00	13	0	0	0	0	0	13
7:15	0	0	0	0	0	0	0	19:15	4	0	0	0	0	0	4
7:30	0	0	0	0	0	0	0	19:30	3	0	0	0	0	0	3
7:45	1	0	0	0	0	0	1	19:45	2	0	0	0	0	0	2
8:00	0	0	0	0	0	0	0	20:00	9	0	0	0	0	0	9
8:15	0	0	0	0	0	0	0	20:15	5	0	0	0	0	0	5
8:30	0	0	0	0	0	0	0	20:30	3	0	0	0	0	0	3
8:45	0	0	0	0	0	0	0	20:45	6	0	0	0	0	0	6
9:00	2	0	0	0	0	0	2	21:00	0	1	0	0	0	0	1
9:15	3	0	0	0	0	0	3	21:15	3	0	0	0	0	0	3
9:30	4	0	0	0	1	0	5	21:30	2	0	0	0	0	0	2
9:45	4	0	0	0	0	0	4	21:45	1	0	0	0	0	0	1
10:00	3	0	0	0	0	0	3	22:00	3	0	0	0	0	0	3
10:15	5	0	0	0	0	0	5	22:15	0	0	0	0	0	0	0
10:30	9	0	0	0	0	0	9	22:30	2	0	0	0	0	0	2
10:45	7	1	0	0	0	0	8	22:45	0	0	0	0	0	0	0
11:00	3	0	0	0	0	0	3	23:00	0	0	0	0	0	0	0
11:15	9	0	0	0	0	0	9	23:15	0	0	0	0	0	0	0
11:30	9	0	0	0	0	0	9	23:30	0	0	0	0	0	0	0
11:45	7	0	0	0	0	0	7	23:45	0	0	0	0	0	0	0
TOTAL	75	2	0	0	1	0	78	**TOTAL**	260	8	0	1	0	0	269

AM PEAK HOUR	10:45 AM
AM PEAK VOLUME	29

AM PEAK HOUR	5:15 PM
AM PEAK VOLUME	41

		1	2	3	4	5	6	TOTAL
TOTAL: AM+PM		335	10	0	1	1	0	347
% OF TOTAL		96.5%	2.9%	0.0%	0.3%	0.3%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY3 Estern dwy south of Bear Valley Rd (west of Mall Blvd)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	99	4	0	1	0	1	105
0:15	4	0	0	0	0	0	4	12:15	99	1	1	0	0	1	102
0:30	1	0	0	0	0	0	1	12:30	106	5	1	2	0	1	115
0:45	1	0	0	1	0	0	2	12:45	93	1	0	0	0	0	94
1:00	1	0	0	0	0	0	1	13:00	92	3	0	0	0	1	96
1:15	4	0	0	1	0	0	5	13:15	81	2	0	0	0	1	84
1:30	1	0	0	0	0	0	1	13:30	101	1	0	1	0	0	103
1:45	1	0	0	0	0	0	1	13:45	83	2	0	1	0	0	86
2:00	0	0	0	0	0	0	0	14:00	76	6	0	1	0	1	84
2:15	1	0	0	0	0	0	1	14:15	79	0	2	0	0	1	82
2:30	3	0	0	1	0	0	4	14:30	80	2	2	2	0	1	87
2:45	1	0	0	2	0	0	3	14:45	79	3	0	1	0	0	83
3:00	0	0	0	0	0	0	0	15:00	74	2	0	0	0	0	76
3:15	0	0	0	0	0	0	0	15:15	96	2	0	0	0	1	99
3:30	2	0	0	0	0	0	2	15:30	79	1	0	0	0	1	81
3:45	3	0	0	0	0	0	3	15:45	99	1	0	1	0	1	102
4:00	0	0	0	0	0	0	0	16:00	89	2	0	0	0	0	91
4:15	3	0	0	0	0	0	3	16:15	77	2	0	2	0	1	82
4:30	2	0	0	0	0	0	2	16:30	76	3	0	0	0	0	79
4:45	16	0	0	0	0	0	16	16:45	102	3	0	0	0	1	106
5:00	7	1	0	0	0	0	8	17:00	99	2	0	0	0	1	102
5:15	6	0	0	0	0	0	6	17:15	96	0	0	0	0	0	96
5:30	6	1	0	0	0	0	7	17:30	81	4	0	0	0	0	85
5:45	10	2	0	0	0	0	12	17:45	110	1	0	1	1	1	114
6:00	14	1	1	0	0	1	17	18:00	100	0	0	0	0	0	100
6:15	13	1	0	0	0	0	14	18:15	83	0	0	0	0	1	84
6:30	14	2	1	0	0	0	17	18:30	67	0	0	0	0	0	67
6:45	18	0	0	1	0	0	19	18:45	103	0	1	0	0	0	104
7:00	14	1	1	2	0	1	19	19:00	77	2	0	0	0	0	79
7:15	24	2	0	0	0	0	26	19:15	73	0	0	0	0	1	74
7:30	30	1	0	0	0	0	31	19:30	68	0	0	0	0	0	68
7:45	33	3	0	0	0	0	36	19:45	59	1	0	1	0	0	61
8:00	31	2	0	1	0	1	35	20:00	50	0	0	0	0	0	50
8:15	40	2	1	1	0	0	44	20:15	49	0	0	0	0	1	50
8:30	51	3	0	0	0	0	54	20:30	41	0	0	0	0	0	41
8:45	58	0	0	3	0	0	61	20:45	34	0	0	0	0	0	34
9:00	86	6	3	1	0	1	97	21:00	28	0	0	0	0	1	29
9:15	63	4	0	1	0	0	68	21:15	21	0	0	1	0	0	22
9:30	67	1	0	0	0	1	69	21:30	20	0	0	0	0	0	20
9:45	73	2	0	0	0	0	75	21:45	20	1	0	0	0	0	21
10:00	76	3	1	0	0	1	81	22:00	11	0	0	0	0	0	11
10:15	89	3	1	0	0	0	93	22:15	9	1	0	0	0	0	10
10:30	79	0	0	0	0	0	79	22:30	8	0	0	0	0	0	8
10:45	106	3	1	0	0	1	111	22:45	6	0	0	0	0	0	6
11:00	104	2	0	0	0	2	108	23:00	4	0	0	0	0	0	4
11:15	78	1	0	1	0	1	81	23:15	1	0	0	0	0	0	1
11:30	88	2	1	0	0	0	91	23:30	1	0	0	0	0	0	1
11:45	90	1	0	0	0	0	91	23:45	2	0	0	0	0	0	2
TOTAL	1,412	50	11	16	0	10	1,499	TOTAL	3,081	58	7	15	1	19	3,181

AM PEAK HOUR	10:45 AM	AM PEAK HOUR	12:00 PM
AM PEAK VOLUME	391	AM PEAK VOLUME	416

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	4,493	108	18	31	1	29	4,680
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	96.0%	2.3%	0.4%	0.7%	0.0%	0.6%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	8,661	200	32	52	3	59	9,007
CLASS 6	Buses	% OF TOTAL	96.2%	2.2%	0.4%	0.6%	0.0%	0.7%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY3 Estern dwy south of Bear Valley Rd (west of Mall Blvd)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	7	0	0	0	0	0	7
0:15	5	0	0	0	0	0	5
0:30	6	0	0	0	0	0	6
0:45	5	0	0	0	0	0	5
1:00	0	0	0	0	0	0	0
1:15	2	0	0	0	0	0	2
1:30	1	0	0	0	0	0	1
1:45	0	0	0	0	0	0	0
2:00	1	0	0	0	0	0	1
2:15	1	0	0	0	0	0	1
2:30	2	0	0	0	0	0	2
2:45	1	2	0	0	0	0	3
3:00	1	0	0	0	0	0	1
3:15	1	0	0	0	0	0	1
3:30	0	0	0	0	0	0	0
3:45	1	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0
4:15	1	1	0	0	0	0	2
4:30	2	0	0	0	0	0	2
4:45	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0
5:15	2	0	0	0	0	0	2
5:30	4	0	0	0	0	0	4
5:45	1	0	0	0	0	0	1
6:00	5	1	0	0	0	0	6
6:15	7	0	0	0	0	0	7
6:30	11	0	0	0	0	0	11
6:45	15	2	0	0	0	1	18
7:00	17	0	0	0	0	0	17
7:15	8	1	3	1	0	0	13
7:30	18	3	0	0	0	0	21
7:45	22	2	0	1	1	1	27
8:00	26	0	0	0	0	0	26
8:15	18	0	0	0	0	0	18
8:30	19	3	0	0	0	0	22
8:45	27	0	0	2	0	1	30
9:00	48	1	0	1	0	0	50
9:15	33	2	1	0	0	1	37
9:30	50	0	1	1	0	0	52
9:45	58	5	1	1	0	0	65
10:00	67	1	0	0	0	1	69
10:15	57	1	0	1	0	0	59
10:30	71	1	0	0	0	1	73
10:45	66	4	1	0	0	1	72
11:00	69	1	1	0	0	1	72
11:15	67	0	0	0	0	0	67
11:30	90	2	0	0	0	0	92
11:45	73	1	0	0	0	1	75
TOTAL	986	34	8	8	1	9	1,046

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	306

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	80	2	0	0	0	2	84
12:15	88	4	0	1	0	1	94
12:30	101	2	1	0	0	0	104
12:45	90	2	0	1	0	0	93
13:00	89	4	0	0	0	1	94
13:15	87	1	0	1	0	2	91
13:30	87	3	2	1	0	0	93
13:45	74	2	0	0	0	0	76
14:00	78	3	0	1	1	2	85
14:15	84	4	0	2	0	1	91
14:30	78	2	0	0	0	0	80
14:45	72	1	1	0	0	0	74
15:00	77	4	1	1	0	1	84
15:15	81	2	0	0	0	1	84
15:30	76	0	0	0	0	1	77
15:45	82	2	0	0	0	0	84
16:00	79	1	0	0	0	1	81
16:15	86	2	0	1	0	0	89
16:30	60	2	0	1	0	1	64
16:45	85	0	0	0	0	1	86
17:00	90	3	0	1	0	1	95
17:15	102	2	0	0	0	0	104
17:30	67	2	0	0	0	0	69
17:45	93	2	0	0	0	1	96
18:00	85	1	0	0	0	1	87
18:15	88	1	1	0	0	0	90
18:30	83	0	0	0	0	0	83
18:45	92	0	0	0	0	1	93
19:00	94	0	0	0	0	0	94
19:15	63	0	0	0	0	0	63
19:30	78	1	0	1	0	0	80
19:45	60	1	0	0	0	0	61
20:00	76	0	0	0	0	1	77
20:15	56	0	0	0	0	0	56
20:30	54	0	0	0	0	0	54
20:45	64	0	0	0	0	0	64
21:00	46	1	0	1	0	1	49
21:15	53	0	0	0	0	0	53
21:30	46	0	0	0	0	0	46
21:45	30	0	0	0	0	0	30
22:00	27	1	0	0	0	0	28
22:15	19	0	0	0	0	0	19
22:30	24	0	0	0	0	0	24
22:45	18	0	0	0	0	0	18
23:00	14	0	0	0	0	0	14
23:15	10	0	0	0	0	0	10
23:30	6	0	0	0	0	0	6
23:45	10	0	0	0	0	0	10
TOTAL	3,182	58	6	13	1	21	3,281

AM PEAK HOUR	12:15 PM
AM PEAK VOLUME	385

TOTAL: AM+PM	4,168	92	14	21	2	30	4,327
% OF TOTAL	96.3%	2.1%	0.3%	0.5%	0.0%	0.7%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY3 Estern dwy south of Bear Valley Rd (west of Mall Blvd)

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	7	0	0	0	0	0	7	12:00	179	6	0	1	0	3	189
0:15	9	0	0	0	0	0	9	12:15	187	5	1	1	0	2	196
0:30	7	0	0	0	0	0	7	12:30	207	7	2	2	0	1	219
0:45	6	0	0	1	0	0	7	12:45	183	3	0	1	0	0	187
1:00	1	0	0	0	0	0	1	13:00	181	7	0	0	0	2	190
1:15	6	0	0	1	0	0	7	13:15	168	3	0	1	0	3	175
1:30	2	0	0	0	0	0	2	13:30	188	4	2	2	0	0	196
1:45	1	0	0	0	0	0	1	13:45	157	4	0	1	0	0	162
2:00	1	0	0	0	0	0	1	14:00	154	9	0	2	1	3	169
2:15	2	0	0	0	0	0	2	14:15	163	4	2	2	0	2	173
2:30	5	0	0	1	0	0	6	14:30	158	4	2	2	0	1	167
2:45	2	2	0	2	0	0	6	14:45	151	4	1	1	0	0	157
3:00	1	0	0	0	0	0	1	15:00	151	6	1	1	0	1	160
3:15	1	0	0	0	0	0	1	15:15	177	4	0	0	0	2	183
3:30	2	0	0	0	0	0	2	15:30	155	1	0	0	0	2	158
3:45	4	0	0	0	0	0	4	15:45	181	3	0	1	0	1	186
4:00	0	0	0	0	0	0	0	16:00	168	3	0	0	0	1	172
4:15	4	1	0	0	0	0	5	16:15	163	4	0	3	0	1	171
4:30	4	0	0	0	0	0	4	16:30	136	5	0	1	0	1	143
4:45	16	0	0	0	0	0	16	16:45	187	3	0	0	0	2	192
5:00	7	1	0	0	0	0	8	17:00	189	5	0	1	0	2	197
5:15	8	0	0	0	0	0	8	17:15	198	2	0	0	0	0	200
5:30	10	1	0	0	0	0	11	17:30	148	6	0	0	0	0	154
5:45	11	2	0	0	0	0	13	17:45	203	3	0	1	1	2	210
6:00	19	2	1	0	0	1	23	18:00	185	1	0	0	0	1	187
6:15	20	1	0	0	0	0	21	18:15	171	1	1	0	0	1	174
6:30	25	2	1	0	0	0	28	18:30	150	0	0	0	0	0	150
6:45	33	2	0	1	0	1	37	18:45	195	0	1	0	0	1	197
7:00	31	1	1	2	0	1	36	19:00	171	2	0	0	0	0	173
7:15	32	3	3	1	0	0	39	19:15	136	0	0	0	0	1	137
7:30	48	4	0	0	0	0	52	19:30	146	1	0	1	0	0	148
7:45	55	5	0	1	1	1	63	19:45	119	2	0	1	0	0	122
8:00	57	2	0	1	0	1	61	20:00	126	0	0	0	0	1	127
8:15	58	2	1	1	0	0	62	20:15	105	0	0	0	0	1	106
8:30	70	6	0	0	0	0	76	20:30	95	0	0	0	0	0	95
8:45	85	0	0	5	0	1	91	20:45	98	0	0	0	0	0	98
9:00	134	7	3	2	0	1	147	21:00	74	1	0	1	0	2	78
9:15	96	6	1	1	0	1	105	21:15	74	0	0	1	0	0	75
9:30	117	1	1	1	0	1	121	21:30	66	0	0	0	0	0	66
9:45	131	7	1	1	0	0	140	21:45	50	1	0	0	0	0	51
10:00	143	4	1	0	0	2	150	22:00	38	1	0	0	0	0	39
10:15	146	4	1	1	0	0	152	22:15	28	1	0	0	0	0	29
10:30	150	1	0	0	0	1	152	22:30	32	0	0	0	0	0	32
10:45	172	7	2	0	0	2	183	22:45	24	0	0	0	0	0	24
11:00	173	3	1	0	0	3	180	23:00	18	0	0	0	0	0	18
11:15	145	1	0	1	0	1	148	23:15	11	0	0	0	0	0	11
11:30	178	4	1	0	0	0	183	23:30	7	0	0	0	0	0	7
11:45	163	2	0	0	0	1	166	23:45	12	0	0	0	0	0	12
TOTAL	2,398	84	19	24	1	19	2,545	**TOTAL**	6,263	116	13	28	2	40	6,462

AM PEAK HOUR	10:45 AM
AM PEAK VOLUME	694

AM PEAK HOUR	12:15 PM
AM PEAK VOLUME	792

TOTAL: AM+PM	8,661	200	32	52	3	59	9,007
% OF TOTAL	96.2%	2.2%	0.4%	0.6%	0.0%	0.7%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY4 Western dwy south of Bear Valley Rd (east of Mall Blvd

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	16	0	0	0	0	0	16
0:15	0	0	0	0	0	0	0	12:15	9	3	0	0	0	0	12
0:30	0	0	0	0	0	0	0	12:30	13	0	0	0	0	0	13
0:45	0	0	0	0	0	0	0	12:45	11	0	0	0	0	0	11
1:00	0	0	0	0	0	0	0	13:00	14	0	0	0	0	0	14
1:15	0	0	0	0	0	0	0	13:15	6	0	0	0	0	0	6
1:30	0	0	0	0	0	0	0	13:30	11	0	0	0	0	0	11
1:45	0	0	0	0	0	0	0	13:45	10	0	0	0	0	0	10
2:00	0	0	0	0	0	0	0	14:00	5	0	0	0	0	0	5
2:15	0	0	0	0	0	0	0	14:15	7	1	0	0	0	0	8
2:30	0	0	0	0	0	0	0	14:30	15	1	0	0	0	0	16
2:45	0	0	0	0	0	0	0	14:45	16	0	0	0	0	0	16
3:00	0	0	0	0	0	0	0	15:00	5	0	0	0	0	0	5
3:15	0	0	0	0	0	0	0	15:15	10	0	0	0	0	0	10
3:30	0	0	0	0	0	0	0	15:30	12	0	0	0	0	0	12
3:45	0	0	0	0	0	0	0	15:45	14	1	0	0	0	0	15
4:00	0	0	0	0	0	0	0	16:00	10	0	0	1	0	0	11
4:15	0	0	0	0	0	0	0	16:15	7	0	0	0	0	0	7
4:30	1	0	0	0	0	0	1	16:30	15	0	0	0	0	0	15
4:45	0	0	0	0	0	0	0	16:45	25	0	0	0	0	0	25
5:00	1	0	0	0	0	0	1	17:00	15	0	0	0	0	0	15
5:15	0	0	0	0	0	0	0	17:15	13	0	0	0	0	0	13
5:30	0	0	0	0	0	0	0	17:30	17	0	0	0	0	0	17
5:45	2	0	0	0	0	0	2	17:45	10	0	0	0	0	0	10
6:00	1	0	0	0	0	0	1	18:00	6	0	0	0	0	0	6
6:15	2	0	0	0	0	0	2	18:15	7	0	0	0	0	0	7
6:30	2	0	0	0	0	0	2	18:30	5	0	0	0	0	0	5
6:45	1	0	0	0	0	0	1	18:45	7	0	0	0	0	0	7
7:00	1	0	0	0	0	0	1	19:00	6	0	0	0	0	0	6
7:15	1	0	0	0	0	0	1	19:15	1	0	0	0	0	0	1
7:30	1	0	0	0	0	0	1	19:30	9	0	0	0	0	0	9
7:45	4	0	0	0	0	0	4	19:45	7	0	0	0	0	0	7
8:00	4	0	0	0	0	0	4	20:00	6	0	0	0	0	0	6
8:15	4	0	0	0	0	0	4	20:15	4	0	0	0	0	0	4
8:30	5	1	0	0	0	0	6	20:30	3	0	0	0	0	0	3
8:45	4	0	0	0	0	0	4	20:45	5	0	0	0	0	0	5
9:00	5	0	1	0	0	0	6	21:00	1	0	0	0	0	0	1
9:15	5	0	0	0	0	0	5	21:15	0	0	0	0	0	0	0
9:30	9	0	0	0	0	0	9	21:30	2	0	0	0	0	0	2
9:45	4	0	0	0	0	0	4	21:45	0	0	0	0	0	0	0
10:00	8	0	0	0	0	0	8	22:00	1	0	0	0	0	0	1
10:15	7	1	0	0	0	0	8	22:15	0	0	0	0	0	0	0
10:30	7	0	0	0	0	0	7	22:30	0	0	0	1	0	0	1
10:45	8	0	0	0	0	0	8	22:45	0	0	0	0	0	0	0
11:00	15	0	0	0	0	0	15	23:00	0	0	0	0	0	0	0
11:15	9	0	0	0	0	0	9	23:15	1	0	0	0	0	0	1
11:30	8	1	0	0	0	0	9	23:30	0	0	0	0	0	0	0
11:45	11	0	0	0	0	0	11	23:45	0	0	0	0	0	0	0
TOTAL	130	3	1	0	0	0	134	TOTAL	357	6	0	2	0	0	365
				AM PEAK HOUR			11:00 AM					AM PEAK HOUR			4:45 PM
				AM PEAK VOLUME			44					AM PEAK VOLUME			70

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	487	9	1	2	0	0	499
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	97.6%	1.8%	0.2%	0.4%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	935	30	3	10	0	0	978
CLASS 6	Buses	% OF TOTAL	95.6%	3.1%	0.3%	1.0%	0.0%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY4 Western dwy south of Bear Valley Rd (east of Mall Blvd

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0
0:15	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0
2:30	0	0	0	1	0	0	1
2:45	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0
3:15	0	0	0	3	0	0	3
3:30	0	0	0	1	0	0	1
3:45	0	2	0	0	0	0	2
4:00	1	0	0	0	0	0	1
4:15	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0
5:00	1	0	0	0	0	0	1
5:15	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0
5:45	0	1	0	0	0	0	1
6:00	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0
6:45	1	0	0	0	0	0	1
7:00	1	1	0	1	0	0	3
7:15	2	0	0	0	0	0	2
7:30	0	0	0	0	0	0	0
7:45	3	0	0	0	0	0	3
8:00	3	1	0	0	0	0	4
8:15	4	1	0	0	0	0	5
8:30	3	0	0	0	0	0	3
8:45	2	1	0	0	0	0	3
9:00	5	0	0	0	0	0	5
9:15	7	0	0	1	0	0	8
9:30	5	1	0	0	0	0	6
9:45	5	1	0	0	0	0	6
10:00	5	0	0	0	0	0	5
10:15	7	0	0	0	0	0	7
10:30	10	0	0	0	0	0	10
10:45	8	0	0	0	0	0	8
11:00	14	0	1	0	0	0	15
11:15	13	0	1	0	0	0	14
11:30	12	0	0	0	0	0	12
11:45	8	1	0	0	0	0	9
TOTAL	120	10	2	7	0	0	139

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	50

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	7	0	0	0	0	0	7
12:15	13	0	0	0	0	0	13
12:30	12	1	0	0	0	0	13
12:45	8	1	0	0	0	0	9
13:00	19	1	0	0	0	0	20
13:15	13	0	0	0	0	0	13
13:30	9	1	0	0	0	0	10
13:45	13	0	0	0	0	0	13
14:00	14	0	0	0	0	0	14
14:15	7	0	0	0	0	0	7
14:30	9	0	0	0	0	0	9
14:45	8	2	0	0	0	0	10
15:00	6	0	0	0	0	0	6
15:15	7	0	0	0	0	0	7
15:30	16	1	0	0	0	0	17
15:45	12	0	0	0	0	0	12
16:00	9	0	0	0	0	0	9
16:15	4	0	0	0	0	0	4
16:30	6	0	0	0	0	0	6
16:45	10	0	0	0	0	0	10
17:00	9	1	0	0	0	0	10
17:15	9	1	0	0	0	0	10
17:30	13	0	0	0	0	0	13
17:45	8	1	0	0	0	0	9
18:00	11	0	0	0	0	0	11
18:15	6	0	0	0	0	0	6
18:30	1	0	0	0	0	0	1
18:45	10	0	0	0	0	0	10
19:00	7	0	0	0	0	0	7
19:15	11	0	0	0	0	0	11
19:30	9	0	0	0	0	0	9
19:45	4	0	0	0	0	0	4
20:00	6	0	0	0	0	0	6
20:15	7	0	0	0	0	0	7
20:30	3	1	0	0	0	0	4
20:45	1	0	0	0	0	0	1
21:00	2	0	0	0	0	0	2
21:15	2	0	0	0	0	0	2
21:30	1	0	0	1	0	0	2
21:45	0	0	0	0	0	0	0
22:00	1	0	0	0	0	0	1
22:15	0	0	0	0	0	0	0
22:30	1	0	0	0	0	0	1
22:45	0	0	0	0	0	0	0
23:00	3	0	0	0	0	0	3
23:15	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0
23:45	1	0	0	0	0	0	1
TOTAL	328	11	0	1	0	0	340

AM PEAK HOUR	1:00 PM
AM PEAK VOLUME	56

TOTAL: AM+PM		448	21	2	8	0	0	479
% OF TOTAL		93.5%	4.4%	0.4%	1.7%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY4 Western dwy south of Bear Valley Rd (east of Mall Blvd

AM	COMBINED							PM	COMBINED						
TIME	1	2	3	4	5	6	TOTAL	Time	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	23	0	0	0	0	0	23
0:15	0	0	0	0	0	0	0	12:15	22	3	0	0	0	0	25
0:30	0	0	0	0	0	0	0	12:30	25	1	0	0	0	0	26
0:45	0	0	0	0	0	0	0	12:45	19	1	0	0	0	0	20
1:00	0	0	0	0	0	0	0	13:00	33	1	0	0	0	0	34
1:15	0	0	0	0	0	0	0	13:15	19	0	0	0	0	0	19
1:30	0	0	0	0	0	0	0	13:30	20	1	0	0	0	0	21
1:45	0	0	0	0	0	0	0	13:45	23	0	0	0	0	0	23
2:00	0	0	0	0	0	0	0	14:00	19	0	0	0	0	0	19
2:15	0	0	0	0	0	0	0	14:15	14	1	0	0	0	0	15
2:30	0	0	0	1	0	0	1	14:30	24	1	0	0	0	0	25
2:45	0	0	0	0	0	0	0	14:45	24	2	0	0	0	0	26
3:00	0	0	0	0	0	0	0	15:00	11	0	0	0	0	0	11
3:15	0	0	0	3	0	0	3	15:15	17	0	0	0	0	0	17
3:30	0	0	0	1	0	0	1	15:30	28	1	0	0	0	0	29
3:45	0	2	0	0	0	0	2	15:45	26	1	0	0	0	0	27
4:00	1	0	0	0	0	0	1	16:00	19	0	0	1	0	0	20
4:15	0	0	0	0	0	0	0	16:15	11	0	0	0	0	0	11
4:30	1	0	0	0	0	0	1	16:30	21	0	0	0	0	0	21
4:45	0	0	0	0	0	0	0	16:45	35	0	0	0	0	0	35
5:00	2	0	0	0	0	0	2	17:00	24	1	0	0	0	0	25
5:15	0	0	0	0	0	0	0	17:15	22	1	0	0	0	0	23
5:30	0	0	0	0	0	0	0	17:30	30	0	0	0	0	0	30
5:45	2	1	0	0	0	0	3	17:45	18	1	0	0	0	0	19
6:00	1	0	0	0	0	0	1	18:00	17	0	0	0	0	0	17
6:15	2	0	0	0	0	0	2	18:15	13	0	0	0	0	0	13
6:30	2	0	0	0	0	0	2	18:30	6	0	0	0	0	0	6
6:45	2	0	0	0	0	0	2	18:45	17	0	0	0	0	0	17
7:00	2	1	0	1	0	0	4	19:00	13	0	0	0	0	0	13
7:15	3	0	0	0	0	0	3	19:15	12	0	0	0	0	0	12
7:30	1	0	0	0	0	0	1	19:30	18	0	0	0	0	0	18
7:45	7	0	0	0	0	0	7	19:45	11	0	0	0	0	0	11
8:00	7	1	0	0	0	0	8	20:00	12	0	0	0	0	0	12
8:15	8	1	0	0	0	0	9	20:15	11	0	0	0	0	0	11
8:30	8	1	0	0	0	0	9	20:30	6	1	0	0	0	0	7
8:45	6	1	0	0	0	0	7	20:45	6	0	0	0	0	0	6
9:00	10	0	1	0	0	0	11	21:00	3	0	0	0	0	0	3
9:15	12	0	0	1	0	0	13	21:15	2	0	0	0	0	0	2
9:30	14	1	0	0	0	0	15	21:30	3	0	0	1	0	0	4
9:45	9	1	0	0	0	0	10	21:45	0	0	0	0	0	0	0
10:00	13	0	0	0	0	0	13	22:00	2	0	0	0	0	0	2
10:15	14	1	0	0	0	0	15	22:15	0	0	0	0	0	0	0
10:30	17	0	0	0	0	0	17	22:30	1	0	0	1	0	0	2
10:45	16	0	0	0	0	0	16	22:45	0	0	0	0	0	0	0
11:00	29	0	1	0	0	0	30	23:00	3	0	0	0	0	0	3
11:15	22	0	1	0	0	0	23	23:15	1	0	0	0	0	0	1
11:30	20	1	0	0	0	0	21	23:30	0	0	0	0	0	0	0
11:45	19	1	0	0	0	0	20	23:45	1	0	0	0	0	0	1
TOTAL	250	13	3	7	0	0	273	TOTAL	685	17	0	3	0	0	705

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	94

AM PEAK HOUR	4:45 PM
AM PEAK VOLUME	113

TOTAL: AM+PM	935	30	3	10	0	0	978
% OF TOTAL	95.6%	3.1%	0.3%	1.0%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY5 Middle dwy south of Bear Valley Rd (east of Mall Blvd)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	10	0	0	0	0	0	10
0:15	0	0	0	0	0	0	0	12:15	7	1	0	0	0	0	8
0:30	0	0	0	0	0	0	0	12:30	8	0	0	0	0	0	8
0:45	0	0	0	0	0	0	0	12:45	7	0	0	0	0	0	7
1:00	0	0	0	0	0	0	0	13:00	2	0	0	0	0	0	2
1:15	0	0	0	0	0	0	0	13:15	7	1	0	0	0	0	8
1:30	0	0	0	0	0	0	0	13:30	5	1	0	0	0	0	6
1:45	0	0	0	0	0	0	0	13:45	5	0	0	0	0	0	5
2:00	0	0	0	0	0	0	0	14:00	7	0	0	0	0	0	7
2:15	0	0	0	0	0	0	0	14:15	7	1	0	0	1	0	9
2:30	0	0	0	0	0	0	0	14:30	12	0	0	0	0	0	12
2:45	1	0	0	0	0	0	1	14:45	9	0	0	0	0	0	9
3:00	0	0	0	0	0	0	0	15:00	8	1	0	0	0	0	9
3:15	0	0	0	0	0	0	0	15:15	10	0	0	0	0	0	10
3:30	0	0	0	0	0	0	0	15:30	11	0	0	0	0	0	11
3:45	0	0	0	0	0	0	0	15:45	8	0	0	0	0	0	8
4:00	0	0	0	0	0	0	0	16:00	8	0	0	0	0	0	8
4:15	1	0	0	0	0	0	1	16:15	5	0	0	0	0	0	5
4:30	1	0	0	0	0	0	1	16:30	9	0	0	0	0	0	9
4:45	0	0	0	0	0	0	0	16:45	21	0	0	0	0	0	21
5:00	0	0	0	0	0	0	0	17:00	12	0	0	0	0	0	12
5:15	0	0	0	0	0	0	0	17:15	9	0	0	0	0	0	9
5:30	1	0	0	0	0	0	1	17:30	2	0	0	0	0	0	2
5:45	1	0	0	0	0	0	1	17:45	7	0	0	0	0	0	7
6:00	0	0	0	0	0	0	0	18:00	6	0	0	0	0	0	6
6:15	0	0	0	0	0	0	0	18:15	6	1	0	0	0	0	7
6:30	1	0	0	0	0	0	1	18:30	4	0	0	0	0	0	4
6:45	0	0	0	0	0	0	0	18:45	5	0	0	0	0	0	5
7:00	0	0	0	0	0	0	0	19:00	10	0	0	0	0	0	10
7:15	2	0	0	0	0	0	2	19:15	8	0	0	0	0	0	8
7:30	0	0	0	0	0	0	0	19:30	5	0	0	0	0	0	5
7:45	1	0	0	0	0	0	1	19:45	8	0	0	0	0	0	8
8:00	0	0	0	0	0	0	0	20:00	6	0	0	0	0	0	6
8:15	1	0	0	0	0	0	1	20:15	2	0	0	0	0	0	2
8:30	3	0	0	0	0	0	3	20:30	5	0	0	0	0	0	5
8:45	0	0	0	0	0	0	0	20:45	3	0	0	0	0	0	3
9:00	3	0	0	0	0	0	3	21:00	3	0	0	0	0	0	3
9:15	1	0	0	0	0	0	1	21:15	6	0	0	0	0	0	6
9:30	4	0	0	0	0	0	4	21:30	5	0	0	0	0	0	5
9:45	6	0	0	0	0	0	6	21:45	1	0	0	0	0	0	1
10:00	5	0	0	0	0	0	5	22:00	4	0	0	0	0	0	4
10:15	6	0	0	0	0	0	6	22:15	1	0	0	0	0	0	1
10:30	6	0	0	0	0	0	6	22:30	1	0	0	0	0	0	1
10:45	7	0	0	0	0	0	7	22:45	1	0	0	0	0	0	1
11:00	10	0	0	0	0	0	10	23:00	0	0	0	0	0	0	0
11:15	5	0	0	0	0	0	5	23:15	0	0	0	0	0	0	0
11:30	10	0	0	0	0	0	10	23:30	0	0	0	0	0	0	0
11:45	10	0	0	0	0	0	10	23:45	0	0	0	0	0	0	0
TOTAL	86	0	0	0	0	0	86	TOTAL	286	6	0	0	1	0	293

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	35

AM PEAK HOUR	4:30 PM
AM PEAK VOLUME	51

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	372	6	0	0	1	0	379
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	98.2%	1.6%	0.0%	0.0%	0.3%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	1,186	30	3	12	1	1	1,233
CLASS 6	Buses	% OF TOTAL	96.2%	2.4%	0.2%	1.0%	0.1%	0.1%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY5 Middle dwy south of Bear Valley Rd (east of Mall Blvd)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0
0:15	1	0	0	0	0	0	1
0:30	1	0	0	0	0	0	1
0:45	0	0	0	0	0	0	0
1:00	1	0	0	0	0	0	1
1:15	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0
1:45	1	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0
2:45	1	0	0	0	0	0	1
3:00	1	0	0	0	0	0	1
3:15	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0
4:15	2	0	0	0	0	0	2
4:30	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0
5:15	1	0	0	0	0	0	1
5:30	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0
6:00	1	0	0	0	0	0	1
6:15	0	1	0	0	0	0	1
6:30	0	2	0	0	0	0	2
6:45	3	0	0	0	0	0	3
7:00	2	0	0	0	0	0	2
7:15	1	0	0	0	0	0	1
7:30	2	0	0	0	0	0	2
7:45	1	0	0	0	0	0	1
8:00	3	1	0	0	0	0	4
8:15	5	0	0	0	0	0	5
8:30	3	1	0	0	0	0	4
8:45	5	0	0	0	0	0	5
9:00	4	1	0	0	0	0	5
9:15	6	1	0	2	0	0	9
9:30	8	0	0	0	0	0	8
9:45	11	1	0	0	0	0	12
10:00	14	0	0	0	0	0	14
10:15	3	2	0	0	0	0	5
10:30	12	1	0	0	0	0	13
10:45	15	0	1	1	0	0	17
11:00	20	2	0	0	0	0	22
11:15	10	0	0	0	0	0	10
11:30	16	0	0	1	0	1	18
11:45	13	0	0	3	0	0	16
TOTAL	167	13	1	7	0	1	189

AM PEAK HOUR	10:45 AM
AM PEAK VOLUME	67

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	17	0	0	0	0	0	17
12:15	19	0	0	0	0	0	19
12:30	21	1	0	0	0	0	22
12:45	22	0	0	0	0	0	22
13:00	14	1	0	0	0	0	15
13:15	18	0	0	0	0	0	18
13:30	15	1	0	0	0	0	16
13:45	13	1	0	0	0	0	14
14:00	11	1	0	0	0	0	12
14:15	15	1	0	0	0	0	16
14:30	17	0	0	0	0	0	17
14:45	16	1	0	0	0	0	17
15:00	22	1	0	1	0	0	24
15:15	21	0	0	0	0	0	21
15:30	17	0	0	1	0	0	18
15:45	18	1	0	0	0	0	19
16:00	17	0	1	0	0	0	18
16:15	17	0	0	0	0	0	17
16:30	15	0	0	0	0	0	15
16:45	21	1	1	0	0	0	23
17:00	16	0	0	0	0	0	16
17:15	18	0	0	0	0	0	18
17:30	20	0	0	0	0	0	20
17:45	12	0	0	0	0	0	12
18:00	15	1	0	0	0	0	16
18:15	19	0	0	0	0	0	19
18:30	22	0	0	0	0	0	22
18:45	11	0	0	0	0	0	11
19:00	19	0	0	0	0	0	19
19:15	17	0	0	0	0	0	17
19:30	10	0	0	0	0	0	10
19:45	15	0	0	0	0	0	15
20:00	12	0	0	0	0	0	12
20:15	12	0	0	0	0	0	12
20:30	13	0	0	0	0	0	13
20:45	10	0	0	0	0	0	10
21:00	7	0	0	0	0	0	7
21:15	5	0	0	0	0	0	5
21:30	6	0	0	0	0	0	6
21:45	4	0	0	0	0	0	4
22:00	13	0	0	0	0	0	13
22:15	5	0	0	1	0	0	6
22:30	5	0	0	1	0	0	6
22:45	1	0	0	0	0	0	1
23:00	4	0	0	0	0	0	4
23:15	7	0	0	0	0	0	7
23:30	2	0	0	1	0	0	3
23:45	1	0	0	0	0	0	1
TOTAL	647	11	2	5	0	0	665

AM PEAK HOUR	3:00 PM
AM PEAK VOLUME	82

TOTAL: AM+PM	814	24	3	12	0	1	854
% OF TOTAL	95.3%	2.8%	0.4%	1.4%	0.0%	0.1%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY5 Middle dwy south of Bear Valley Rd (east of Mall Blvd)

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	27	0	0	0	0	0	27
0:15	1	0	0	0	0	0	1	12:15	26	1	0	0	0	0	27
0:30	1	0	0	0	0	0	1	12:30	29	1	0	0	0	0	30
0:45	0	0	0	0	0	0	0	12:45	29	0	0	0	0	0	29
1:00	1	0	0	0	0	0	1	13:00	16	1	0	0	0	0	17
1:15	0	0	0	0	0	0	0	13:15	25	1	0	0	0	0	26
1:30	0	0	0	0	0	0	0	13:30	20	2	0	0	0	0	22
1:45	1	0	0	0	0	0	1	13:45	18	1	0	0	0	0	19
2:00	0	0	0	0	0	0	0	14:00	18	1	0	0	0	0	19
2:15	0	0	0	0	0	0	0	14:15	22	2	0	0	1	0	25
2:30	0	0	0	0	0	0	0	14:30	29	0	0	0	0	0	29
2:45	2	0	0	0	0	0	2	14:45	25	1	0	0	0	0	26
3:00	1	0	0	0	0	0	1	15:00	30	2	0	1	0	0	33
3:15	0	0	0	0	0	0	0	15:15	31	0	0	0	0	0	31
3:30	0	0	0	0	0	0	0	15:30	28	0	0	1	0	0	29
3:45	0	0	0	0	0	0	0	15:45	26	1	0	0	0	0	27
4:00	0	0	0	0	0	0	0	16:00	25	0	1	0	0	0	26
4:15	3	0	0	0	0	0	3	16:15	22	0	0	0	0	0	22
4:30	1	0	0	0	0	0	1	16:30	24	0	0	0	0	0	24
4:45	0	0	0	0	0	0	0	16:45	42	1	1	0	0	0	44
5:00	0	0	0	0	0	0	0	17:00	28	0	0	0	0	0	28
5:15	1	0	0	0	0	0	1	17:15	27	0	0	0	0	0	27
5:30	1	0	0	0	0	0	1	17:30	22	0	0	0	0	0	22
5:45	1	0	0	0	0	0	1	17:45	19	0	0	0	0	0	19
6:00	1	0	0	0	0	0	1	18:00	21	1	0	0	0	0	22
6:15	0	1	0	0	0	0	1	18:15	25	1	0	0	0	0	26
6:30	1	2	0	0	0	0	3	18:30	26	0	0	0	0	0	26
6:45	3	0	0	0	0	0	3	18:45	16	0	0	0	0	0	16
7:00	2	0	0	0	0	0	2	19:00	29	0	0	0	0	0	29
7:15	3	0	0	0	0	0	3	19:15	25	0	0	0	0	0	25
7:30	2	0	0	0	0	0	2	19:30	15	0	0	0	0	0	15
7:45	2	0	0	0	0	0	2	19:45	23	0	0	0	0	0	23
8:00	3	1	0	0	0	0	4	20:00	18	0	0	0	0	0	18
8:15	6	0	0	0	0	0	6	20:15	14	0	0	0	0	0	14
8:30	6	1	0	0	0	0	7	20:30	18	0	0	0	0	0	18
8:45	5	0	0	0	0	0	5	20:45	13	0	0	0	0	0	13
9:00	7	1	0	0	0	0	8	21:00	10	0	0	0	0	0	10
9:15	7	1	0	2	0	0	10	21:15	11	0	0	0	0	0	11
9:30	12	0	0	0	0	0	12	21:30	11	0	0	0	0	0	11
9:45	17	1	0	0	0	0	18	21:45	5	0	0	0	0	0	5
10:00	19	0	0	0	0	0	19	22:00	17	0	0	0	0	0	17
10:15	9	2	0	0	0	0	11	22:15	6	0	0	1	0	0	7
10:30	18	1	0	0	0	0	19	22:30	6	0	0	1	0	0	7
10:45	22	0	1	1	0	0	24	22:45	2	0	0	0	0	0	2
11:00	30	2	0	0	0	0	32	23:00	4	0	0	0	0	0	4
11:15	15	0	0	0	0	0	15	23:15	7	0	0	0	0	0	7
11:30	26	0	0	1	0	1	28	23:30	2	0	0	1	0	0	3
11:45	23	0	0	3	0	0	26	23:45	1	0	0	0	0	0	1
TOTAL	253	13	1	7	0	1	275	**TOTAL**	933	17	2	5	1	0	958

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	101

AM PEAK HOUR	4:30 PM
AM PEAK VOLUME	123

TOTAL: AM+PM	1,186	30	3	12	1	1	1,233
% OF TOTAL	96.2%	2.4%	0.2%	1.0%	0.1%	0.1%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY6 Estern dwy south of Bear Valley Rd (east of Mall Blvd)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	1	0	0	0	0	0	1	12:00	7	0	1	0	0	0	8
0:15	2	0	0	0	0	0	2	12:15	4	0	0	0	0	0	4
0:30	1	0	0	0	0	0	1	12:30	3	0	0	0	0	0	3
0:45	0	0	0	0	0	0	0	12:45	7	0	0	0	0	0	7
1:00	2	0	0	0	0	0	2	13:00	9	0	0	0	0	0	9
1:15	4	0	0	0	0	0	4	13:15	11	1	0	0	0	0	12
1:30	1	0	0	0	0	0	1	13:30	5	0	0	0	0	0	5
1:45	1	0	0	0	0	0	1	13:45	6	1	1	0	0	0	8
2:00	2	0	0	0	0	0	2	14:00	5	1	0	0	0	0	6
2:15	1	0	0	0	0	0	1	14:15	3	1	0	0	0	0	4
2:30	5	0	0	0	0	0	5	14:30	8	1	0	0	0	0	9
2:45	1	0	0	0	0	0	1	14:45	4	0	0	0	0	0	4
3:00	2	0	0	0	0	0	2	15:00	4	0	0	0	0	0	4
3:15	5	0	0	0	0	0	5	15:15	6	0	0	0	0	0	6
3:30	4	0	0	0	0	0	4	15:30	7	1	0	0	0	0	8
3:45	3	0	0	0	0	0	3	15:45	6	0	0	0	0	0	6
4:00	5	0	0	0	0	0	5	16:00	10	0	0	0	0	0	10
4:15	4	0	0	0	0	0	4	16:15	6	0	0	0	0	0	6
4:30	8	3	0	0	0	0	11	16:30	9	0	0	0	0	0	9
4:45	7	0	0	0	0	0	7	16:45	9	0	0	0	0	0	9
5:00	4	2	0	0	0	0	6	17:00	8	0	0	0	0	0	8
5:15	4	2	0	0	0	0	6	17:15	8	0	0	0	0	0	8
5:30	3	0	0	0	0	0	3	17:30	9	0	0	0	0	0	9
5:45	1	0	0	0	0	0	1	17:45	5	0	0	0	0	0	5
6:00	2	0	0	0	0	0	2	18:00	4	0	0	0	0	0	4
6:15	6	1	0	0	0	0	7	18:15	7	0	0	0	0	0	7
6:30	4	0	0	0	0	0	4	18:30	4	0	0	0	0	0	4
6:45	4	1	0	0	0	0	5	18:45	6	0	0	0	0	0	6
7:00	7	0	0	0	0	0	7	19:00	4	1	0	0	0	0	5
7:15	5	0	0	1	0	0	6	19:15	6	0	0	0	0	0	6
7:30	5	0	0	0	0	0	5	19:30	10	0	0	0	0	0	10
7:45	3	0	0	0	0	0	3	19:45	6	0	0	0	0	0	6
8:00	4	2	0	0	0	0	6	20:00	4	0	0	0	0	0	4
8:15	7	0	0	0	0	0	7	20:15	2	0	0	0	0	0	2
8:30	7	0	0	0	0	0	7	20:30	1	0	0	1	0	0	2
8:45	5	0	0	0	0	0	5	20:45	5	0	0	0	0	0	5
9:00	7	0	1	0	0	0	8	21:00	8	0	1	0	0	0	9
9:15	8	0	0	0	0	0	8	21:15	5	0	0	0	0	0	5
9:30	6	1	0	0	0	0	7	21:30	0	0	0	0	0	0	0
9:45	4	0	0	0	0	0	4	21:45	1	0	0	0	0	0	1
10:00	5	0	0	0	0	0	5	22:00	3	0	0	0	0	0	3
10:15	2	0	0	0	0	0	2	22:15	1	0	0	0	0	0	1
10:30	5	0	0	0	0	0	5	22:30	0	0	0	0	0	0	0
10:45	4	0	0	0	0	0	4	22:45	2	0	0	0	0	0	2
11:00	7	0	0	0	0	0	7	23:00	0	0	0	0	0	0	0
11:15	6	0	0	0	0	0	6	23:15	0	0	0	0	0	0	0
11:30	3	0	0	0	0	0	3	23:30	3	1	0	0	0	0	4
11:45	5	1	0	0	0	0	6	23:45	2	0	0	0	0	0	2
TOTAL	192	13	1	1	0	0	207	**TOTAL**	243	8	3	1	0	0	255

AM PEAK HOUR	4:30 AM	**AM PEAK HOUR**	4:45 PM
AM PEAK VOLUME	30	**AM PEAK VOLUME**	34

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	435	21	4	2	0	0	462
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	94.2%	4.5%	0.9%	0.4%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	**TOTAL: ALL**	822	37	6	4	1	0	870
CLASS 6	Buses	**% OF TOTAL**	94.5%	4.3%	0.7%	0.5%	0.1%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY6 Estern dwy south of Bear Valley Rd (east of Mall Blvd)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	2	0	0	0	0	0	2
0:15	4	0	0	0	0	0	4
0:30	1	0	0	0	0	0	1
0:45	0	0	0	0	0	0	0
1:00	1	0	0	0	0	0	1
1:15	1	0	0	0	0	0	1
1:30	2	0	0	0	0	0	2
1:45	1	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0
2:15	1	0	0	0	0	0	1
2:30	0	0	0	0	0	0	0
2:45	3	0	0	0	0	0	3
3:00	3	0	0	0	0	0	3
3:15	1	0	0	0	0	0	1
3:30	5	0	0	0	0	0	5
3:45	1	1	0	0	0	0	2
4:00	2	0	0	0	0	0	2
4:15	4	0	0	0	0	0	4
4:30	2	0	0	0	0	0	2
4:45	8	0	0	0	0	0	8
5:00	3	1	0	0	0	0	4
5:15	3	0	0	0	0	0	3
5:30	7	1	0	0	0	0	8
5:45	1	0	0	0	0	0	1
6:00	1	0	0	0	0	0	1
6:15	2	0	0	0	0	0	2
6:30	2	2	0	0	0	0	4
6:45	4	1	0	0	0	0	5
7:00	5	0	0	0	0	0	5
7:15	5	0	0	1	0	0	6
7:30	7	0	0	0	0	0	7
7:45	1	2	0	0	0	0	3
8:00	1	0	0	0	0	0	1
8:15	4	0	0	0	0	0	4
8:30	7	0	0	0	0	0	7
8:45	3	0	0	0	0	0	3
9:00	6	1	1	0	0	0	8
9:15	5	0	0	0	0	0	5
9:30	7	0	0	0	0	0	7
9:45	6	0	0	0	0	0	6
10:00	6	0	0	0	0	0	6
10:15	4	0	0	0	0	0	4
10:30	3	0	0	0	0	0	3
10:45	5	0	1	0	0	0	6
11:00	4	0	0	0	0	0	4
11:15	4	0	0	0	0	0	4
11:30	6	0	0	0	0	0	6
11:45	3	1	0	0	0	0	4
TOTAL	157	10	2	1	0	0	170

AM PEAK HOUR	9:00 AM
AM PEAK VOLUME	26

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	3	0	0	0	0	0	3
12:15	6	0	0	0	0	0	6
12:30	1	0	0	1	0	0	2
12:45	5	0	0	0	0	0	5
13:00	7	0	0	0	0	0	7
13:15	14	0	0	0	0	0	14
13:30	4	0	0	0	1	0	5
13:45	4	0	0	0	0	0	4
14:00	5	0	0	0	0	0	5
14:15	5	0	0	0	0	0	5
14:30	7	0	0	0	0	0	7
14:45	4	0	0	0	0	0	4
15:00	10	0	0	0	0	0	10
15:15	5	0	0	0	0	0	5
15:30	5	0	0	0	0	0	5
15:45	4	0	0	0	0	0	4
16:00	5	0	0	0	0	0	5
16:15	6	1	0	0	0	0	7
16:30	5	0	0	0	0	0	5
16:45	9	1	0	0	0	0	10
17:00	9	0	0	0	0	0	9
17:15	4	0	0	0	0	0	4
17:30	8	0	0	0	0	0	8
17:45	11	0	0	0	0	0	11
18:00	8	1	0	0	0	0	9
18:15	3	0	0	0	0	0	3
18:30	4	0	0	0	0	0	4
18:45	4	0	0	0	0	0	4
19:00	4	1	0	0	0	0	5
19:15	2	0	0	0	0	0	2
19:30	6	0	0	0	0	0	6
19:45	6	0	0	0	0	0	6
20:00	4	1	0	0	0	0	5
20:15	2	0	0	0	0	0	2
20:30	5	0	0	0	0	0	5
20:45	6	0	0	0	0	0	6
21:00	6	0	0	0	0	0	6
21:15	5	0	0	0	0	0	5
21:30	4	0	0	0	0	0	4
21:45	2	0	0	0	0	0	2
22:00	1	0	0	0	0	0	1
22:15	3	0	0	0	0	0	3
22:30	2	0	0	0	0	0	2
22:45	1	0	0	0	0	0	1
23:00	1	0	0	0	0	0	1
23:15	0	0	0	0	0	0	0
23:30	2	1	0	0	0	0	3
23:45	3	0	0	0	0	0	3
TOTAL	230	6	0	1	1	0	238

AM PEAK HOUR	5:15 PM
AM PEAK VOLUME	32

TOTAL: AM+PM		387	16	2	2	1	0	408
% OF TOTAL		94.9%	3.9%	0.5%	0.5%	0.2%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY6 Estern dwy south of Bear Valley Rd (east of Mall Blvd)

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	3	0	0	0	0	0	3	12:00	10	0	1	0	0	0	11
0:15	6	0	0	0	0	0	6	12:15	10	0	0	0	0	0	10
0:30	2	0	0	0	0	0	2	12:30	4	0	0	1	0	0	5
0:45	0	0	0	0	0	0	0	12:45	12	0	0	0	0	0	12
1:00	3	0	0	0	0	0	3	13:00	16	0	0	0	0	0	16
1:15	5	0	0	0	0	0	5	13:15	25	1	0	0	0	0	26
1:30	3	0	0	0	0	0	3	13:30	9	0	0	0	1	0	10
1:45	2	0	0	0	0	0	2	13:45	10	1	1	0	0	0	12
2:00	2	0	0	0	0	0	2	14:00	10	1	0	0	0	0	11
2:15	2	0	0	0	0	0	2	14:15	8	1	0	0	0	0	9
2:30	5	0	0	0	0	0	5	14:30	15	1	0	0	0	0	16
2:45	4	0	0	0	0	0	4	14:45	8	0	0	0	0	0	8
3:00	5	0	0	0	0	0	5	15:00	14	0	0	0	0	0	14
3:15	6	0	0	0	0	0	6	15:15	11	0	0	0	0	0	11
3:30	9	0	0	0	0	0	9	15:30	12	1	0	0	0	0	13
3:45	4	1	0	0	0	0	5	15:45	10	0	0	0	0	0	10
4:00	7	0	0	0	0	0	7	16:00	15	0	0	0	0	0	15
4:15	8	0	0	0	0	0	8	16:15	12	1	0	0	0	0	13
4:30	10	3	0	0	0	0	13	16:30	14	0	0	0	0	0	14
4:45	15	0	0	0	0	0	15	16:45	18	1	0	0	0	0	19
5:00	7	3	0	0	0	0	10	17:00	17	0	0	0	0	0	17
5:15	7	2	0	0	0	0	9	17:15	12	0	0	0	0	0	12
5:30	10	1	0	0	0	0	11	17:30	17	0	0	0	0	0	17
5:45	2	0	0	0	0	0	2	17:45	16	0	0	0	0	0	16
6:00	3	0	0	0	0	0	3	18:00	12	1	0	0	0	0	13
6:15	8	1	0	0	0	0	9	18:15	10	0	0	0	0	0	10
6:30	6	2	0	0	0	0	8	18:30	8	0	0	0	0	0	8
6:45	8	2	0	0	0	0	10	18:45	10	0	0	0	0	0	10
7:00	12	0	0	0	0	0	12	19:00	8	2	0	0	0	0	10
7:15	10	0	0	2	0	0	12	19:15	8	0	0	0	0	0	8
7:30	12	0	0	0	0	0	12	19:30	16	0	0	0	0	0	16
7:45	4	2	0	0	0	0	6	19:45	12	0	0	0	0	0	12
8:00	5	2	0	0	0	0	7	20:00	8	1	0	0	0	0	9
8:15	11	0	0	0	0	0	11	20:15	4	0	0	0	0	0	4
8:30	14	0	0	0	0	0	14	20:30	6	0	0	1	0	0	7
8:45	8	0	0	0	0	0	8	20:45	11	0	0	0	0	0	11
9:00	13	1	2	0	0	0	16	21:00	14	0	1	0	0	0	15
9:15	13	0	0	0	0	0	13	21:15	10	0	0	0	0	0	10
9:30	13	1	0	0	0	0	14	21:30	4	0	0	0	0	0	4
9:45	10	0	0	0	0	0	10	21:45	3	0	0	0	0	0	3
10:00	11	0	0	0	0	0	11	22:00	4	0	0	0	0	0	4
10:15	6	0	0	0	0	0	6	22:15	4	0	0	0	0	0	4
10:30	8	0	0	0	0	0	8	22:30	2	0	0	0	0	0	2
10:45	9	0	1	0	0	0	10	22:45	3	0	0	0	0	0	3
11:00	11	0	0	0	0	0	11	23:00	1	0	0	0	0	0	1
11:15	10	0	0	0	0	0	10	23:15	0	0	0	0	0	0	0
11:30	9	0	0	0	0	0	9	23:30	5	2	0	0	0	0	7
11:45	8	2	0	0	0	0	10	23:45	5	0	0	0	0	0	5
TOTAL	349	23	3	2	0	0	377	**TOTAL**	473	14	3	2	1	0	493

AM PEAK HOUR	9:00 AM
AM PEAK VOLUME	53

AM PEAK HOUR	4:45 PM
AM PEAK VOLUME	65

TOTAL: AM+PM	822	37	6	4	1	0	870
% OF TOTAL	94.5%	4.3%	0.7%	0.5%	0.1%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY7 Dwy west of Amargosa Rd (Valero)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	6	0	0	0	0	0	6
0:15	2	0	0	0	0	0	2	12:15	8	0	0	0	0	0	8
0:30	2	1	0	0	0	0	3	12:30	3	0	0	0	0	0	3
0:45	3	0	0	0	0	0	3	12:45	4	0	0	0	0	0	4
1:00	0	0	0	0	0	0	0	13:00	5	0	0	0	0	0	5
1:15	1	0	0	0	0	0	1	13:15	6	0	0	0	0	0	6
1:30	2	0	0	0	0	0	2	13:30	4	0	0	0	0	0	4
1:45	1	1	0	0	0	0	2	13:45	0	0	0	0	0	0	0
2:00	1	0	0	0	0	0	1	14:00	4	0	0	0	0	0	4
2:15	0	0	0	0	0	0	0	14:15	7	0	0	0	0	0	7
2:30	1	0	0	0	0	0	1	14:30	2	0	0	0	0	0	2
2:45	1	0	0	0	0	0	1	14:45	2	0	0	0	0	0	2
3:00	1	0	0	0	0	0	1	15:00	10	1	0	0	0	0	11
3:15	1	0	0	0	0	0	1	15:15	6	0	0	0	0	0	6
3:30	3	0	0	0	0	0	3	15:30	5	0	0	0	0	0	5
3:45	1	0	0	0	0	0	1	15:45	4	1	0	0	0	0	5
4:00	3	0	0	0	0	0	3	16:00	4	1	0	0	0	0	5
4:15	3	1	0	0	0	0	4	16:15	1	0	0	0	0	0	1
4:30	2	0	0	0	0	0	2	16:30	1	0	0	0	0	0	1
4:45	5	0	0	0	0	0	5	16:45	7	0	0	0	0	0	7
5:00	0	0	0	0	0	0	0	17:00	6	0	0	0	0	0	6
5:15	2	0	0	0	0	0	2	17:15	5	0	0	0	0	0	5
5:30	0	0	0	0	0	0	0	17:30	7	0	0	0	0	0	7
5:45	2	0	0	0	0	0	2	17:45	4	0	0	0	0	0	4
6:00	1	0	0	0	0	0	1	18:00	5	1	0	0	0	0	6
6:15	0	1	0	0	0	0	1	18:15	4	0	0	0	0	0	4
6:30	1	0	0	0	0	0	1	18:30	9	0	0	0	0	0	9
6:45	3	0	0	0	0	0	3	18:45	3	0	0	0	0	0	3
7:00	4	1	0	0	0	0	5	19:00	6	0	0	0	0	0	6
7:15	6	0	0	0	0	0	6	19:15	4	0	0	0	0	0	4
7:30	0	0	0	0	0	0	0	19:30	3	0	0	0	0	0	3
7:45	2	0	0	0	0	0	2	19:45	1	0	0	0	0	0	1
8:00	2	0	0	0	0	0	2	20:00	7	1	0	0	0	0	8
8:15	3	0	0	0	0	0	3	20:15	4	0	0	0	0	0	4
8:30	2	0	0	0	0	0	2	20:30	5	0	0	0	0	0	5
8:45	3	0	0	0	0	0	3	20:45	3	0	0	0	0	0	3
9:00	3	0	0	0	0	0	3	21:00	3	0	0	0	0	0	3
9:15	7	0	0	0	0	0	7	21:15	6	0	0	0	0	0	6
9:30	4	0	0	0	0	0	4	21:30	6	0	0	0	0	0	6
9:45	4	0	0	0	0	0	4	21:45	6	0	0	0	0	0	6
10:00	4	0	0	0	0	0	4	22:00	5	0	0	0	0	0	5
10:15	6	0	0	0	0	0	6	22:15	3	0	0	0	0	0	3
10:30	6	1	0	0	0	0	7	22:30	3	0	0	0	0	0	3
10:45	5	0	0	0	0	0	5	22:45	0	0	0	0	0	0	0
11:00	5	0	0	0	0	0	5	23:00	0	0	0	0	0	0	0
11:15	6	0	1	0	0	0	7	23:15	2	0	0	0	0	0	2
11:30	5	0	0	0	0	0	5	23:30	2	0	0	0	0	0	2
11:45	7	0	0	0	0	0	7	23:45	0	1	0	0	0	0	1
TOTAL	126	6	1	0	0	0	133	TOTAL	201	6	0	0	0	0	207

AM PEAK HOUR	11:00 AM	AM PEAK HOUR	3:00 PM
AM PEAK VOLUME	24	AM PEAK VOLUME	27

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	327	12	1	0	0	0	340
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	96.2%	3.5%	0.3%	0.0%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	331	12	1	0	0	0	344
CLASS 6	Buses	% OF TOTAL	96.2%	3.5%	0.3%	0.0%	0.0%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY7 Dwy west of Amargosa Rd (Valero)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0
0:15	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0
5:15	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0
8:15	0	0	0	0	0	0	0
8:30	0	0	0	0	0	0	0
8:45	0	0	0	0	0	0	0
9:00	0	0	0	0	0	0	0
9:15	0	0	0	0	0	0	0
9:30	0	0	0	0	0	0	0
9:45	0	0	0	0	0	0	0
10:00	0	0	0	0	0	0	0
10:15	0	0	0	0	0	0	0
10:30	0	0	0	0	0	0	0
10:45	0	0	0	0	0	0	0
11:00	0	0	0	0	0	0	0
11:15	0	0	0	0	0	0	0
11:30	0	0	0	0	0	0	0
11:45	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0

AM PEAK HOUR	11:45 AM
AM PEAK VOLUME	0

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	0	0	0	0	0	0	0
12:15	0	0	0	0	0	0	0
12:30	0	0	0	0	0	0	0
12:45	0	0	0	0	0	0	0
13:00	0	0	0	0	0	0	0
13:15	0	0	0	0	0	0	0
13:30	0	0	0	0	0	0	0
13:45	0	0	0	0	0	0	0
14:00	0	0	0	0	0	0	0
14:15	0	0	0	0	0	0	0
14:30	0	0	0	0	0	0	0
14:45	0	0	0	0	0	0	0
15:00	0	0	0	0	0	0	0
15:15	0	0	0	0	0	0	0
15:30	0	0	0	0	0	0	0
15:45	0	0	0	0	0	0	0
16:00	0	0	0	0	0	0	0
16:15	0	0	0	0	0	0	0
16:30	1	0	0	0	0	0	1
16:45	0	0	0	0	0	0	0
17:00	0	0	0	0	0	0	0
17:15	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0
18:00	0	0	0	0	0	0	0
18:15	0	0	0	0	0	0	0
18:30	0	0	0	0	0	0	0
18:45	0	0	0	0	0	0	0
19:00	0	0	0	0	0	0	0
19:15	0	0	0	0	0	0	0
19:30	0	0	0	0	0	0	0
19:45	0	0	0	0	0	0	0
20:00	0	0	0	0	0	0	0
20:15	0	0	0	0	0	0	0
20:30	0	0	0	0	0	0	0
20:45	0	0	0	0	0	0	0
21:00	0	0	0	0	0	0	0
21:15	0	0	0	0	0	0	0
21:30	0	0	0	0	0	0	0
21:45	0	0	0	0	0	0	0
22:00	0	0	0	0	0	0	0
22:15	1	0	0	0	0	0	1
22:30	0	0	0	0	0	0	0
22:45	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0
23:15	1	0	0	0	0	0	1
23:30	0	0	0	0	0	0	0
23:45	1	0	0	0	0	0	1
TOTAL	4	0	0	0	0	0	4

AM PEAK HOUR	11:15 PM
AM PEAK VOLUME	2

TOTAL: AM+PM	4	0	0	0	0	0	0	4
% OF TOTAL	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY7 Dwy west of Amargosa Rd (Valero)

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	6	0	0	0	0	0	6
0:15	2	0	0	0	0	0	2	12:15	8	0	0	0	0	0	8
0:30	2	1	0	0	0	0	3	12:30	3	0	0	0	0	0	3
0:45	3	0	0	0	0	0	3	12:45	4	0	0	0	0	0	4
1:00	0	0	0	0	0	0	0	13:00	5	0	0	0	0	0	5
1:15	1	0	0	0	0	0	1	13:15	6	0	0	0	0	0	6
1:30	2	0	0	0	0	0	2	13:30	4	0	0	0	0	0	4
1:45	1	1	0	0	0	0	2	13:45	0	0	0	0	0	0	0
2:00	1	0	0	0	0	0	1	14:00	4	0	0	0	0	0	4
2:15	0	0	0	0	0	0	0	14:15	7	0	0	0	0	0	7
2:30	1	0	0	0	0	0	1	14:30	2	0	0	0	0	0	2
2:45	1	0	0	0	0	0	1	14:45	2	0	0	0	0	0	2
3:00	1	0	0	0	0	0	1	15:00	10	1	0	0	0	0	11
3:15	1	0	0	0	0	0	1	15:15	6	0	0	0	0	0	6
3:30	3	0	0	0	0	0	3	15:30	5	0	0	0	0	0	5
3:45	1	0	0	0	0	0	1	15:45	4	1	0	0	0	0	5
4:00	3	0	0	0	0	0	3	16:00	4	1	0	0	0	0	5
4:15	3	1	0	0	0	0	4	16:15	1	0	0	0	0	0	1
4:30	2	0	0	0	0	0	2	16:30	2	0	0	0	0	0	2
4:45	5	0	0	0	0	0	5	16:45	7	0	0	0	0	0	7
5:00	0	0	0	0	0	0	0	17:00	6	0	0	0	0	0	6
5:15	2	0	0	0	0	0	2	17:15	5	0	0	0	0	0	5
5:30	0	0	0	0	0	0	0	17:30	7	0	0	0	0	0	7
5:45	2	0	0	0	0	0	2	17:45	4	0	0	0	0	0	4
6:00	1	0	0	0	0	0	1	18:00	5	1	0	0	0	0	6
6:15	0	1	0	0	0	0	1	18:15	4	0	0	0	0	0	4
6:30	1	0	0	0	0	0	1	18:30	9	0	0	0	0	0	9
6:45	3	0	0	0	0	0	3	18:45	3	0	0	0	0	0	3
7:00	4	1	0	0	0	0	5	19:00	6	0	0	0	0	0	6
7:15	6	0	0	0	0	0	6	19:15	4	0	0	0	0	0	4
7:30	0	0	0	0	0	0	0	19:30	3	0	0	0	0	0	3
7:45	2	0	0	0	0	0	2	19:45	1	0	0	0	0	0	1
8:00	2	0	0	0	0	0	2	20:00	7	1	0	0	0	0	8
8:15	3	0	0	0	0	0	3	20:15	4	0	0	0	0	0	4
8:30	2	0	0	0	0	0	2	20:30	5	0	0	0	0	0	5
8:45	3	0	0	0	0	0	3	20:45	3	0	0	0	0	0	3
9:00	3	0	0	0	0	0	3	21:00	3	0	0	0	0	0	3
9:15	7	0	0	0	0	0	7	21:15	6	0	0	0	0	0	6
9:30	4	0	0	0	0	0	4	21:30	6	0	0	0	0	0	6
9:45	4	0	0	0	0	0	4	21:45	6	0	0	0	0	0	6
10:00	4	0	0	0	0	0	4	22:00	5	0	0	0	0	0	5
10:15	6	0	0	0	0	0	6	22:15	4	0	0	0	0	0	4
10:30	6	1	0	0	0	0	7	22:30	3	0	0	0	0	0	3
10:45	5	0	0	0	0	0	5	22:45	0	0	0	0	0	0	0
11:00	5	0	0	0	0	0	5	23:00	0	0	0	0	0	0	0
11:15	6	0	1	0	0	0	7	23:15	3	0	0	0	0	0	3
11:30	5	0	0	0	0	0	5	23:30	2	0	0	0	0	0	2
11:45	7	0	0	0	0	0	7	23:45	1	1	0	0	0	0	2
TOTAL	126	6	1	0	0	0	133	TOTAL	205	6	0	0	0	0	211

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	24

AM PEAK HOUR	3:00 PM
AM PEAK VOLUME	27

TOTAL: AM+PM	331	12	1	0	0	0	344
% OF TOTAL	96.2%	3.5%	0.3%	0.0%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY8 Dwy west of Amargosa Rd (Applebee's Grill-Bar)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	2	0	0	0	0	0	2	12:00	14	0	0	1	0	0	15
0:15	0	0	0	0	0	0	0	12:15	12	0	0	0	0	0	12
0:30	1	0	0	0	0	0	1	12:30	12	0	0	0	0	0	12
0:45	0	0	0	0	0	0	0	12:45	11	0	0	1	0	0	12
1:00	0	0	0	0	0	0	0	13:00	5	0	0	0	0	0	5
1:15	1	0	0	0	0	0	1	13:15	11	1	0	0	1	1	14
1:30	0	0	0	0	0	0	0	13:30	4	1	0	1	0	0	6
1:45	0	0	0	0	0	0	0	13:45	8	1	0	0	0	0	9
2:00	0	0	0	0	0	0	0	14:00	4	1	0	0	0	0	5
2:15	0	0	0	0	0	0	0	14:15	7	0	0	0	0	0	7
2:30	0	0	0	0	0	0	0	14:30	15	0	0	0	0	0	15
2:45	0	0	0	0	0	0	0	14:45	7	0	0	0	0	0	7
3:00	3	0	0	0	0	0	3	15:00	16	0	0	0	0	0	16
3:15	0	0	0	0	0	0	0	15:15	11	0	0	0	0	0	11
3:30	1	2	0	0	0	0	3	15:30	15	0	0	0	0	0	15
3:45	1	0	0	0	0	0	1	15:45	10	0	0	0	0	0	10
4:00	0	0	0	0	0	0	0	16:00	15	0	0	0	0	0	15
4:15	1	0	0	0	0	0	1	16:15	12	0	0	0	0	0	12
4:30	1	0	0	0	0	0	1	16:30	9	1	0	0	0	0	10
4:45	4	0	0	0	0	0	4	16:45	6	0	0	0	0	0	6
5:00	2	0	0	0	0	0	2	17:00	7	0	0	0	0	0	7
5:15	2	0	0	0	0	0	2	17:15	17	1	0	0	0	0	18
5:30	1	1	0	0	0	0	2	17:30	12	0	0	0	0	0	12
5:45	4	0	0	0	0	0	4	17:45	9	1	0	0	0	0	10
6:00	2	0	0	0	0	0	2	18:00	12	0	0	0	0	0	12
6:15	2	0	0	0	0	0	2	18:15	15	0	0	0	0	0	15
6:30	2	1	0	0	0	0	3	18:30	9	0	0	0	0	0	9
6:45	3	0	0	0	0	0	3	18:45	17	0	0	0	0	0	17
7:00	4	0	0	0	0	0	4	19:00	16	0	0	0	0	0	16
7:15	5	0	0	0	0	0	5	19:15	10	0	0	0	0	0	10
7:30	6	1	1	0	0	0	8	19:30	12	0	0	0	0	0	12
7:45	3	2	0	0	0	0	5	19:45	7	0	0	0	0	0	7
8:00	3	0	0	1	0	0	4	20:00	7	0	0	0	0	0	7
8:15	3	0	0	0	0	0	3	20:15	11	0	0	0	0	0	11
8:30	7	0	0	1	0	0	8	20:30	4	0	0	0	0	0	4
8:45	7	2	1	0	0	0	10	20:45	6	0	0	0	0	0	6
9:00	6	0	0	0	0	0	6	21:00	8	0	0	0	0	0	8
9:15	7	1	0	0	0	0	8	21:15	18	0	0	0	0	0	18
9:30	9	0	0	0	0	0	9	21:30	14	0	0	0	0	0	14
9:45	8	0	0	0	0	0	8	21:45	4	1	0	0	0	0	5
10:00	9	0	0	0	0	0	9	22:00	9	0	0	0	0	0	9
10:15	5	0	0	0	0	0	5	22:15	3	0	0	0	0	0	3
10:30	4	0	0	0	0	0	4	22:30	9	0	0	0	0	0	9
10:45	5	1	0	1	0	0	7	22:45	5	0	0	0	0	0	5
11:00	7	0	0	0	0	0	7	23:00	1	0	0	1	0	0	2
11:15	10	0	0	0	0	0	10	23:15	4	0	0	0	0	0	4
11:30	6	1	0	0	0	0	7	23:30	1	1	0	0	0	0	2
11:45	15	0	0	1	0	0	16	23:45	1	0	0	0	0	0	1
TOTAL	162	12	2	4	0	0	180	**TOTAL**	452	9	0	4	1	1	467
				AM PEAK HOUR			11:00 AM						**AM PEAK HOUR**		6:15 PM
				AM PEAK VOLUME			40						**AM PEAK VOLUME**		57

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	614	21	2	8	1	1	647
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	94.9%	3.2%	0.3%	1.2%	0.2%	0.2%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	**TOTAL: ALL**	1,103	46	7	10	1	1	1,168
CLASS 6	Buses	**% OF TOTAL**	94.4%	3.9%	0.6%	0.9%	0.1%	0.1%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY8 Dwy west of Amargosa Rd (Applebee's Grill-Bar)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	6	0	0	0	0	0	6
0:15	5	0	0	0	0	0	5
0:30	2	1	0	0	0	0	3
0:45	5	0	0	0	0	0	5
1:00	2	0	0	0	0	0	2
1:15	1	0	0	0	0	0	1
1:30	4	0	0	0	0	0	4
1:45	2	0	0	0	0	0	2
2:00	2	0	0	0	0	0	2
2:15	3	0	0	0	0	0	3
2:30	2	0	0	0	0	0	2
2:45	0	0	0	0	0	0	0
3:00	1	0	0	0	0	0	1
3:15	2	0	0	0	0	0	2
3:30	1	0	0	0	0	0	1
3:45	4	0	0	0	0	0	4
4:00	4	0	0	0	0	0	4
4:15	4	2	0	0	0	0	6
4:30	2	4	0	0	0	0	6
4:45	6	0	0	0	0	0	6
5:00	3	0	0	0	0	0	3
5:15	0	2	0	0	0	0	2
5:30	2	0	0	0	0	0	2
5:45	1	1	0	0	0	0	2
6:00	3	1	0	0	0	0	4
6:15	6	0	0	0	0	0	6
6:30	4	0	0	0	0	0	4
6:45	3	0	0	0	0	0	3
7:00	2	1	0	0	0	0	3
7:15	4	1	0	0	0	0	5
7:30	5	0	0	0	0	0	5
7:45	3	0	1	0	0	0	4
8:00	2	3	0	1	0	0	6
8:15	3	0	0	0	0	0	3
8:30	4	0	0	0	0	0	4
8:45	5	0	0	0	0	0	5
9:00	2	1	1	0	0	0	4
9:15	9	0	0	0	0	0	9
9:30	10	1	0	0	0	0	11
9:45	5	0	0	0	0	0	5
10:00	2	0	0	0	0	0	2
10:15	2	0	0	0	0	0	2
10:30	6	0	0	0	0	0	6
10:45	9	1	0	0	0	0	10
11:00	6	0	0	0	0	0	6
11:15	8	0	0	0	0	0	8
11:30	2	0	1	0	0	0	3
11:45	6	0	0	0	0	0	6
TOTAL	175	19	3	1	0	0	198

AM PEAK HOUR	10:30 AM
AM PEAK VOLUME	30

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	7	0	0	0	0	0	7
12:15	5	0	0	0	0	0	5
12:30	9	0	0	0	0	0	9
12:45	7	0	0	0	0	0	7
13:00	1	0	0	0	0	0	1
13:15	6	0	0	0	0	0	6
13:30	5	0	0	0	0	0	5
13:45	3	0	0	0	0	0	3
14:00	7	4	1	0	0	0	12
14:15	7	1	0	0	0	0	8
14:30	5	0	0	0	0	0	5
14:45	4	0	0	0	0	0	4
15:00	7	1	0	0	0	0	8
15:15	6	0	0	0	0	0	6
15:30	10	0	0	0	0	0	10
15:45	6	0	0	0	0	0	6
16:00	7	0	0	0	0	0	7
16:15	7	0	0	0	0	0	7
16:30	6	0	0	0	0	0	6
16:45	5	0	0	0	0	0	5
17:00	4	0	0	0	0	0	4
17:15	7	0	0	0	0	0	7
17:30	11	0	0	0	0	0	11
17:45	9	0	0	0	0	0	9
18:00	9	0	0	0	0	0	9
18:15	9	0	0	0	0	0	9
18:30	11	0	0	0	0	0	11
18:45	8	0	0	0	0	0	8
19:00	7	0	0	0	0	0	7
19:15	8	0	1	0	0	0	9
19:30	10	0	0	0	0	0	10
19:45	5	0	0	0	0	0	5
20:00	11	0	0	0	0	0	11
20:15	9	0	0	0	0	0	9
20:30	3	0	0	1	0	0	4
20:45	4	0	0	0	0	0	4
21:00	12	0	0	0	0	0	12
21:15	5	0	0	0	0	0	5
21:30	12	0	0	0	0	0	12
21:45	4	0	0	0	0	0	4
22:00	9	0	0	0	0	0	9
22:15	7	0	0	0	0	0	7
22:30	1	0	0	0	0	0	1
22:45	7	0	0	0	0	0	7
23:00	3	0	0	0	0	0	3
23:15	3	0	0	0	0	0	3
23:30	4	0	0	0	0	0	4
23:45	2	0	0	0	0	0	2
TOTAL	314	6	2	1	0	0	323

AM PEAK HOUR	5:45 PM
AM PEAK VOLUME	38

TOTAL: AM+PM	489	25	5	2	0	0	521
% OF TOTAL	93.9%	4.8%	1.0%	0.4%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY8 Dwy west of Amargosa Rd (Applebee's Grill-Bar)

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	8	0	0	0	0	0	8	12:00	21	0	0	1	0	0	22
0:15	5	0	0	0	0	0	5	12:15	17	0	0	0	0	0	17
0:30	3	1	0	0	0	0	4	12:30	21	0	0	0	0	0	21
0:45	5	0	0	0	0	0	5	12:45	18	0	0	1	0	0	19
1:00	2	0	0	0	0	0	2	13:00	6	0	0	0	0	0	6
1:15	2	0	0	0	0	0	2	13:15	17	1	0	0	1	1	20
1:30	4	0	0	0	0	0	4	13:30	9	1	0	1	0	0	11
1:45	2	0	0	0	0	0	2	13:45	11	1	0	0	0	0	12
2:00	2	0	0	0	0	0	2	14:00	11	5	1	0	0	0	17
2:15	3	0	0	0	0	0	3	14:15	14	1	0	0	0	0	15
2:30	2	0	0	0	0	0	2	14:30	20	0	0	0	0	0	20
2:45	0	0	0	0	0	0	0	14:45	11	0	0	0	0	0	11
3:00	4	0	0	0	0	0	4	15:00	23	1	0	0	0	0	24
3:15	2	0	0	0	0	0	2	15:15	17	0	0	0	0	0	17
3:30	2	2	0	0	0	0	4	15:30	25	0	0	0	0	0	25
3:45	5	0	0	0	0	0	5	15:45	16	0	0	0	0	0	16
4:00	4	0	0	0	0	0	4	16:00	22	0	0	0	0	0	22
4:15	5	2	0	0	0	0	7	16:15	19	0	0	0	0	0	19
4:30	3	4	0	0	0	0	7	16:30	15	1	0	0	0	0	16
4:45	10	0	0	0	0	0	10	16:45	11	0	0	0	0	0	11
5:00	5	0	0	0	0	0	5	17:00	11	0	0	0	0	0	11
5:15	2	2	0	0	0	0	4	17:15	24	1	0	0	0	0	25
5:30	3	1	0	0	0	0	4	17:30	23	0	0	0	0	0	23
5:45	5	1	0	0	0	0	6	17:45	18	1	0	0	0	0	19
6:00	5	1	0	0	0	0	6	18:00	21	0	0	0	0	0	21
6:15	8	0	0	0	0	0	8	18:15	24	0	0	0	0	0	24
6:30	6	1	0	0	0	0	7	18:30	20	0	0	0	0	0	20
6:45	6	0	0	0	0	0	6	18:45	25	0	0	0	0	0	25
7:00	6	1	0	0	0	0	7	19:00	23	0	0	0	0	0	23
7:15	9	1	0	0	0	0	10	19:15	18	0	1	0	0	0	19
7:30	11	1	1	0	0	0	13	19:30	22	0	0	0	0	0	22
7:45	6	2	1	0	0	0	9	19:45	12	0	0	0	0	0	12
8:00	5	3	0	2	0	0	10	20:00	18	0	0	0	0	0	18
8:15	6	0	0	0	0	0	6	20:15	20	0	0	0	0	0	20
8:30	11	0	0	1	0	0	12	20:30	7	0	0	1	0	0	8
8:45	12	2	1	0	0	0	15	20:45	10	0	0	0	0	0	10
9:00	8	1	1	0	0	0	10	21:00	20	0	0	0	0	0	20
9:15	16	1	0	0	0	0	17	21:15	23	0	0	0	0	0	23
9:30	19	1	0	0	0	0	20	21:30	26	0	0	0	0	0	26
9:45	13	0	0	0	0	0	13	21:45	8	1	0	0	0	0	9
10:00	11	0	0	0	0	0	11	22:00	18	0	0	0	0	0	18
10:15	7	0	0	0	0	0	7	22:15	10	0	0	0	0	0	10
10:30	10	0	0	0	0	0	10	22:30	10	0	0	0	0	0	10
10:45	14	2	0	1	0	0	17	22:45	12	0	0	0	0	0	12
11:00	13	0	0	0	0	0	13	23:00	4	0	0	1	0	0	5
11:15	18	0	0	0	0	0	18	23:15	7	0	0	0	0	0	7
11:30	8	1	1	0	0	0	10	23:30	5	1	0	0	0	0	6
11:45	21	0	0	1	0	0	22	23:45	3	0	0	0	0	0	3
TOTAL	337	31	5	5	0	0	378	**TOTAL**	766	15	2	5	1	1	790

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	63

AM PEAK HOUR	6:15 PM
AM PEAK VOLUME	92

TOTAL: AM+PM	1,103	46	7	10	1	1	1,168
% OF TOTAL	94.4%	3.9%	0.6%	0.9%	0.1%	0.1%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY9 Dwy west of Amargosa Rd (Mimi's Cafe)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	7	0	0	0	0	0	7
0:15	0	0	0	0	0	0	0	12:15	4	0	0	0	0	0	4
0:30	0	0	0	0	0	0	0	12:30	5	0	0	0	0	0	5
0:45	0	0	0	0	0	0	0	12:45	3	0	0	0	0	0	3
1:00	0	0	0	0	0	0	0	13:00	4	0	0	0	0	0	4
1:15	0	0	0	0	0	0	0	13:15	3	0	0	0	0	0	3
1:30	0	0	0	0	0	0	0	13:30	6	0	0	1	0	0	7
1:45	0	0	0	0	0	0	0	13:45	2	1	0	0	0	0	3
2:00	0	0	0	0	0	0	0	14:00	5	0	0	0	0	0	5
2:15	0	0	0	0	0	0	0	14:15	4	0	0	0	0	0	4
2:30	0	0	0	0	0	0	0	14:30	7	0	0	0	0	0	7
2:45	0	0	0	0	0	0	0	14:45	9	1	0	0	0	0	10
3:00	0	0	0	0	0	0	0	15:00	5	0	0	0	0	0	5
3:15	0	0	0	0	0	0	0	15:15	8	0	0	0	0	0	8
3:30	0	0	0	0	0	0	0	15:30	7	0	0	0	0	0	7
3:45	0	0	0	0	0	0	0	15:45	8	0	0	0	0	0	8
4:00	0	0	0	0	0	0	0	16:00	6	0	0	0	0	0	6
4:15	0	0	0	0	0	0	0	16:15	4	0	0	0	0	0	4
4:30	0	0	0	0	0	0	0	16:30	9	0	0	1	0	0	10
4:45	0	0	0	0	0	0	0	16:45	5	0	0	0	0	0	5
5:00	0	0	0	0	0	0	0	17:00	10	0	0	0	0	0	10
5:15	0	0	0	0	0	0	0	17:15	9	0	0	1	0	0	10
5:30	0	1	0	0	0	0	1	17:30	4	0	0	0	0	0	4
5:45	2	0	0	0	0	0	2	17:45	5	0	0	0	0	0	5
6:00	1	0	0	0	0	0	1	18:00	6	0	0	0	0	0	6
6:15	0	0	0	0	0	0	0	18:15	6	0	0	0	0	0	6
6:30	0	0	0	0	0	0	0	18:30	2	0	0	0	0	0	2
6:45	2	0	0	0	0	0	2	18:45	3	0	0	0	0	0	3
7:00	3	0	0	0	0	0	3	19:00	2	0	0	0	0	0	2
7:15	0	0	0	0	0	0	0	19:15	6	0	0	0	0	0	6
7:30	0	0	0	0	0	0	0	19:30	3	0	0	0	0	0	3
7:45	1	0	0	0	0	0	1	19:45	6	0	0	0	0	0	6
8:00	2	0	0	0	0	0	2	20:00	5	1	0	0	0	0	6
8:15	3	0	0	0	0	0	3	20:15	2	0	0	0	0	0	2
8:30	4	0	0	0	0	0	4	20:30	2	0	0	0	0	0	2
8:45	4	0	0	0	0	0	4	20:45	2	0	0	0	0	0	2
9:00	3	0	0	0	0	0	3	21:00	3	0	0	0	0	0	3
9:15	5	0	0	0	0	0	5	21:15	0	0	0	0	0	0	0
9:30	2	0	0	0	0	0	2	21:30	3	0	0	0	0	0	3
9:45	9	0	0	0	0	0	9	21:45	3	0	0	0	0	0	3
10:00	4	0	0	0	0	0	4	22:00	2	0	0	0	0	0	2
10:15	6	0	0	0	0	0	6	22:15	2	0	0	0	0	0	2
10:30	9	0	0	0	0	0	9	22:30	1	0	0	0	0	0	1
10:45	6	0	0	0	0	0	6	22:45	1	0	0	0	0	0	1
11:00	5	0	0	0	0	0	5	23:00	1	0	0	0	0	0	1
11:15	7	0	0	0	0	0	7	23:15	0	0	0	0	0	0	0
11:30	5	0	1	0	0	0	6	23:30	1	0	0	0	0	0	1
11:45	6	0	0	0	0	0	6	23:45	0	0	0	0	0	0	0
TOTAL	89	1	1	0	0	0	91	**TOTAL**	201	3	0	3	0	0	207

AM PEAK HOUR	9:45 AM
AM PEAK VOLUME	28

AM PEAK HOUR	4:30 PM
AM PEAK VOLUME	35

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	290	4	1	3	0	0	298
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	97.3%	1.3%	0.3%	1.0%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	**TOTAL: ALL**	537	11	1	4	0	0	553
CLASS 6	Buses	**% OF TOTAL**	97.1%	2.0%	0.2%	0.7%	0.0%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY9 Dwy west of Amargosa Rd (Mimi's Cafe)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	1	0	0	0	0	0	1
0:15	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0
0:45	1	0	0	0	0	0	1
1:00	1	0	0	0	0	0	1
1:15	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0
1:45	1	0	0	0	0	0	1
2:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0
5:00	1	0	0	0	0	0	1
5:15	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0
6:00	0	0	0	0	0	0	0
6:15	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0
7:00	1	0	0	0	0	0	1
7:15	2	0	0	0	0	0	2
7:30	0	0	0	1	0	0	1
7:45	1	0	0	0	0	0	1
8:00	0	0	0	0	0	0	0
8:15	1	1	0	0	0	0	2
8:30	1	0	0	0	0	0	1
8:45	2	0	0	0	0	0	2
9:00	3	0	0	0	0	0	3
9:15	2	0	0	0	0	0	2
9:30	0	0	0	0	0	0	0
9:45	6	0	0	0	0	0	6
10:00	3	1	0	0	0	0	4
10:15	1	0	0	0	0	0	1
10:30	5	0	0	0	0	0	5
10:45	2	0	0	0	0	0	2
11:00	6	0	0	0	0	0	6
11:15	1	0	0	0	0	0	1
11:30	7	0	0	0	0	0	7
11:45	2	0	0	0	0	0	2
TOTAL	51	2	0	1	0	0	54

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	16

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	5	0	0	0	0	0	5
12:15	5	0	0	0	0	0	5
12:30	8	0	0	0	0	0	8
12:45	7	0	0	0	0	0	7
13:00	6	0	0	0	0	0	6
13:15	4	0	0	0	0	0	4
13:30	5	0	0	0	0	0	5
13:45	6	1	0	0	0	0	7
14:00	6	0	0	0	0	0	6
14:15	5	1	0	0	0	0	6
14:30	5	0	0	0	0	0	5
14:45	4	0	0	0	0	0	4
15:00	2	0	0	0	0	0	2
15:15	4	0	0	0	0	0	4
15:30	3	1	0	0	0	0	4
15:45	3	0	0	0	0	0	3
16:00	4	0	0	0	0	0	4
16:15	3	1	0	0	0	0	4
16:30	0	0	0	0	0	0	0
16:45	7	0	0	0	0	0	7
17:00	5	0	0	0	0	0	5
17:15	7	0	0	0	0	0	7
17:30	7	0	0	0	0	0	7
17:45	10	0	0	0	0	0	10
18:00	2	0	0	0	0	0	2
18:15	4	0	0	0	0	0	4
18:30	10	0	0	0	0	0	10
18:45	6	0	0	0	0	0	6
19:00	3	0	0	0	0	0	3
19:15	3	0	0	0	0	0	3
19:30	2	0	0	0	0	0	2
19:45	4	0	0	0	0	0	4
20:00	1	0	0	0	0	0	1
20:15	3	0	0	0	0	0	3
20:30	7	0	0	0	0	0	7
20:45	1	0	0	0	0	0	1
21:00	4	0	0	0	0	0	4
21:15	3	0	0	0	0	0	3
21:30	2	0	0	0	0	0	2
21:45	4	0	0	0	0	0	4
22:00	1	0	0	0	0	0	1
22:15	5	0	0	0	0	0	5
22:30	1	0	0	0	0	0	1
22:45	2	0	0	0	0	0	2
23:00	3	0	0	0	0	0	3
23:15	1	1	0	0	0	0	2
23:30	1	0	0	0	0	0	1
23:45	2	0	0	0	0	0	2
TOTAL	196	5	0	0	0	0	201

AM PEAK HOUR	5:00 PM
AM PEAK VOLUME	29

TOTAL: AM+PM	247	7	0	1	0	0	255
% OF TOTAL	96.9%	2.7%	0.0%	0.4%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY9 Dwy west of Amargosa Rd (Mimi's Cafe)

AM	COMBINED							PM	COMBINED						
TIME	1	2	3	4	5	6	TOTAL	Time	1	2	3	4	5	6	TOTAL
0:00	1	0	0	0	0	0	1	12:00	12	0	0	0	0	0	12
0:15	0	0	0	0	0	0	0	12:15	9	0	0	0	0	0	9
0:30	0	0	0	0	0	0	0	12:30	13	0	0	0	0	0	13
0:45	1	0	0	0	0	0	1	12:45	10	0	0	0	0	0	10
1:00	1	0	0	0	0	0	1	13:00	10	0	0	0	0	0	10
1:15	0	0	0	0	0	0	0	13:15	7	0	0	0	0	0	7
1:30	0	0	0	0	0	0	0	13:30	11	0	0	1	0	0	12
1:45	1	0	0	0	0	0	1	13:45	8	2	0	0	0	0	10
2:00	0	0	0	0	0	0	0	14:00	11	0	0	0	0	0	11
2:15	0	0	0	0	0	0	0	14:15	9	1	0	0	0	0	10
2:30	0	0	0	0	0	0	0	14:30	12	0	0	0	0	0	12
2:45	0	0	0	0	0	0	0	14:45	13	1	0	0	0	0	14
3:00	0	0	0	0	0	0	0	15:00	7	0	0	0	0	0	7
3:15	0	0	0	0	0	0	0	15:15	12	0	0	0	0	0	12
3:30	0	0	0	0	0	0	0	15:30	10	1	0	0	0	0	11
3:45	0	0	0	0	0	0	0	15:45	11	0	0	0	0	0	11
4:00	0	0	0	0	0	0	0	16:00	10	0	0	0	0	0	10
4:15	0	0	0	0	0	0	0	16:15	7	1	0	0	0	0	8
4:30	0	0	0	0	0	0	0	16:30	9	0	0	1	0	0	10
4:45	0	0	0	0	0	0	0	16:45	12	0	0	0	0	0	12
5:00	1	0	0	0	0	0	1	17:00	15	0	0	0	0	0	15
5:15	0	0	0	0	0	0	0	17:15	16	0	0	1	0	0	17
5:30	0	1	0	0	0	0	1	17:30	11	0	0	0	0	0	11
5:45	2	0	0	0	0	0	2	17:45	15	0	0	0	0	0	15
6:00	1	0	0	0	0	0	1	18:00	8	0	0	0	0	0	8
6:15	0	0	0	0	0	0	0	18:15	10	0	0	0	0	0	10
6:30	0	0	0	0	0	0	0	18:30	12	0	0	0	0	0	12
6:45	2	0	0	0	0	0	2	18:45	9	0	0	0	0	0	9
7:00	4	0	0	0	0	0	4	19:00	5	0	0	0	0	0	5
7:15	2	0	0	0	0	0	2	19:15	9	0	0	0	0	0	9
7:30	0	0	0	1	0	0	1	19:30	5	0	0	0	0	0	5
7:45	2	0	0	0	0	0	2	19:45	10	0	0	0	0	0	10
8:00	2	0	0	0	0	0	2	20:00	6	1	0	0	0	0	7
8:15	4	1	0	0	0	0	5	20:15	5	0	0	0	0	0	5
8:30	5	0	0	0	0	0	5	20:30	9	0	0	0	0	0	9
8:45	6	0	0	0	0	0	6	20:45	3	0	0	0	0	0	3
9:00	6	0	0	0	0	0	6	21:00	7	0	0	0	0	0	7
9:15	7	0	0	0	0	0	7	21:15	3	0	0	0	0	0	3
9:30	2	0	0	0	0	0	2	21:30	5	0	0	0	0	0	5
9:45	15	0	0	0	0	0	15	21:45	7	0	0	0	0	0	7
10:00	7	1	0	0	0	0	8	22:00	3	0	0	0	0	0	3
10:15	7	0	0	0	0	0	7	22:15	7	0	0	0	0	0	7
10:30	14	0	0	0	0	0	14	22:30	2	0	0	0	0	0	2
10:45	8	0	0	0	0	0	8	22:45	3	0	0	0	0	0	3
11:00	11	0	0	0	0	0	11	23:00	4	0	0	0	0	0	4
11:15	8	0	0	0	0	0	8	23:15	1	1	0	0	0	0	2
11:30	12	0	1	0	0	0	13	23:30	2	0	0	0	0	0	2
11:45	8	0	0	0	0	0	8	23:45	2	0	0	0	0	0	2
TOTAL	140	3	1	1	0	0	145	TOTAL	397	8	0	3	0	0	408

AM PEAK HOUR	9:45 AM	AM PEAK HOUR	5:00 PM
AM PEAK VOLUME	44	AM PEAK VOLUME	58

TOTAL: AM+PM	537	11	1	4	0	0	553
% OF TOTAL	97.1%	2.0%	0.2%	0.7%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY10 Dwy west of Amargosa Rd (Freddy's Frozen)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	1	0	0	0	0	0	1	12:00	11	0	0	0	0	0	11
0:15	1	0	0	0	0	0	1	12:15	11	0	0	0	0	0	11
0:30	0	0	0	0	0	0	0	12:30	15	0	0	0	0	0	15
0:45	1	0	0	0	0	0	1	12:45	4	0	0	0	0	0	4
1:00	0	0	0	0	0	0	0	13:00	7	1	0	0	0	0	8
1:15	0	0	0	0	0	0	0	13:15	8	0	0	0	0	0	8
1:30	0	0	0	0	0	0	0	13:30	5	1	0	0	0	0	6
1:45	0	0	0	0	0	0	0	13:45	10	0	0	0	0	0	10
2:00	0	0	0	0	0	0	0	14:00	8	1	0	0	0	0	9
2:15	0	0	0	0	0	0	0	14:15	6	0	0	0	0	0	6
2:30	0	0	0	0	0	0	0	14:30	6	0	0	0	0	0	6
2:45	0	0	0	0	0	0	0	14:45	8	0	0	0	0	0	8
3:00	0	0	0	0	0	0	0	15:00	8	0	0	0	0	0	8
3:15	0	0	0	0	0	0	0	15:15	10	0	0	0	0	0	10
3:30	0	0	0	0	0	0	0	15:30	14	0	0	0	0	0	14
3:45	0	0	0	0	0	0	0	15:45	13	0	0	0	0	0	13
4:00	0	0	0	0	0	0	0	16:00	6	0	0	0	0	0	6
4:15	0	0	0	0	0	0	0	16:15	7	0	0	0	0	0	7
4:30	0	0	0	0	0	0	0	16:30	9	0	0	0	0	0	9
4:45	0	0	0	0	0	0	0	16:45	10	0	0	0	0	0	10
5:00	0	0	0	0	0	0	0	17:00	10	0	0	0	0	0	10
5:15	0	0	0	0	0	0	0	17:15	8	0	0	0	0	0	8
5:30	0	0	0	0	0	0	0	17:30	5	0	0	0	0	0	5
5:45	0	0	0	0	0	0	0	17:45	15	0	0	0	0	0	15
6:00	1	0	0	0	0	0	1	18:00	9	1	0	0	0	0	10
6:15	2	0	0	0	0	0	2	18:15	7	0	0	0	0	0	7
6:30	0	0	0	0	0	0	0	18:30	4	0	0	0	0	0	4
6:45	1	0	0	0	0	0	1	18:45	5	0	0	1	0	0	6
7:00	0	0	0	1	0	0	1	19:00	8	0	0	0	0	0	8
7:15	1	0	0	1	0	0	2	19:15	8	0	0	0	0	0	8
7:30	0	0	0	0	0	0	0	19:30	5	0	0	0	0	0	5
7:45	1	0	0	0	0	0	1	19:45	10	0	0	0	0	0	10
8:00	4	0	0	0	0	0	4	20:00	5	0	0	0	0	0	5
8:15	2	0	0	0	0	0	2	20:15	9	0	0	0	0	0	9
8:30	2	0	0	0	0	0	2	20:30	7	0	0	0	0	0	7
8:45	3	0	0	0	0	0	3	20:45	5	0	0	0	0	0	5
9:00	7	1	0	0	0	0	8	21:00	5	0	0	0	0	0	5
9:15	3	0	0	0	0	0	3	21:15	3	0	0	0	0	0	3
9:30	3	0	0	0	0	0	3	21:30	2	0	0	0	0	0	2
9:45	6	1	0	0	0	0	7	21:45	4	0	0	0	0	0	4
10:00	4	1	0	0	0	0	5	22:00	1	0	0	0	0	0	1
10:15	5	0	0	0	0	0	5	22:15	1	0	0	0	0	0	1
10:30	3	0	0	1	0	0	4	22:30	1	0	0	0	0	0	1
10:45	5	0	0	0	0	0	5	22:45	0	0	0	0	0	0	0
11:00	7	0	0	0	0	0	7	23:00	0	0	0	0	0	0	0
11:15	8	0	0	0	0	0	8	23:15	0	0	0	0	0	0	0
11:30	12	0	0	0	0	0	12	23:30	1	0	0	0	0	0	1
11:45	5	0	0	1	0	0	6	23:45	0	1	0	0	0	0	1
TOTAL	88	3	0	4	0	0	95	TOTAL	314	5	0	1	0	0	320

AM PEAK HOUR	11:00 AM	AM PEAK HOUR	3:00 PM
AM PEAK VOLUME	33	AM PEAK VOLUME	45

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	402	8	0	5	0	0	415
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	96.9%	1.9%	0.0%	1.2%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	707	19	2	5	0	0	733
CLASS 6	Buses	% OF TOTAL	96.5%	2.6%	0.3%	0.7%	0.0%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY10 Dwy west of Amargosa Rd (Freddy's Frozen)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0
0:15	0	0	0	0	0	0	0
0:30	1	0	0	0	0	0	1
0:45	1	0	0	0	0	0	1
1:00	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0
5:15	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0
6:00	1	0	0	0	0	0	1
6:15	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0
6:45	2	0	0	0	0	0	2
7:00	1	0	0	0	0	0	1
7:15	0	1	0	0	0	0	1
7:30	1	0	0	0	0	0	1
7:45	0	0	0	0	0	0	0
8:00	2	0	0	0	0	0	2
8:15	1	0	0	0	0	0	1
8:30	2	0	0	0	0	0	2
8:45	1	0	0	0	0	0	1
9:00	1	0	0	0	0	0	1
9:15	2	0	0	0	0	0	2
9:30	2	0	0	0	0	0	2
9:45	4	0	0	0	0	0	4
10:00	2	0	0	0	0	0	2
10:15	4	0	0	0	0	0	4
10:30	3	0	0	0	0	0	3
10:45	2	0	0	0	0	0	2
11:00	9	0	0	0	0	0	9
11:15	8	1	0	0	0	0	9
11:30	4	0	0	0	0	0	4
11:45	5	0	0	0	0	0	5
TOTAL	59	2	0	0	0	0	61

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	27

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	3	1	1	0	0	0	5
12:15	2	1	0	0	0	0	3
12:30	9	0	0	0	0	0	9
12:45	6	0	0	0	0	0	6
13:00	8	1	0	0	0	0	9
13:15	7	0	0	0	0	0	7
13:30	8	2	0	0	0	0	10
13:45	12	0	0	0	0	0	12
14:00	5	0	0	0	0	0	5
14:15	4	1	0	0	0	0	5
14:30	4	0	0	0	0	0	4
14:45	8	1	0	0	0	0	9
15:00	5	0	0	0	0	0	5
15:15	5	0	0	0	0	0	5
15:30	9	0	1	0	0	0	10
15:45	5	1	0	0	0	0	6
16:00	6	0	0	0	0	0	6
16:15	11	0	0	0	0	0	11
16:30	7	0	0	0	0	0	7
16:45	8	0	0	0	0	0	8
17:00	6	0	0	0	0	0	6
17:15	4	0	0	0	0	0	4
17:30	8	0	0	0	0	0	8
17:45	8	0	0	0	0	0	8
18:00	5	0	0	0	0	0	5
18:15	7	0	0	0	0	0	7
18:30	3	0	0	0	0	0	3
18:45	10	0	0	0	0	0	10
19:00	4	0	0	0	0	0	4
19:15	6	0	0	0	0	0	6
19:30	4	0	0	0	0	0	4
19:45	5	1	0	0	0	0	6
20:00	6	0	0	0	0	0	6
20:15	4	0	0	0	0	0	4
20:30	4	0	0	0	0	0	4
20:45	8	0	0	0	0	0	8
21:00	5	0	0	0	0	0	5
21:15	5	0	0	0	0	0	5
21:30	6	0	0	0	0	0	6
21:45	2	0	0	0	0	0	2
22:00	1	0	0	0	0	0	1
22:15	1	0	0	0	0	0	1
22:30	0	0	0	0	0	0	0
22:45	1	0	0	0	0	0	1
23:00	1	0	0	0	0	0	1
23:15	0	0	0	0	0	0	0
23:30	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0
TOTAL	246	9	2	0	0	0	257

AM PEAK HOUR	1:00 PM
AM PEAK VOLUME	38

TOTAL: AM+PM	305	11	2	0	0	0	318
% OF TOTAL	95.9%	3.5%	0.6%	0.0%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY10 Dwy west of Amargosa Rd (Freddy's Frozen)

AM	COMBINED							PM	COMBINED						
TIME	1	2	3	4	5	6	TOTAL	Time	1	2	3	4	5	6	TOTAL
0:00	1	0	0	0	0	0	1	12:00	14	1	1	0	0	0	16
0:15	1	0	0	0	0	0	1	12:15	13	1	0	0	0	0	14
0:30	1	0	0	0	0	0	1	12:30	24	0	0	0	0	0	24
0:45	2	0	0	0	0	0	2	12:45	10	0	0	0	0	0	10
1:00	0	0	0	0	0	0	0	13:00	15	2	0	0	0	0	17
1:15	0	0	0	0	0	0	0	13:15	15	0	0	0	0	0	15
1:30	0	0	0	0	0	0	0	13:30	13	3	0	0	0	0	16
1:45	0	0	0	0	0	0	0	13:45	22	0	0	0	0	0	22
2:00	0	0	0	0	0	0	0	14:00	13	1	0	0	0	0	14
2:15	0	0	0	0	0	0	0	14:15	10	1	0	0	0	0	11
2:30	0	0	0	0	0	0	0	14:30	10	0	0	0	0	0	10
2:45	0	0	0	0	0	0	0	14:45	16	1	0	0	0	0	17
3:00	0	0	0	0	0	0	0	15:00	13	0	0	0	0	0	13
3:15	0	0	0	0	0	0	0	15:15	15	0	0	0	0	0	15
3:30	0	0	0	0	0	0	0	15:30	23	0	1	0	0	0	24
3:45	0	0	0	0	0	0	0	15:45	18	1	0	0	0	0	19
4:00	0	0	0	0	0	0	0	16:00	12	0	0	0	0	0	12
4:15	0	0	0	0	0	0	0	16:15	18	0	0	0	0	0	18
4:30	0	0	0	0	0	0	0	16:30	16	0	0	0	0	0	16
4:45	0	0	0	0	0	0	0	16:45	18	0	0	0	0	0	18
5:00	0	0	0	0	0	0	0	17:00	16	0	0	0	0	0	16
5:15	0	0	0	0	0	0	0	17:15	12	0	0	0	0	0	12
5:30	0	0	0	0	0	0	0	17:30	13	0	0	0	0	0	13
5:45	0	0	0	0	0	0	0	17:45	23	0	0	0	0	0	23
6:00	2	0	0	0	0	0	2	18:00	14	1	0	0	0	0	15
6:15	2	0	0	0	0	0	2	18:15	14	0	0	0	0	0	14
6:30	0	0	0	0	0	0	0	18:30	7	0	0	0	0	0	7
6:45	3	0	0	0	0	0	3	18:45	15	0	0	1	0	0	16
7:00	1	0	0	1	0	0	2	19:00	12	0	0	0	0	0	12
7:15	1	1	0	1	0	0	3	19:15	14	0	0	0	0	0	14
7:30	1	0	0	0	0	0	1	19:30	9	0	0	0	0	0	9
7:45	1	0	0	0	0	0	1	19:45	15	1	0	0	0	0	16
8:00	6	0	0	0	0	0	6	20:00	11	0	0	0	0	0	11
8:15	3	0	0	0	0	0	3	20:15	13	0	0	0	0	0	13
8:30	4	0	0	0	0	0	4	20:30	11	0	0	0	0	0	11
8:45	4	0	0	0	0	0	4	20:45	13	0	0	0	0	0	13
9:00	8	1	0	0	0	0	9	21:00	10	0	0	0	0	0	10
9:15	5	0	0	0	0	0	5	21:15	8	0	0	0	0	0	8
9:30	5	0	0	0	0	0	5	21:30	8	0	0	0	0	0	8
9:45	10	1	0	0	0	0	11	21:45	6	0	0	0	0	0	6
10:00	6	1	0	0	0	0	7	22:00	2	0	0	0	0	0	2
10:15	9	0	0	0	0	0	9	22:15	2	0	0	0	0	0	2
10:30	6	0	0	1	0	0	7	22:30	1	0	0	0	0	0	1
10:45	7	0	0	0	0	0	7	22:45	1	0	0	0	0	0	1
11:00	16	0	0	0	0	0	16	23:00	1	0	0	0	0	0	1
11:15	16	1	0	0	0	0	17	23:15	0	0	0	0	0	0	0
11:30	16	0	0	0	0	0	16	23:30	1	0	0	0	0	0	1
11:45	10	0	0	1	0	0	11	23:45	0	1	0	0	0	0	1
TOTAL	147	5	0	4	0	0	156	TOTAL	560	14	2	1	0	0	577

AM PEAK HOUR	11:00 AM	AM PEAK HOUR	3:30 PM
AM PEAK VOLUME	60	AM PEAK VOLUME	73

TOTAL: AM+PM	707	19	2	5	0	0	733
% OF TOTAL	96.5%	2.6%	0.3%	0.7%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY11 Dwy west of Amargosa Rd (Johnny Carino's)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	16	1	0	0	0	0	17
0:15	0	0	0	0	0	0	0	12:15	17	0	1	0	0	0	18
0:30	0	0	0	0	0	0	0	12:30	12	1	0	0	0	0	13
0:45	0	0	0	0	0	0	0	12:45	6	0	0	0	0	0	6
1:00	0	0	0	0	0	0	0	13:00	6	0	0	0	0	0	6
1:15	0	0	0	0	0	0	0	13:15	6	1	0	0	0	0	7
1:30	0	0	0	0	0	0	0	13:30	13	1	0	1	0	0	15
1:45	0	0	0	0	0	0	0	13:45	11	0	0	0	0	0	11
2:00	0	0	0	0	0	0	0	14:00	6	0	0	1	0	0	7
2:15	0	0	0	0	0	0	0	14:15	2	0	0	0	0	0	2
2:30	0	0	0	0	0	0	0	14:30	4	0	0	0	0	0	4
2:45	0	0	0	0	0	0	0	14:45	7	0	1	1	0	0	9
3:00	0	0	0	0	0	0	0	15:00	11	0	0	0	0	0	11
3:15	0	0	0	0	0	0	0	15:15	8	0	0	0	0	0	8
3:30	0	0	0	0	0	0	0	15:30	5	0	0	0	0	0	5
3:45	0	0	0	0	0	0	0	15:45	10	0	0	0	0	0	10
4:00	0	0	0	0	0	0	0	16:00	13	0	0	0	0	0	13
4:15	0	0	0	0	0	0	0	16:15	13	0	0	0	0	0	13
4:30	0	0	0	0	0	0	0	16:30	10	0	0	0	0	0	10
4:45	0	0	0	0	0	0	0	16:45	7	0	0	0	0	0	7
5:00	0	0	0	0	0	0	0	17:00	7	1	0	0	0	0	8
5:15	0	0	0	0	0	0	0	17:15	13	0	0	0	0	0	13
5:30	0	0	0	0	0	0	0	17:30	9	0	0	0	0	0	9
5:45	1	0	0	0	0	0	1	17:45	9	0	0	0	0	0	9
6:00	2	0	0	0	0	0	2	18:00	10	0	0	0	0	0	10
6:15	1	0	0	0	0	0	1	18:15	14	0	0	0	0	0	14
6:30	0	0	0	0	0	0	0	18:30	16	0	0	0	0	0	16
6:45	0	0	0	0	0	0	0	18:45	11	0	0	0	0	0	11
7:00	1	0	0	0	0	0	1	19:00	4	0	0	0	0	0	4
7:15	2	0	0	0	0	0	2	19:15	14	0	0	0	0	0	14
7:30	2	0	0	0	0	0	2	19:30	2	0	0	0	0	0	2
7:45	1	0	0	0	0	0	1	19:45	8	0	0	0	0	0	8
8:00	5	0	0	0	0	0	5	20:00	9	0	0	0	0	0	9
8:15	2	0	0	0	0	0	2	20:15	7	0	0	0	0	0	7
8:30	7	0	0	0	0	0	7	20:30	2	0	0	0	0	0	2
8:45	4	0	0	0	0	0	4	20:45	5	0	0	0	0	0	5
9:00	4	0	0	0	0	0	4	21:00	0	0	0	0	0	0	0
9:15	9	1	0	0	0	0	10	21:15	2	0	0	0	0	0	2
9:30	3	0	0	0	0	0	3	21:30	3	0	0	0	0	0	3
9:45	2	1	0	0	0	0	3	21:45	1	0	0	0	0	0	1
10:00	4	0	0	0	0	0	4	22:00	2	0	0	0	0	0	2
10:15	5	0	0	1	0	0	6	22:15	0	0	0	0	0	0	0
10:30	6	0	0	0	0	0	6	22:30	0	0	0	0	0	0	0
10:45	4	0	0	0	0	0	4	22:45	0	0	0	0	0	0	0
11:00	10	0	0	0	0	0	10	23:00	1	0	0	0	0	0	1
11:15	6	2	0	0	0	0	8	23:15	0	0	0	0	0	0	0
11:30	9	0	0	0	0	0	9	23:30	0	0	0	0	0	0	0
11:45	11	0	0	0	0	0	11	23:45	0	0	0	0	0	0	0
TOTAL	101	4	0	1	0	0	106	TOTAL	332	5	2	3	0	0	342

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	38

AM PEAK HOUR	12:00 PM
AM PEAK VOLUME	54

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	433	9	2	4	0	0	448
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	96.7%	2.0%	0.4%	0.9%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	778	18	2	10	0	0	808
CLASS 6	Buses	% OF TOTAL	96.3%	2.2%	0.2%	1.2%	0.0%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY11 Dwy west of Amargosa Rd (Johnny Carino's)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0
0:15	0	0	0	0	0	0	0
0:30	0	0	0	0	0	0	0
0:45	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0
1:15	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0
5:00	0	0	0	0	0	0	0
5:15	0	0	0	0	0	0	0
5:30	0	0	0	0	0	0	0
5:45	0	0	0	0	0	0	0
6:00	1	0	0	0	0	0	1
6:15	0	0	0	0	0	0	0
6:30	0	0	0	0	0	0	0
6:45	0	0	0	0	0	0	0
7:00	0	0	0	0	0	0	0
7:15	0	0	0	0	0	0	0
7:30	0	0	0	0	0	0	0
7:45	0	0	0	0	0	0	0
8:00	0	0	0	0	0	0	0
8:15	5	0	0	1	0	0	6
8:30	1	0	0	0	0	0	1
8:45	4	0	0	0	0	0	4
9:00	4	0	0	0	0	0	4
9:15	6	1	0	0	0	0	7
9:30	6	0	0	0	0	0	6
9:45	4	1	0	0	0	0	5
10:00	3	1	0	0	0	0	4
10:15	5	0	0	0	0	0	5
10:30	8	0	0	0	0	0	8
10:45	4	0	0	0	0	0	4
11:00	6	0	0	0	0	0	6
11:15	1	0	0	0	0	0	1
11:30	3	0	0	0	0	0	3
11:45	5	1	0	0	0	0	6
TOTAL	66	4	0	1	0	0	71
AM PEAK HOUR							10:15 AM
AM PEAK VOLUME							23

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	5	0	0	0	0	0	5
12:15	7	1	0	0	0	0	8
12:30	1	0	0	0	0	0	1
12:45	6	0	0	0	0	0	6
13:00	6	0	0	1	0	0	7
13:15	10	0	0	0	0	0	10
13:30	13	0	0	0	0	0	13
13:45	4	0	0	0	0	0	4
14:00	2	1	0	1	0	0	4
14:15	11	0	0	0	0	0	11
14:30	4	0	0	0	0	0	4
14:45	7	0	0	0	0	0	7
15:00	10	0	0	0	0	0	10
15:15	5	0	0	0	0	0	5
15:30	4	0	0	0	0	0	4
15:45	9	0	0	0	0	0	9
16:00	4	1	0	0	0	0	5
16:15	4	1	0	0	0	0	5
16:30	4	0	0	0	0	0	4
16:45	8	0	0	0	0	0	8
17:00	14	0	0	0	0	0	14
17:15	9	0	0	1	0	0	10
17:30	11	0	0	0	0	0	11
17:45	8	0	0	0	0	0	8
18:00	7	1	0	0	0	0	8
18:15	3	0	0	0	0	0	3
18:30	11	0	0	0	0	0	11
18:45	6	0	0	0	0	0	6
19:00	9	0	0	0	0	0	9
19:15	5	0	0	1	0	0	6
19:30	5	0	0	0	0	0	5
19:45	10	0	0	0	0	0	10
20:00	5	0	0	0	0	0	5
20:15	6	0	0	0	0	0	6
20:30	10	0	0	0	0	0	10
20:45	9	0	0	0	0	0	9
21:00	2	0	0	1	0	0	3
21:15	5	0	0	0	0	0	5
21:30	7	0	0	0	0	0	7
21:45	4	0	0	0	0	0	4
22:00	4	0	0	0	0	0	4
22:15	0	0	0	0	0	0	0
22:30	1	0	0	0	0	0	1
22:45	0	0	0	0	0	0	0
23:00	0	0	0	0	0	0	0
23:15	1	0	0	0	0	0	1
23:30	2	0	0	0	0	0	2
23:45	1	0	0	0	0	0	1
TOTAL	279	5	0	5	0	0	289
AM PEAK HOUR							5:00 PM
AM PEAK VOLUME							43

TOTAL: AM+PM		345	9	0	6	0	0	360
% OF TOTAL		95.8%	2.5%	0.0%	1.7%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY11 Dwy west of Amargosa Rd (Johnny Carino's)

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	21	1	0	0	0	0	22
0:15	0	0	0	0	0	0	0	12:15	24	1	1	0	0	0	26
0:30	0	0	0	0	0	0	0	12:30	13	1	0	0	0	0	14
0:45	0	0	0	0	0	0	0	12:45	12	0	0	0	0	0	12
1:00	0	0	0	0	0	0	0	13:00	12	0	0	1	0	0	13
1:15	0	0	0	0	0	0	0	13:15	16	1	0	0	0	0	17
1:30	0	0	0	0	0	0	0	13:30	26	1	0	1	0	0	28
1:45	0	0	0	0	0	0	0	13:45	15	0	0	0	0	0	15
2:00	0	0	0	0	0	0	0	14:00	8	1	0	2	0	0	11
2:15	0	0	0	0	0	0	0	14:15	13	0	0	0	0	0	13
2:30	0	0	0	0	0	0	0	14:30	8	0	0	0	0	0	8
2:45	0	0	0	0	0	0	0	14:45	14	0	1	1	0	0	16
3:00	0	0	0	0	0	0	0	15:00	21	0	0	0	0	0	21
3:15	0	0	0	0	0	0	0	15:15	13	0	0	0	0	0	13
3:30	0	0	0	0	0	0	0	15:30	9	0	0	0	0	0	9
3:45	0	0	0	0	0	0	0	15:45	19	0	0	0	0	0	19
4:00	0	0	0	0	0	0	0	16:00	17	1	0	0	0	0	18
4:15	0	0	0	0	0	0	0	16:15	17	1	0	0	0	0	18
4:30	0	0	0	0	0	0	0	16:30	14	0	0	0	0	0	14
4:45	0	0	0	0	0	0	0	16:45	15	0	0	0	0	0	15
5:00	0	0	0	0	0	0	0	17:00	21	1	0	0	0	0	22
5:15	0	0	0	0	0	0	0	17:15	22	0	0	1	0	0	23
5:30	0	0	0	0	0	0	0	17:30	20	0	0	0	0	0	20
5:45	1	0	0	0	0	0	1	17:45	17	0	0	0	0	0	17
6:00	3	0	0	0	0	0	3	18:00	17	1	0	0	0	0	18
6:15	1	0	0	0	0	0	1	18:15	17	0	0	0	0	0	17
6:30	0	0	0	0	0	0	0	18:30	27	0	0	0	0	0	27
6:45	0	0	0	0	0	0	0	18:45	17	0	0	0	0	0	17
7:00	1	0	0	0	0	0	1	19:00	13	0	0	0	0	0	13
7:15	2	0	0	0	0	0	2	19:15	19	0	0	1	0	0	20
7:30	2	0	0	0	0	0	2	19:30	7	0	0	0	0	0	7
7:45	1	0	0	0	0	0	1	19:45	18	0	0	0	0	0	18
8:00	5	0	0	0	0	0	5	20:00	14	0	0	0	0	0	14
8:15	7	0	0	1	0	0	8	20:15	13	0	0	0	0	0	13
8:30	8	0	0	0	0	0	8	20:30	12	0	0	0	0	0	12
8:45	8	0	0	0	0	0	8	20:45	14	0	0	0	0	0	14
9:00	8	0	0	0	0	0	8	21:00	2	0	0	1	0	0	3
9:15	15	2	0	0	0	0	17	21:15	7	0	0	0	0	0	7
9:30	9	0	0	0	0	0	9	21:30	10	0	0	0	0	0	10
9:45	6	2	0	0	0	0	8	21:45	5	0	0	0	0	0	5
10:00	7	1	0	0	0	0	8	22:00	6	0	0	0	0	0	6
10:15	10	0	0	1	0	0	11	22:15	0	0	0	0	0	0	0
10:30	14	0	0	0	0	0	14	22:30	1	0	0	0	0	0	1
10:45	8	0	0	0	0	0	8	22:45	0	0	0	0	0	0	0
11:00	16	0	0	0	0	0	16	23:00	1	0	0	0	0	0	1
11:15	7	2	0	0	0	0	9	23:15	1	0	0	0	0	0	1
11:30	12	0	0	0	0	0	12	23:30	2	0	0	0	0	0	2
11:45	16	1	0	0	0	0	17	23:45	1	0	0	0	0	0	1
TOTAL	167	8	0	2	0	0	177	TOTAL	611	10	2	8	0	0	631

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	54

AM PEAK HOUR	5:00 PM
AM PEAK VOLUME	82

TOTAL: AM+PM	778	18	2	10	0	0	808
% OF TOTAL	96.3%	2.2%	0.2%	1.2%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY12 Dwy west of Amargosa Rd (Main dwy to the Parking Lot)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	1	0	0	0	0	0	1	12:00	47	0	0	0	0	1	48
0:15	2	0	0	0	0	0	2	12:15	49	1	0	0	0	1	51
0:30	1	0	0	0	0	0	1	12:30	54	0	0	0	0	0	54
0:45	2	0	0	0	0	0	2	12:45	43	0	0	0	0	0	43
1:00	3	0	0	0	0	0	3	13:00	46	0	0	0	0	1	47
1:15	1	0	0	0	0	0	1	13:15	46	0	0	0	0	1	47
1:30	0	0	0	0	0	0	0	13:30	38	1	0	0	0	0	39
1:45	0	0	0	0	0	0	0	13:45	48	1	0	0	0	1	50
2:00	0	0	0	0	0	0	0	14:00	30	0	0	0	0	1	31
2:15	1	0	0	0	0	0	1	14:15	42	0	0	0	0	1	43
2:30	1	0	0	0	0	0	1	14:30	41	1	0	0	0	0	42
2:45	1	0	0	0	0	0	1	14:45	43	1	1	0	0	0	45
3:00	1	0	0	0	0	0	1	15:00	44	0	0	0	0	1	45
3:15	0	0	0	0	0	0	0	15:15	42	0	0	0	0	1	43
3:30	1	0	0	0	0	0	1	15:30	51	1	0	0	0	1	53
3:45	0	0	0	0	0	0	0	15:45	53	0	1	0	0	0	54
4:00	0	0	0	0	0	0	0	16:00	39	0	0	0	0	1	40
4:15	0	0	0	0	0	0	0	16:15	49	0	0	0	0	0	49
4:30	4	0	0	0	0	0	4	16:30	49	0	1	1	0	1	52
4:45	6	0	0	0	0	0	6	16:45	53	0	0	0	0	1	54
5:00	1	1	0	0	0	0	2	17:00	33	0	0	0	0	1	34
5:15	1	1	0	0	0	0	2	17:15	54	0	0	0	0	0	54
5:30	3	1	0	0	0	0	4	17:30	46	0	0	1	0	0	47
5:45	8	0	0	0	0	0	8	17:45	35	0	0	0	0	2	37
6:00	17	0	0	0	0	0	17	18:00	41	0	0	0	0	0	41
6:15	10	0	1	0	0	0	11	18:15	43	0	0	0	0	0	43
6:30	17	0	0	0	0	0	17	18:30	38	0	0	0	0	0	38
6:45	15	0	0	0	0	1	16	18:45	51	0	0	0	0	1	52
7:00	18	1	0	0	0	0	19	19:00	45	0	0	0	0	0	45
7:15	16	0	0	0	0	0	16	19:15	28	1	0	0	0	0	29
7:30	14	0	0	0	0	0	14	19:30	43	0	0	0	0	0	43
7:45	16	0	0	0	0	1	17	19:45	38	0	0	0	0	0	38
8:00	26	0	0	1	0	0	27	20:00	44	0	0	1	0	1	46
8:15	36	1	0	1	0	0	38	20:15	25	1	0	0	0	0	26
8:30	32	0	0	0	0	0	32	20:30	36	1	0	1	0	0	38
8:45	33	0	0	0	0	1	34	20:45	30	0	0	0	0	0	30
9:00	35	1	0	1	0	1	38	21:00	21	0	0	0	0	1	22
9:15	37	0	0	0	0	1	38	21:15	25	0	0	0	0	0	25
9:30	28	0	0	0	0	0	28	21:30	21	0	0	0	0	0	21
9:45	46	1	0	0	0	0	47	21:45	13	0	0	0	0	0	13
10:00	46	0	0	0	0	1	47	22:00	13	0	0	0	0	0	13
10:15	51	0	0	0	0	0	51	22:15	11	0	0	0	0	0	11
10:30	48	2	0	0	0	1	51	22:30	6	0	1	0	0	0	7
10:45	42	1	0	0	0	1	44	22:45	7	0	0	0	0	0	7
11:00	48	0	0	0	0	1	49	23:00	2	0	0	0	0	0	2
11:15	44	0	0	0	0	0	44	23:15	2	0	0	0	0	0	2
11:30	46	1	0	0	0	0	47	23:30	1	0	0	0	0	0	1
11:45	45	0	0	0	0	1	46	23:45	0	0	0	0	0	0	0
TOTAL	804	11	1	3	0	10	829	TOTAL	1,659	9	4	4	0	19	1,695
				AM PEAK HOUR			9:45 AM							AM PEAK HOUR	3:30 PM
				AM PEAK VOLUME			196							AM PEAK VOLUME	196

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	2,463	20	5	7	0	29	2,524
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	97.6%	0.8%	0.2%	0.3%	0.0%	1.1%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	5,019	46	9	17	1	57	5,149
CLASS 6	Buses	% OF TOTAL	97.5%	0.9%	0.2%	0.3%	0.0%	1.1%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY12 Dwy west of Amargosa Rd (Main dwy to the Parking Lot)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	2	0	0	0	0	0	2
0:15	4	0	0	0	0	0	4
0:30	1	0	0	0	0	0	1
0:45	0	0	0	0	0	0	0
1:00	4	0	0	0	0	0	4
1:15	1	0	0	0	0	0	1
1:30	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0
2:00	1	0	0	0	0	0	1
2:15	1	0	0	0	0	0	1
2:30	0	0	0	0	0	0	0
2:45	1	0	0	0	0	0	1
3:00	1	0	0	0	0	0	1
3:15	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0
4:15	1	0	0	0	0	0	1
4:30	0	0	0	0	0	0	0
4:45	1	0	0	0	0	0	1
5:00	2	1	0	0	0	0	3
5:15	0	0	0	0	0	0	0
5:30	1	0	0	0	0	0	1
5:45	1	0	0	0	0	0	1
6:00	9	0	0	0	0	1	10
6:15	8	0	0	0	0	0	8
6:30	12	0	1	0	0	0	13
6:45	19	0	0	1	0	0	20
7:00	18	1	0	0	0	1	20
7:15	19	1	0	0	0	0	20
7:30	22	0	0	0	0	0	22
7:45	16	0	0	0	0	0	16
8:00	14	0	0	0	0	1	15
8:15	15	0	0	0	0	0	15
8:30	32	0	0	0	0	0	32
8:45	27	0	0	1	0	0	28
9:00	32	0	0	0	0	1	33
9:15	29	1	0	0	0	0	30
9:30	39	1	0	0	0	1	41
9:45	33	0	0	0	0	0	33
10:00	41	1	0	0	0	0	42
10:15	32	0	0	0	0	1	33
10:30	38	0	0	0	0	0	38
10:45	45	2	0	0	1	1	49
11:00	49	1	0	0	0	1	51
11:15	50	0	0	0	0	0	50
11:30	42	0	0	0	0	1	43
11:45	51	0	0	0	0	0	51
TOTAL	714	9	1	2	1	9	736

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	195

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	48	0	0	0	0	1	49
12:15	51	3	0	0	0	1	55
12:30	45	0	0	0	0	1	46
12:45	49	1	0	1	0	0	51
13:00	59	0	0	0	0	0	59
13:15	42	0	0	0	0	1	43
13:30	42	1	0	1	0	1	45
13:45	48	0	0	0	0	0	48
14:00	52	1	0	0	0	0	53
14:15	38	1	1	0	0	2	42
14:30	34	0	0	0	0	1	35
14:45	49	0	0	1	0	0	50
15:00	47	1	1	0	0	0	49
15:15	42	2	0	0	0	1	45
15:30	42	1	0	0	0	1	44
15:45	44	1	0	0	0	0	45
16:00	54	0	0	0	0	1	55
16:15	45	0	0	0	0	1	46
16:30	59	0	0	0	0	0	59
16:45	41	0	0	0	0	1	42
17:00	55	1	0	1	0	1	58
17:15	38	0	0	0	0	0	38
17:30	41	0	0	0	0	0	41
17:45	57	0	0	0	0	0	57
18:00	45	1	0	0	0	1	47
18:15	44	0	0	0	0	1	45
18:30	35	0	0	0	0	0	35
18:45	60	1	0	0	0	0	61
19:00	45	1	0	0	0	0	46
19:15	41	0	0	1	0	1	43
19:30	39	0	0	1	0	0	40
19:45	42	0	0	1	0	0	43
20:00	39	0	0	0	0	0	39
20:15	56	0	0	1	0	1	58
20:30	43	0	0	0	0	0	43
20:45	33	0	0	0	0	0	33
21:00	28	0	0	0	0	1	29
21:15	24	1	0	0	0	0	25
21:30	24	0	0	0	0	0	24
21:45	17	0	0	0	0	0	17
22:00	23	0	0	0	0	0	23
22:15	18	0	0	0	0	0	18
22:30	14	0	0	0	0	0	14
22:45	22	0	0	0	0	0	22
23:00	13	0	0	0	0	0	13
23:15	6	0	1	0	0	0	7
23:30	3	0	0	0	0	0	3
23:45	6	0	0	0	0	0	6
TOTAL	1,842	17	3	8	0	19	1,889

AM PEAK HOUR	12:15 PM
AM PEAK VOLUME	211

TOTAL: AM+PM	2,556	26	4	10	1	28	2,625
% OF TOTAL	97.4%	1.0%	0.2%	0.4%	0.0%	1.1%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY12 Dwy west of Amargosa Rd (Main dwy to the Parking Lot)

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	3	0	0	0	0	0	3	12:00	95	0	0	0	0	2	97
0:15	6	0	0	0	0	0	6	12:15	100	4	0	0	0	2	106
0:30	2	0	0	0	0	0	2	12:30	99	0	0	0	0	1	100
0:45	2	0	0	0	0	0	2	12:45	92	1	0	1	0	0	94
1:00	7	0	0	0	0	0	7	13:00	105	0	0	0	0	1	106
1:15	2	0	0	0	0	0	2	13:15	88	0	0	0	0	2	90
1:30	0	0	0	0	0	0	0	13:30	80	2	0	1	0	1	84
1:45	0	0	0	0	0	0	0	13:45	96	1	0	0	0	1	98
2:00	1	0	0	0	0	0	1	14:00	82	1	0	0	0	1	84
2:15	2	0	0	0	0	0	2	14:15	80	1	1	0	0	3	85
2:30	1	0	0	0	0	0	1	14:30	75	1	0	0	0	1	77
2:45	2	0	0	0	0	0	2	14:45	92	1	1	1	0	0	95
3:00	2	0	0	0	0	0	2	15:00	91	1	1	0	0	1	94
3:15	0	0	0	0	0	0	0	15:15	84	2	0	0	0	2	88
3:30	1	0	0	0	0	0	1	15:30	93	2	0	0	0	2	97
3:45	0	0	0	0	0	0	0	15:45	97	1	1	0	0	0	99
4:00	0	0	0	0	0	0	0	16:00	93	0	0	0	0	2	95
4:15	1	0	0	0	0	0	1	16:15	94	0	0	0	0	1	95
4:30	4	0	0	0	0	0	4	16:30	108	0	1	1	0	1	111
4:45	7	0	0	0	0	0	7	16:45	94	0	0	0	0	2	96
5:00	3	2	0	0	0	0	5	17:00	88	1	0	1	0	2	92
5:15	1	1	0	0	0	0	2	17:15	92	0	0	0	0	0	92
5:30	4	1	0	0	0	0	5	17:30	87	0	0	1	0	0	88
5:45	9	0	0	0	0	0	9	17:45	92	0	0	0	0	2	94
6:00	26	0	0	0	0	1	27	18:00	86	1	0	0	0	1	88
6:15	18	0	1	0	0	0	19	18:15	87	0	0	0	0	1	88
6:30	29	0	1	0	0	0	30	18:30	73	0	0	0	0	0	73
6:45	34	0	0	1	0	1	36	18:45	111	1	0	0	0	1	113
7:00	36	2	0	0	0	1	39	19:00	90	1	0	0	0	0	91
7:15	35	1	0	0	0	0	36	19:15	69	1	0	1	0	1	72
7:30	36	0	0	0	0	0	36	19:30	82	0	0	1	0	0	83
7:45	32	0	0	0	0	1	33	19:45	80	0	0	1	0	0	81
8:00	40	0	0	1	0	1	42	20:00	83	0	0	1	0	1	85
8:15	51	1	0	1	0	0	53	20:15	81	1	0	1	0	1	84
8:30	64	0	0	0	0	0	64	20:30	79	1	0	1	0	0	81
8:45	60	0	0	1	0	1	62	20:45	63	0	0	0	0	0	63
9:00	67	1	0	1	0	2	71	21:00	49	0	0	0	0	2	51
9:15	66	1	0	0	0	1	68	21:15	49	1	0	0	0	0	50
9:30	67	1	0	0	0	1	69	21:30	45	0	0	0	0	0	45
9:45	79	1	0	0	0	0	80	21:45	30	0	0	0	0	0	30
10:00	87	1	0	0	0	1	89	22:00	36	0	0	0	0	0	36
10:15	83	0	0	0	0	1	84	22:15	29	0	0	0	0	0	29
10:30	86	2	0	0	0	1	89	22:30	20	0	1	0	0	0	21
10:45	87	3	0	0	1	2	93	22:45	29	0	0	0	0	0	29
11:00	97	1	0	0	0	2	100	23:00	15	0	0	0	0	0	15
11:15	94	0	0	0	0	0	94	23:15	8	0	1	0	0	0	9
11:30	88	1	0	0	0	1	90	23:30	4	0	0	0	0	0	4
11:45	96	0	0	0	0	1	97	23:45	6	0	0	0	0	0	6
TOTAL	1,518	20	2	5	1	19	1,565	**TOTAL**	3,501	26	7	12	0	38	3,584

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	381

AM PEAK HOUR	12:15 PM
AM PEAK VOLUME	406

TOTAL: AM+PM	5,019	46	9	17	1	57	5,149
% OF TOTAL	97.5%	0.9%	0.2%	0.3%	0.0%	1.1%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY13 Dwy west of Amargosa Rd (south of Main dwy)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	1	0	0	0	0	0	1	12:00	20	0	0	0	0	0	20
0:15	0	0	0	0	0	0	0	12:15	10	0	0	0	0	0	10
0:30	0	0	0	0	0	0	0	12:30	19	0	0	0	0	0	19
0:45	1	0	0	0	0	0	1	12:45	17	0	0	0	0	0	17
1:00	0	0	0	0	0	0	0	13:00	15	0	0	0	0	0	15
1:15	0	0	0	0	0	0	0	13:15	25	2	0	1	0	0	28
1:30	0	0	0	0	0	0	0	13:30	21	0	0	0	0	0	21
1:45	0	0	0	0	0	0	0	13:45	18	0	0	0	0	0	18
2:00	0	0	0	0	0	0	0	14:00	20	0	0	0	0	0	20
2:15	0	0	0	0	0	0	0	14:15	22	1	0	0	0	0	23
2:30	0	0	0	0	0	0	0	14:30	13	0	0	0	0	0	13
2:45	1	0	0	0	0	0	1	14:45	17	1	0	0	0	0	18
3:00	1	0	0	0	0	0	1	15:00	11	0	0	0	0	0	11
3:15	0	0	0	0	0	0	0	15:15	21	0	0	0	0	0	21
3:30	1	0	0	0	0	0	1	15:30	14	0	0	0	0	0	14
3:45	2	0	0	0	0	0	2	15:45	14	1	0	0	0	0	15
4:00	1	0	0	0	0	0	1	16:00	19	0	0	0	0	0	19
4:15	0	0	0	0	0	0	0	16:15	23	0	0	0	0	0	23
4:30	2	0	0	0	0	0	2	16:30	27	0	0	0	0	0	27
4:45	1	0	0	0	0	0	1	16:45	14	0	0	0	0	0	14
5:00	4	0	0	0	0	0	4	17:00	20	0	0	0	0	0	20
5:15	3	0	0	0	0	0	3	17:15	16	0	0	0	0	0	16
5:30	2	0	0	0	0	0	2	17:30	17	1	0	0	0	0	18
5:45	6	0	0	0	0	0	6	17:45	13	0	0	0	0	0	13
6:00	3	0	0	0	0	0	3	18:00	18	0	0	0	0	0	18
6:15	10	0	0	0	0	0	10	18:15	26	0	0	0	0	0	26
6:30	8	0	0	0	0	0	8	18:30	20	0	0	1	0	0	21
6:45	13	3	0	0	0	0	16	18:45	21	0	0	0	0	0	21
7:00	4	1	0	0	0	0	5	19:00	16	0	0	0	0	0	16
7:15	10	0	0	0	0	0	10	19:15	15	0	0	0	0	0	15
7:30	9	0	0	0	0	0	9	19:30	11	0	0	1	0	0	12
7:45	3	0	0	0	0	0	3	19:45	15	0	0	0	0	0	15
8:00	9	0	0	0	0	0	9	20:00	19	0	0	0	0	0	19
8:15	5	0	0	0	0	0	5	20:15	15	0	0	0	0	0	15
8:30	9	0	0	0	0	0	9	20:30	11	0	0	0	0	0	11
8:45	11	0	0	0	0	0	11	20:45	17	0	0	0	0	0	17
9:00	24	0	0	0	0	0	24	21:00	11	1	0	0	0	0	12
9:15	11	0	0	0	0	0	11	21:15	10	0	0	0	0	0	10
9:30	17	0	0	0	0	0	17	21:30	6	0	0	0	0	0	6
9:45	17	1	0	0	0	0	18	21:45	23	0	0	0	0	0	23
10:00	20	0	0	0	0	0	20	22:00	8	0	0	0	0	0	8
10:15	20	0	0	0	0	0	20	22:15	6	0	0	0	0	0	6
10:30	24	0	0	0	0	0	24	22:30	5	0	0	0	0	0	5
10:45	18	0	0	0	0	0	18	22:45	1	0	0	0	0	0	1
11:00	25	0	0	0	0	0	25	23:00	1	0	0	0	0	0	1
11:15	11	0	0	0	0	0	11	23:15	1	0	0	0	0	0	1
11:30	26	0	0	1	0	0	27	23:30	3	0	0	0	0	0	3
11:45	16	0	0	0	0	0	16	23:45	0	0	0	0	0	0	0
TOTAL	349	5	0	1	0	0	355	TOTAL	705	7	0	3	0	0	715
				AM PEAK HOUR			10:15 AM						AM PEAK HOUR		1:15 PM
				AM PEAK VOLUME			87						AM PEAK VOLUME		87

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	1,054	12	0	4	0	0	1,070
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	98.5%	1.1%	0.0%	0.4%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	2,082	26	2	6	1	0	2,117
CLASS 6	Buses	% OF TOTAL	98.3%	1.2%	0.1%	0.3%	0.0%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY13 Dwy west of Amargosa Rd (south of Main dwy)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	4	0	0	0	0	0	4
0:15	1	0	0	0	0	0	1
0:30	0	0	0	0	0	0	0
0:45	1	0	0	0	0	0	1
1:00	1	0	0	0	0	0	1
1:15	1	0	0	0	0	0	1
1:30	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0
2:00	2	0	0	0	0	0	2
2:15	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0
4:00	1	0	0	0	0	0	1
4:15	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0
4:45	0	0	0	0	0	0	0
5:00	1	0	0	0	0	0	1
5:15	0	0	0	0	0	0	0
5:30	1	0	0	0	0	0	1
5:45	1	0	0	0	0	0	1
6:00	1	0	0	0	0	0	1
6:15	2	0	0	0	0	0	2
6:30	6	0	0	0	0	0	6
6:45	0	0	0	0	0	0	0
7:00	19	1	0	0	0	0	20
7:15	4	0	0	0	0	0	4
7:30	3	0	0	0	0	0	3
7:45	3	0	0	0	0	0	3
8:00	10	0	0	0	0	0	10
8:15	5	0	0	0	0	0	5
8:30	3	0	0	0	0	0	3
8:45	7	0	0	0	0	0	7
9:00	10	0	0	0	0	0	10
9:15	9	1	0	0	0	0	10
9:30	11	0	0	0	0	0	11
9:45	13	0	0	0	0	0	13
10:00	14	2	0	0	0	0	16
10:15	12	1	0	0	0	0	13
10:30	17	1	0	0	0	0	18
10:45	17	0	0	0	0	0	17
11:00	19	0	0	0	0	0	19
11:15	24	1	0	0	0	0	25
11:30	17	0	0	0	0	0	17
11:45	20	0	0	0	0	0	20
TOTAL	260	7	0	0	0	0	267

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	81

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	15	0	0	0	0	0	15
12:15	13	0	0	0	0	0	13
12:30	20	0	0	0	0	0	20
12:45	18	0	0	0	0	0	18
13:00	14	2	1	0	0	0	17
13:15	20	0	0	0	0	0	20
13:30	19	0	0	0	0	0	19
13:45	24	1	0	0	0	0	25
14:00	26	0	0	0	0	0	26
14:15	16	1	0	1	1	0	19
14:30	17	1	0	0	0	0	18
14:45	21	0	0	0	0	0	21
15:00	13	0	0	0	0	0	13
15:15	19	0	0	0	0	0	19
15:30	17	0	1	1	0	0	19
15:45	23	0	0	0	0	0	23
16:00	28	0	0	0	0	0	28
16:15	19	0	0	0	0	0	19
16:30	13	1	0	0	0	0	14
16:45	27	0	0	0	0	0	27
17:00	19	0	0	0	0	0	19
17:15	18	0	0	0	0	0	18
17:30	23	0	0	0	0	0	23
17:45	16	0	0	0	0	0	16
18:00	25	0	0	0	0	0	25
18:15	16	0	0	0	0	0	16
18:30	15	0	0	0	0	0	15
18:45	17	1	0	0	0	0	18
19:00	14	0	0	0	0	0	14
19:15	21	0	0	0	0	0	21
19:30	16	0	0	0	0	0	16
19:45	23	0	0	0	0	0	23
20:00	18	0	0	0	0	0	18
20:15	15	0	0	0	0	0	15
20:30	15	0	0	0	0	0	15
20:45	15	0	0	0	0	0	15
21:00	17	0	0	0	0	0	17
21:15	18	0	0	0	0	0	18
21:30	13	0	0	0	0	0	13
21:45	5	0	0	0	0	0	5
22:00	13	0	0	0	0	0	13
22:15	10	0	0	0	0	0	10
22:30	5	0	0	0	0	0	5
22:45	7	0	0	0	0	0	7
23:00	6	0	0	0	0	0	6
23:15	3	0	0	0	0	0	3
23:30	1	0	0	0	0	0	1
23:45	2	0	0	0	0	0	2
TOTAL	768	7	2	2	1	0	780

AM PEAK HOUR	1:15 PM
AM PEAK VOLUME	90

TOTAL: AM+PM	1,028	14	2	2	1	0	1,047
% OF TOTAL	98.2%	1.3%	0.2%	0.2%	0.1%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY13 Dwy west of Amargosa Rd (south of Main dwy)

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	5	0	0	0	0	0	5	12:00	35	0	0	0	0	0	35
0:15	1	0	0	0	0	0	1	12:15	23	0	0	0	0	0	23
0:30	0	0	0	0	0	0	0	12:30	39	0	0	0	0	0	39
0:45	2	0	0	0	0	0	2	12:45	35	0	0	0	0	0	35
1:00	1	0	0	0	0	0	1	13:00	29	2	1	0	0	0	32
1:15	1	0	0	0	0	0	1	13:15	45	2	0	1	0	0	48
1:30	0	0	0	0	0	0	0	13:30	40	0	0	0	0	0	40
1:45	0	0	0	0	0	0	0	13:45	42	1	0	0	0	0	43
2:00	2	0	0	0	0	0	2	14:00	46	0	0	0	0	0	46
2:15	0	0	0	0	0	0	0	14:15	38	2	0	1	1	0	42
2:30	0	0	0	0	0	0	0	14:30	30	1	0	0	0	0	31
2:45	1	0	0	0	0	0	1	14:45	38	1	0	0	0	0	39
3:00	1	0	0	0	0	0	1	15:00	24	0	0	0	0	0	24
3:15	0	0	0	0	0	0	0	15:15	40	0	0	0	0	0	40
3:30	1	0	0	0	0	0	1	15:30	31	0	1	1	0	0	33
3:45	2	0	0	0	0	0	2	15:45	37	1	0	0	0	0	38
4:00	2	0	0	0	0	0	2	16:00	47	0	0	0	0	0	47
4:15	0	0	0	0	0	0	0	16:15	42	0	0	0	0	0	42
4:30	2	0	0	0	0	0	2	16:30	40	1	0	0	0	0	41
4:45	1	0	0	0	0	0	1	16:45	41	0	0	0	0	0	41
5:00	5	0	0	0	0	0	5	17:00	39	0	0	0	0	0	39
5:15	3	0	0	0	0	0	3	17:15	34	0	0	0	0	0	34
5:30	3	0	0	0	0	0	3	17:30	40	1	0	0	0	0	41
5:45	7	0	0	0	0	0	7	17:45	29	0	0	0	0	0	29
6:00	4	0	0	0	0	0	4	18:00	43	0	0	0	0	0	43
6:15	12	0	0	0	0	0	12	18:15	42	0	0	0	0	0	42
6:30	14	0	0	0	0	0	14	18:30	35	0	0	1	0	0	36
6:45	13	3	0	0	0	0	16	18:45	38	1	0	0	0	0	39
7:00	23	2	0	0	0	0	25	19:00	30	0	0	0	0	0	30
7:15	14	0	0	0	0	0	14	19:15	36	0	0	0	0	0	36
7:30	12	0	0	0	0	0	12	19:30	27	0	0	1	0	0	28
7:45	6	0	0	0	0	0	6	19:45	38	0	0	0	0	0	38
8:00	19	0	0	0	0	0	19	20:00	37	0	0	0	0	0	37
8:15	10	0	0	0	0	0	10	20:15	30	0	0	0	0	0	30
8:30	12	0	0	0	0	0	12	20:30	26	0	0	0	0	0	26
8:45	18	0	0	0	0	0	18	20:45	32	0	0	0	0	0	32
9:00	34	0	0	0	0	0	34	21:00	28	1	0	0	0	0	29
9:15	20	1	0	0	0	0	21	21:15	28	0	0	0	0	0	28
9:30	28	0	0	0	0	0	28	21:30	19	0	0	0	0	0	19
9:45	30	1	0	0	0	0	31	21:45	28	0	0	0	0	0	28
10:00	34	2	0	0	0	0	36	22:00	21	0	0	0	0	0	21
10:15	32	1	0	0	0	0	33	22:15	16	0	0	0	0	0	16
10:30	41	1	0	0	0	0	42	22:30	10	0	0	0	0	0	10
10:45	35	0	0	0	0	0	35	22:45	8	0	0	0	0	0	8
11:00	44	0	0	0	0	0	44	23:00	7	0	0	0	0	0	7
11:15	35	1	0	0	0	0	36	23:15	4	0	0	0	0	0	4
11:30	43	0	0	1	0	0	44	23:30	4	0	0	0	0	0	4
11:45	36	0	0	0	0	0	36	23:45	2	0	0	0	0	0	2
TOTAL	609	12	0	1	0	0	622	**TOTAL**	1,473	14	2	5	1	0	1,495

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	160

AM PEAK HOUR	1:15 PM
AM PEAK VOLUME	177

TOTAL: AM+PM	2,082	26	2	6	1	0	2,117
% OF TOTAL	98.3%	1.2%	0.1%	0.3%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY14 Dwy west of Amargosa Rd (PV'S Fresh Grill and Tequila)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	1	0	0	0	0	0	1	12:00	6	0	0	0	0	0	6
0:15	1	0	0	0	0	0	1	12:15	18	1	0	0	0	0	19
0:30	3	0	0	0	0	0	3	12:30	12	0	0	0	0	0	12
0:45	0	0	0	0	0	0	0	12:45	20	0	0	0	0	0	20
1:00	0	1	0	0	0	0	1	13:00	10	0	0	0	0	0	10
1:15	0	0	0	0	0	0	0	13:15	7	0	0	0	0	0	7
1:30	0	0	0	0	0	0	0	13:30	13	0	0	0	1	0	14
1:45	1	0	0	0	0	0	1	13:45	15	0	0	0	0	0	15
2:00	0	0	0	0	0	0	0	14:00	9	0	0	0	0	0	9
2:15	0	0	0	0	0	0	0	14:15	13	0	0	0	0	0	13
2:30	0	0	0	0	0	0	0	14:30	11	0	0	0	0	0	11
2:45	0	0	0	0	0	0	0	14:45	14	1	0	0	0	0	15
3:00	0	0	0	0	0	0	0	15:00	8	0	0	0	0	0	8
3:15	0	0	0	0	0	0	0	15:15	13	0	0	0	0	0	13
3:30	1	0	0	0	0	0	1	15:30	12	0	0	0	0	0	12
3:45	3	0	0	0	0	0	3	15:45	15	1	0	0	0	0	16
4:00	1	0	0	0	0	0	1	16:00	19	1	0	0	0	0	20
4:15	1	0	0	0	0	0	1	16:15	10	0	0	0	0	0	10
4:30	0	0	0	0	0	0	0	16:30	16	0	0	0	0	0	16
4:45	3	0	0	0	0	0	3	16:45	20	0	0	0	0	0	20
5:00	2	0	0	0	0	0	2	17:00	19	0	0	0	0	0	19
5:15	0	0	0	0	0	0	0	17:15	18	1	0	0	0	0	19
5:30	1	0	0	0	0	0	1	17:30	11	0	0	0	0	0	11
5:45	1	0	0	0	0	0	1	17:45	19	1	0	0	0	0	20
6:00	3	0	0	0	0	0	3	18:00	16	1	0	0	0	0	17
6:15	0	0	0	0	0	0	0	18:15	9	0	0	0	0	0	9
6:30	1	0	0	0	0	0	1	18:30	19	0	0	0	0	0	19
6:45	8	0	0	0	0	0	8	18:45	12	0	0	0	0	0	12
7:00	4	1	0	0	0	0	5	19:00	8	0	0	0	0	0	8
7:15	6	1	0	0	0	0	7	19:15	19	0	0	0	0	0	19
7:30	4	0	0	0	0	0	4	19:30	14	0	0	0	0	0	14
7:45	7	0	0	0	0	0	7	19:45	6	0	0	0	0	0	6
8:00	3	0	0	1	0	0	4	20:00	16	1	0	0	0	0	17
8:15	9	0	0	0	0	0	9	20:15	17	0	0	0	0	0	17
8:30	6	0	0	0	0	0	6	20:30	6	0	0	1	0	0	7
8:45	6	0	0	0	0	0	6	20:45	11	0	0	0	0	0	11
9:00	9	2	0	0	0	0	11	21:00	7	0	0	0	0	0	7
9:15	8	2	0	1	0	0	11	21:15	5	0	0	0	0	0	5
9:30	9	1	0	0	0	0	10	21:30	5	0	0	0	0	0	5
9:45	11	0	0	0	0	0	11	21:45	6	0	0	0	0	0	6
10:00	10	1	0	0	0	0	11	22:00	6	0	0	0	0	0	6
10:15	5	0	0	0	0	0	5	22:15	5	0	0	0	0	0	5
10:30	7	0	0	0	0	0	7	22:30	6	0	0	0	0	0	6
10:45	12	0	0	0	0	0	12	22:45	2	0	0	0	0	0	2
11:00	15	0	0	0	0	0	15	23:00	2	0	0	0	0	0	2
11:15	9	1	0	1	0	0	11	23:15	1	0	0	1	0	0	2
11:30	13	0	0	0	0	0	13	23:30	1	0	0	0	0	0	1
11:45	11	1	0	0	0	0	12	23:45	0	0	0	0	0	0	0
TOTAL	195	11	0	3	0	0	209	**TOTAL**	527	8	0	2	1	0	538

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	51

AM PEAK HOUR	4:30 PM
AM PEAK VOLUME	74

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	722	19	0	5	1	0	747
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	96.7%	2.5%	0.0%	0.7%	0.1%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	**TOTAL: ALL**	1,463	41	3	9	2	0	1,518
CLASS 6	Buses	**% OF TOTAL**	96.4%	2.7%	0.2%	0.6%	0.1%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY14 Dwy west of Amargosa Rd (PV'S Fresh Grill and Tequila)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	4	0	0	0	0	0	4
0:15	3	0	0	0	0	0	3
0:30	10	0	0	0	0	0	10
0:45	0	0	0	0	0	0	0
1:00	0	0	0	0	0	0	0
1:15	1	1	0	0	0	0	2
1:30	0	0	0	0	0	0	0
1:45	1	0	0	0	0	0	1
2:00	2	0	0	0	0	0	2
2:15	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0
2:45	2	0	0	0	0	0	2
3:00	2	0	0	0	0	0	2
3:15	2	0	0	0	0	0	2
3:30	1	0	0	0	0	0	1
3:45	1	0	0	0	0	0	1
4:00	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0
4:30	1	0	0	0	0	0	1
4:45	0	0	0	0	0	0	0
5:00	1	1	0	0	0	0	2
5:15	2	1	0	0	0	0	3
5:30	4	0	0	0	0	0	4
5:45	0	0	0	0	0	0	0
6:00	4	1	0	0	0	0	5
6:15	0	0	0	0	0	0	0
6:30	2	1	0	0	0	0	3
6:45	4	0	0	0	0	0	4
7:00	5	2	0	0	0	0	7
7:15	4	2	0	0	0	0	6
7:30	5	0	1	0	0	0	6
7:45	3	2	0	0	0	0	5
8:00	7	2	0	1	0	0	10
8:15	5	0	0	0	0	0	5
8:30	4	0	0	0	0	0	4
8:45	9	1	0	0	0	0	10
9:00	6	0	0	0	0	0	6
9:15	7	0	0	0	0	0	7
9:30	6	0	0	0	0	0	6
9:45	6	0	0	0	0	0	6
10:00	14	0	0	0	0	0	14
10:15	4	0	1	0	0	0	5
10:30	11	0	0	0	0	0	11
10:45	11	0	0	1	0	0	12
11:00	5	0	0	0	0	0	5
11:15	12	0	0	0	0	0	12
11:30	7	0	0	0	0	0	7
11:45	17	1	0	0	0	0	18
TOTAL	195	15	2	2	0	0	214

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	42

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	7	0	0	0	0	0	7
12:15	15	0	0	0	0	0	15
12:30	12	0	0	0	0	0	12
12:45	8	1	0	0	0	0	9
13:00	10	0	0	0	0	0	10
13:15	20	0	0	0	0	0	20
13:30	17	1	0	1	0	0	19
13:45	11	0	0	0	0	0	11
14:00	3	0	0	0	0	0	3
14:15	6	0	0	0	0	0	6
14:30	11	0	0	0	0	0	11
14:45	11	0	0	0	0	0	11
15:00	18	0	0	0	0	0	18
15:15	19	0	0	0	0	0	19
15:30	10	0	0	0	0	0	10
15:45	10	0	0	0	0	0	10
16:00	9	0	1	0	0	0	10
16:15	11	0	0	0	0	0	11
16:30	16	0	0	0	0	0	16
16:45	12	1	0	0	0	0	13
17:00	9	0	0	0	1	0	10
17:15	17	0	0	0	0	0	17
17:30	12	1	0	0	0	0	13
17:45	13	2	0	0	0	0	15
18:00	13	0	0	0	0	0	13
18:15	15	0	0	0	0	0	15
18:30	14	0	0	0	0	0	14
18:45	16	0	0	0	0	0	16
19:00	7	0	0	0	0	0	7
19:15	26	0	0	1	0	0	27
19:30	14	0	0	0	0	0	14
19:45	8	1	0	0	0	0	9
20:00	20	0	0	0	0	0	20
20:15	12	0	0	0	0	0	12
20:30	11	0	0	0	0	0	11
20:45	10	0	0	0	0	0	10
21:00	11	0	0	0	0	0	11
21:15	12	0	0	0	0	0	12
21:30	10	0	0	0	0	0	10
21:45	10	0	0	0	0	0	10
22:00	17	0	0	0	0	0	17
22:15	10	0	0	0	0	0	10
22:30	3	0	0	0	0	0	3
22:45	7	0	0	0	0	0	7
23:00	5	0	0	0	0	0	5
23:15	4	0	0	0	0	0	4
23:30	1	0	0	0	0	0	1
23:45	3	0	0	0	0	0	3
TOTAL	546	7	1	2	1	0	557

AM PEAK HOUR	7:15 PM
AM PEAK VOLUME	70

TOTAL: AM+PM	741	22	3	4	1	0	771
% OF TOTAL	96.1%	2.9%	0.4%	0.5%	0.1%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY14 Dwy west of Amargosa Rd (PV'S Fresh Grill and Tequila)

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	5	0	0	0	0	0	5	12:00	13	0	0	0	0	0	13
0:15	4	0	0	0	0	0	4	12:15	33	1	0	0	0	0	34
0:30	13	0	0	0	0	0	13	12:30	24	0	0	0	0	0	24
0:45	0	0	0	0	0	0	0	12:45	28	1	0	0	0	0	29
1:00	0	1	0	0	0	0	1	13:00	20	0	0	0	0	0	20
1:15	1	1	0	0	0	0	2	13:15	27	0	0	0	0	0	27
1:30	0	0	0	0	0	0	0	13:30	30	1	0	1	1	0	33
1:45	2	0	0	0	0	0	2	13:45	26	0	0	0	0	0	26
2:00	2	0	0	0	0	0	2	14:00	12	0	0	0	0	0	12
2:15	0	0	0	0	0	0	0	14:15	19	0	0	0	0	0	19
2:30	0	0	0	0	0	0	0	14:30	22	0	0	0	0	0	22
2:45	2	0	0	0	0	0	2	14:45	25	1	0	0	0	0	26
3:00	2	0	0	0	0	0	2	15:00	26	0	0	0	0	0	26
3:15	2	0	0	0	0	0	2	15:15	32	0	0	0	0	0	32
3:30	2	0	0	0	0	0	2	15:30	22	0	0	0	0	0	22
3:45	4	0	0	0	0	0	4	15:45	25	1	0	0	0	0	26
4:00	1	0	0	0	0	0	1	16:00	28	1	1	0	0	0	30
4:15	1	0	0	0	0	0	1	16:15	21	0	0	0	0	0	21
4:30	1	0	0	0	0	0	1	16:30	32	0	0	0	0	0	32
4:45	3	0	0	0	0	0	3	16:45	32	1	0	0	0	0	33
5:00	3	1	0	0	0	0	4	17:00	28	0	0	0	1	0	29
5:15	2	1	0	0	0	0	3	17:15	35	1	0	0	0	0	36
5:30	5	0	0	0	0	0	5	17:30	23	1	0	0	0	0	24
5:45	1	0	0	0	0	0	1	17:45	32	3	0	0	0	0	35
6:00	7	1	0	0	0	0	8	18:00	29	1	0	0	0	0	30
6:15	0	0	0	0	0	0	0	18:15	24	0	0	0	0	0	24
6:30	3	1	0	0	0	0	4	18:30	33	0	0	0	0	0	33
6:45	12	0	0	0	0	0	12	18:45	28	0	0	0	0	0	28
7:00	9	3	0	0	0	0	12	19:00	15	0	0	0	0	0	15
7:15	10	3	0	0	0	0	13	19:15	45	0	0	1	0	0	46
7:30	9	0	1	0	0	0	10	19:30	28	0	0	0	0	0	28
7:45	10	2	0	0	0	0	12	19:45	14	1	0	0	0	0	15
8:00	10	2	0	2	0	0	14	20:00	36	1	0	0	0	0	37
8:15	14	0	0	0	0	0	14	20:15	29	0	0	0	0	0	29
8:30	10	0	0	0	0	0	10	20:30	17	0	0	1	0	0	18
8:45	15	1	0	0	0	0	16	20:45	21	0	0	0	0	0	21
9:00	15	2	0	0	0	0	17	21:00	18	0	0	0	0	0	18
9:15	15	2	0	1	0	0	18	21:15	17	0	0	0	0	0	17
9:30	15	1	0	0	0	0	16	21:30	15	0	0	0	0	0	15
9:45	17	0	0	0	0	0	17	21:45	16	0	0	0	0	0	16
10:00	24	1	0	0	0	0	25	22:00	23	0	0	0	0	0	23
10:15	9	0	1	0	0	0	10	22:15	15	0	0	0	0	0	15
10:30	18	0	0	0	0	0	18	22:30	9	0	0	0	0	0	9
10:45	23	0	0	1	0	0	24	22:45	9	0	0	0	0	0	9
11:00	20	0	0	0	0	0	20	23:00	7	0	0	0	0	0	7
11:15	21	1	0	1	0	0	23	23:15	5	0	0	1	0	0	6
11:30	20	0	0	0	0	0	20	23:30	2	0	0	0	0	0	2
11:45	28	2	0	0	0	0	30	23:45	3	0	0	0	0	0	3
TOTAL	390	26	2	5	0	0	423	**TOTAL**	1,073	15	1	4	2	0	1,095

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	93

AM PEAK HOUR	4:30 PM
AM PEAK VOLUME	130

TOTAL: AM+PM	1,463	41	3	9	2	0	1,518
% OF TOTAL	96.4%	2.7%	0.2%	0.6%	0.1%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY15 Dwy west of Amargosa Rd (Starbucks Coffee)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	1	0	0	0	0	0	1	12:00	27	0	0	0	0	0	27
0:15	0	0	0	0	0	0	0	12:15	20	0	0	0	0	0	20
0:30	3	0	0	0	0	0	3	12:30	15	1	0	0	0	0	16
0:45	0	0	0	0	0	0	0	12:45	12	1	0	0	0	0	13
1:00	2	0	0	0	0	0	2	13:00	11	1	0	0	0	0	12
1:15	1	0	0	0	0	0	1	13:15	11	0	0	0	0	0	11
1:30	0	0	0	0	0	0	0	13:30	16	0	0	0	0	0	16
1:45	0	0	0	1	0	0	1	13:45	13	0	0	0	0	0	13
2:00	0	0	0	0	0	0	0	14:00	15	0	0	0	0	0	15
2:15	0	0	0	0	0	0	0	14:15	10	0	0	0	0	0	10
2:30	0	0	0	0	0	0	0	14:30	13	1	0	0	0	0	14
2:45	0	0	0	0	0	0	0	14:45	16	0	0	0	0	0	16
3:00	0	0	0	0	0	0	0	15:00	11	1	0	0	0	0	12
3:15	1	0	0	0	0	0	1	15:15	15	0	0	0	0	0	15
3:30	0	0	0	0	0	0	0	15:30	11	0	0	0	0	0	11
3:45	3	0	0	0	0	0	3	15:45	3	0	0	0	0	0	3
4:00	0	0	0	0	0	0	0	16:00	14	0	0	0	0	0	14
4:15	0	0	0	1	0	0	1	16:15	0	0	0	0	0	0	0
4:30	4	0	0	0	0	0	4	16:30	12	0	0	0	0	0	12
4:45	3	0	0	0	0	0	3	16:45	17	0	0	0	0	0	17
5:00	5	0	0	0	0	0	5	17:00	15	0	0	0	0	0	15
5:15	1	0	0	0	0	0	1	17:15	17	0	0	0	0	0	17
5:30	4	0	0	0	0	0	4	17:30	18	0	0	0	0	0	18
5:45	6	0	0	0	0	0	6	17:45	23	0	0	0	0	0	23
6:00	6	0	0	0	0	0	6	18:00	14	0	0	0	0	0	14
6:15	3	0	0	0	0	0	3	18:15	19	0	0	0	0	0	19
6:30	11	1	0	0	0	0	12	18:30	16	0	0	0	0	0	16
6:45	9	0	0	0	0	0	9	18:45	16	1	0	0	0	0	17
7:00	12	0	0	0	0	0	12	19:00	19	0	0	0	0	0	19
7:15	10	0	0	0	0	0	10	19:15	13	0	0	0	0	0	13
7:30	12	0	0	0	0	0	12	19:30	17	0	0	0	0	0	17
7:45	15	1	0	0	0	0	16	19:45	17	0	0	0	0	0	17
8:00	13	0	0	0	0	0	13	20:00	10	0	0	0	0	0	10
8:15	10	0	0	0	0	0	10	20:15	10	0	0	0	0	0	10
8:30	9	0	0	0	0	0	9	20:30	9	0	0	0	0	0	9
8:45	17	1	1	0	0	0	19	20:45	9	0	0	0	0	0	9
9:00	14	0	0	0	0	0	14	21:00	7	0	0	0	0	0	7
9:15	7	0	1	0	0	0	8	21:15	4	0	0	0	0	0	4
9:30	9	1	0	0	0	0	10	21:30	11	0	0	0	0	0	11
9:45	11	0	0	0	0	0	11	21:45	3	0	0	0	0	0	3
10:00	12	0	0	0	0	0	12	22:00	5	0	0	0	0	0	5
10:15	17	0	0	0	0	0	17	22:15	5	0	0	0	0	0	5
10:30	15	0	0	0	0	0	15	22:30	3	0	0	0	0	0	3
10:45	10	4	0	0	0	0	14	22:45	1	0	0	0	0	0	1
11:00	13	1	0	0	0	0	14	23:00	3	0	0	0	0	0	3
11:15	16	1	0	0	0	0	17	23:15	2	0	0	0	0	0	2
11:30	5	0	0	0	0	0	5	23:30	0	0	0	0	0	0	0
11:45	13	0	0	0	0	0	13	23:45	2	0	0	0	0	0	2
TOTAL	303	10	2	2	0	0	317	TOTAL	550	6	0	0	0	0	556

AM PEAK HOUR	10:30 AM	AM PEAK HOUR	12:00 PM
AM PEAK VOLUME	60	AM PEAK VOLUME	76

CLASS 1	PASSENGER VEHICLES	TOTAL: AM+PM	853	16	2	2	0	0	873
CLASS 2	2-AXLE TRUCKS	% OF TOTAL	97.7%	1.8%	0.2%	0.2%	0.0%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	TOTAL: ALL	1,609	34	3	5	0	0	1,651
CLASS 6	Buses	% OF TOTAL	97.5%	2.1%	0.2%	0.3%	0.0%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY15 Dwy west of Amargosa Rd (Starbucks Coffee)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	7	0	0	0	0	0	7
0:15	0	0	0	0	0	0	0
0:30	1	0	0	0	0	0	1
0:45	0	0	0	0	0	0	0
1:00	2	0	0	0	0	0	2
1:15	0	0	0	0	0	0	0
1:30	0	0	0	0	0	0	0
1:45	0	0	0	0	0	0	0
2:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0
2:30	0	0	0	0	0	0	0
2:45	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0
3:30	0	0	0	0	0	0	0
3:45	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0
4:30	1	0	0	0	0	0	1
4:45	5	0	0	0	0	0	5
5:00	2	0	0	0	0	0	2
5:15	3	0	0	0	0	0	3
5:30	2	0	0	0	0	0	2
5:45	2	0	0	0	0	0	2
6:00	4	0	0	0	0	0	4
6:15	1	0	0	0	0	0	1
6:30	6	1	0	0	0	0	7
6:45	8	1	0	1	0	0	10
7:00	6	0	0	0	0	0	6
7:15	6	0	0	0	0	0	6
7:30	18	0	0	1	0	0	19
7:45	10	1	0	0	0	0	11
8:00	6	0	0	0	0	0	6
8:15	7	0	0	0	0	0	7
8:30	5	0	0	1	0	0	6
8:45	4	0	0	0	0	0	4
9:00	15	0	0	0	0	0	15
9:15	6	0	1	0	0	0	7
9:30	14	1	0	0	0	0	15
9:45	7	0	0	0	0	0	7
10:00	11	0	0	0	0	0	11
10:15	5	0	0	0	0	0	5
10:30	7	0	0	0	0	0	7
10:45	6	0	0	0	0	0	6
11:00	12	0	0	0	0	0	12
11:15	7	0	0	0	0	0	7
11:30	18	0	0	0	0	0	18
11:45	15	5	0	0	0	0	20
TOTAL	229	9	1	3	0	0	242

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	57

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	9	0	0	0	0	0	9
12:15	22	0	0	0	0	0	22
12:30	10	0	0	0	0	0	10
12:45	15	0	0	0	0	0	15
13:00	15	0	0	0	0	0	15
13:15	16	2	0	0	0	0	18
13:30	13	0	0	0	0	0	13
13:45	20	1	0	0	0	0	21
14:00	11	0	0	0	0	0	11
14:15	14	0	0	0	0	0	14
14:30	13	0	0	0	0	0	13
14:45	9	0	0	0	0	0	9
15:00	10	1	0	0	0	0	11
15:15	8	0	0	0	0	0	8
15:30	12	1	0	0	0	0	13
15:45	10	0	0	0	0	0	10
16:00	7	0	0	0	0	0	7
16:15	0	0	0	0	0	0	0
16:30	10	1	0	0	0	0	11
16:45	16	0	0	0	0	0	16
17:00	12	0	0	0	0	0	12
17:15	14	0	0	0	0	0	14
17:30	19	2	0	0	0	0	21
17:45	13	0	0	0	0	0	13
18:00	16	0	0	0	0	0	16
18:15	15	0	0	0	0	0	15
18:30	15	0	0	0	0	0	15
18:45	19	0	0	0	0	0	19
19:00	16	0	0	0	0	0	16
19:15	3	0	0	0	0	0	3
19:30	13	1	0	0	0	0	14
19:45	13	0	0	0	0	0	13
20:00	14	0	0	0	0	0	14
20:15	18	0	0	0	0	0	18
20:30	16	0	0	0	0	0	16
20:45	10	0	0	0	0	0	10
21:00	8	0	0	0	0	0	8
21:15	12	0	0	0	0	0	12
21:30	5	0	0	0	0	0	5
21:45	9	0	0	0	0	0	9
22:00	6	0	0	0	0	0	6
22:15	3	0	0	0	0	0	3
22:30	3	0	0	0	0	0	3
22:45	6	0	0	0	0	0	6
23:00	4	0	0	0	0	0	4
23:15	2	0	0	0	0	0	2
23:30	2	0	0	0	0	0	2
23:45	1	0	0	0	0	0	1
TOTAL	527	9	0	0	0	0	536

AM PEAK HOUR	1:00 PM
AM PEAK VOLUME	67

TOTAL: AM+PM	756	18	1	3	0	0	778
% OF TOTAL	97.2%	2.3%	0.1%	0.4%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY15 Dwy west of Amargosa Rd (Starbucks Coffee)

AM TIME	COMBINED 1	2	3	4	5	6	TOTAL	PM Time	COMBINED 1	2	3	4	5	6	TOTAL
0:00	8	0	0	0	0	0	8	12:00	36	0	0	0	0	0	36
0:15	0	0	0	0	0	0	0	12:15	42	0	0	0	0	0	42
0:30	4	0	0	0	0	0	4	12:30	25	1	0	0	0	0	26
0:45	0	0	0	0	0	0	0	12:45	27	1	0	0	0	0	28
1:00	4	0	0	0	0	0	4	13:00	26	1	0	0	0	0	27
1:15	1	0	0	0	0	0	1	13:15	27	2	0	0	0	0	29
1:30	0	0	0	0	0	0	0	13:30	29	0	0	0	0	0	29
1:45	0	0	0	1	0	0	1	13:45	33	1	0	0	0	0	34
2:00	0	0	0	0	0	0	0	14:00	26	0	0	0	0	0	26
2:15	0	0	0	0	0	0	0	14:15	24	0	0	0	0	0	24
2:30	0	0	0	0	0	0	0	14:30	26	1	0	0	0	0	27
2:45	0	0	0	0	0	0	0	14:45	25	0	0	0	0	0	25
3:00	0	0	0	0	0	0	0	15:00	21	2	0	0	0	0	23
3:15	1	0	0	0	0	0	1	15:15	23	0	0	0	0	0	23
3:30	0	0	0	0	0	0	0	15:30	23	1	0	0	0	0	24
3:45	3	0	0	0	0	0	3	15:45	13	0	0	0	0	0	13
4:00	0	0	0	0	0	0	0	16:00	21	0	0	0	0	0	21
4:15	0	0	0	1	0	0	1	16:15	0	0	0	0	0	0	0
4:30	5	0	0	0	0	0	5	16:30	22	1	0	0	0	0	23
4:45	8	0	0	0	0	0	8	16:45	33	0	0	0	0	0	33
5:00	7	0	0	0	0	0	7	17:00	27	0	0	0	0	0	27
5:15	4	0	0	0	0	0	4	17:15	31	0	0	0	0	0	31
5:30	6	0	0	0	0	0	6	17:30	37	2	0	0	0	0	39
5:45	8	0	0	0	0	0	8	17:45	36	0	0	0	0	0	36
6:00	10	0	0	0	0	0	10	18:00	30	0	0	0	0	0	30
6:15	4	0	0	0	0	0	4	18:15	34	0	0	0	0	0	34
6:30	17	2	0	0	0	0	19	18:30	31	0	0	0	0	0	31
6:45	17	1	0	1	0	0	19	18:45	35	1	0	0	0	0	36
7:00	18	0	0	0	0	0	18	19:00	35	0	0	0	0	0	35
7:15	16	0	0	0	0	0	16	19:15	16	0	0	0	0	0	16
7:30	30	0	0	1	0	0	31	19:30	30	1	0	0	0	0	31
7:45	25	2	0	0	0	0	27	19:45	30	0	0	0	0	0	30
8:00	19	0	0	0	0	0	19	20:00	24	0	0	0	0	0	24
8:15	17	0	0	0	0	0	17	20:15	28	0	0	0	0	0	28
8:30	14	0	0	1	0	0	15	20:30	25	0	0	0	0	0	25
8:45	21	1	1	0	0	0	23	20:45	19	0	0	0	0	0	19
9:00	29	0	0	0	0	0	29	21:00	15	0	0	0	0	0	15
9:15	13	0	2	0	0	0	15	21:15	16	0	0	0	0	0	16
9:30	23	2	0	0	0	0	25	21:30	16	0	0	0	0	0	16
9:45	18	0	0	0	0	0	18	21:45	12	0	0	0	0	0	12
10:00	23	0	0	0	0	0	23	22:00	11	0	0	0	0	0	11
10:15	22	0	0	0	0	0	22	22:15	8	0	0	0	0	0	8
10:30	22	0	0	0	0	0	22	22:30	6	0	0	0	0	0	6
10:45	16	4	0	0	0	0	20	22:45	7	0	0	0	0	0	7
11:00	25	1	0	0	0	0	26	23:00	7	0	0	0	0	0	7
11:15	23	1	0	0	0	0	24	23:15	4	0	0	0	0	0	4
11:30	23	0	0	0	0	0	23	23:30	2	0	0	0	0	0	2
11:45	28	5	0	0	0	0	33	23:45	3	0	0	0	0	0	3
TOTAL	532	19	3	5	0	0	559	**TOTAL**	1,077	15	0	0	0	0	1,092

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	106

AM PEAK HOUR	5:30 PM
AM PEAK VOLUME	139

TOTAL: AM+PM	1,609	34	3	5	0	0	1,651
% OF TOTAL	97.5%	2.1%	0.2%	0.3%	0.0%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY16 Dwy west of Amargosa Rd (The Habit Burger Grill)

AM TIME	IN 1	2	3	4	5	6	TOTAL	PM Time	IN 1	2	3	4	5	6	TOTAL
0:00	0	0	0	0	0	0	0	12:00	12	0	0	0	0	0	12
0:15	0	0	0	0	0	0	0	12:15	11	1	0	0	0	0	12
0:30	0	0	0	0	0	0	0	12:30	10	0	0	0	0	0	10
0:45	0	0	0	0	0	0	0	12:45	10	0	0	0	0	0	10
1:00	0	0	0	0	0	0	0	13:00	9	2	0	0	0	0	11
1:15	1	0	0	0	0	0	1	13:15	8	0	0	0	0	0	8
1:30	0	0	0	0	0	0	0	13:30	7	0	0	1	0	0	8
1:45	0	0	0	0	0	0	0	13:45	6	0	0	1	0	0	7
2:00	0	0	0	0	0	0	0	14:00	6	0	0	0	0	0	6
2:15	0	0	0	0	0	0	0	14:15	3	0	0	0	0	0	3
2:30	0	0	0	0	0	0	0	14:30	6	1	0	0	0	0	7
2:45	0	0	0	0	0	0	0	14:45	12	0	0	0	0	0	12
3:00	0	0	0	0	0	0	0	15:00	8	1	0	0	0	0	9
3:15	0	2	0	0	0	0	2	15:15	4	0	0	0	1	0	5
3:30	0	0	0	0	0	0	0	15:30	6	0	0	0	0	0	6
3:45	0	0	0	0	0	0	0	15:45	6	0	0	0	0	0	6
4:00	1	0	0	0	0	0	1	16:00	7	0	0	0	0	0	7
4:15	0	0	0	0	0	0	0	16:15	10	0	0	0	0	0	10
4:30	2	0	0	0	0	0	2	16:30	7	0	0	0	0	0	7
4:45	3	0	0	0	0	0	3	16:45	11	0	0	0	0	0	11
5:00	1	0	0	0	0	0	1	17:00	9	0	0	0	0	0	9
5:15	3	0	0	1	0	0	4	17:15	8	0	0	0	0	0	8
5:30	1	0	0	0	0	0	1	17:30	11	0	0	0	0	0	11
5:45	1	0	0	0	0	0	1	17:45	9	0	0	0	0	0	9
6:00	2	0	0	0	0	0	2	18:00	8	0	0	0	0	0	8
6:15	2	0	0	0	0	0	2	18:15	8	0	0	0	0	0	8
6:30	3	0	0	0	0	0	3	18:30	3	0	0	0	0	0	3
6:45	1	0	0	0	0	0	1	18:45	6	0	0	0	0	0	6
7:00	4	0	0	0	0	0	4	19:00	5	0	0	0	0	0	5
7:15	4	0	0	0	0	0	4	19:15	6	0	0	0	0	0	6
7:30	10	0	0	0	0	0	10	19:30	11	0	0	0	0	0	11
7:45	10	0	0	0	0	0	10	19:45	5	0	0	0	0	0	5
8:00	7	0	0	1	0	0	8	20:00	2	0	0	0	0	0	2
8:15	7	1	0	1	0	0	9	20:15	7	0	0	0	0	0	7
8:30	12	0	0	0	0	0	12	20:30	3	0	0	0	0	0	3
8:45	13	1	0	0	0	0	14	20:45	2	0	0	0	0	0	2
9:00	6	0	0	0	0	0	6	21:00	2	0	0	0	0	0	2
9:15	6	0	0	0	0	0	6	21:15	2	0	0	0	0	0	2
9:30	8	0	0	0	0	0	8	21:30	1	0	0	0	0	0	1
9:45	8	0	0	0	0	0	8	21:45	3	0	0	0	0	0	3
10:00	2	0	0	0	0	0	2	22:00	1	0	0	0	0	0	1
10:15	12	0	0	0	0	0	12	22:15	2	0	0	0	0	0	2
10:30	8	0	0	0	0	0	8	22:30	1	0	0	0	0	0	1
10:45	5	1	0	0	0	0	6	22:45	1	0	0	0	0	0	1
11:00	1	0	0	0	0	0	1	23:00	1	0	0	0	0	0	1
11:15	15	0	0	0	0	0	15	23:15	0	0	0	0	0	0	0
11:30	12	1	0	0	0	0	13	23:30	0	0	0	0	0	0	0
11:45	11	1	0	0	0	0	12	23:45	0	0	0	0	0	0	0
TOTAL	182	7	0	3	0	0	192	**TOTAL**	276	5	0	2	1	0	284

AM PEAK HOUR	8:00 AM
AM PEAK VOLUME	43

AM PEAK HOUR	12:00 PM
AM PEAK VOLUME	44

CLASS 1	PASSENGER VEHICLES	**TOTAL: AM+PM**	458	12	0	5	1	0	476
CLASS 2	2-AXLE TRUCKS	**% OF TOTAL**	96.2%	2.5%	0.0%	1.1%	0.2%	0.0%	100.0%
CLASS 3	3-AXLE TRUCKS								
CLASS 4	4 OR MORE AXLE TRUCKS								
CLASS 5	RV	**TOTAL: ALL**	911	23	3	9	2	0	948
CLASS 6	Buses	**% OF TOTAL**	96.1%	2.4%	0.3%	0.9%	0.2%	0.0%	100.0%

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023
JOB #: SC4161
CITY: Victorville
LOCATION: DWY16 Dwy west of Amargosa Rd (The Habit Burger Grill)

AM	OUT						
TIME	1	2	3	4	5	6	TOTAL
0:00	1	0	0	0	0	0	1
0:15	1	0	0	0	0	0	1
0:30	1	0	0	0	0	0	1
0:45	0	0	0	0	0	0	0
1:00	1	0	0	0	0	0	1
1:15	0	0	0	0	0	0	0
1:30	2	0	0	0	0	0	2
1:45	2	0	0	0	0	0	2
2:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0
2:30	0	0	0	1	0	0	1
2:45	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0
3:15	0	0	0	0	0	0	0
3:30	0	2	0	0	0	0	2
3:45	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0
4:15	0	0	0	0	0	0	0
4:30	0	0	0	0	0	0	0
4:45	2	0	0	0	0	0	2
5:00	3	0	0	0	0	0	3
5:15	2	0	0	0	0	0	2
5:30	2	0	0	0	0	0	2
5:45	1	0	0	0	0	0	1
6:00	5	0	0	0	0	0	5
6:15	1	0	0	0	0	0	1
6:30	4	0	0	0	0	0	4
6:45	2	0	0	0	0	0	2
7:00	6	0	0	0	0	0	6
7:15	2	0	0	0	0	0	2
7:30	2	0	0	0	0	0	2
7:45	5	0	0	0	0	0	5
8:00	5	0	0	0	0	0	5
8:15	6	0	0	0	0	0	6
8:30	8	0	0	0	0	0	8
8:45	4	0	1	1	0	0	6
9:00	7	0	0	0	0	0	7
9:15	5	1	0	0	0	0	6
9:30	6	0	0	0	0	0	6
9:45	5	0	1	0	0	0	6
10:00	5	0	0	0	0	0	5
10:15	9	0	0	0	0	0	9
10:30	5	0	0	0	0	0	5
10:45	6	1	0	0	0	0	7
11:00	10	0	0	0	0	0	10
11:15	6	0	0	0	0	0	6
11:30	14	0	0	0	0	0	14
11:45	6	1	0	0	0	0	7
TOTAL	152	5	2	2	0	0	161

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	37

PM	OUT						
Time	1	2	3	4	5	6	TOTAL
12:00	9	0	0	0	0	0	9
12:15	13	0	0	0	0	0	13
12:30	11	0	0	0	0	0	11
12:45	14	0	0	0	0	0	14
13:00	13	3	0	0	0	0	16
13:15	6	1	0	0	0	0	7
13:30	8	0	0	0	0	0	8
13:45	9	0	0	0	0	0	9
14:00	6	0	0	1	0	0	7
14:15	15	0	0	0	0	0	15
14:30	5	0	0	1	0	0	6
14:45	7	0	0	0	0	0	7
15:00	7	0	0	0	0	0	7
15:15	7	0	0	0	0	0	7
15:30	8	0	1	0	0	0	9
15:45	7	0	0	0	0	0	7
16:00	4	0	0	0	0	0	4
16:15	5	1	0	0	0	0	6
16:30	7	0	0	0	1	0	8
16:45	7	0	0	0	0	0	7
17:00	6	0	0	0	0	0	6
17:15	5	0	0	0	0	0	5
17:30	7	0	0	0	0	0	7
17:45	9	0	0	0	0	0	9
18:00	12	0	0	0	0	0	12
18:15	4	0	0	0	0	0	4
18:30	5	0	0	0	0	0	5
18:45	6	0	0	0	0	0	6
19:00	6	0	0	0	0	0	6
19:15	6	0	0	0	0	0	6
19:30	9	0	0	0	0	0	9
19:45	4	0	0	0	0	0	4
20:00	4	1	0	0	0	0	5
20:15	7	0	0	0	0	0	7
20:30	9	0	0	0	0	0	9
20:45	4	0	0	0	0	0	4
21:00	2	0	0	0	0	0	2
21:15	2	0	0	0	0	0	2
21:30	3	0	0	0	0	0	3
21:45	3	0	0	0	0	0	3
22:00	5	0	0	0	0	0	5
22:15	3	0	0	0	0	0	3
22:30	5	0	0	0	0	0	5
22:45	3	0	0	0	0	0	3
23:00	1	0	0	0	0	0	1
23:15	3	0	0	0	0	0	3
23:30	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0
TOTAL	301	6	1	2	1	0	311

AM PEAK HOUR	12:15 PM
AM PEAK VOLUME	54

TOTAL: AM+PM	453	11	3	4	1	0	472
% OF TOTAL	96.0%	2.3%	0.6%	0.8%	0.2%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	BUS

A16123

24-HOUR ROADWAY SEGMENT COUNTS (WITH CLASSIFICATION)

Prepared by AimTD LLC tel. 714 253 7888 cs@aimtd.com

DATE: Tuesday, August 15, 2023 **CITY:** Victorville

JOB #: SC4161 **LOCATION:** DWY16 Dwy west of Amargosa Rd (The Habit Burger Grill)

AM	COMBINED						
TIME	1	2	3	4	5	6	TOTAL
0:00	1	0	0	0	0	0	1
0:15	1	0	0	0	0	0	1
0:30	1	0	0	0	0	0	1
0:45	0	0	0	0	0	0	0
1:00	1	0	0	0	0	0	1
1:15	1	0	0	0	0	0	1
1:30	2	0	0	0	0	0	2
1:45	2	0	0	0	0	0	2
2:00	0	0	0	0	0	0	0
2:15	0	0	0	0	0	0	0
2:30	0	0	0	1	0	0	1
2:45	0	0	0	0	0	0	0
3:00	0	0	0	0	0	0	0
3:15	0	2	0	0	0	0	2
3:30	0	2	0	0	0	0	2
3:45	0	0	0	0	0	0	0
4:00	1	0	0	0	0	0	1
4:15	0	0	0	0	0	0	0
4:30	2	0	0	0	0	0	2
4:45	5	0	0	0	0	0	5
5:00	4	0	0	0	0	0	4
5:15	5	0	0	1	0	0	6
5:30	3	0	0	0	0	0	3
5:45	2	0	0	0	0	0	2
6:00	7	0	0	0	0	0	7
6:15	3	0	0	0	0	0	3
6:30	7	0	0	0	0	0	7
6:45	3	0	0	0	0	0	3
7:00	10	0	0	0	0	0	10
7:15	6	0	0	0	0	0	6
7:30	12	0	0	0	0	0	12
7:45	15	0	0	0	0	0	15
8:00	12	0	0	1	0	0	13
8:15	13	1	0	1	0	0	15
8:30	20	0	0	0	0	0	20
8:45	17	1	1	1	0	0	20
9:00	13	0	0	0	0	0	13
9:15	11	1	0	0	0	0	12
9:30	14	0	0	0	0	0	14
9:45	13	0	1	0	0	0	14
10:00	7	0	0	0	0	0	7
10:15	21	0	0	0	0	0	21
10:30	13	0	0	0	0	0	13
10:45	11	2	0	0	0	0	13
11:00	11	0	0	0	0	0	11
11:15	21	0	0	0	0	0	21
11:30	26	1	0	0	0	0	27
11:45	17	2	0	0	0	0	19
TOTAL	334	12	2	5	0	0	353

AM PEAK HOUR	11:00 AM
AM PEAK VOLUME	78

PM	COMBINED						
Time	1	2	3	4	5	6	TOTAL
12:00	21	0	0	0	0	0	21
12:15	24	1	0	0	0	0	25
12:30	21	0	0	0	0	0	21
12:45	24	0	0	0	0	0	24
13:00	22	5	0	0	0	0	27
13:15	14	1	0	0	0	0	15
13:30	15	0	0	1	0	0	16
13:45	15	0	0	1	0	0	16
14:00	12	0	0	1	0	0	13
14:15	18	0	0	0	0	0	18
14:30	11	1	0	1	0	0	13
14:45	19	0	0	0	0	0	19
15:00	15	1	0	0	0	0	16
15:15	11	0	0	0	1	0	12
15:30	14	0	1	0	0	0	15
15:45	13	0	0	0	0	0	13
16:00	11	0	0	0	0	0	11
16:15	15	1	0	0	0	0	16
16:30	14	0	0	0	1	0	15
16:45	18	0	0	0	0	0	18
17:00	15	0	0	0	0	0	15
17:15	13	0	0	0	0	0	13
17:30	18	0	0	0	0	0	18
17:45	18	0	0	0	0	0	18
18:00	20	0	0	0	0	0	20
18:15	12	0	0	0	0	0	12
18:30	8	0	0	0	0	0	8
18:45	12	0	0	0	0	0	12
19:00	11	0	0	0	0	0	11
19:15	12	0	0	0	0	0	12
19:30	20	0	0	0	0	0	20
19:45	9	0	0	0	0	0	9
20:00	6	1	0	0	0	0	7
20:15	14	0	0	0	0	0	14
20:30	12	0	0	0	0	0	12
20:45	6	0	0	0	0	0	6
21:00	4	0	0	0	0	0	4
21:15	4	0	0	0	0	0	4
21:30	4	0	0	0	0	0	4
21:45	6	0	0	0	0	0	6
22:00	6	0	0	0	0	0	6
22:15	5	0	0	0	0	0	5
22:30	6	0	0	0	0	0	6
22:45	4	0	0	0	0	0	4
23:00	2	0	0	0	0	0	2
23:15	3	0	0	0	0	0	3
23:30	0	0	0	0	0	0	0
23:45	0	0	0	0	0	0	0
TOTAL	577	11	1	4	2	0	595

AM PEAK HOUR	12:15 PM
AM PEAK VOLUME	97

TOTAL: AM+PM	911	23	3	9	2	0	948
% OF TOTAL	96.1%	2.4%	0.3%	0.9%	0.2%	0.0%	100.0%

CLASS 1	PASSENGER VEHICLES
CLASS 2	2-AXLE TRUCKS
CLASS 3	3-AXLE TRUCKS
CLASS 4	4 OR MORE AXLE TRUCKS
CLASS 5	RV
CLASS 6	Buses

APPENDIX M
VMT Analysis

TECHNICAL MEMORANDUM

TO: For applicant submittal to the CITY OF HESPERIA

FROM: Bryan Crawford, Giancarlo Ganddini | Ganddini Group, Inc.

DATE: July 8, 2025

SUBJECT: Amargosa and Palmetto High-Cube Warehouse Project
Vehicle Miles Traveled Analysis
GGI Project No. 19522

The purpose of this memorandum is to evaluate the project's vehicle miles traveled (VMT) impact in the context of the California Environmental Quality Act (CEQA) based on the methodology and thresholds established by the City of Hesperia as the Lead Agency. We trust the findings of this analysis will aid the City of Hesperia in assessing the project.

PROJECT DESCRIPTION

The 30.52-acre project site is located on the northwest corner of Amargosa Road and Palmetto Way in the City of Hesperia, California. The currently vacant site is proposed to be developed with a 499,714 square foot high-cube fulfillment center warehouse building. The project site is proposed to provide three access driveways on Palmetto Way. All three project driveways are proposed to be full access. The project west driveway will be truck only. The project central driveway and project east driveway will provide access for both auto and trucks. The site plan is provided in Attachment A.

PROJECT TRIP GENERATION

For informational purposes, the project trip generation estimate is provided in Attachment B as documented in the *Amargosa and Palmetto High-Cube Warehouse Revised Traffic Impact Analysis* (Ganddini Group, February 28 2025). As shown in Attachment B, the proposed project is forecast to generate 905 daily trips, including 74 trips during the AM peak hour and 77 trips during the PM peak hour. As also shown in Attachment B, the proposed project is forecast to generate 1,083 daily Passenger Car Equivalent (PCE) trips, including 90 PCE trips during the AM peak hour and 81 PCE trips during the PM peak hour.

VMT BACKGROUND

California Senate Bill 743 (SB 743) directs the State Office of Planning and Research (OPR) to amend the California Environmental Quality Act (CEQA) Guidelines for evaluating transportation impacts to provide alternatives to Level of Service that "promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses." In December 2018, the California Natural Resources Agency certified and adopted the updated CEQA Guidelines package. The amended CEQA Guidelines, specifically Section 15064.3, recommend the use of Vehicle Miles Travelled (VMT) as the primary metric for the evaluation of transportation impacts associated with land use and transportation projects. In general terms, VMT quantifies the amount and distance of automobile travel attributable to a project or region. All agencies and projects State-wide are required to utilize the updated CEQA guidelines recommending use of VMT for evaluating transportation impacts as of July 1, 2020.

The updated CEQA Guidelines allow for lead agency discretion in establishing methodologies and thresholds provided there is substantial evidence to demonstrate that the established procedures promote the intended goals of the legislation. Where quantitative models or methods are unavailable, Section 15064.3 allows agencies to assess VMT qualitatively using factors such as availability of transit and proximity to other destinations. The Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA* (State of California, December 2018) ["OPR Technical Advisory"] provides technical considerations regarding methodologies and thresholds with a focus on office, residential, and retail developments as these projects tend to have the greatest influence on VMT.

Based on guidance from the OPR Technical Advisory, the City of Hesperia adopted the *Traffic Impact Analysis Guidelines for Vehicle Miles Traveled (VMT) and Level of Service (LOS)* (July 2020) ["TIA Guidelines"], which establishes the City approved methodologies and thresholds.

SCREENING ASSESSMENT

The City TIA Guidelines identify screening criteria for certain types of projects that typically reduce VMT and may be presumed to result in a less than significant VMT impact. To qualify for VMT screening, the project need only satisfy one of the following screening criteria:

- Transit Priority Area (TPA) Screening
- Low VMT Area Screening
- Project Type Screening

Based on initial review, the project does not satisfy any of the screening criteria; therefore, further analysis for non-screened development is warranted in accordance with the City's TIA Guidelines.

METHODOLOGY

The following section documents the analytical methodology and thresholds of significance as specified in the City TIA Guidelines.

VMT Assessment for Non-Screened Development

The project-generated VMT and project effect on VMT are calculated using San Bernardino Transportation Analysis Model (SBTAM) for the following scenarios:

- Baseline Conditions: This scenario reflects the existing SBTAM base year model.
- Baseline Plus Project: This scenario reflects the existing SBTAM base year model run with the addition of project socio-economic data (SED) to the project traffic analysis zone (TAZ).
- Cumulative No Project: This scenario reflects the existing SBTAM future year model (2050).
- Cumulative Plus Project: This scenario reflects a new SBTAM future year model run with the addition of project SED to the TAZ.

Thresholds of Significance

Project-Generated VMT

A project would result in a significant project-generated VMT impact if either of the following conditions are satisfied:

- The baseline project-generated VMT per service population exceeds the San Bernardino County regional average baseline VMT per service population; or
- The cumulative project-generated VMT per service population exceeds the San Bernardino County regional average baseline VMT per service population.

Project Effect on VMT

The project's effect on VMT would be considered significant if it resulted in either of the following conditions to be satisfied:

- The baseline link-level boundary (County of San Bernardino) VMT per service population increases under the plus project condition compared to the no project condition; or
- The cumulative link-level boundary (County of San Berardino) VMT per service population increases under the plus project condition compared to the no project condition.

The cumulative no project reflects the adopted Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Accordingly, cumulative impacts shall be considered less than significant if a project is consistent with the RTP/SCS, absent substantial evidence to the contrary.

NEED FOR CUMULATIVE VMT IMPACTS EVALUATION

As specified in the City TIA Guidelines, cumulative impacts shall be considered less than significant if a project is consistent with the RTP/SCS, absent substantial evidence to the contrary.

The project is located within the Southern California Association of Governments (SCAG) Metropolitan Planning Organization (MPO). SCAG is the MPO responsible for development of Connect SoCal 2024, the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) for the region. Through the local input process, SCAG solicited input from all 197 local jurisdictions, including the City of Hesperia, regarding current land use, socio-economic projections, sustainability and transit measures to develop the Connect SoCal plan and growth projections through the horizon year 2050. The information collected and used in development of the SCAG's long-range plans and environmental goals is documented in Data/Map Books for each jurisdiction.

Based on review of the Data/Map Book for the City of Hesperia, the project site is zoned for commercial retail use per SCAG's land use codes. Since the project proposes a GPA from Regional Commercial (RC) to Com/Ind Business Park (CIBP), evaluation of potential cumulative VMT impacts was determined to be necessary.

PROJECT-GENERATED VMT

In accordance with the City TIA Guidelines, project-generated VMT was calculated using SBTAM+ (version 3.2). The SBTAM model is a trip-based travel demand model developed and maintained by the San Bernardino County Transit Authority (SBCTA). The model analyzes a complex system of inputs such as highway networks, socio-economic data (SED), driver behavior, and goods movement to forecast travel patterns as the region

grows and changes. The SBTAM model covers the entire SCAG region, but the model data is more refined and focused within San Bernardino County as opposed to other areas of the region.

To evaluate project VMT within SBTAM, the project land use must be converted into socio-economic data (SED). Table 1 below shows the project's employment estimate based on employment factors obtained from the Southern California Association of Governments (SCAG) *Employment Density Study Summary Report* (October 31, 2001).

Table 1
Employment Estimates

Employment Density Factors			
Land Use	Employment Density Factor		
Regional Retail	1,009	SF	per Employee
Warehouse	1,195	SF	per Employee

SBTAM SED Inputs		
Land Use	SF[1]	Employees
Proposed Project		
Warehouse	499,714	418
Existing General Plan Buildout Use to be Displaced		
Regional Retail	-499,714	-495
SBTAM Project SED Updates		
Warehousing Employment (Baseline and Cumulative)		+418
Other Retail Employment (Cumulative Only)[2]		-113

Source: SCAG Employment Density Study Summary Report (October 31, 2001)

Notes:
1. SF = Square Feet
2. The SBTAM only assumes 69 retail employees for baseline and 182 retail employees for cumulative SED inputs; therefore, the retail SED displacement was constrained to hold the baseline SED estimates (i.e., the proposed project would result in no additional retail employees compared to baseline).

The project is proposing a General Plan Amendment (GPA) to change the land use from Regional Commercial (RC) to Com/Ind Business Park (CIBP). Based on SCAG's employment density factors, the current General Plan land use of 499,714 square feet of commercial retail would equate to approximately 495 employees; however, the cumulative model only includes 182 retail employees within the project TAZ. Therefore, the number of commercial retail employees that would be displaced in the cumulative model was constrained to 113, thus reflecting no additional retail employees in the project TAZ for year 2050 with project conditions.

The project site is located in TAZ 53908201. The project SED (418 employees) was added to TAZ 53908201. The project-generated VMT was determined as the net change in total VMT for the project TAZ between without and with project model runs. Table 2 shows the daily VMT estimates for the project TAZ.

Table 2
Daily VMT Estimates for Project TAZ

Scenario	Without Project				With Project				Net Change (i.e., Project VMT)			
	VMT	POP	EMP	VMT per SP	VMT	POP	EMP	VMT per SP	VMT	POP	EMP	VMT per SP
Baseline (2019)	38,820	790	117	42.8	69,639	790	535	52.6	30,819	0	418	73.7
Cumulative (2050)	136,709	806	1,230	67.2	148,582	806	1,535	63.5	11,873	0	305	38.9

Source: SBTAM+ (v3.2), Baseline (2019) and Cumulative (2050) models, TAZ 53908201.
Notes:
1. VMT = Vehicle Miled Traveled; POP = Population; EMP = Employment; SP = Service Population (Population + Employment)

As specified in the City's TIA Guidelines, the threshold for project-generated VMT is based on the San Bernardino County regional average baseline VMT per service population. The numeric threshold of 32.7 VMT per service population referred to in the City's TIA Guidelines was calculated based on an earlier version of the SBTAM model that was current at the time of preparation of the guidelines. Since the project VMT was calculated based on the latest SBTAM+ model (version 3.2), an updated numerical threshold was calculated using the latest SBTAM+ model to provide an "apples-to-apples" comparison of the project's impact relative to the Countywide average.

Table 3 shows the Countywide daily VMT estimates for using the latest SBTAM+ model (version 3.2).

Table 3
Countywide Daily VMT Estimates

Scenario	San Bernardino County			
	Total VMT	POP	EMP	VMT per SP
Baseline	117,898,127	2,217,168	859,874	38.3

Source: SBTAM+ (v3.2), baseline (2019) model.
Notes:
1. VMT = Vehicle Miled Traveled; POP = Population; EMP = Employment; SP = Service Population (Population + Employment)

As shown in Table 3, the San Bernardino County regional average baseline is equal to 38.3 VMT per service population.

Table 4 shows the project-generated VMT impact assessment.

Table 4
Project-Generated VMT Impact Assessment

Scenario	Project-Generated VMT Impact Assessment			
	Project VMT per SP[1]	Threshold[2]	Above/Below Threshold (%)	Significant VMT Impact?
2019 (Baseline)	73.7	38.3	+92.4%	Yes
2050 (Cumulative)	38.9	38.3	+1.6%	Yes

Notes:
1. VMT = Vehicle Miled Traveled; SP =Service Population (Population + Employment)
2. Per current SBTAM+ (v3.2).

It is noted that, although the project-generated VMT is estimated to exceed the Countywide average, the proposed project would improve the VMT per service population generated by the TAZ compared to development of the site as a regional retail use per the current General Plan land use designation.

Threshold: A project would result in a significant project-generated VMT impact if either of the following conditions are satisfied:

- The baseline project-generated VMT per service population exceeds the San Bernardino County regional average baseline of 38.3 VMT per service population; or
- The cumulative project-generated VMT per service population exceeds the San Bernardino County regional average baseline of 38.3 VMT per service population.

Finding: As shown in Table 4, the project-generated VMT is estimated to equal 73.7 VMT per service population for baseline conditions and 38.9 VMT per service population for cumulative conditions, both of which exceed the City-established threshold of 38.3 VMT per service population. Therefore, the project-generated VMT results in a significant impact without mitigation based on the City-established thresholds.

Recommendation

It is recommended that the project implement transportation demand management (TDM) measures to reduce single-occupancy vehicle trips to the extent feasible; however, implementation of such measures are not anticipated to reduce the project's impact to a less than significant level. Guidance from the California Air Pollution Control Officers Association (CAPCOA) *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity* (December 2021) ["CAPCOA Handbook"] includes information on nine (9) trip reduction program measures that may apply at the project/site level. Guidance from the CAPCOA Handbook states that the maximum reduction possible is 45 percent. It is likely that many of the trip reduction measures identified in the CAPCOA Handbook will not be feasible given the nature of industrial operations. Additionally, even if the maximum VMT reduction of 45 percent is achievable, the project-generated VMT would still exceed the County-established threshold. Other mitigation measures identified in the City's TIA Guidelines, such as modifying the project's built environment or participating in a VMT fee program, are not feasible at the project level or are not currently available. Therefore, the project-generated VMT impact would remain significant and unavoidable.

PROJECT EFFECT ON VMT

The project's effect on VMT was also evaluated using the current SBTAM+ model. Table 5 summarizes the link-level boundary VMT per service population within the County boundary for without and with project conditions.

Table 5
Project Effect VMT Impact Assessment

Scenario	Link-Level VMT Impact Assessment				
	Countywide Link-Level VMT	POP	EMP	Link-Level VMT per SP	Significant Project Effect on VMT?
Baseline (2019) Without Project	67,280,657	2,217,168	859,874	21.9	No
Baseline (2019) With Project	67,242,096	2,217,168	860,292	21.8	
Cumulative (2050) Without Project	94,743,867	2,622,252	1,144,814	25.2	No
Cumulative (2050) With Project	94,734,460	2,622,252	1,145,056	25.1	

Source: SBTAM+ (v3.2), Baseline (2019) and Cumulative (2050) models.

Notes:

1. VMT = Vehicle Miled Traveled; POP = Population; EMP = Employment; SP = Service Population (Population + Employment)

Threshold: The project's effect on VMT would be considered significant if it resulted in either of the following conditions to be satisfied:

- The baseline link-level boundary (County of San Bernardino) VMT per service population increases under the plus project condition compared to the no project condition; or
- The cumulative link-level boundary (County of San Berardino) VMT per service population increases under the plus project condition compared to the no project condition.

Finding: As shown in Table 5, the link-level VMT per service population within the County boundary is forecast to decrease from 21.9 to 21.8 VMT per service population for baseline plus project conditions and decrease from 25.2 to 25.1 VMT per service population for cumulative plus project conditions compared to the no project conditions. Therefore, the project effect on VMT is less than significant without mitigation based on the City-established thresholds.

CONCLUSIONS

The project-generated VMT is estimated to equal 73.7 VMT per service population for baseline conditions and 38.9 VMT per service population for cumulative conditions, both of which exceed the City-established threshold of 38.3 VMT per service population. Therefore, the project-generated VMT results in a significant impact without mitigation based on the City-established thresholds.

The link-level VMT per service population within the County boundary is forecast to decrease from 21.9 to 21.8 VMT per service population for baseline plus project conditions and decrease from 25.2 to 25.1 VMT per service population for cumulative plus project conditions compared to the no project conditions. Therefore, the project effect on VMT is less than significant without mitigation based on the City-established thresholds.

It is recommended that the project implement transportation demand management (TDM) measures to reduce single-occupancy vehicle trips to the extent feasible; however, implementation of such measures are not anticipated to reduce the project's impact to a less than significant level. Therefore, the project-generated VMT impact would remain significant and unavoidable.

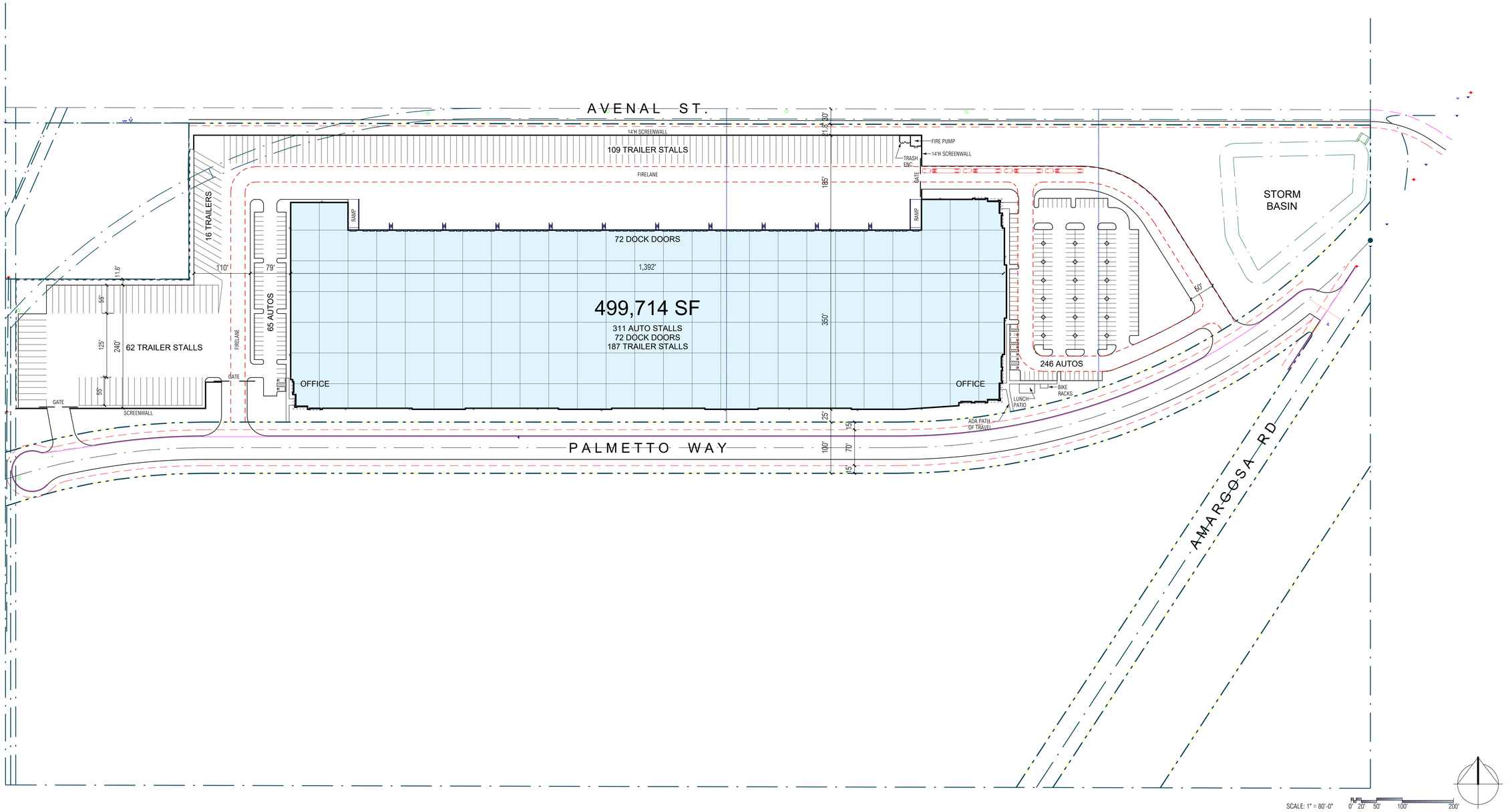
We appreciate the opportunity to assist you with this project. Please contact us at (714) 795-3100 if we can be of further assistance.

ATTACHMENT A

SITE PLAN

PROJECT DATA:

APPROX. NET INDUSTRIAL SITE AREA:	1,329,521 SF / 30.52 AC
BUILDING AREA:	499,714 SF
COVERAGE:	37.6 %
F.A.R.	0.376
AUTO PARKING REQUIRED:	
10,000 SF OFFICE @ 3.33 / 1000 SF	33 STALLS
489,714 SF WAREHOUSE: 20 + 0.4 / 1000 O/ 10K SF	212 STALLS
TOTAL	245 STALLS
PARKING PROVIDED:	
STANDARD STALLS	304 STALLS
ACCESSIBLE STALLS	7 STALLS
TOTAL STALLS PROVIDED	311 STALLS
DOCK LOADING POSITIONS	72 DOCKS
TRAILER PARKING STALLS	171 TRAILERS
LANDSCAPE PROVIDED	00 SF / 00 %



SCALE: 1" = 80'-0" 0' 20' 50' 100' 200'

RGA

Office of Architectural Design

210 Progress, Suite 220
Innovation Park
Irvine, CA 92618

T 949-341-0920
FX 949-341-0922

SPEC. INDUSTRIAL

PALMETTO WAY - HESPERIA, CA

SCHEMATIC SITE PLAN

ATT 2

MARK	DATE	DESCRIPTION
	1/22/25	PLANNING RESUBMITTAL
	12/11/24	SCHEMATIC SET ISSUE

RGA PROJECT NO:	21073.00
CAD FILE NAME:	21073-00-A1-1-P
DRAWN BY:	CS
CHK'D BY:	CS
COPYRIGHT: RGA, OFFICE OF ARCHITECTURAL DESIGN	
SHEET TITLE	

A1-1-P

ATTACHMENT B

PROJECT TRIP GENERATION
EXCERPT FROM TRAFFIC IMPACT ANALYSIS

Table 2
Project Trip Generation

Land Use: High-Cube Fulfillment Center Warehouse (Non-Sort)
Size: 499.714 TSF

TRIP GENERATION RATES PER TSF[1]

Vehicle Type	Source[2]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Rate	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Rate	Daily Rate
All Vehicles	ITE 155	81%	19%	0.150	39%	61%	0.160	1.810
Trucks Only	ITE 155	50%	50%	0.020	46%	54%	0.010	0.230
Passenger Car (86.7% AM, 93.8% PM, 87.3% Daily)		0.105	0.025	0.130	0.059	0.092	0.151	1.580
Truck (13.3% AM, 6.3% PM, 12.7% Daily)		0.010	0.010	0.020	0.005	0.005	0.010	0.230
Truck Mix:	SCAQMD							
2-Axle Trucks (16.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.038
3-Axle Trucks (20.7%)		0.002	0.002	0.004	0.001	0.001	0.002	0.048
4+ Axle Trucks (62.6%)		0.006	0.006	0.012	0.003	0.003	0.006	0.144

VEHICLE TRIPS GENERATED

Vehicle Type	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Passenger Car	52	12	64	29	46	75	790
Trucks							
2-Axle Trucks	1	1	2	0	0	0	19
3-Axle Trucks	1	1	2	0	0	0	24
4+ Axle Trucks	3	3	6	1	1	2	72
Subtotal	5	5	10	1	1	2	115
Total Vehicle Trips Generated	**57**	**17**	**74**	**30**	**47**	**77**	**905**

PCE[3] TRIPS GENERATED

Vehicle Type	PCE Factor[4]	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total	Daily
Passenger Car	1.0	52	12	64	29	46	75	790
Trucks								
2-Axle Trucks	1.5	2	2	4	0	0	0	29
3-Axle Trucks	2.0	2	2	4	0	0	0	48
4+ Axle Trucks	3.0	9	9	18	3	3	6	216
Subtotal		13	13	26	3	3	6	293
Total PCE Trips Generated		**65**	**25**	**90**	**32**	**49**	**81**	**1,083**

Notes:
(1) TSF = Thousand Square Feet

(2) ITE = Institute of Transportation Engineers *Trip Generation Manual* (11th Edition, 2021); ### = ITE Land Use Code.
SCAQMD = South Coast Air Quality Management District recommendations for non-cold storage high-cube warehouse.

(3) PCE = Passenger Car Equivalent

(4) Source: San Bernardino County Congestion Management Program (2016), Appendix B.