Rosewood/Morgan Hill Medical Campus Project

SCH# 2023080645

Subsequent Environmental Impact Report

Prepared for the
City of Morgan Hill

CITY OF MORGAN HILL

August 2025

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Rosewood/Morgan Hill Medical Campus Project Subsequent Draft Environmental Impact Report

SCH# 2023080645

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1. Introduction

1. INTRODUCTION

1.1 TYPE AND PURPOSE OF THE SEIR

The Rosewood/Morgan Hill Medical Campus Project Subsequent Environmental Impact Report (SEIR) has been prepared in accordance with the California Environmental Quality Act (CEQA) of 1970, Public Resources Code (PRC) Sections 21000-21178, as amended, and the Guidelines for Implementation of the California Environmental Quality Act, California Code of Regulations (CCR) Title 14, Sections 15000-15387 (CEQA Guidelines). The City of Morgan Hill is the lead agency for the environmental review of the Rosewood/Morgan Hill Medical Campus Project (proposed project) evaluated herein and has the principal responsibility for approving the project. As required by Section 15121 of the CEQA Guidelines, this SEIR will (a) inform public agency decision-makers, and the public generally, of the significant environmental effects of the project, (b) identify possible ways to minimize the significant adverse environmental effects, and (c) describe reasonable and feasible project alternatives that reduce environmental effects. The public agency shall consider the information in the SEIR along with other information that may be presented to the agency.

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

The lead agency, which is the City of Morgan Hill for this project, is required to consider the information in the SEIR along with any other available information in deciding whether to approve the application. The basic requirements for an EIR include discussions of the environmental setting, environmental impacts, mitigation measures, alternatives, growth inducing impacts, and cumulative impacts.

The project site was originally evaluated in the 2020 Lillian Commons Medical Campus Project (Lillian Commons Project) Initial Study/Mitigated Negative Declaration (2020 IS/MND)[1], which evaluated a 19.67-acre site at the southeast corner of Juan Hernandez Drive and Barrett Avenue in Morgan Hill. The 2020 IS/MND (State Clearinghouse Number [SCH] 2020060601) anticipated development of a 4,500-square-foot (sf) urgent care facility, a 10,000-sf medical building, a 100,000-sf medical office/hospital containing 55 beds, a three-story parking garage with 500 parking spaces, a 10,000-sf commercial retail/restaurant building, and a 200-unit multi-family residential complex. The 2020 IS/MND found that all potential physical environmental effects attributable to the proposed project could be reduced to a less-than-significant level, and was

[1] City of Morgan Hill. *Lillian Commons Medical Campus Initial Study*. June 2020.

adopted by the Morgan Hill City Council. During deliberations, the City Council limited the housing portion of the project to the northern part of the site, thereby reducing the number of new multi-family residential units from 200 units to 150 units.

In the case of a project proposal requiring discretionary approval by the City for which the City has adopted a previous EIR or IS/MND, the City must determine whether a SEIR is required, pursuant to CEQA Guidelines Section 15162. The CEQA Guidelines provide guidance on this process by requiring an examination of whether, since the certification of the EIR or adoption of the IS/MND, changes in the approved project or circumstances under which the approved project would be undertaken have occurred to such an extent that the proposal may result in a new significant impact (not previously identified in the certified EIR or adopted IS/MND) or substantial increase in the severity of a previously identified significant impact. If so, the City would be required to prepare an SEIR.

The City has determined that the proposed project would result in new significant impacts not previously identified in the 2020 IS/MND. Thus, the City has prepared this SEIR, which is focused on the topics that could potentially result in significant effects (see Section 1.5, Scope of the SEIR).

1.2 KNOWN RESPONSIBLE AND TRUSTEE AGENCIES

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

1.3 PROJECT SUMMARY

A summary of the project location, description, and approvals is provided below. Please refer to Chapter 3, Project Description, of this SEIR for a detailed description of the proposed project and entitlements, as well as a full list of the project objectives.

Project Location

The approximately 9.61-acre project site consists of two parcels identified by Assessor's Parcel Numbers (APNs) 817-09-040 and -057 and is located to the southeast of the Juan Hernandez Drive/Barrett Avenue intersection in the City of Morgan Hill, California. The majority of the project site is currently undeveloped and contains ruderal (non-native) grasses. Two medical office buildings, a paved surface parking lot, and landscaping trees occur on a 1.69-acre portion of the project site. The site is bounded to the west by Juan Hernandez Drive and to the east by US-101. A 10.06-acre parcel north of the project site, across the approved Street A, is currently being developed with the 120-unit Rosewood residential community, which includes 34 duet residential units and 86 townhomes. Barrett Elementary School and single-family residences are located further to the north, across Barrett Avenue. To the east of US-101 are various commercial uses, including Microtel Inn & Suites, Comfort Inn & Suites, and House of Thunder Harley-Davidson. To the south is undeveloped land designated for Commercial uses. To the west are single-family residences and undeveloped land designated Residential Attached Medium, across Juan Hernandez Drive.

Project Description

The proposed project consists of a request to amend an adopted Planned Development (PD) Master Plan to allow an increase in medical office square footage within the 9.61-acre project site. Through approval of the PD Master Plan Amendment, the proposed project would result in a net increase of 150,500 sf of medical/commercial uses relative to the originally approved project (275,000 sf – 124,500 sf = 150,500 sf). After accounting for the existing 15,900 sf of medical office use that would be demolished as part of the proposed project, the total net increase would be 134,600 sf.

The proposed project would consist of three medical office buildings and a parking structure and would result in the following building footprints:

- Building 1: A 75,000-sf, three-story medical office building immediately east of Juan Hernandez Drive;
- Building 2: A 100,000-sf, four-story medical office/hospital/urgent care/pharmacy/retail/ restaurant building south of Rosewood Lane, generally within the center of the project site;
- Building 3: A 100,000-sf, four-story medical office building immediately west of US-101; and
- A 54,000-sf, six-story parking structure, comprised of 965 parking spaces, located to the south of the proposed medical buildings.

The maximum building height for the medical office buildings would be increased as part of the PD Master Plan Amendment, from 55 feet to 65 feet. With respect to the parking structure, the originally approved project included construction of a three-story, 32-foot-tall parking structure, whereas the proposed project is proposing development of a six-story, 65-foot-tall structure. Thus, the proposed project modifications would result in a net increase of three floors and 33 feet.

Access to the project site would be provided by St. James Drive, which would include connections to Juan Hernandez Drive to the east of the site and the previously approved Rosewood Lane to the north of the site. Additionally, emergency vehicle access to Barrett Avenue would be available through the Rosewood subdivision that is currently under construction north of the project site. With respect to parking, the parking structure would include 965 parking spaces across six floors, including 30 spaces designed in compliance with the Americans with Disabilities Act (ADA). In addition, the proposed project would include 269 surface parking spaces. The project would also be required to provide 165 total bicycle parking spaces (55 covered spaces, 110 uncovered spaces). In regard to pedestrian access, new sidewalks would be provided along all internal drive aisles within the project site.

The proposed project would include associated utility improvements, with water and sewer service for the proposed project provided by the City of Morgan Hill through connections to existing infrastructure located in the project vicinity. With respect to storm drainage facilities, runoff from new impervious surfaces within the developed project site would be conveyed through new infrastructure to the ultimate discharge point of the existing storm drain line in Juan Hernandez Drive.

Project Approvals

The City of Morgan Hill has discretionary authority and is the lead agency for the project. The project would require City approval of the following entitlements:

- General Plan Text Amendment to amend the Mixed Use Flex (MU-F) designation to exempt medical uses, including hospitals, from floor area ratio requirements with an approved PD Combining District and PD Master Plan; and
    - The General Plan Text Amendment is no longer applicable because the City adopted Resolution 25-003 on February 19, 2025, which eliminated floor area ratio (FAR) requirements in the MU-F land use designation within the City.
- PD Master Plan Amendment to increase the maximally allowed medical office square footage within the project site to 275,000, building coverage to 60 percent, medical office parking to one space per 250 sf, and maximum building height to 65 feet. Additionally, FAR will be eliminated. Assisted living facilities will be added as a permitted use and day care centers, farmers markets, residential care facilities, and skilled nursing facilities will all be changed from conditionally permitted to permitted uses.

1.4 SEIR PROCESS

In the case of a project proposal requiring discretionary approval by the City for which the City has adopted a previous EIR or IS/MND, the City must determine whether a SEIR is required pursuant to CEQA Guidelines Section 15162. The CEQA Guidelines provide guidance on this process by requiring an examination of whether, since the certification of the EIR or adoption of the IS/MND, changes in the approved project or circumstances under which the approved project would be undertaken have occurred to such an extent that the proposal may result in a new significant impact (not previously identified in the certified EIR or adopted IS/MND) or substantial increase in the severity of a previously identified significant impact. If so, the City would be required to prepare an SEIR.

The City has determined that the proposed project would result in new significant impacts not previously identified in the 2020 IS/MND. Thus, the City has prepared this SEIR, which is focused on the topics that could potentially result in significant effects (see Section 1.5, Scope of the SEIR).

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

A Final SEIR will be prepared, containing public comments on the Draft SEIR and written responses to those comments, as well as a list of changes to the Draft SEIR text necessitated by public comments, as warranted. Before approving a project, the lead agency shall certify that the SEIR (consisting of the Draft SEIR and Final SEIR) has been completed in compliance with CEQA, and that the SEIR has been presented to the decision-making body of the lead agency, which has reviewed and considered the SEIR. The lead agency shall also certify that the SEIR reflects the lead agency's independent judgment and analysis.

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

1.5 SCOPE OF THE SEIR

Pursuant to the CEQA Guidelines, the SEIR needs only to contain the information necessary to make the previous EIR adequate for the proposed project, as revised. The main purpose of the SEIR will be to provide an environmental analysis of the proposed project as changed since the certification of the previous EIR.

Environmental Issues Addressed in this SEIR

The sections of the CEQA Guidelines Appendix G Checklist identified by the Initial Study (IS) (see Appendix A of this SEIR) for further environmental review in this SEIR include the following:

- Air Quality, Greenhouse Gas Emissions, and Energy;
- Noise; and
- Transportation.

The evaluation of effects is presented on a resource-by-resource basis in Chapters 4.1 through 4.3 of the SEIR. Each chapter is divided into the following four sections: Introduction, Existing Environmental Setting, Regulatory Context, and Impacts and Mitigation Measures. The Impacts and Mitigation Measures section addresses both project-specific and cumulative impacts. Impacts that are determined to be significant in Chapters 4.1 through 4.3, and for which feasible mitigation measures are not available to reduce those impacts to a less-than-significant level, are identified as significant and unavoidable. Chapter 5 presents a discussion of growth-inducing impacts, a summary of cumulative impacts, and significant irreversible as well as significant and unavoidable environmental changes associated with the project. Alternatives to the proposed project are discussed in Chapter 6 of the SEIR.

1.6 DEFINITION OF BASELINE

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

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

Normally, the baseline condition is the physical condition that exists when the Notice of Preparation (NOP) is published. The NOP for the proposed project was published on August 25, 2023. However, in cases where an approved project has already undergone environmental review

and the environmental document has been adopted by the lead agency, the lead agency can restrict the current review to the incremental effects of the modified project, rather than having to reconsider the overall impacts of the project. In such cases, as the project under review constitutes only a modification of a previously approved project, the "baseline" for the purposes of CEQA is adjusted such that the originally approved project is assumed to exist.[2]

Thus, the environmental baseline for this SEIR is appropriately considered to be the approved Lillian Commons Project, which allocated 124,500 sf of medical/commercial uses. While the City could legitimately use this baseline for evaluation of all CEQA topics in this SEIR, the City has conservatively chosen to use the existing site conditions as the baseline for the vehicle miles traveled (VMT) analysis, given that the adopted 2020 IS/MND only included a qualitative analysis of VMT. In other words, with the exception of the existing 15,900 sf of medical office space currently located in the southernmost portion of the project site, other VMT-generating uses previously approved for the 2020 IS/MND are not assumed in the environmental baseline.

1.7 SIGNIFICANCE CRITERIA

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

The level of significance of an impact prior to mitigation is included at the end of each impact discussion throughout the technical chapters of this SEIR. The following levels of significance prior to mitigation are used in this SEIR:

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

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

[2] See Michael H. Remy et al. *Guide to CEQA, 11th Edition*. Point Arena: Solano Press Books (2007), pg. 207; Stephen L. Kostka and Michael H. Zischke. *Practice Under the Environmental Quality Act, Second Edition* (Vol. 1). Oakland: Continuing Education of the Bar (2018), pgs. 12-32; *Benton v. Board of Supervisors* (1st Dist. 1991) 226 Cal. App. 3d 1467.

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

Each environmental area of analysis uses a distinct set of significance criteria. Where measurable and explicit quantification of significance is identified, such as violation of an ambient noise level standard, this measurement is used to assess the level of significance of a particular impact in this SEIR. If criteria for determining significance relative to a specific environmental resource impact are not identified in the CEQA Guidelines, criteria were developed for this Draft SEIR.

The significance criteria are identified at the beginning of the Impacts and Mitigation Measures section in each of the technical chapters of this SEIR. Although significance criteria are necessarily different for each resource considered, the provided significance levels ensure consistent evaluation of impacts for all resource areas evaluated.

1.8 NOTICE OF PREPARATION AND SCOPING

While preparation of a new NOP and completion of a scoping meeting are not required by the CEQA Guidelines for an SEIR, the City of Morgan Hill chose to circulate a new NOP (which included with the attached IS in Appendix A of this SEIR) to the public, local and State agencies, and other known interested parties for a 30-day public and agency review period from August 25, 2023 to September 25, 2023. The purpose of the NOP was to provide notification that an SEIR for the proposed project was being prepared and to solicit public input on the scope and content of the document.

In addition, the City of Morgan Hill held an NOP scoping meeting during the 30-day review period, on September 19, 2023 to collect comments related to the changes in circumstances that may have occurred in the project vicinity since the certification of the 2020 IS/MND, given that environmental changes are an important criterion when preparing further environmental documents for projects, according to CEQA Guidelines Section 15162(a)(2). The meeting was held virtually within a Zoom meeting room. Agencies and members of the public were invited to attend and provide input on the scope of the SEIR. A total of three (3) comment letters were received during the NOP public review period and one (1) letter was received after the close of the public review period. The comment letters, as well as a summary of the verbal comments from the NOP scoping meeting, are provided as Appendix B to this SEIR. All comments were taken into consideration during the preparation of this SEIR. A summary of the NOP comments received is provided in Section 1.9 below.

1.9 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

As noted above, the City of Morgan Hill received four comment letters during and after the NOP public review period. In addition, verbal comments were received at the public scoping meeting held on September 19, 2023. A copy of each letter and a summary of the verbal comments are provided in Appendix B of this SEIR. The comment letters received during the NOP public review

period were authored by the following representatives of public agencies and groups, as well as individual members of the general public:

Public Agencies

- County of Santa Clara Roads and Airports Department – Ben Aghegnehu;
- California Department of Transportation (Caltrans) – Yunsheng Luo; and
- Native American Heritage Commission (NAHC) – Cody Campagne.

Individuals

- Mark Serra.

The following list, categorized by issue, summarizes the environmental concerns brought forth in the comment letters and verbal comments received on the scope of the SEIR. It should be noted that comments outside of the purview of CEQA or that are speculative in nature have not been included, as, according to Section 15145 of CEQA Guidelines, CEQA does not require evaluation of speculative impacts.

Air Quality, Greenhouse Gas Emissions, and Energy	Concerns related to: • The project site's proximity to sensitive receptors, including the single-family residences and Barrett Elementary School.
Noise	Concerns related to: • Noise pollution impacts on nearby residences and facilities. • Impacts associated with a significant generation of construction noise. • Requests for a Quiet Zone to be established, given the potential impacts associated with ambulance sirens to nearby residences and facilities, such as schools and assisted living facilities.
Transportation	Concerns related to: • Increased parking on Juan Hernandez Drive and/or St. Lawrence Drive. • Increased traffic and impacts on parking availability during operation of the proposed project, because residents are accustomed to parking on streets. • Increased traffic specifically during school drop-off times. • US-101 getting further backed up than the highway already does. • Additional risk of vehicular/pedestrian collisions to students walking between local schools and residences daily. • Impacts to the State right-of-way (ROW) due to project-related temporary access points during construction activities. • Impacts, including encroachment, to Caltrans facilities and any legally required accessibility features after construction of the proposed project. • The availability of bicycle and pedestrian facilities during project construction.
Initial Study (Appendix A)	Concerns related to: • The size of the proposed parking garage as compared to other buildings in the surrounding area. • If and how the parking garage would obstruct views of scenic vistas and the night sky.

	• Lack of landscaping along the length of Juan Hernandez Drive. • Potential for encountering previously unknown cultural, historical, or tribal cultural resources at the project site. • Response times for emergency services. • Whether emergency services, such as fire departments, are adequately equipped to access a six-story parking garage. • The City's capability to handle the increase in solid waste associated with the proposed project.

All of the foregoing concerns are addressed in this SEIR, in the relevant sections identified in the first column. All other issues are discussed in the IS (see Appendix A of this SEIR) prepared for the proposed project.

1.10 DRAFT SEIR AND PUBLIC REVIEW

This Draft SEIR is being circulated for public review and comment for a minimum period of 45 days, consistent with CEQA Guidelines. During this period, the general public, organizations, and agencies can submit comments to the lead agency on the Draft SEIR's accuracy and completeness. Release of the Draft SEIR marks the beginning of the minimum 45-day public review period pursuant to CEQA Guidelines Section 15105.

The public can review the Draft SEIR at the City's website at:

https://www.morganhill.ca.gov/1961/Rosewood-Lillian-Commons-Medical-Mixed-U

In addition, the 2020 IS/MND is available at the City's website at:

https://www.morganhill.ca.gov/2318/Rosewood-Lillian-Commons-Residential

The Draft SEIR is also available at the following address during normal business hours:

City of Morgan Hill
Development Services Department
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All comments or questions regarding the Draft SEIR should be submitted in written form and addressed to:

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1.11 ORGANIZATION OF THE DRAFT SEIR

The SEIR is organized into the following sections:

Chapter 1 – Introduction

Provides an introduction and overview describing the intended use of the SEIR and the review and certification process, as well as summaries of the chapters included in the SEIR and

summaries of the issues and concerns received from public agencies during the NOP review period.

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

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

Chapter 4 – Environmental Setting, Impacts, and Mitigation
Contains project-specific and cumulative analysis of environmental issue areas associated with the proposed project. The section for each environmental issue contains an introduction and description of the setting of the project site, identifies impacts, and recommends appropriate mitigation measures.

Chapter 5 – Statutorily Required Sections
Provides discussions required by CEQA regarding impacts that would result from the proposed project, including a summary of potential growth-inducing impacts, significant irreversible changes to the environment, and significant and unavoidable impacts.

Chapter 6 – Alternatives Analysis
Provides a comparative analysis of the alternatives to the proposed project, their respective comparative environmental effects, and a determination of the environmentally superior alternative.

Chapter 7 – SEIR Authors and Persons Consulted
Lists SEIR and technical report authors who provided technical assistance in the preparation and review of the SEIR.

Chapter 8 – References
Provides bibliographic information for all references and resources cited.

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

2. Executive Summary

2. EXECUTIVE SUMMARY

2.1 INTRODUCTION

The Executive Summary chapter of this Subsequent EIR (SEIR) provides an overview of the proposed project (see Chapter 3, Project Description, for further details) and provides a table summary of the conclusions of the environmental analysis provided in Chapters 4.1 through 4.3. This chapter also summarizes the alternatives to the proposed project that are described in Chapter 6, Alternatives Analysis, and identifies the Environmentally Superior Alternative. Table 2-1 contains the environmental impacts associated with the proposed project, the significance of the impacts, the proposed mitigation measures for the impacts, and the significance of the impacts after implementation of the mitigation measures.

2.2 SUMMARY DESCRIPTION OF THE PROPOSED PROJECT

The approximately 9.61-acre project site (identified by Assessor's Parcel Numbers [APNs] 817-09-040 and -057) is located to the southeast of the Juan Hernandez Drive/Barrett Avenue intersection in the City of Morgan Hill. The majority of the project site is currently undeveloped and contains ruderal (non-native) grasses. Two medical office buildings totaling 15,900 square feet (sf), as well as a paved surface parking lot and landscaping trees, occur on a 1.69-acre portion of the project site.

Development of the project site was originally evaluated in the 2020 Lillian Commons Medical Campus Project (Lillian Commons Project) Initial Study/Mitigated Negative Declaration (2020 IS/MND)[1], which evaluated a 19.67-acre site at the southeast corner of Juan Hernandez Drive and Barrett Avenue in Morgan Hill. The 2020 IS/MND (State Clearinghouse Number [SCH] 2020060601) anticipated development of a 4,500-square-foot (sf) urgent care facility, a 10,000-sf medical building, a 100,000-sf medical office/hospital containing 55 beds, a three-story parking garage with 500 parking spaces, a 10,000-sf commercial retail/restaurant building, and a 200-unit multi-family residential complex.

A 10.06-acre parcel north of the project site, across the approved Street A, is currently being developed with the 120-unit multi-family Rosewood residential community approved by the Morgan Hill City Council as part of the Lillian Commons Project (originally approved project). Barrett Elementary School and single-family residences are located further to the north, across Barrett Avenue. To the east of U.S. Highway 101 (US-101) are various commercial uses, including Microtel Inn & Suites, Comfort Inn & Suites, and House of Thunder Harley-Davidson. To the south is undeveloped land designated for Commercial uses. To the west are single-family residences and undeveloped land designated Residential Attached Medium, across Juan Hernandez Drive. The City of Morgan Hill General Plan designates the project site Mixed Use Flex (MU-F), and the site is zoned MU-F with a Planned Development (PD) Combining District overlay.

The Rosewood/Morgan Hill Medical Campus Project (proposed project) would consist of three medical office buildings and a parking structure and would require the approval of a General Plan Text Amendment and PD Master Plan Amendment. As established by the approved Lillian

1 City of Morgan Hill. *Lillian Commons Medical Campus Initial Study*. June 2020.

Commons PD Master Plan, the project site's permitted uses, include, but are not limited to, the following: banks and financial institutions, business support services, commercial recreation, cultural institutions, day care centers, general retail, hospitals, medical offices and clinics, parking lots and structures, and professional offices. As part of the proposed General Plan Text Amendment, the MU-F designation would be amended to exempt medical uses, including hospitals, from floor area ratio (FAR) requirements with an approved PD Combining District and PD Master Plan. The City of Morgan Hill has since adopted Resolution 25-003 on February 19, 2025, amending the General Plan to eliminate FAR requirements for the MU-F land use designation across the entire City. Therefore, the project's General Plan Text Amendment request is no longer applicable. However, the FAR exemption will still be reflected in the PD Master Plan Amendment request.

The PD Master Plan Amendment would allow for an increase in medical office square footage within the 9.61-acre project site. Through approval of the PD Master Plan Amendment, the proposed project would result in a net increase of 150,500 sf of medical/commercial uses relative to the originally approved project (275,000 sf – 124,500 sf = 150,500 sf). After accounting for the existing 15,900 sf of medical office use that would be demolished as part of the proposed project, the total net increase would be 134,600 sf. As a result of the increased square footage, the building coverage and FAR standards will also change. The maximum allowed building coverage will increase from 50 percent to 60 percent and FAR will be removed entirely from PD Master Plan development standards. The three medical office buildings would each be located to the south of Rosewood Lane. The maximum building height for the medical office buildings would be increased as part of the PD Master Plan Amendment, from 55 feet to 65 feet. With respect to the parking structure, the originally approved project included construction of a three-story, 32-foot-tall parking structure, whereas the proposed project is proposing development of a six-story, 65-foot-tall structure. Thus, the proposed project modifications would result in a net increase of three floors and 33 feet. Lastly, the required parking for "Medical Office" uses will change from one space per 200 sf of net floor area to one space per 250 sf of net floor area. The proposed PD Master Plan Amendment would also add assisted living facilities as a permitted use and change daycare facilities, farmers markets, residential care facilities, and skilled nursing facilities from conditionally permitted to permitted uses.

The project site would be accessible by way of St. James Drive, connecting to Juan Hernandez Drive to the east and the approved Rosewood Lane to the north. Emergency vehicle access to Barrett Avenue would be available through the Rosewood residential community. With respect to parking, the parking structure would include 965 parking spaces across six floors, including 30 spaces designed in compliance with the Americans with Disabilities Act (ADA). In addition, the proposed project would include 269 surface parking spaces, which would be located between the three medical office buildings, as well as to the east and west of the parking structure. In addition, the project would be required to provide 165 total bicycle parking spaces.

Water and sewer service for the proposed project would be provided by the City of Morgan Hill through connections to existing infrastructure located in the project vicinity. Runoff from new impervious surfaces within the developed project site would be directed to inlets located throughout the project site, as well as new bioretention basins sited in various locations, which would provide preliminary treatment and temporary storage of runoff during peak rainfall. Electricity would be provided to the proposed project by Pacific Gas & Electric Co. (PG&E) through the existing underground utility lines along Juan Hernandez Drive.

Project Approvals

The City of Morgan Hill has discretionary authority and is the lead agency for the project. The project would require City approval of the following entitlements:

- General Plan Text Amendment to amend the MU-F designation to exempt medical uses, including hospitals, from FAR requirements with an approved PD Combining District and PD Master Plan; and
    - The General Plan Text Amendment is no longer applicable because the City adopted Resolution 25-003 on February 19, 2025, which eliminated FAR requirements in the MU-F land use designation within the City.
- PD Master Plan Amendment to increase the maximally allowed medical office square footage within the project site to 275,000, building coverage to 60 percent, medical office parking to one space per 250 sf, and maximum building height to 65 feet. Additionally, FAR will be eliminated. Assisted living facilities will be added as a permitted use and day care centers, farmers markets, residential care facilities, and skilled nursing facilities will all be changed from conditionally permitted to permitted uses.

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

2.3 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Under CEQA, a significant effect on the environment is defined as a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project, including land, air, water, mineral, flora, fauna, ambient noise, and objects of historic or aesthetic significance. To minimize potential adverse impacts, the project must implement mitigation measures to reduce such impacts to a less-than-significant level. Such mitigation measures are noted in this SEIR and are found in the following technical chapters: Air Quality, Greenhouse Gas Emissions, and Energy; Noise; and Transportation. The mitigation measures presented in the SEIR will form the basis of the Mitigation Monitoring and Reporting Program. Any impact that remains significant after implementation of mitigation measures is considered a significant and unavoidable impact.

A summary of the identified impacts in the technical chapters (Chapters 4.1 through 4.3) of the EIR is presented in Table 2-1, included at the end of this chapter. In addition, Table 2-1 includes the level of significance of each impact, any mitigation measures required for each impact, and the resulting level of significance after implementation of mitigation measures for each impact.

2.4 SUMMARY OF PROJECT ALTERNATIVES

The following section presents a summary of the alternatives evaluated in this EIR for the proposed project, which include the following:

- No Project (No Build) Alternative;
- No Project (Buildout Pursuant to Approved PD Master Plan) Alternative; and
- Reduced Size Alternative.

For a more thorough discussion of project alternatives that were evaluated in this EIR, including alternatives considered but dismissed, please refer to Chapter 6, Alternatives Analysis, of this SEIR.

No Project (No Build) Alternative

The No Project (No Build) Alternative assumes that the current conditions of the project site would remain, and the site would not be developed. As described in this SEIR, the majority of the project site is currently undeveloped and contains ruderal (non-native) grasses. Two medical office buildings and a paved surface parking lot featuring landscaping trees occur on a 1.69-acre portion of the 9.61-acre project site. The site is bounded to the west by Juan Hernandez Drive and to the east by US-101. The No Project (No Build) Alternative would not meet any of the project objectives. Because the project site is assumed to remain in its current condition under the Alternative, none of the impacts resulting from the proposed project would occur under the Alternative.

No Project (Buildout Pursuant to Approved PD Master Plan) Alternative

The No Project (Buildout Pursuant to Approved PD Master Plan) Alternative assumes that the site would be developed pursuant to the currently approved uses set forth in the PD Master Plan, as evaluated by the 2020 IS/MND. Specifically, the project site would contain 124,500 sf of medical/commercial uses, including a 4,500-sf urgent care facility, a 10,000-sf medical building, a 100,000-sf medical office/hospital with 55 beds, a three-story parking structure with 500 spaces, and a 10,000-sf commercial retail/restaurant building. Because the City has already approved the General Plan Amendment, Zoning Amendment, PD Master Plan, and Tentative Parcel Map associated with the Lillian Commons Project, the No Project (Buildout Pursuant to the Approved PD Master Plan) Alternative would not be expected to require City approval of any further entitlements with the possible exception of Conditional Use Permits (CUPs) for uses requiring a CUP. The No Project (Buildout Pursuant to Approved PD Master Plan) Alternative would fully meet the project objectives, with the exception of Objective #2. Objective #2 specifies that the existing approved 124,500 sf of space would not be large enough to accommodate a hospital footprint. Therefore, the No Project (Buildout Pursuant to Approved PD Master Plan) Alternative would not have the ability to be phased to meet existing needs and scale up in size as demand increases, and Project Objective #2 would not be met.

The No Project (Buildout Pursuant to the Approved PD Master Plan) Alternative could result in fewer impacts than the proposed project related to air quality, greenhouse gas (GHG) emissions, and energy and transportation and greater impacts related to noise.

Reduced Size Alternative

The Reduced Size Alternative would include 225,000 sf of medical office uses, split between a four-story, 100,000-sf building, a three-story 75,000-sf building, and a two-story 50,000-sf building. The Reduced Size Alternative would retain the two existing medical buildings and parking lot located on Parcel D, thereby reducing the overall site acreage and disturbance area. The Alternative would still require a PD Master Plan Amendment to increase the maximally allowed medical office square footage from 124,500 sf to 225,000, building coverage to 60 percent, medical office parking to one space per 250 sf, and to increase the maximum building height from 55 feet to 65 feet. Additionally, FAR would still be eliminated, assisted living facilities would still be added as a permitted use, and day care centers, farmers markets, residential care facilities, and skilled nursing facilities would still be changed from conditionally permitted to permitted uses.

Because the Reduced Size Alternative would still provide medical office uses, the project objectives would be fully met under the Alternative, with the possible exception of Objective #2.



Objective #2 specifies that the existing approved 124,500 sf of space would not be large enough to accommodate a hospital footprint. Therefore, while the Reduced Size Alternative would have the ability to be phased to meet existing needs and scale up in size as demand increases, the flexibility to do so would be constrained due to the reduction in square footage by 50,000 sf.

The Reduced Size Alternative could result in fewer impacts as the proposed project related to air quality, GHG emissions, and energy and transportation, and similar impacts as the proposed project related to noise.

Environmentally Superior Alternative

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. The environmentally superior alternative is generally the alternative that would be expected to generate the least amount of significant impacts. Identification of the environmentally superior alternative is an informational procedure and the alternative selected may not be the alternative that best meets the goals or needs of the City. Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

The No Project (No Build) Alternative would be considered the environmentally superior alternative, because the project site is assumed to remain in its current condition under the alternative. Consequently, many of the impacts resulting from the proposed project would not occur under the Alternative. In addition, the No Project (Buildout Pursuant to the Approved PD Master Plan) Alternative could result in fewer impacts than the proposed project related to two of the three resources areas where new or more severe significant impacts were identified for the proposed project, and greater impacts to the remaining resource area. However, the No Project (No Build) Alternative would not meet any of the project objectives, and the No Project (Buildout Pursuant to Approved PD Master Plan) Alternative would meet six of the seven project objectives. Furthermore, the No Project (Buildout Pursuant to the Approved PD Master Plan) Alternative would be considered a form of a no project alternative, and thus, an environmentally superior alternative among the other alternatives must be identified pursuant to CEQA.

Apart from the no project alternatives, as discussed above, the Reduced Size Alternative would be considered the environmentally superior alternative. The Reduced Size Alternative would fully meet six of the seven project objectives. In addition, the Reduced Size Alternative could result in fewer impacts than the proposed project related to air quality, GHG emissions, and energy and transportation, and similar impacts as the proposed project related to noise.

2.5 AREAS OF KNOWN CONTROVERSY

The CEQA Guidelines, Section 15123(b), require that this EIR consider areas of controversy known to the lead agency, including issues raised by agencies and the public. Areas of controversy that were identified in the NOP Scoping Meeting and NOP comment letters on the proposed project should be considered, as well. The areas of known controversy for the proposed project relate to the following:

- Noise impacts associated with construction and operation of the proposed project;
- Increases in allowable maximum building height on-site;
- Increases in traffic levels in the vicinity of the project site;

- Proximity to sensitive receptors in regard to impacts to air quality and greenhouse gas emissions;
- Proposed buildings obstructing views of scenic vistas and degradation of visual character;
- Parking availability for residents in the vicinity of the project site; and
- Response time for emergency services.

Table 2-1
Summary of Impacts and Mitigation Measures

Impact		Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.1 Air Quality, Greenhouse Gas Emissions, and Energy				
4.1-1	Conflict with or obstruct implementation of the applicable air quality plan during project construction.	LS	*None required.*	N/A
4.1-2	Conflict with or obstruct implementation of the applicable air quality plan during project operation.	LS	*None required.*	N/A
4.1-3	Expose sensitive receptors to substantial pollutant concentrations.	LS	*None required.*	N/A
4.1-4	Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency.	LS	*None required.*	N/A
4.1-5	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).	LCC	*None required.*	N/A

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Table 2-1
Summary of Impacts and Mitigation Measures

	Impact	Level of Significance Prior to Mitigation		Mitigation Measures	Level of Significance After Mitigation
4.1-6	Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.	CC, S	*4.1-6*	*Prior to the approval of project improvement plans, the applicant shall implement the following measure:* • *Consistent with BAAQMD's Transportation criterion d., EV Capable parking spaces (including EV Capable parking spaces with electric vehicle supply equipment [EVSE]) shall be installed throughout the project site at the ratio specified by the current CalGreen Tier 2 standards.* *Compliance with the foregoing measure shall be ensured by the City of Morgan Hill Community Development Department.*	LCC
4.1-7	Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency.	LCC	*None required.*		N/A
4.2 Noise					
4.2-1	Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	S	*NOI-1.1*	*Prior to issuance of a grading permit for Phase 1 of the proposed project, the project applicant shall prepare a Noise Construction Control Plan that includes, but is not necessarily limited to, the following construction best management control practices:* • *Equipment and trucks used for construction*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds); • *Impact tools (e.g., jackhammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools; and* • *Stationary noise sources shall be located as far from noise-sensitive receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or include other measures.* • *Construct temporary noise barriers, where feasible, to screen stationary noise-generating equipment. A temporary noise barrier with a height of eight feet would provide a minimum 6.0 dBA noise reduction for the residences to the north and to the west of the project site when construction activities occur at the ground level if the barrier is constructed in a manner that eliminates any cracks or gaps.* • *Unnecessary idling of internal combustion engines should be strictly prohibited.*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction. Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.* • *Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.* • *Where feasible, temporary power service from local utility companies should be used instead of portable generators.* • *Locate cranes as far from noise-sensitive receptors as possible.* • *During final grading, substitute graders for bulldozers, where feasible. Wheeled heavy equipment are quieter than track equipment and should be used where feasible.* • *Substitute nail guns for manual hammering, where feasible.* • *Avoid the use of circular saws, miter/chop saws, and radial arm saws near the adjoining noise-sensitive receptors. Where feasible, shield saws with a solid screen with material*	

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		having a minimum surface density of two pounds per square foot (e.g., such as 0.75-inch plywood). • *Maintain smooth vehicle pathways for trucks and equipment accessing the site, and avoid local residential neighborhoods as much as possible.* • *During interior construction, the exterior windows facing noise-sensitive receptors should be closed.* • *During interior construction, locate noise-generating equipment within the building to break the line-of-sight to the adjoining receptors.* • *The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.* • *Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone*	

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Impact		Level of Significance Prior to Mitigation	Mitigation Measures		Level of Significance After Mitigation
				number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule. *The Noise Construction Control Plan shall be submitted for review and approval of the Development Services Director and the Morgan Hill Development Services Department.*	
4.2-2	Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	S	*NOI-2.1*	*A qualified acoustical consultant shall be retained to review mechanical equipment systems during final design of the proposed project. The consultant shall review selected equipment, including the emergency generator and transformer, and determine specific noise reduction measures necessary to reduce noise to comply with the City's noise level requirements. Prior to issuance of building permits for the project, the emergency generator and transformer must be selected and approved by the City of Morgan Hill Planning Division. The generator and transformer shall include adequate noise suppressing features to reduce impacts on surrounding land uses to meet the City's exterior and interior noise level requirements of 60 dBA.*	LS
4.2-3	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.	LS	*None required.*		N/A

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Impact		Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
4.2-4	Generation of a substantial permanent increase in ambient noise levels associated with development of the proposed project in combination with cumulative development.	LCC	*None required.*	N/A
4.3 Transportation				
4.3-1	Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway bicycle, and pedestrian facilities.	LS	*None required.*	N/A
4.3-2	Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).	LS	*None required.*	N/A
4.3-3	Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), or result in inadequate emergency access.	S	*4.3-3 Prior to the commencement of construction, a construction signage and traffic control plan shall be provided to the City's Development Services Department for review and approval. The construction signage and traffic control plan shall include (but not be limited to) items such as:* • *Guidance on the number and size of trucks per day entering and leaving the project site;* • *Identification of arrival/departure times that would minimize traffic impacts;* • *Approved truck circulation patterns;* • *Locations of staging areas;*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• *Locations of employee parking and methods to encourage carpooling and use of alternative transportation;* • *Methods for partial/complete street closures (e.g., timing, signage, location, and duration restrictions);* • *Criteria for use of flaggers and other traffic controls;* • *Preservation of safe and convenient passage for bicyclists and pedestrians through/around construction areas;* • *Monitoring for roadbed damage and timing for completing repairs;* • *Limitations on construction activity during peak/holiday weekends and special events;* • *Preservation of emergency vehicle access;* • *Coordination of construction activities with construction of other projects that occur concurrently in the City to minimize potential additive construction traffic disruptions, avoid duplicative efforts (e.g., multiple occurrences if similar signage), and maximize effectiveness of traffic mitigation measures (e.g., joint employee alternative transportation programs);* • *Removing traffic obstructions during emergency evacuation events; and* • *Providing a point of contact for nearby residents to obtain construction information,*	

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		have questions answered, and convey complaints. *The construction signage and traffic control plan shall be developed such that the following minimum set of performance standards is achieved throughout project construction. It is anticipated that additional performance standards would be developed once details of project construction are better known.* • *All construction employees shall park in designated lots owned by the project applicant or on private lots otherwise arranged for by the project applicant.* • *Roadways shall be maintained clear of debris (e.g., rocks) that could otherwise impede travel and impact public safety.*	
Initial Study			
IV-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 or U.S. Fish and Wildlife Service?	S	*BIO-1.1* *Construction shall be scheduled to avoid the nesting season to the extent feasible. If construction can be scheduled to occur between September 1st and January 31st (inclusive) to avoid the raptor nesting season, no impacts will be expected. If construction will take place between February 1st and August 31st, then pre- construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. Surveys shall be completed within 30 days of the on-set of site clearing or construction*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		activities. During this survey, the ornithologist shall inspect all trees and other potential nesting habitats (e.g., trees, shrubs, buildings) on-site trees as well as all trees within 250 feet of the site for nests. *BIO-1.2* *If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist shall determine the extent of a disturbance-free buffer zone to be established around the nest (typically 250 feet for raptors and 50-100 feet for other species) that shall remain off limits to construction until the nesting season is over, to ensure that no nests of species protected by the Migratory Bird Treaty Act and California Fish and Wildlife Code will be disturbed during project implementation. A report indicating the result of the survey and any designated buffer zones shall be submitted to the satisfaction of the Development Services Director prior to issuance of a grading permit.*	
IV-e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	S	*BIO-5.1* *To the extent feasible, activities shall avoid impacts to any protected trees. Avoidance is considered to be completely avoiding any work or staging under the dripline of trees. The boundary of the designated avoidance buffer shall be flagged or fenced prior to initial ground disturbance. If complete avoidance is not feasible, BIO-5.2 shall be implemented.* *BIO-5.2* *The project proponent shall comply with local ordinances and submit permit applications for*	LS

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Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		removal, trimming, damage, or relocation of all trees covered by the City ordinance. Any trees to be removed shall require replacement at a two- to-one ratio on a comparable ratio of size. The replacement trees shall be planted on-site to the extent feasible and the project proponent shall comply with all other replacement requirements imposed by the City.	

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3. Project Description

3. PROJECT DESCRIPTION

3.1 INTRODUCTION AND BACKGROUND

The Project Description chapter of this Subsequent EIR (SEIR) provides a comprehensive description of the Rosewood/Morgan Hill Medical Campus Project in accordance with CEQA Guidelines Section 15124. A detailed description of the project location, project setting and surrounding uses, project objectives, project components, and required project approvals is presented in this chapter. A discussion on the project background and SEIR process and scope is provided below.

Project Background

On November 4, 2020, the Morgan Hill City Council reviewed and approved the Lillian Commons Medical Campus Project (Lillian Commons Project), a mixed-use development project proposed for a 19.67-acre site southeast of the Juan Hernandez Drive/Barrett Avenue intersection in the City of Morgan Hill, California. The site was originally composed of three parcels, but has since been subdivided and is now identified by Assessor's Parcel Numbers (APNs) 817-41-017 through -050, 817-42-021 through -039, 817-42-041 through -061, 817-42-063 through -071, 817-09-057, and 817-09-040. The Lillian Commons Project, for which an Initial Study/Mitigated Negative Declaration (2020 IS/MND) was prepared and adopted (State Clearinghouse No. 2020060601), originally proposed to construct a 4,500-square-foot (sf) urgent care facility, a 10,000-sf medical building, a 100,000-sf medical office/hospital with 55 beds, a three-story parking structure with 500 spaces, a 10,000-sf commercial retail/restaurant building, and a 200-unit multi-family residential complex.[1] The project applicant, Lillian Commons, LLC, requested City approval of the following entitlements:

- A General Plan Amendment (GPA) to redesignate the site from Commercial to Mixed Use Flex (MU-F);
- A Zoning Amendment to amend the site's zoning from Service Commercial with a Planned Development (PD) Combining District overlay to MU-F with a PD Combining District overlay;
- A PD Master Plan to allow for flexibility in the permitted land uses within the project site; and
- A Tentative Parcel Map to subdivide the site into four parcels: Parcels A, B, C, and D.

The 2020 IS/MND ultimately concluded that although potentially significant impacts could occur through development of the project, with incorporation of the mitigation measures set forth therein, all potential impacts would be reduced to a less-than-significant level. After reviewing the applicant's request to amend the site's land use designation from Commercial to MU-F and to create a PD zoning district and associated Master Plan, the City Council voted to approve the Lillian Commons Project, while incorporating Morgan Hill Planning Commission recommendations of limiting housing to only the northern portion of the site (Parcel C), reducing the number of new multi-family residential units that could be developed by the project from 200 units to 150 units, and requiring that, for the remainder of the site, any allowed uses in the PD are tied to a medical campus (Resolution Nos. 20-058, 20-059, and 20-060 and Ordinance No. 2318).

[1] City of Morgan Hill. *Lillian Commons Medical Campus Initial Study*. June 2020.

The applicant is proceeding with development of the residential component of the City-approved Lillian Commons Project on Parcel C (10.06 acres), now known as "Rosewood." The approved vesting tentative map consists of 120 units (34 duet units and 86 townhome units), rather than the 150 units previously approved by the City Council. The remaining Parcels A, B, and D comprise approximately 9.61 acres and represent the area within the PD Master Plan approved for medical and commercial uses. Parcels A and B are currently undeveloped, while Parcel D contains 15,900 sf of existing medical office space. The applicant is proposing certain modifications to the 9.61-acre area, thus, necessitating an Amendment to the PD Master Plan. The 9.61-acre site is the subject of this SEIR and is considered the project site for the purposes of CEQA. In general, the modifications consist of increasing the allowable medical office square footage and maximum building height, as well as a General Plan Text Amendment to amend the MU-F designation to exempt medical uses including hospitals from floor area ratio (FAR) requirements with an approved PD Combining District and PD Master Plan. Additional project details are provided within Section 3.5, Project Components, below.

Subsequent EIR Baseline

In cases where an approved project has already undergone environmental review, and the environmental document has been adopted by the lead agency, the lead agency can restrict the current review to the incremental effects of the modified project, rather than having to reconsider the overall impacts of the project. In such cases, as the project under review constitutes only a modification of a previously approved project, the "baseline" for the purposes of CEQA is adjusted such that the originally approved project is assumed to exist.[2] Thus, the environmental baseline for this SEIR is appropriately considered to be the approved 2020 Lillian Commons Project, the PD Master Plan for which allocated 124,500 sf of medical/commercial uses for the 9.61-acre project site. While the City could legitimately use this baseline for evaluation of all CEQA topics in this SEIR, the City has conservatively chosen to use the existing site conditions as the baseline for the vehicle miles traveled (VMT) analysis, given that the adopted 2020 IS/MND only included a qualitative analysis of VMT. In other words, with the exception of the existing 15,900 sf of medical office space currently located in the southernmost portion of the project site, other VMT-generating uses previously approved for the 2020 IS/MND are not assumed in the environmental baseline.

3.2 PROJECT LOCATION

The project site consists of two parcels (APNs 817-09-040 and -057) totaling 9.61 acres located to the southeast of the Juan Hernandez Drive/Barrett Avenue intersection in the City of Morgan Hill (see Figure 3-1 and Figure 3-2). The City of Morgan Hill General Plan designates the project site MU-F, and the site is zoned MU-F with a PD Combining District overlay.

3.3 PROJECT SETTING AND SURROUNDING LAND USES

The majority of the project site is currently undeveloped and contains ruderal (non-native) grasses. Two medical office buildings totaling 15,900 sf, as well as a paved surface parking lot and landscaping trees, occur on a 1.69-acre portion of the project site. The site is bounded to the west by Juan Hernandez Drive and to the east by US-101.

[2] See Michael H. Remy et al. *Guide to CEQA, 11th Edition*. Point Arena: Solano Press Books (2007), pg. 207; Stephen L. Kostka and Michael H. Zischke. *Practice Under the Environmental Quality Act, Second Edition* (Vol. 1). Oakland: Continuing Education of the Bar (2018), pgs. 12-32; *Benton v. Board of Supervisors* (1st Dist. 1991) 226 Cal. App. 3d 1467.

Figure 3-1
Regional Vicinity Map

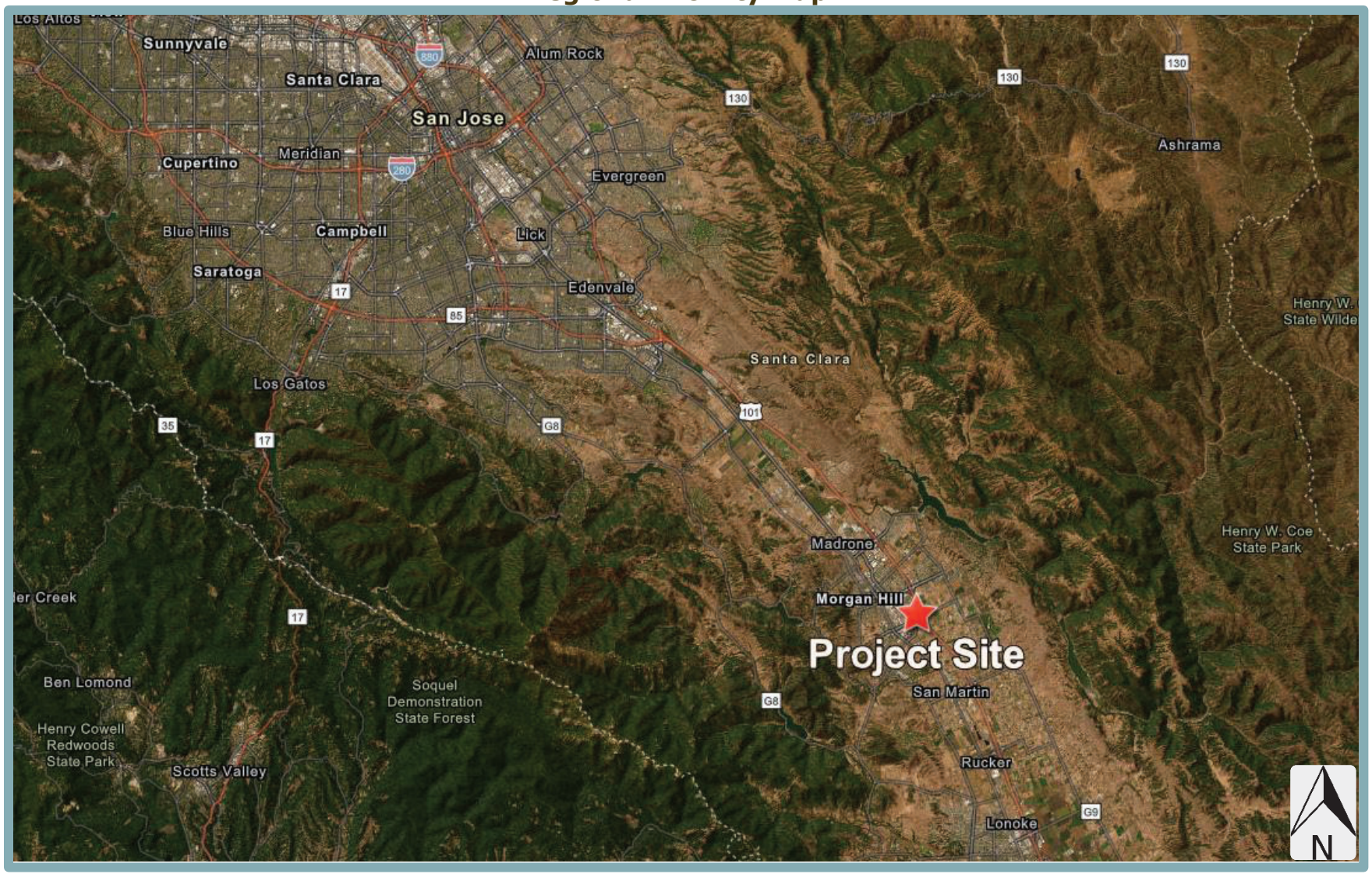


Figure 3-2
Project Site Boundaries



As previously discussed, the environmental baseline for this SEIR is the Lillian Commons Project. Thus, the project site is assumed to contain 124,500 sf of medical/commercial uses.

A 10.06-acre parcel north of the project site, across the approved Street A, is currently being developed with the 120-unit Rosewood residential community, which includes 34 duet residential units and 86 townhomes. Barrett Elementary School and single-family residences are located further to the north, across Barrett Avenue. To the east of US-101 are various commercial uses, including Microtel Inn & Suites, Comfort Inn & Suites, and House of Thunder Harley-Davidson. To the south is undeveloped land designated for Commercial uses. To the west are single-family residences and undeveloped land designated Residential Attached Medium, across Juan Hernandez Drive. Table 3-1 describes the land use and zoning designations of the parcels surrounding the project site.

Table 3-1
Surrounding Land Use and Zoning Designations

Parcel Location	Land Use	Zoning
North of the Project Site	MU-F	MU-F with a PD Combing District overlay
East of the Project Site	US-101, Commercial	General Commercial with a Planned Unit Development overlay
South of the Project Site	Commercial	Highway Commercial with Planned Unit Development overlay
West of the Project Site	Juan Hernandez Drive, Residential Attached Low and Residential Attached Medium	Residential Attached Low Density with a Residential Planned Development overlay and Residential Attached Medium Density

3.4 PROJECT OBJECTIVES

The following project objectives have been developed by the project applicant:

1. Create an entitled (close to shovel-ready) project that has the breadth of uses and maximum capacity to ensure the optimal pathway to deliver high-quality medical services to Morgan Hill and the surrounding South County communities.
2. Approve a project that has the ability to be phased to meet existing needs and scale up in size as demand increases.
    a. As a hospital would be the last piece of a medical campus (according to hospital groups), the existing approved 124,500 sf of space would not be large enough to eventually accommodate a hospital footprint, this amendment rectifies that.
3. Additionally, as Morgan Hill does not have the population density of other parts of the Bay Area to justify a standalone hospital, this amendment enables a continuum of care to create the localized demand for a centralized healthcare facility. Allowing uses such as skilled-nursing facilities, assisted living and residential care as permitted uses on a portion of the campus would help create demand desired by healthcare providers to make an investment of such magnitude for clinics, medical office buildings and a hospital, as well as create additional services for residents of Morgan Hill seeking healthcare options.
4. Provide easy/direct vehicular access to and from US-101 for medical services that are located on Juan Hernandez Drive, a street that can accommodate the anticipated traffic demands of the proposed project, and can be served by existing (nearby) utilities.
5. Take advantage of the investments made by the Rosewood residential project, which has made the investment and has constructed the access road, detention pond, and utility

infrastructure for the medical campus site that will remove potential obstacles for rapid development by a medical services provider.

6. Enable a highly desirable site to incentivize the investment of hundreds of millions of dollars creating hundreds of jobs (construction and permanent) in the Morgan Hill community.
7. Deliver healthcare options for Morgan Hill residents.
    a. The City's Economic Blueprint identifies four industries that are key to Morgan Hill's future, one of which is "Healthcare." Under "Healthcare," the explicit goal is to "[g]row and foster the medical service and diagnostics industry by attracting services and facilities."
    b. The Economic Blueprint has specific action items related to healthcare:
        i. Expand Locations for Medical Uses: The main tools the City has to regulate land development are the General Plan and the Zoning Code. These tools support medical uses through ease and clear rules for development. The City should Ensure General Plan & Zoning Code Allow for a Range of Medical Uses (Action #32).
        ii. Actively Promote Locations for Medical Uses: The City should Identify & Market PreZoned Medical Sites (Action #33) to clearly outline pre-approved locations for medical services. Similar to the Auto Dealer Incentive Policy. This direction clearly announces that the City wants these uses in the community and eases their ability to locate. To create awareness of new zoning regulations the City should Increase Outreach and Medical Service Providers (Action #34) and Create & Implement a Targeted Marketing Campaign (Action #35).

3.5 PROJECT COMPONENTS

The proposed project components are discussed further below.

General Plan Text Amendment

Pursuant to the City of Morgan Hill General Plan, the MU-F designation allows for a mix of residential, commercial, and office uses applied either vertically (i.e., one structure with multiple uses) or horizontally (i.e., structures with different land uses located adjacent to one another), a density of seven to 24 dwelling units per acre (du/ac), and a maximum FAR of 0.5. As established by the approved Lillian Commons PD Master Plan, the project site's permitted uses, include, but are not limited to, the following: banks and financial institutions, business support services, commercial recreation, cultural institutions, day care centers, general retail, hospitals, medical offices and clinics, parking lots and structures, and professional offices.

As part of the proposed General Plan Text Amendment, the MU-F designation would be amended to exempt medical uses, including hospitals, from FAR requirements with an approved PD Combining District and PD Master Plan.

The City of Morgan Hill has since adopted Resolution 25-003 on February 19, 2025, amending the General Plan to eliminate FAR requirements for the Mixed-Use Flex (MU-F) land use designation across the entire City. Therefore, the project's General Plan Text Amendment request is no longer applicable. However, the FAR exemption will still be reflected in the Planned Development Master Plan Amendment request.

Planned Development Master Plan Amendment

The PD Master Plan Amendment would allow for an increase in medical office square footage within the 9.61-acre project site. The project applicant has prepared two site plans for the project site, one of which identifies the probable medical square footage for the project site, and the other represents the potential maximum medical square footage. For CEQA analysis purposes, the City has chosen to focus the environmental analysis within this SEIR on the maximum square footage so that the full envelope of potential environmental impacts is assessed and mitigated, as required. The PD Master Plan Amendment sets the maximum medical square footage at 275,000 sf. The probable medical square footage site plan includes a total footprint of 225,000 sf of medical office uses and is included as a Reduced Size alternative in the Alternatives Analysis chapter of this SEIR.

The proposed project would consist of three medical office buildings and a parking structure (see Figure 3-3) and would result in the following building footprints:

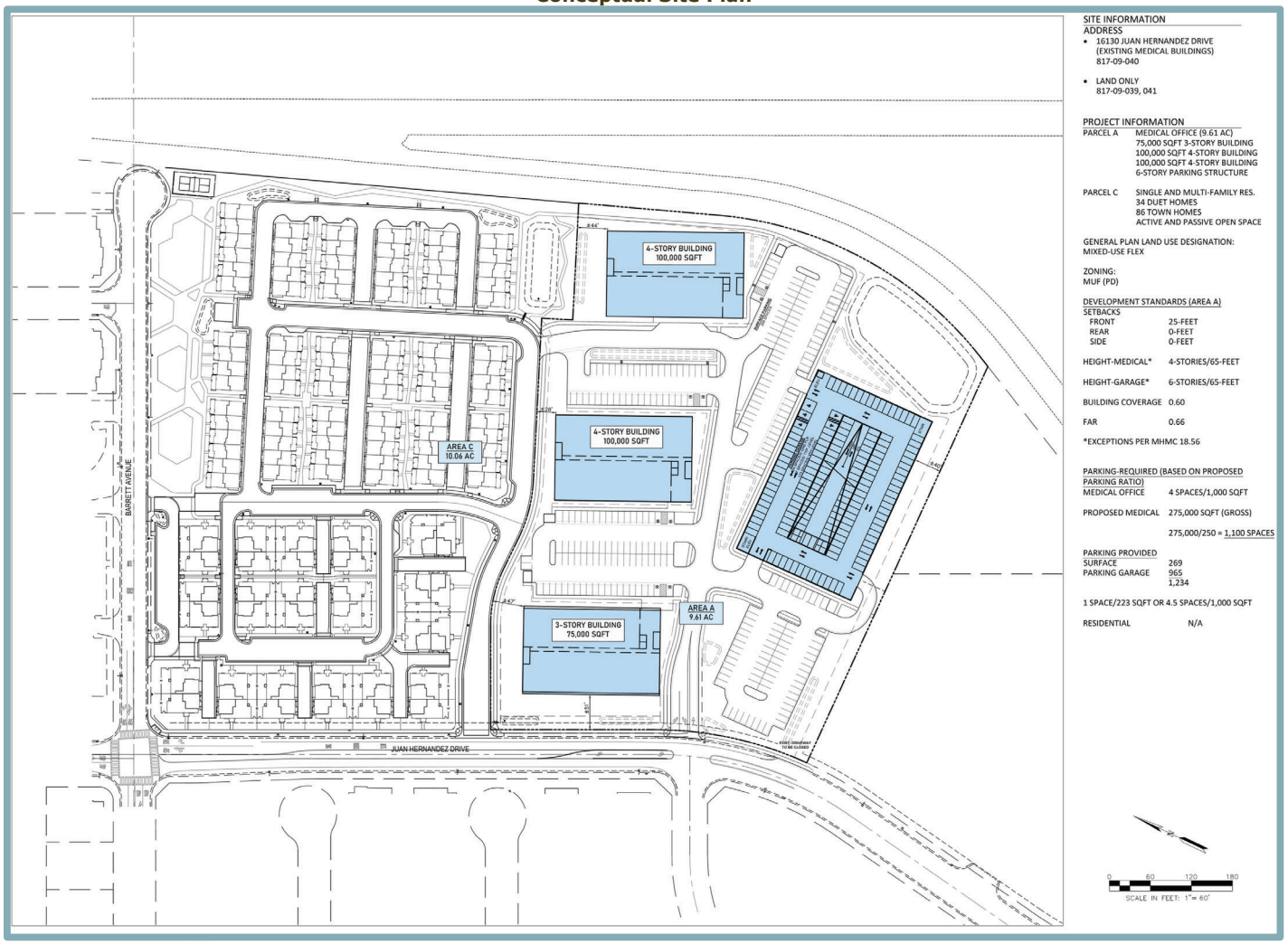
- Building 1: A 75,000-sf, three-story medical office building immediately east of Juan Hernandez Drive;
- Building 2: A 100,000-sf, four-story medical office/hospital/urgent care/pharmacy/retail/ restaurant building south of Rosewood Lane, generally within the center of the project site;
- Building 3: A 100,000-sf, four-story medical office building immediately west of US-101; and
- A 54,000-sf, six-story parking structure, comprised of 965 parking spaces, located to the south of the proposed medical buildings.

Through approval of the PD Master Plan Amendment, the proposed project would result in a net increase of 150,500 sf of medical/commercial uses relative to the originally approved project (275,000 sf – 124,500 sf = 150,500 sf). After accounting for the existing 15,900 sf of medical office use that would be demolished as part of the proposed project, the total net increase would be 134,600 sf. As a result of the increased square footage, the building coverage and FAR standards will also change. The maximum allowed building coverage will increase from 50 percent to 60 percent and FAR will be removed entirely from PD Master Plan development standards. The three medical office buildings would each be located to the south of Rosewood Lane. The maximum building height for the medical office buildings would be increased as part of the PD Master Plan Amendment, from 55 feet to 65 feet. Lastly, the required parking for “Medical Office” uses will change from one space per 200 sf of net floor area to one space per 250 sf of net floor area.

The proposed PD Master Plan Amendment would also add assisted living facilities as a permitted use and change daycare facilities, farmers markets, residential care facilities, and skilled nursing facilities from conditionally permitted to permitted uses.

With respect to the parking structure, the originally approved project included construction of a three-story, 32-foot-tall parking structure, whereas the proposed project is proposing development of a six-story, 65-foot-tall structure. Thus, the proposed project modifications would result in a net increase of three floors and 33 feet.

Figure 3-3
Conceptual Site Plan



In addition, whereas the originally approved project sited the parking structure immediately south of Rosewood Lane and adjacent to the east of US-101, the proposed project would place the parking structure within the southern portion of the project site, generally equidistant from US-101 and Juan Hernandez Drive. The proposed project would also include demolition of the existing 15,900 sf of medical office buildings within Parcel D, which would be replaced with a paved surface parking lot.

Access, Circulation, and Parking

Access to the project site would be provided by St. James Drive, which would include connections to Juan Hernandez Drive to the east of the site and the previously approved Rosewood Lane to the north of the site. St. James Drive would consist of a 36-foot-wide right-of-way (ROW) along the majority of the street, comprised of two 13-foot-wide vehicle lanes, a five-foot-wide landscape strip, and a five-foot-wide sidewalk. Near the entrance from Juan Hernandez Drive, St. James Drive would feature a 51-foot-wide ROW, comprised of a 13-foot-wide right-turn lane, two vehicle lanes, a five-foot-wide landscape strip, and a five-foot-wide sidewalk.

Additionally, emergency vehicle access to Barrett Avenue would be available through the Rosewood residential community that is currently under construction north of the project site. With respect to parking, the parking structure would include 965 parking spaces across six floors, including 30 spaces designed in compliance with the Americans with Disabilities Act (ADA). In addition, the proposed project would include 269 surface parking spaces, which would be located between the three medical office buildings, as well as to the east and west of the parking structure. In addition, the project would be required to provide 165 total bicycle parking spaces (55 covered spaces, 110 uncovered spaces).

In regard to pedestrian access, new sidewalks would be provided along all internal drive aisles within the project site. The new sidewalks would ultimately provide access to the existing sidewalks along Juan Hernandez Drive. In addition, an internal jogging/walking trail would be constructed to extend through the project site from the southern site boundary to along the eastern perimeter. The proposed internal jogging/walking trail would connect to similar trails within the Rosewood residential community under construction to the north, which would ultimately connect to Barrett Avenue further to the north.

Grading and Earthwork

As shown in Figure 3-4, the earthwork volume on the project site would be balanced by lowering the proposed parking structure, thickening the building foundations, or a combination of the two. It should also be noted that the project applicant has committed to the use of all Tier 4 final engine off-road equipment during project construction, including grading and earthwork activities, as well as other construction activities such as building construction.

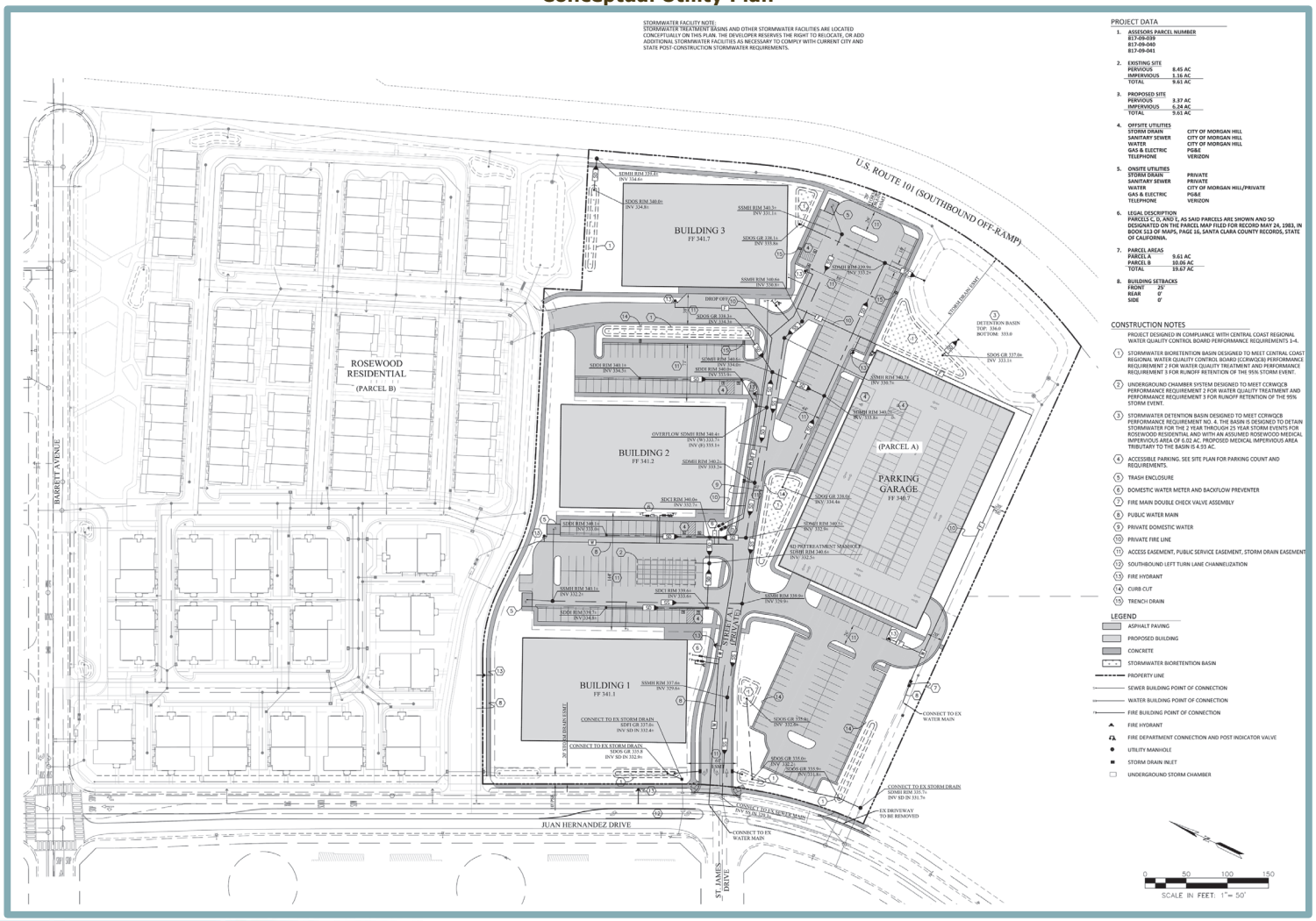
Utilities

Water and sewer service for the proposed project would be provided by the City of Morgan Hill through connections to existing infrastructure located in the project vicinity. From the existing 10-inch water line in Juan Hernandez Drive, new eight- and 10-inch water lines would be extended into the site within St. James Drive, to which the proposed medical office buildings would connect by way of new laterals (see Figure 3-5). Fire flow would be provided to all proposed structures through the proposed pipe network. Similarly, from the existing eight-inch sewer line in Juan Hernandez Drive, new six- and eight-inch sewer lines would be extended into the site within St. James Drive, to which the proposed medical office buildings would connect by way of new laterals.

Figure 3-4
Conceptual Grading Plan



Figure 3-5
Conceptual Utility Plan



With respect to storm drainage facilities, runoff from new impervious surfaces within the developed project site would be directed to inlets located throughout the project site, as well as new bioretention basins sited in various locations, which would provide preliminary treatment and temporary storage of runoff during peak rainfall. From the inlets and bioretention basins, flows would be conveyed by way of new 15- and 18-inch storm drain lines to the proposed water treatment basin located to the southeast of the parking structure, where flows would ultimately be piped to the existing storm drain infrastructure in Juan Hernandez Drive.

Regarding dry utilities, electricity would be provided to the proposed project by Pacific Gas & Electric Co. (PG&E) through the existing underground utility lines along Juan Hernandez Drive. The project would not include natural gas, as natural gas has been prohibited in all new construction since March 1, 2020, pursuant to City Ordinance No. 2306.

Landscaping

New landscaping would be provided throughout the project site, adjacent to the proposed structures, internal drive aisles, and site perimeters. Plant selection would be consistent with the landscaping planted as part of the previously approved Rosewood residential community to the north.

In addition, new vegetation would be selected in accordance with Morgan Hill Municipal Code Section 18.64.060, which requires that all plants and trees shall be categorized as low or very low water use.

3.6 PROJECT APPROVALS

The City of Morgan Hill has discretionary authority and is the lead agency for the project. The project would require City approval of the following entitlements:

- General Plan Text Amendment to amend the MU-F designation to exempt medical uses, including hospitals, from FAR requirements with an approved PD Combining District and PD Master Plan; and
    - The General Plan Text Amendment is no longer applicable because the City adopted Resolution 25-003 on February 19, 2025, which eliminated FAR requirements in the MU-F land use designation within the City.
- PD Master Plan Amendment to increase the maximally allowed medical office square footage within the project site to 275,000, building coverage to 60 percent, medical office parking to one space per 250 sf, and maximum building height to 65 feet. Additionally, FAR will be eliminated. Assisted living facilities will be added as a permitted use and day care centers, farmers markets, residential care facilities, and skilled nursing facilities will all be changed from conditionally permitted to permitted uses.

Review or Approvals by Other Agencies

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

- NPDES Construction General Permit (RWQCB – Central Coast Region); and
- Bay Area Air Quality Management District (BAAQMD).

4. Existing Environmental Setting, Impacts, and Mitigation

4.0. Introduction to the Analysis

4.0. INTRODUCTION TO THE ANALYSIS

4.0.1 INTRODUCTION

The technical chapters of this Subsequent Environmental Impact Report (SEIR) include the analysis of the potential impacts of buildout of the proposed project in comparison to the significant impacts identified in the Lillian Commons Medical Campus Project (Lillian Commons Project) Initial Study/Mitigated Negative Declaration (2020 IS/MND).[1] Chapters 4.1 through 4.3 describe the focus of the analysis, references and other data sources for the analysis, the environmental setting related to each specific issue area, project-specific impacts and mitigation measures, and the cumulative impacts for each issue area. The format of each of the technical chapters is described at the end of this chapter. It should be noted that all technical reports are either attached to this SEIR or available at the City by request.

4.0.2 DETERMINATION OF SIGNIFICANCE

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

Significance Criteria

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

As presented in Section 4.0.5 below, the level of significance of an impact prior to mitigation is included at the end of each impact discussion throughout the technical chapters of this EIR. The following levels of significance prior to mitigation are used in this EIR:

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

[1] City of Morgan Hill. *Lillian Commons Medical Campus Initial Study*. June 2020.

4) Cumulatively Considerable: Where cumulative impacts have been identified and the project's incremental contribution towards the cumulative impacts would be considered significant.

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

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

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

4.0.3 ENVIRONMENTAL ISSUES DISMISSED IN THE INITIAL STUDY

The Initial Study (IS) prepared for the proposed project and circulated with the Notice of Preparation (NOP) includes a detailed environmental checklist addressing a range of technical environmental issues (see Appendix A). For each technical environmental issue, the IS identifies the level of impact for the proposed project based on an evaluation of whether the proposed modifications to the Lillian Commons Project would be reasonably anticipated to result in one or more new significant environmental impacts not previously identified in the 2020 IS/MND and/or if a substantial increase in the severity of one or more significant impacts would occur. More specifically, pursuant to CEQA Guidelines Section 15162, the impact analysis included in the IS prepared for the proposed project was based on the following questions for each environmental issue:

- Do proposed changes involve new or more severe significant impacts?
- Do proposed changes involve any new circumstances involving new or more severe significant impacts?
- Do proposed changes involve any new information requiring new analysis or verification?

It should be noted that a "no" answer does not necessarily mean that potential impacts do not exist relative to the environmental category, but that a relevant change would not occur in the condition or status of the impact due to its insignificance or its treatment in a previous environmental document. Impacts identified in the IS as answering "no" are summarized below. All remaining issues identified in the IS as having the potential to involve new or more severe

significant impacts than what was analyzed in the 2020 IS/MND are discussed in the subsequent technical chapters of this SEIR.

- *Aesthetics (All Checklist Questions):* The project site is not located within the vicinity of any scenic corridors, highways, or vistas designated by the City of Morgan Hill. While the City of Morgan Hill General Plan EIR identified El Toro as the most prominent visual landmark from public views within the City, mountains would still be intermittently visible between buildings. Therefore, the increased concentration in development under the proposed project would not have a substantial adverse effect on a scenic vista. Given that State-designated highways are not located within the project vicinity, the IS further concluded that impacts related to substantially damaging scenic resources would be consistent with the 2020 IS/MND. The proposed project would be constructed within the same development footprint that was analyzed in the 2020 IS/MND; however, the proposed structures would be taller than what was previously analyzed. As such, photo-simulations of the proposed project were prepared to assess the proposed project's potential impact. Based on the analysis included in the IS, the modifications to building height would not substantially degrade the existing visual character or quality of public views of the site and its surroundings. Finally, similar to the Lillian Commons Project, the proposed project would be required to comply with Section 8.72.060.G of the City's Municipal Code, which regulates lighting and glare. Overall, the proposed project would not result in new significant impacts or substantially more severe significant impacts than were previously analyzed in the 2020 IS/MND, and the proposed project would be consistent with the conclusions therein.

- *Agriculture and Forest Resources (All Checklist Questions):* The project site is designated by the California Resources Agency Farmland Mapping and Monitoring Program as "Urban and Built-Up Land" and "Other Land." Therefore, the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. Similarly, the project site is not zoned for agricultural use or as forest land or timberland, and is not subject to a Williamson Act contract. Such designations are consistent with the analysis presented in the 2020 IS/MND. Therefore, the proposed project would not result in new significant impacts or substantially more severe significant impacts than were previously analyzed in the 2020 IS/MND.

- *Air Quality (Checklist Question d):* The proposed project would involve more development than was analyzed in the 2020 IS/MND, and therefore could potentially result in an increase in emissions, including those leading to odors. However, similar to the Lillian Commons Project, construction activities associated with the currently proposed project would be temporary, and operation of construction equipment would be regulated and intermittent. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, including all applicable standards associated with air pollutant sources and construction-related dust. During project operations, the project site would not include any exposed topsoil and would not include any substantial sources of dust. As such, the proposed project would not result in new significant impacts or substantially more severe significant impacts than what was previously analyzed, and the proposed project would remain consistent with the conclusions of the 2020 IS/MND.

- *Biological Resources (All Checklist Questions):* The 2020 IS/MND concluded that potential impacts to special-status plants and wildlife could occur. In addition, the 2020 IS/MND

concluded that the Lillian Commons Project could conflict with the City's Tree Preservation Ordinance. However, the 2020 IS/MND included mitigation measures that would reduce such impacts to less-than-significant levels. All other impacts related to biological resources were determined to be less than significant by the 2020 IS/MND. Given that the proposed project would be constructed within the same disturbance footprint evaluated in the 2020 IS/MND, impacts related to biological resources would be consistent with the conclusions therein. As such, the proposed project would be subject to all applicable mitigation measures from the 2020 IS/MND, including Mitigation Measures BIO-1.1, BIO-1.2, BIO-5.1, and BIO-5.2. Therefore, the proposed project would not result in new significant impacts or substantially more severe significant impacts to biological resources than what was previously analyzed in the 2020 IS/MND.

- *Cultural Resources (All Checklist Questions):* According to the 2020 IS/MND, previously recorded historical resources are not located on-site. In addition, the project site is not located within an archaeologically sensitive area of the City. As such, the 2020 IS/MND concluded that a less-than-significant impact would occur upon historic resources. The currently proposed project would be constructed within the previously analyzed footprint of the Lillian Commons Project, and thus, would not be anticipated to result in a greater potential to adversely affect archaeological resources during ground-disturbing activities as compared to the approved project. The 2020 IS/MND concluded that implementation of the City's standard conditions of approval would be sufficient to reduce potential impacts to unique archeological resources and human remains to a less-than-significant level. Compliance with the City's Standard Conditions related to the protection of historical and archaeological resources, consistent with Section 18.60.090 of the Morgan Hill Municipal Code, would ensure that the proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the 2020 IS/MND. As a result, the proposed project would remain consistent with the conclusions therein.

- *Geology and Soils (All Checklist Questions):* The 2020 IS/MND determined that the potential for fault rupture, liquefaction, lateral spreading, and/or landslides at the project site would be low due to compliance with the City's Standard Conditions. The proposed project would be subject to all applicable Standard Conditions, including Standard Condition GEO-1, which requires implementation of standard engineering and seismic safety design techniques. As such, the proposed project would not expose people or structures to substantial adverse effects, and a less-than-significant impact would occur. Similarly, Standard Conditions GEO-2 and GEO-3, which require implementation of water pollution and erosion control plans, as well as stormwater pollution control measures, were included in the 2020 IS/MND to ensure that the Lillian Commons Project would result in a less-than-significant impact associated with soil erosion or the loss of topsoil. Finally, the 2020 IS/MND concluded that the proposed project would not result in impacts related to septic systems or paleontological resources. As previously discussed, the currently proposed project is located entirely within the area of disturbance previously analyzed in the 2020 IS/MND. The proposed project would not require substantial excavation activities beyond those anticipated and analyzed by the 2020 IS/MND. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the 2020 IS/MND.

- *Hazards and Hazardous Materials (All Checklist Questions):* The 2020 IS/MND identified the potential for the regular transportation of hazardous materials to occur during operation of the proposed medical offices. The project site is also located within one-quarter mile of a school. However, the 2020 IS/MND concluded that applicable federal, State, and local regulations would be sufficient to ensure that the Lillian Commons Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, nor would the Lillian Commons Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes within one-quarter mile of an existing or proposed school. The proposed project would include the operation of the same medical uses within the same disturbance area analyzed in the 2020 IS/MND. As such, construction and operation of the proposed project would be required to comply with the same federal, State, and local regulations, which would ensure that the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what was analyzed in the 2020 IS/MND.

  In addition, the project site has not been identified on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. The project site is not located within two miles of any public airports, and does not fall within an airport land use plan area. The 2020 IS/MND concluded that development of the proposed project would not impair the implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan and would not expose people or structures to the risk of loss, injury or death involving wildland fires. Because the proposed project is located within the same area of disturbance as the Lillian Commons Project, the proposed project would be consistent with the conclusions of the 2020 IS/MND, and would not result in new significant impacts or substantially more severe significant impacts associated with hazards or hazardous materials.

- *Hydrology and Water Quality (All Checklist Questions):* The 2020 IS/MND determined that, through implementation of Standard Condition GEO-3, as well as HYD-1 and HYD-2, which require implementation of Best Management Practices (BMPs) during construction and obtaining a National Pollutant Discharge Elimination System (NPDES) General Construction permit, respectively, impacts associated with stormwater quality during construction would be reduced to less-than-significant. In addition, the 2020 IS/MND concluded that conformance with Standard Condition HYD-3, which requires a post-development hydrology report, would reduce all impacts related to erosion, runoff, and flood flows to a less-than-significant level. Furthermore, the 2020 IS/MND concluded that the Lillian Commons Project would not impact groundwater recharge and would not conflict with the SCVWD's Groundwater Management Plan. The 2020 IS/MND concluded that the project site is not located within a designated Federal Emergency Management Agency (FEMA) flood hazard zone, and due to the project's distance from the coast and other large bodies of water, impacts related to tsunamis or seiches would not occur. The proposed project is located on the same area of disturbance as the Lillian Commons Project, and would therefore still be subject to all federal, State, and local regulations specified in the 2020 IS/MND, as well as all Standard Conditions identified therein. The increased density and square footage of the proposed medical/commercial uses would not increase the significance of impacts related to hydrology and water quality. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the 2020 IS/MND.

- *Land Use and Planning (All Checklist Questions):* The 2020 IS/MND concluded that the Lillian Commons Project would not physically divide an established community, and included a General Plan Amendment and Zoning Amendment to ensure conflicts with City policies and regulations would not occur. The proposed project would be constructed within the previously analyzed footprint of the Lillian Commons Project. In addition, while the proposed project requires City approval of a Planned Development (PD) Master Plan Amendment and General Plan Text Amendment,[2] should the City Council approve the requested amendments, the proposed project would be rendered consistent with applicable plans. Thus, the potential environmental effects of the additional non-residential square footage associated with the proposed project are evaluated throughout the technical chapters of the SEIR. Therefore, the proposed project would remain consistent with the conclusions of the 2020 IS/MND.

- *Mineral Resources (All Checklist Questions):* According to the 2020 IS/MND, the project site does not constitute a likely source of minerals that would be of value to the region or residents of the State. Because the proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project, the proposed project would not result in new significant impacts or substantially more severe significant impacts to mineral resources than what was analyzed within the 2020 IS/MND.

- *Population and Housing (All Checklist Questions):* The project site is currently developed with 15,900 sf of existing medical offices, which does not support residents; thus, the proposed project would not result in the displacement of existing housing or residents. The proposed project consists of an increase in density and square footage of the proposed medical/commercial uses, and, thus, would not result in the creation of additional housing which would directly induce population growth. While the increase in medical/commercial uses may result in the project generating a greater number of employees than what was anticipated by the 2020 IS/MND, the IS concluded that the increase would not indirectly induce substantial unplanned population growth in the area, and a less-than-significant impact would occur. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the 2020 IS/MND.

- *Public Services (All Checklist Questions):* The 2020 IS/MND analyzed the potential for the Lillian Commons Project to result in substantial adverse physical impacts related to fire protection, police protection, schools, parks, and other public facilities, and concluded that a less-than-significant impact would occur. The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project and would not include the development of more residences than what was assessed in the 2020 IS/MND. As such, the proposed project would not result in an increase in the number of residents assumed for the Lillian Commons Project, and would not require the provision of new or physically altered governmental facilities, particularly schools, parks, or other public facilities. In addition, while the proposed project would result in an incremental increase in demand for fire and police protection, such demand would not require new or physically altered fire or police protection facilities, the construction of which could result

[2] The City of Morgan Hill has since adopted Resolution 25-003 on February 19, 2025, amending the General Plan to eliminate floor area ratio (FAR) requirements for the Mixed-Use Flex (MU-F) land use designation across the entire City. Therefore, the project's General Plan Text Amendment request is no longer applicable. However, the FAR exemption will still be reflected in the PD Master Plan Amendment request.

in environmental impacts. As such, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what was analyzed in the 2020 IS/MND.

- *Recreation (All Checklist Questions):* According to the 2020 IS/MND, the existing parks and facilities in the vicinity of the project site would be sufficient to serve the future residents of the Lillian Commons Project. In addition, the 2020 IS/MND concluded that the payment of in-lieu fees would reduce any significant impacts associated with recreational resources to a less-than-significant level. As previously discussed, the currently proposed project would be constructed within the same area of disturbance as the previously analyzed Lillian Commons Project and would not result in the development of more residences than what was analyzed in the 2020 IS/MND. As such, the proposed project would not result in an increase in the number of residents, and the proposed project would not result in new significant impacts or substantially more severe significant impacts related to recreational resources beyond what were analyzed in the 2020 IS/MND.

- *Tribal Cultural Resources (All Checklist Questions):* During preparation of the 2020 IS/MND, the City of Morgan Hill did not receive any responses or requests for consultation pursuant to SB 18 and AB 52. The 2020 IS/MND found that previously recorded tribal cultural resources are not present on-site and concluded that implementation of the City's Standard Conditions related to tribal cultural resources would be sufficient to reduce any potential impacts to a less-than-significant level. As discussed in the Cultural Resources section above, compliance with the City's Standard Conditions related to the protection of historical and archaeological resources, consistent with Section 18.60.090 of the Morgan Hill Municipal Code, would ensure that the proposed project would not result in new significant impacts or substantially more severe significant impacts than what was previously analyzed in the 2020 IS/MND.

- *Utilities and Service Systems (All Checklist Questions):* The 2020 IS/MND assessed the potential for buildout of the project to result in impacts associated with utilities and service systems and found that existing utilities systems within adjacent roadways would be available to serve the Lillian Commons Project. In addition, the IS/MND concluded that sufficient water supplies would be available to serve the project, and, after expansion of the South County Regional Wastewater Authority (SCRWA) Wastewater Treatment Facility (WWTF), the Lillian Commons Project would not adversely affect the functionality or the capacity of the existing wastewater treatment system. Furthermore, the 2020 IS/MND concluded that the Johnson Canyon Sanitary Landfill would have adequate capacity to receive the solid waste generated by the Lillian Commons Project. As discussed in the IS, the proposed project would not result in the relocation of or require the construction of new or expanded water, storm drainage, or sewer infrastructure. Similarly, based on substantial evidence provided in the IS, the proposed project would not contribute excessive strain onto the existing water, wastewater, or solid waste disposal facilities. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the 2020 IS/MND.

- *Wildfire (All Checklist Questions):* Pursuant to the 2020 IS/MND, the California Department of Forestry and Fire Protection's (CAL FIRE) Fire and Resource Assessment Program (FRAP) indicates that the project site is not located within or adjacent to a Very

High Fire Hazard Severity Zone (FHSZ). Since the 2020 IS/MND was adopted, updated FHSZ maps were released. According to the most recent data, the project site remains outside of a Very High FHSZ. In addition, the proposed project would be required to adhere to all standards included in the California Building Code and the California Fire Code. Therefore, the proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the 2020 IS/MND.

- *Mandatory Findings of Significance (Checklist Question a):* The proposed project would have the potential to result in adverse effects to special-status plant and wildlife species, as well as unrecorded subsurface historic or pre-contact cultural resources. However, the project would be required to comply with all applicable City regulations and policies in addition to the standard conditions provided within the 2020 IS/MND, which would ensure all potentially significant impacts would be mitigated to a less-than-significant level. Overall, the potentially significant impacts associated with such resources have been adequately addressed and would not change from what was identified in the 2020 IS/MND, and the criteria for requiring further CEQA review are not met.

4.0.4 ENVIRONMENTAL ISSUES ADDRESSED IN THIS SEIR

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

- Air Quality, Greenhouse Gas Emissions, and Energy;
- Noise; and
- Transportation.

See Chapter 5, Statutorily Required Sections, of this SEIR for additional information on the scope of the cumulative impact analysis for each environmental issue addressed in the SEIR.

4.0.5 CHAPTER FORMAT

Each technical chapter addressing a specific environmental issue begins with an **introduction** describing the purpose of the section. The introduction is followed by a description of any changes to the project's **existing environmental setting** in comparison to the setting presented in the Lillian Commons Project IS/MND as the setting pertains to that particular issue. The setting description is followed by the **regulatory context** and the **impacts and mitigation measures** discussion, which contains the **standards of significance**, followed by the **method of analysis**. The method of analysis discussion includes a description of the changes in circumstance and changes to the project that have occurred since preparation of the Lillian Commons Project IS/MND. The **impact and mitigation** discussion includes impact statements prefaced by a number in bold-faced type (for both project-level and cumulative analyses). An explanation of each impact and an analysis of the impact's significance as compared to the Lillian Commons Project follow each impact statement. All mitigation measures pertinent to each individual impact, including applicable mitigation measures from the Lillian Commons Project IS/MND, modified mitigation measures, and new mitigation measures, follow directly after the impact statement (see below). The degree of relief provided by identified mitigation measures is also evaluated. An example of the format is shown below.

Project-Specific Impacts and Mitigation Measures

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

4.x-1 Statement of Project-Specific Impact

Discussion of impact for the proposed project, as compared to the Lillian Commons Project, in paragraph format.

Statement of ***level of significance*** of impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the SEIR: less than significant, significant, or significant and unavoidable. If an impact is determined to be significant, mitigation will be included in order to reduce the specific impact to the maximum extent feasible.

Applicable Mitigation Measure(s) from the 2020 IS/MND

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

4.x-1(a)[3] *Mitigation measure(s) applicable to the proposed project from the 2020 IS/MND presented in italics and listed in consecutive order.*

4.x-1(b) *Additional mitigation measures from the 2020 IS/MND, if necessary.*

Modified Mitigation Measure(s)

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

4.x-1(c) *Mitigation measure(s) applicable to the proposed project which have been modified from the 2020 IS/MND presented in italics and listed in consecutive order. All new text is shown as double underlined and deleted text is shown as ~~struck through~~.*

4.x-1(d) *Additional modified mitigation measures, if necessary.*

New Mitigation Measure(s)

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

4.x-1(e) *Project-specific mitigation measure(s) not included in the 2020 IS/MND presented in italics and listed in consecutive order.*

4.x-1(f) *Additional project-specific mitigation measures, if necessary.*

[3] It should be noted that all modified mitigation measures, from the 2020 IS/MND presented in this SEIR will be numbered using the same numbering system applied in the 2020 IS/MND.

Cumulative Impacts and Mitigation Measures

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

4.x-2 Statement of Cumulative Impact

Discussion of cumulative impacts for the proposed project as compared to the Lillian Commons Project in paragraph format.

As discussed in detail in Chapter 5, Statutorily Required Sections, of the EIR, the cumulative setting for the proposed project is generally considered to be development anticipated to occur upon buildout of the Morgan Hill General Plan (i.e., Morgan Hill City limits), as well as buildout of a number of approved or reasonably foreseeable projects within the project region.

Statement of ***level of significance*** of cumulative impact prior to mitigation is included at the end of each impact discussion. The following levels of significance are used in the EIR for cumulative impacts: less than significant, less than cumulatively considerable, cumulatively considerable, or significant and unavoidable. If an impact is determined to be cumulatively considerable, mitigation will be included in order to reduce the specific impact to the maximum extent feasible.

Applicable Mitigation Measure(s) from the 2020 IS/MND

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

4.x-2(a) *Mitigation measure(s) applicable to the proposed project from the 2020 IS/MND presented in italics and listed in consecutive order.*

4.x-2(b) *Additional mitigation measures from the 2020 IS/MND, if necessary.*

Modified Mitigation Measure(s)

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

4.x-2(c) *Mitigation measure(s) applicable to the proposed project which have been modified from the 2020 IS/MND presented in italics and listed in consecutive order. All new text is shown as double underlined and deleted text is shown as ~~struck through~~.*

4.x-2(d) *Additional modified mitigation measures, if necessary.*

New Mitigation Measure(s)

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

4.x-2(e) *Project-specific mitigation measure(s) not included in the 2020 IS/MND presented in italics and listed in consecutive order.*

4.x-2(f) *Additional project-specific mitigation measures, if necessary.*

4.1. Air Quality, Greenhouse Gas Emissions, and Energy

4.1. AIR QUALITY, GREENHOUSE GAS EMISSIONS, AND ENERGY

4.1.1 INTRODUCTION

Pursuant to CEQA Guidelines Section 15162, the Air Quality, Greenhouse Gas Emissions, and Energy chapter of this Subsequent EIR (SEIR) assesses whether the changes to the proposed project would result in a new significant impact not previously identified within the adopted 2020 Lillian Commons Medical Campus Initial Study/Mitigated Negative Declaration (2020 IS/MND), or a substantial increase in the severity of a significant impact previously identified in the IS/MND related to local and regional air quality emissions, greenhouse gas (GHG) emissions and climate change, and energy. The City of Morgan Hill is conducting the SEIR to analyze the proposed net increase of 134,600 square feet (sf) of medical office and additional parking garage uses to the Lillian Commons/Morgan Hill Medical Campus Project (Lillian Commons Project). For further details related to the proposed project, refer to Chapter 3, Project Description, of this SEIR.

The chapter is primarily based on information and guidance within the Bay Area Air Quality Management District's (BAAQMD's) California Environmental Quality Act Air Quality Guidelines (Air Quality Guidelines),[1] the City of Morgan Hill General Plan,[2] the General Plan EIR,[3] the City's Climate Action Plan (CAP),[4] and the 2020 IS/MND, as well as technical analysis performed by Raney Planning and Management, Inc. (see Appendix C).

4.1.2 EXISTING ENVIRONMENTAL SETTING

With respect to air quality, several circumstances have changed since the adoption of the 2020 IS/MND. As such, the following information provides an updated overview of the existing environmental setting in relation to air quality within the proposed project area. Current air basin characteristics, ambient air quality standards (AAQS), attainment status and regional air quality plans, local air quality monitoring, odors, and sensitive receptors are discussed. In addition to the information pertaining to air quality, information related to climate change and GHGs, as well as energy, is provided.

Air Basin Characteristics

The project site is located in the southern portion of the nine-county San Francisco Bay Area Air Basin (SFBAAB), and is within the jurisdictional boundaries of the BAAQMD. The SFBAAB consists of coastal mountain ranges, inland valleys, and bays. The climate in the SFBAAB is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell. During the summer, the Pacific high-pressure cell is centered over the northeastern Pacific Ocean, resulting in stable meteorological conditions and a steady northwesterly wind flow. Upwelling of cold ocean water from below the surface produces a band of cold water off the California coast. The cool and moisture-laden air approaching the coast from the Pacific Ocean is further cooled by the presence of the cold water band, resulting in condensation and the presence of fog and stratus clouds along the coast. In the winter, the Pacific high-pressure cell

[1] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines.* April 2023.
[2] City of Morgan Hill. *2035 General Plan, City of Morgan Hill.* Adopted July 2016.
[3] City of Morgan Hill. *2035 General Plan Draft EIR*. January 2016.
[4] City of Morgan Hill. *Morgan Hill 2021 Climate Action Plan*. December 15, 2021.

weakens and shifts southward, resulting in wind flow offshore, the absence of upwelling, and the occurrence of storms.

The prevailing wind direction within the project region is most often from the west. The general westerly flow of the winds tends to move pollutants east. Thus, the winds dilute pollutants and transport them away from the area, so that emissions released in the project area have more influence on air quality in the Sacramento and San Joaquin Valleys than locally. Overall, weak inversions coupled with moderate winds result in a low air-pollution potential within the region.

Average daily maximum temperatures (in degrees Fahrenheit [°F]) can reach the mid-80s in summer. During the winter months, average maximum temperatures range from mid- to low-60s, while minimum temperatures are from the mid- to low-40s. Rainfall amounts in the region vary, with an average of 18 inches annually in Morgan Hill.

Ambient Air Quality Standards

Both the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) have established AAQS for common pollutants. The federal standards are divided into primary standards, which are designed to protect the public health, and secondary standards, which are designed to protect the public welfare. The AAQS for each contaminant represent safe levels that avoid specific adverse health effects. Pollutants for which AAQS have been established are called “criteria” pollutants. Table 4.1-1 identifies the major pollutants, characteristics, health effects and typical sources. The national and California AAQS (NAAQS and CAAQS, respectively) are summarized in Table 4.1-2. The NAAQS and CAAQS were developed independently with differing purposes and methods. As a result, the federal and State standards differ in some cases. In general, the State of California standards are more stringent than the federal standards, particularly for ozone and particulate matter (PM).

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

Ozone

Ozone is a reactive gas consisting of three oxygen atoms. In the troposphere, ozone is a product of the photochemical process involving the sun's energy, and is a secondary pollutant formed as a result of a complex chemical reaction between reactive organic gases (ROG) and nitrogen oxides (NO_X) emissions in the presence of sunlight. As such, unlike other pollutants, ozone is not released directly into the atmosphere from any sources. In the stratosphere, ozone exists naturally and shields Earth from harmful incoming ultraviolet radiation.

The primary source of ozone precursors is mobile sources, including cars, trucks, buses, construction equipment, and agricultural equipment. Ground-level ozone reaches the highest level during the afternoon and early evening hours. High levels occur most often during the summer months. Ground-level ozone is a strong irritant that could cause constriction of the airways, forcing the respiratory system to work harder in order to provide oxygen. Ozone at the Earth's surface causes numerous adverse health effects and is a major component of smog. High concentrations of ground level ozone can adversely affect the human respiratory system and aggravate cardiovascular disease and many respiratory ailments.

Table 4.1-1
Summary of Criteria Pollutants

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

Sources:

- ***California Air Resources Board. California Ambient Air Quality Standards (CAAQS). Available at: http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm. Accessed November 2023.***
- ***Sacramento Metropolitan, El Dorado, Feather River, Placer, and Yolo-Solano Air Districts, Spare the Air website. Air Quality Information for the Sacramento Region. Available at: http://www.sparetheair.com/health.cfm?page=healthoverall. Accessed November 2023.***
- ***California Air Resources Board. Glossary of Air Pollution Terms. Available at: http://www.arb.ca.gov/html/gloss.htm. Accessed November 2023.***

Table 4.1-2
Ambient Air Quality Standards

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

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

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

Source: California Air Resources Board. California Ambient Air Quality Standards (CAAQS). Available at: http://www.arb.ca.gov/research/aaqs/caaqs/caaqs.htm. Accessed November 2023.

Reactive Organic Gas

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

Oxides of Nitrogen

NO_X are a family of gaseous nitrogen compounds and are precursors to the formation of ozone and particulate matter. The major component of NO_X, nitrogen dioxide (NO_2), is a reddish-brown gas that discolors the air and is toxic at high concentrations. NO_X results primarily from the combustion of fossil fuels under high temperature and pressure.

On-road and off-road motor vehicles and fuel combustion are the major sources of NO_X. NO_X reacts with ROG to form smog, which could result in adverse impacts to human health, damage

the environment, and cause poor visibility. Additionally, NO_X emissions are a major component of acid rain. Health effects related to NO_X include lung irritation and lung damage and can cause increased risk of acute and chronic respiratory disease.

Nitrogen Dioxide

A particular oxide of nitrogen that is of concern to human health is NO_2. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NO), which is a colorless, odorless gas.

A large body of health science literature indicates that exposure to NO_2 can induce adverse health effects. The strongest health evidence, and the health basis for the AAQS for NO_2, results from controlled human exposure studies that show that NO_2 exposure can intensify responses to allergens in allergic asthmatics. In addition, several epidemiological studies have demonstrated associations between NO_2 exposure and premature death, cardiopulmonary effects, decreased lung function growth in children, respiratory symptoms, emergency room visits for asthma, and intensified allergic responses. Infants and children are particularly at risk because they have disproportionately higher exposure to NO_2 than adults due to their greater breathing rate for their body weight and their typically greater outdoor exposure duration. Several studies have shown that long-term NO_2 exposure during childhood, the period of rapid lung growth, can lead to smaller lungs at maturity in children with higher compared to lower levels of exposure. In addition, children with asthma have a greater degree of airway responsiveness compared with adult asthmatics. In adults, the greatest risk is to people who have chronic respiratory diseases, such as asthma and chronic obstructive pulmonary disease.

Carbon Monoxide

Carbon monoxide (CO) is a colorless, odorless, poisonous gas produced by incomplete burning of carbon-based fuels such as gasoline, oil, and wood. When CO enters the body, the CO combines with chemicals in the body, which prevents blood from carrying oxygen to cells, tissues, and organs. Symptoms of exposure to CO can include problems with vision, reduced alertness, and general reduction in mental and physical functions. Exposure to CO can result in chest pain, headaches, reduced mental alertness, and death at high concentrations.

Sulfur Dioxide

Sulfur dioxide (SO_2) is a colorless, irritating gas with a rotten egg odor formed primarily by the combustion of sulfur-containing fossil fuels from mobile sources, such as locomotives, ships, and off-road diesel equipment. SO_2 is also emitted from several industrial processes, such as petroleum refining and metal processing. Similar to airborne NO_X, suspended sulfur oxide particles contribute to poor visibility. Sulfur oxide particles are also a component of PM_{10} (discussed below).

Sulfates

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

comparatively rapidly and completely in urban areas of California due to regional meteorological features.

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

Hydrogen Sulfide

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

Particulate Matter

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

- "Inhalable coarse particles ($PM_{2.5-10}$)," which are found near roadways and dusty industries, are between 2.5 and 10 micrometers in diameter. $PM_{2.5-10}$ is deposited in the thoracic[5] region of the lungs.
- "Fine particles ($PM_{2.5}$)," which are found in smoke and haze, are 2.5 micrometers in diameter and smaller. $PM_{2.5}$ particles could be directly emitted from sources such as forest fires, or could form when gases emitted from power plants, industries, and automobiles react in the air. They penetrate deeply into the thoracic and alveolar regions of the lungs.
- “Ultrafine particles (UFP),” are very, very small particles (less than 0.1 micrometers in diameter) largely resulting from the combustion of fossil fuels, meat, wood, and other hydrocarbons. While UFP mass is a small portion of $PM_{2.5}$, their high surface area, deep lung penetration, and transfer into the bloodstream could result in disproportionate health impacts relative to their mass. UFP is not currently regulated separately but is analyzed as part of $PM_{2.5}$.

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

[5] The thoracic region of the lungs includes the trachea and main bronchi.

function; aggravated asthma; development of chronic respiratory disease in children; development of chronic bronchitis or obstructive lung disease; irregular heartbeat; heart attacks; and increased blood pressure.

Lead

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

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

Vinyl Chloride

Vinyl chloride (C_2H_3Cl, also known as VCM) is a colorless gas that does not occur naturally, but is formed when other substances such as trichloroethane, trichloroethylene, and tetrachloro-ethylene are broken down. Vinyl chloride is used to make polyvinyl chloride (PVC) which is used to make a variety of plastic products, including pipes, wire and cable coatings, and packaging materials.

Visibility Reducing Particles

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

Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TACs) are also a category of environmental concern. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics “Hot Spots” Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information



that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over five years.

Examples of TACs include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a variety of sources, including stationary sources, such as dry cleaners, gas stations, diesel back-up generators, and laboratories; mobile sources, such as automobiles, ships, and trains; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and non-carcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) basis.

Health risks from TACs are a function of both the concentration of emissions and the duration of exposure, which typically are associated with long-term exposure and the associated risk of contracting cancer. Health effects of exposure to TACs other than cancer can include birth defects, neurological damage, and death. Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level. The identification, regulation, and monitoring of TACs is relatively new compared to criteria air pollutants that have established AAQS. TACs are regulated or evaluated on the basis of risk to human health rather than comparison to an AAQS or emission-based threshold. The following includes a discussion of common TACs.

Diesel Particulate Matter

Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90 percent of DPM is less than one micrometer in diameter (about 1/70th the diameter of a human hair) and, thus, is a subset of $PM_{2.5}$. DPM is typically composed of carbon particles ("soot," also called black carbon) and numerous organic compounds, including more than 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM; 17 California Code of Regulations [CCR] 93000) as a TAC in August 1998. A broad range of diesel engines emit DPM, including on-road diesel engines of trucks, buses, and cars; off-road diesel engines, including locomotives, marine vessels, heavy-duty construction equipment; and stationary diesel back-up generators, among others. Approximately 70 percent of all airborne cancer risk in California is associated with DPM.[6] To reduce the cancer risk associated with DPM, CARB adopted a Diesel Risk Reduction Plan in 2000. Because DPM is a part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. Typical effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies. Receptors most vulnerable to non-cancer health effects are children, whose lungs are still developing, and older adults, who often have chronic health problems.

[6] California Air Resources Board. *Overview: Diesel Exhaust & Health.* Available at: https://ww2.arb.ca.gov/resources/overview-diesel-exhaust-and-health. Accessed November 2023.

Due to the high levels of diesel activity, high volume freeways, stationary diesel engines, rail yards and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. The CARB's Air Quality and Land Use Handbook: A Community Health Perspective (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. Construction-related activities also have the potential to generate concentrations of DPM from on-road haul trucks and off-road equipment exhaust emissions.

The size of diesel particulates that are of the greatest health concern are fine particles (i.e., $PM_{2.5}$) and UFPs. The small diameter of UFPs imparts the particulates with unique attributes, such as high surface areas and the ability to penetrate deeply into lungs. Once UFPs have been deposited in lungs, the small diameter allows the UFPs to be transferred to the bloodstream. The high surface area of the UFPs also allows for a greater adsorption of other chemicals, which are transported along with the UFPs into the bloodstream of the inhaler, where the chemicals can eventually reach critical organs.[7] The penetration capability of UFPs may contribute to adverse health effects related to heart, lung, and other organ health.[8] UFPs are a subset of DPM and activities that create large amounts of DPM, such as the operations involving heavy diesel-powered engines, also release UFPs. Considering that UFPs are a subset of DPM, and DPM represents a subset of $PM_{2.5}$, estimations of either concentrations or emissions of $PM_{2.5}$ or DPM include UFPs.

Naturally Occurring Asbestos

Another concern related to air quality is naturally occurring asbestos (NOA). Asbestos is a term used for several types of naturally-occurring fibrous minerals found in many parts of California. The most common type of asbestos is chrysotile, but other types are also found in California. When rock containing asbestos is broken or crushed, asbestos fibers may be released and become airborne. Exposure to asbestos fibers may result in health issues such as lung cancer, mesothelioma (a rare cancer of the thin membranes lining the lungs, chest and abdominal cavity), and asbestosis (a non-cancerous lung disease which causes scarring of the lungs). Because asbestos is a known carcinogen, NOA is considered a TAC. Sources of asbestos emissions include: unpaved roads or driveways surfaced with ultramafic rock; construction activities in ultramafic rock deposits; or rock quarrying activities where ultramafic rock is present.

NOA is typically associated with fault zones, and areas containing serpentinite or contacts between serpentinite and other types of rocks. According to mapping prepared by the California Geological Survey, the project site is not in an area likely to contain serpentinite or other ultramafic rocks.[9] Consequently, NOA is not expected to be present at the project site.

Attainment Status and Regional Air Quality Plans

Areas not meeting the NAAQS presented in Table 4.1-2 above are designated by the USEPA as nonattainment. Further classifications of nonattainment areas are based on the severity of the nonattainment problem, with marginal, moderate, serious, severe, and extreme nonattainment classifications for ozone. Nonattainment classifications for PM range from marginal to serious. The Federal Clean Air Act (FCAA) requires areas violating the NAAQS to prepare an air quality

7 Health Effects Institute. *Understanding the Health Effects of Ambient Ultrafine Particles*. January 2013.
8 South Coast Air Quality Management District. *Final 2012 Air Quality Management Plan*. December 2012.
9 California Department of Conservation, Division of Mines and Geology. *A General Location Guide for Ultramafic Rocks in California – Areas More Likely to Contain Naturally Occurring Asbestos*. August 2000.

control plan referred to as the State Implementation Plan (SIP). The SIP contains the strategies and control measures for states to use to attain the NAAQS. The SIP is periodically modified to reflect the latest emissions inventories, planning documents, rules, and regulations of air basins as reported by the agencies with jurisdiction over them. The USEPA reviews SIPs to determine if they conform to the mandates of the FCAA amendments and would achieve air quality goals when implemented.

The CARB is the agency responsible for coordination and oversight of State and local air pollution control programs in California and for implementing the California Clean Air Act (CCAA) of 1988. The CCAA classifies ozone nonattainment areas as moderate, serious, severe, and extreme based on severity of violations of the CAAQS. For each nonattainment area classification, the CCAA specifies air quality management strategies that must be adopted. For all nonattainment areas, attainment plans are required to demonstrate a five-percent-per-year reduction in nonattainment air pollutants or their precursors, averaged every consecutive three-year period, unless an approved alternative measure of progress is developed. Air districts with air quality that is in violation of CAAQS are required to prepare an air quality attainment plan that lays out a program to attain the CCAA mandates.

Table 4.1-3 presents the current attainment status of the SFBAAB, including Santa Clara County and the City of Morgan Hill.

Table 4.1-3
Santa Clara County Attainment Status Designations

Pollutant	Averaging Time	California Standards	Federal Standards
Ozone	1 Hour	**Nonattainment**	-
	8 Hour	**Nonattainment**	**Nonattainment**
Carbon Monoxide	8 Hour	Attainment	Attainment
	1 Hour	Attainment	Attainment
Nitrogen Dioxide	Annual Mean	-	Attainment
	1 Hour	Attainment	Unclassified
Sulfur Dioxide	Annual Mean	Attainment	Attainment
	24 Hour	Attainment	Attainment
	3 Hour	-	Unclassified
	1 Hour	Attainment	Attainment
Respirable Particulate Matter (PM_{10})	Annual Mean	**Nonattainment**	-
	24 Hour	**Nonattainment**	Unclassified
Fine Particulate Matter ($PM_{2.5}$)	Annual Mean	**Nonattainment**	Attainment
	24 Hour	-	**Nonattainment**
Lead	30 Day Average	-	-
	Calendar Quarter	-	Attainment
	Rolling 3-Month Average	-	Attainment
Sulfates	24 Hour	Attainment	-
Hydrogen Sulfide	1 Hour	Unclassified	-
Visibility Reducing Particles	8 Hour	Unclassified	-

Source: Bay Area Air Quality Management District. Air Quality Standards and Attainment Status. Available at: http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status. Accessed November 2023.

As shown in the table, the area is currently designated as a nonattainment area for the State and federal ozone, State and federal $PM_{2.5}$, and State PM_{10} standards. The SFBAAB is designated attainment or unclassified for all other AAQS.

In compliance with the FCAA and CCAA, the BAAQMD periodically prepares and updates air quality plans that provide emission reduction strategies to achieve attainment of the AAQS, including control strategies to reduce air pollutant emissions through regulations, incentive programs, public education, and partnerships with other agencies. The current air quality plans were prepared in cooperation with the Metropolitan Transportation Commission (MTC) and the Association of Bay Area Governments (ABAG).

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which is a revision to the Bay Area part of the SIP to achieve the federal ozone standard.[10] The plan was adopted on October 24, 2001 and approved by the CARB on November 1, 2001.

The most recent State ozone plan is the 2017 Clean Air Plan, adopted on April 19, 2017.[11] The 2017 Clean Air Plan was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, TACs, and GHGs. The control strategies included in the 2017 Clean Air Plan serve as the backbone of the 2017 Clean Air Plan, and build upon existing regional, state, and national programs for emissions reductions. The 2017 Clean Air Plan includes 85 control measures, which provide an integrative approach to reducing ozone, PM, TAC, and GHG emissions. Although a plan for achieving the State PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control measures for the 2017 Clean Air Plan.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal standards within the SFBAAB. The plans are based on population and employment projections provided by local governments, usually developed as part of the General Plan update process.

Local Air Quality Monitoring

Air quality is monitored by CARB at various locations in the region that provide information on ambient concentrations of criteria air pollutants and TACs to help determine which air quality standards are being violated, and to direct the BAAQMD emission reduction efforts, such as developing attainment plans and rules, incentive programs, etc. The nearest monitoring station to the project site is the San Martin-Murphy Avenue monitoring site, which is located approximately 4.3 miles south of the project site at 13030 Murphy Avenue in the City of San Martin. Data for PM_{10}, $PM_{2.5}$, and NO_X was not available for the San Martin-Murphy Avenue monitoring site; thus, PM_{10}, $PM_{2.5}$, and NO_X data was obtained from the nearest monitoring site that such data was available, which is the San Jose-Jackson Street monitoring site located approximately 24 miles northwest of the project site at 158 Jackson Street in the City of San Jose. Table 4.1-4 shows historical occurrences of pollutant levels exceeding the State and federal AAQS for the three-year period from 2020 to 2022. The number of days that each standard was exceeded is presented in the table as well.

[10] Bay Area Air Quality Management District. *Air Quality Plans*. Available at: http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans.aspx. Accessed November 2023.
[11] *Ibid.*

Table 4.1-4
Air Quality Data Summary (2020-2022)

Pollutant	Standard	Days Standard Was Exceeded		
		2020	2021	2022
1-Hour Ozone	State	2	1	1
	Federal	0	0	0
8-Hour Ozone	State	3	6	2
	Federal	3	6	2
24-Hour PM_{10}	State	10	0	0
	Federal	0	0	0
24-Hour $PM_{2.5}$	Federal	12	1	2
1-Hour Nitrogen Dioxide	State	0	0	0
	Federal	0	0	0

Source: California Air Resources Board, Aerometric Data Analysis and Management (iADAM) System. Available at: http://www.arb.ca.gov/adam/topfour/topfour1.php. Accessed November 2023.

Odors

Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. An odor that is offensive to one person may be perfectly acceptable to another (e.g., coffee roaster).

An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. In a phenomenon known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors. Meteorological conditions also affect the dispersion of odor emissions, which determines the exposure concentration of odiferous compounds at receptors. The predominant wind direction in an area influences which receptors are exposed to the odiferous compounds generated by a nearby source. Receptors located upwind from a large odor source may not be affected due to the produced odiferous compounds being dispersed away from the receptors. Wind speed also influences the degree to which odor emissions are dispersed away from any area. As discussed above, the prevailing wind direction within the project region is most often from the west.

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

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially

vulnerable to the effects of air pollution. Sensitive receptors are typically defined as facilities where sensitive receptor population groups (i.e., children, the elderly, the acutely ill, and the chronically ill) are likely to be located. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, day care centers, playgrounds, and medical facilities.

Existing sensitive receptors in the project vicinity include the single-family residences located to the west of the site, across Juan Hernandez Drive, as well as the single-family residences to the north and northwest, and Barrett Elementary located to the north of the project site, across Barrett Avenue. In addition, Parcel C of the Lillian Commons Project, located adjacent to the site's northern boundary is currently being developed with a 120-unit multi-family residential community facilitated by the previously approved Lillian Commons Project.

Greenhouse Gas Emissions

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

The primary GHG emitted by human activities is CO_2, with the next largest components being CH_4 and N_2O. A wide variety of human activities result in the emission of CO_2. Some of the largest sources of CO_2 include the burning of fossil fuels for transportation and electricity, industrial processes including fertilizer production, agricultural processing, and cement production. The primary sources of CH_4 emissions include domestic livestock sources, decomposition of wastes in landfills, releases from natural gas systems, coal mine seepage, and manure management. The main human activities producing N_2O are agricultural soil management, fuel combustion in motor vehicles, nitric acid production, manure management, and stationary fuel combustion. Emissions of GHG by economic sector indicate that transportation-related activities account for the majority of U.S. emissions. Transportation is the largest single-source of GHG emissions, and electricity generation is the second largest source, followed by industrial activities. The agricultural, commercial, and residential sectors account for the remainder of GHG emission sources.[12]

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

Global Warming Potential

Global warming potential (GWP) is one type of simplified index (based upon radiative properties) that can be used to estimate the potential future impacts of emissions of various gases. According

[12] U.S. Environmental Protection Agency. *Sources of Greenhouse Gas Emissions*. Available at: https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions. Accessed November 2023.

to the USEPA, the GWP of a gas, or aerosol, to trap heat in the atmosphere is the "cumulative radiative forcing effects of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas." The reference gas for comparison is CO_2. GWP is based on a number of factors, including the heat-absorbing ability of each gas relative to that of CO_2, as well as the decay rate of each gas relative to that of CO_2. The GWP of each gas is determined by comparing the radiative forcing associated with emissions of that gas versus the radiative forcing associated with emissions of the same mass of CO_2, for which the GWP is set at one. Methane gas, for example, is estimated by the USEPA to have a comparative global warming potential 25 times greater than that of CO_2, as shown in Table 4.1-5.

Table 4.1-5
GWPs and Atmospheric Lifetimes of Select GHGs

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

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

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

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

Effects of Global Climate Change

Globally, climate change has the potential to affect numerous environmental resources through uncertain impacts related to future air temperatures and precipitation patterns. The Intergovernmental Panel on Climate Change's (IPCC) Climate Change 2021: The Physical Science Basis report indicated that warming of the climate system is unequivocal, and since the 1950s, many of the observed changes are unprecedented over decades to millennia.[13] Signs that global climate change has occurred include:

[13] Intergovernmental Panel on Climate Change. *Climate Change 2021: The Physical Science Basis Summary for Policymakers*. Available at: https://www.ipcc.ch/report/ar6/wg1/downloads/report/IPCC_AR6_WGI_SPM.pdf. Accessed November 2023.

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

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

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

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

In the City of Morgan Hill, specifically, the number of extreme heat days (defined as days where temperatures exceed 96.9 °F) could reach an average of 28 days per year, as compared to the four days per year that have historically occurred. While California could not see the average annual precipitation changing significantly in the next 50 to 75 years, precipitation could likely be delivered in more intense storms and within a shorter wet season. For example, the 30-year average length of dry spell in the City is 128 days. By the end of the century, the average dry spell could be up to 143 days.[14]

Energy

California is one of the highest energy demanding states within the nation. According to the U.S. Department of Energy, the State consumes approximately 303,300 gigawatt-hours (GWh) of electricity per year.[15] Activities such as heating and cooling structures, lighting, the movement of goods, agricultural production, and other facets of daily life consume a variety of energy sources.

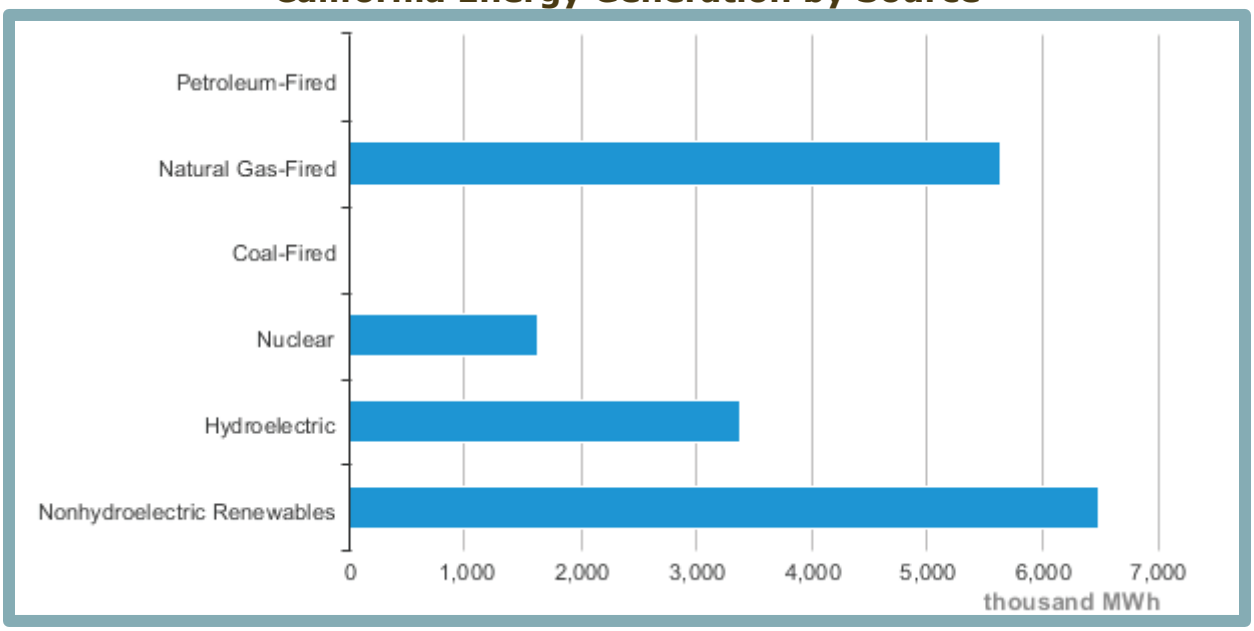
[14] Cal-Adapt. *Local Climate Change Snapshot for Morgan Hill, California*. Available at: https://cal-adapt.org/tools/local-climate-change-snapshot/. Accessed November 2023.
[15] U.S. Department of Energy. *State of California Energy Sector Risk Profile.* March 2021.

However, despite California's high rate of energy use, the State has one of the lowest per capita energy consumption levels in the U.S.

In 2022, California was the fourth-largest electricity producer in the nation. Energy within the State is provided primarily to consumers through a mix of sources including natural gas, hydroelectric, non-hydroelectric renewable sources, nuclear, coal, and petroleum. California is the nation's top producer of electricity from solar, geothermal, and biomass energy. Renewable resources, including hydroelectric power and small-scale, customer-sited solar power, accounted for 49 percent of California's in-state electricity generation; natural gas fueled another 42 percent of the State's energy generation, and nuclear power supplied almost all the rest.

Figure 4.1-1 presents the sources that are used to produce energy in the State. As presented therein, energy is mostly generated from natural gas combustion, followed by non-hydroelectric renewables (such as wind and solar) followed by natural gas combustion and hydroelectric.

Figure 4.1-1
California Energy Generation by Source

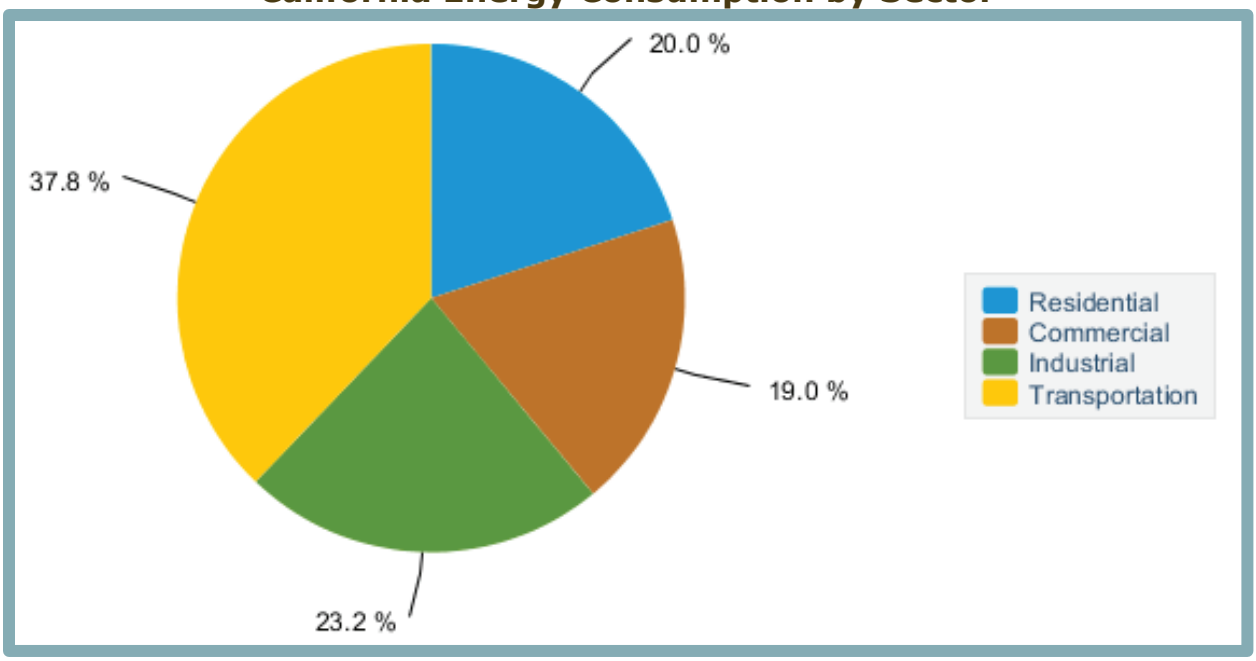


Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Accessible at: https://www.eia.gov/state/index.php?sid=CA. Accessed November 2023.

Figure 4.1-2 presents energy consumption within California for the most recent year for which data is available (2021). As shown in the figure, transportation-related activity consumes the largest single share of energy within the State. The second largest consumer is the industrial sector, followed closely by the residential and commercial sectors. Of the total electricity supplied to the State in 2022, Santa Clara County consumed approximately 17,102 GWh, which constitutes approximately 5.6 percent of the total energy consumed within the State.[16]

[16] California Energy Commission. *Electricity Consumption by County*. Available at: http://ecdms.energy.ca.gov/elecbycounty.aspx. Accessed November 2023.

Figure 4.1-2
California Energy Consumption by Sector



Source: U.S. Energy Information Administration. California: State Profile and Energy Estimates. Accessible at: https://www.eia.gov/state/index.php?sid=CA. Accessed November 2023.

Energy Consumption at the Project Site

The majority of the project site is currently undeveloped and contains ruderal (non-native) grasses. However, two medical office buildings totaling 15,900 sf, as well as a paved surface parking lot and landscaping trees, occur on a 1.69-acre portion of the project site. As such, energy demand associated with the project site currently occurs from operations of the aforementioned existing uses, which are provided electricity by PG&E. In addition, as discussed throughout this SEIR, the environmental baseline for this SEIR is appropriately considered to be the approved Lillian Commons Project, which included a 4,500-sf urgent care facility, a 10,000-sf medical building, a 100,000-sf medical office/hospital with 55 beds, a three-story parking structure with 500 spaces, a 10,000-sf commercial retail/restaurant building to be developed on the project site. As such, energy demand associated with the approved Lillian Commons Project would occur as a result of operations of such uses.

Typical energy use associated with such existing and approved uses include electricity for interior and exterior building lighting, heating, ventilation, and air conditioning (HVAC), electronic equipment, machinery, appliances, security systems, and more. Maintenance activities, such as landscape maintenance, also involve the use of electric or gas-powered equipment. In addition to on-site energy use, the existing uses on-site result in transportation energy use associated with vehicle trips generated by employee commutes, visitors, and the movement of goods.

Public Safety Power Shutoffs

In an effort to prevent fires, PG&E initiated public safety power shutoffs (PSPS) in 2019, which may continue in subsequent years until fire risks associated with power lines are decreased. PSPS events involve PG&E turning off electrical service during times when the weather is predicted to have a heightened fire risk from gusty winds and dry conditions. Depending on the

fire risks, the power outage events may occur in specific areas or for all PG&E customers across the City. Based on the project site's location, the site is located within an area that is more likely to be affected by a PSPS event.[17] However, PG&E is currently upgrading the power supply system in the project area to help prevent wildfires while keeping the power on. Such upgrades include undergrounding power lines, upgrading the overhead system with stronger poles and covered powerlines, and removing overhead power lines in areas where they are no longer needed. PG&E's planned upgrades to the power system are currently projected to be completed by 2025.

4.1.3 REGULATORY CONTEXT

Air quality, GHG emissions, and energy consumption are monitored and regulated through the efforts of various international, federal, State, and local government agencies. Agencies work jointly and individually to improve air quality through legislation, regulations, planning, policy-making, education, and a variety of programs. The following section contains a summary of the federal, State, and local regulations governing air quality, GHG emissions, and energy that are applicable to the proposed project.

With regard to CEQA Guidelines Section 15162, changes in circumstances and/or new information of substantial importance related to the regulatory setting would include any applicable regulations that have been enacted since the adoption of the 2020 IS/MND in 2020. Such regulations include the CARB 2022 Scoping Plan Update, the 2022 Title 24 Building Energy Efficiency Standards, the 2022 California Green Building Standards Code (CALGreen) Code, Plan Bay Area 2050, the most recent update to the BAAQMD Air Quality Guidelines, and the City's CAP, as discussed in further detail below. In addition to discussing the applicable air quality-related regulations that have been enacted since adoption of the 2020 IS/MND, this section includes a comprehensive overview of other pertinent pre-2020 regulations, in recognition of the fact that this subsequent review document is an EIR. EIRs typically include more robust regulatory context sections than IS/MNDs.

Federal Regulations Related to Air Quality

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

Criteria Pollutants

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

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for ozone, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year.

[17] Pacific Gas & Electric Co. *Interactive PSPS Planning Map.* Available at: https://vizmap.ss.pge.com/?_ga=2.94997403.624386528.1664230975-1068345172.1664230975. Accessed January 2024.

NAAQS for ozone, NO_2, SO_2, PM_{10}, $PM_{2.5}$ are based on statistical calculations over one- to three-year periods, depending on the pollutant. The FCAA requires the USEPA to reassess the NAAQS at least every five years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan that demonstrates how those areas will attain the standards within mandated time frames.

Hazardous Air Pollutants/Toxic Air Contaminants

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

Federal Regulations Related to GHG Emissions

The following are the federal regulations relevant to GHG emissions.

Federal Vehicle Standards

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

In August 2016, the USEPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program would have applied to vehicles with model years 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types of sizes of buses and work trucks. The final standards were expected to lower CO_2 emissions by approximately 1.1 billion MT, and reduce oil consumption by up to two billion barrels over the lifetime of the vehicles sold under the program.

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

On September 27, 2019, the USEPA and NHTSA published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program (84 FR 51,310), which became effective November 26, 2019. The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission-vehicle mandates in California. On March 31, 2020, the USEPA and NHTSA issued the Part Two Rule, which sets CO_2 emissions standards and corporate average fuel economy standards for passenger vehicles and light-duty trucks for model years 2021 through 2026. On January 20, 2021, an Executive Order (EO) was issued on Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis, which includes review of the Part One Rule by April 2021 and review of the Part Two Rule by July 2021. In response to the Part One Rule, in December 2021, the U.S. Department of Transportation withdrew its portions of the "SAFE I" rule. As a result, states are now allowed to issue their own GHG emissions standards and zero-emissions vehicle mandates.[18] In addition, the Part Two Rule was adopted to revise the existing national GHG emission standards for passenger cars and light trucks through model year 2026. These standards are the strongest vehicle emissions standards ever established for the light-duty vehicle sector and will result in avoiding more than three billion tons of GHG emissions through 2050.[19]

Federal Regulations Related to Energy

The following are the federal regulations relevant to energy.

Energy Policy and Conservation Act

The Energy Policy and Conservation Act was originally enacted in 1975 with the intention of ensuring that all vehicles sold in the U.S. meet established fuel economy standards. Following congressional establishment of the original set of fuel economy standards the U.S. Department of Transportation was tasked with establishing additional on-road vehicle standards and making revisions to standards as necessary. Compliance with established standards is based on manufacturer fleet average fuel economy, which originally applied to both passenger cars and light trucks but did not apply to heavy-duty vehicles exceeding 8,500 pounds in gross vehicle weight. The fuel economy program implemented under the Energy Policy and Conservation Act is known as the Corporate Average Fuel Economy (CAFE) Standards. Updates to the CAFE standards since original implementation have increased fuel economy requirements and begun regulation of medium- and heavy-duty vehicles.

Energy Policy Act of 2005

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

State Regulations Related to Air Quality

The following discussion summarizes applicable State regulations related to air quality, organized by pollutant type. Only the most prominent and applicable California air quality-related legislation

[18] National Highway Traffic Safety Administration. *In Removing Major Roadblock to State Action on Emissions Standards, U.S. Department of Transportation Advances Biden-Harris Administration's Climate and Jobs Goals.* Available at: https://www.nhtsa.gov/press-releases/cafe-preemption-final-rule. Accessed November 2023.

[19] U.S. Environmental Protection Agency. *Final Rule to Revise Existing National GHG Emissions Standards for Passenger Cars and Light Trucks Through Model Year 2026*. Available at: https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-revise-existing-national-ghg-emissions. Accessed November 2023.

is included below; however, an exhaustive list and extensive details of California air quality legislation can be found at the CARB website (http://www.arb.ca.gov/html/lawsregs.htm).

Criteria Air Pollutants

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

CARB has established CAAQS, which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and do not violate the standards more than once each year. The CAAQS for ozone, CO, SO_2 (one-hour and 24-hour), NO_2, PM_{10}, $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 4.1-2.

Hazardous Air Pollutants/Toxic Air Contaminants

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

CARB Air Quality and Land Use Handbook

CARB's Air Quality and Land Use Handbook: A Community Health Perspective (CARB Handbook) addresses the importance of considering health risk issues when siting sensitive land uses, including residential development, in the vicinity of intensive air pollutant emission sources including freeways or high-traffic roads, distribution centers, ports, petroleum refineries, chrome plating operations, dry cleaners, and gasoline dispensing facilities.[20] The CARB Handbook draws upon studies evaluating the health effects of traffic traveling on major interstate highways in metropolitan California centers within Los Angeles (Interstate-405 and Interstate-710), the San Francisco Bay, and San Diego areas. The recommendations identified by CARB, including siting residential uses a minimum distance of 500 feet from freeways or other high-traffic roadways, are consistent with those adopted by the State of California for location of new schools. Specifically, the CARB Handbook recommends, "Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day".[21]

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

Importantly, the Introduction chapter of the CARB Handbook clarifies that the guidelines are strictly advisory, recognizing that: "[l]and use decisions are a local government responsibility. The Air Resources Board Handbook is advisory and these recommendations do not establish regulatory standards of any kind." CARB recognizes that there may be land use objectives as well as meteorological and other site-specific conditions that need to be considered by a governmental jurisdiction relative to the general recommended setbacks, specifically stating, "[t]hese recommendations are advisory. Land use agencies have to balance other considerations, including housing and transportation needs, economic development priorities, and other quality of life issues".[22]

Diesel Particulate Matter

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

Heavy-Duty Diesel Truck and Bus Regulation

CARB adopted the final Heavy-Duty Truck and Bus Regulation, Title 13, Division 3, Chapter 1, Section 2025, on December 31, 2014, to reduce DPM and NO_X emissions from heavy-duty diesel vehicles. The rule requires nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an ATCM to limit idling of diesel-fueled commercial vehicles on December 12, 2013. The rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than five minutes at any location (13 CCR 2485).

California Health and Safety Code Section 41700

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

Heavy-Duty Vehicle Idling Emission Reduction Program

On October 20, 2005, CARB approved a regulatory measure to reduce emissions of toxics and criteria pollutants by limiting idling of new and in-use sleeper berth equipped diesel trucks.[23] The regulation established new engine and in-use truck requirements and emission performance

[22] *Ibid.*

[23] California Air Resources Board. *Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling*. October 24, 2013. Available at: https://ww2.arb.ca.gov/our-work/programs/atcm-to-limit-vehicle-idling. Accessed November 2023.

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

In-Use Off-Road Diesel Vehicle Regulation

On July 26, 2007, CARB adopted a regulation to reduce DPM and NO_X emissions from in-use (existing), off-road, heavy-duty diesel vehicles in California.[24] Such vehicles are used in construction, mining, and industrial operations. The regulation is designed to reduce harmful emissions from vehicles by subjecting fleet owners to retrofit or accelerated replacement/repower requirements, imposing idling limitations on owners, operators, renters, or lessees of off-road diesel vehicles. The idling limits require operators of applicable off-road vehicles (self-propelled diesel-fueled vehicles 25 horsepower and up that were not designed to be driven on-road) to limit idling to less than five minutes. The idling requirements are specified in Title 13 of the CCR. In addition, as of 2015, vehicles with Tier 0 and Tier 1 engines are prohibited from being added to equipment fleets. Fleets with a total horsepower over 2,501, excluding non-profit training centers, may not add any Tier 2 engines and, starting January 1, 2023, all engines must be Tier 3 or higher.

State Regulations Related to GHG Emissions

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

State Climate Change Targets

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

Executive Order S-3-05

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

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

EO S-3-05 also directed the California Environmental Protection Agency (CalEPA) to report biannually on progress made toward meeting the GHG targets and the impacts to California due

[24] California Air Resources Board. *In-Use Off-Road Diesel Vehicle Regulation*. December 10, 2014. Available at: http://www.arb.ca.gov/msprog/ordiesel/ordiesel.htm. Accessed November 2023.

to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The Climate Action Team was formed, which subsequently issues yearly GHG reduction report cards to track the progress of emission reduction strategies. Each report card documents the effectiveness of measures to reduce GHG in California, presents GHG emissions from State agencies' operations, and shows reductions that have occurred in the two years prior to publication.

Assembly Bill 32

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

Executive Order B-30-15

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

Senate Bill 32 and Assembly Bill 197

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

CARB's Climate Change Scoping Plan

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

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

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

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

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

In December 2017, the Scoping Plan was once again updated. The 2017 Scoping Plan built upon the successful framework established in the initial Scoping Plan and First Update, while identifying new, technologically feasible and cost-effective strategies that would serve as the framework to achieve the 2030 GHG target as established by SB 32 and define the State's climate change priorities to 2030 and beyond. For local governments, the 2017 Scoping Plan replaced the initial

Scoping Plan's 15 percent reduction goal with a recommendation to aim for a communitywide goal of no more than six $MTCO_2e$ per capita by 2030, and no more than two $MTCO_2e$ per capita by 2050, which are consistent with the State's long-term goals. The 2017 Scoping Plan recognized the benefits of local government GHG planning (e.g., through CAPs) and provided more information regarding tools to support those efforts. The 2017 Scoping Plan also recognized the CEQA streamlining provisions for project-level review where a legally adequate CAP exists.

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

The most recent update to the Scoping Plan, the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan Update), was adopted by the CARB in December 2022.[25] The 2022 Scoping Plan Update builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. The 2022 Scoping Plan Update, the most comprehensive and far-reaching Scoping Plan developed to date, identifies a technologically feasible and cost-effective path to achieve carbon neutrality by 2045 while also assessing the progress California is making toward reducing its GHG emissions by at least 40 percent below 1990 levels by 2030, as called for in SB 32 and laid out in the 2017 Scoping Plan. The 2030 target is an interim but important stepping stone along the critical path to the broader goal of deep decarbonization by 2045. The relatively longer path assessed in the Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts to reduce GHGs and air pollution, while identifying new clean technologies and energy. Given the focus on carbon neutrality, the Scoping Plan also includes discussion for the first time of the Natural and Working Lands (NWL) sectors as both sources of emissions and carbon sinks.

The 2022 Scoping Plan Update lays out a path to achieve targets for carbon neutrality and reduce GHG emissions by 85 percent below 1990 levels by 2045, as directed by AB 1279. The actions and outcomes in the plan will achieve significant reductions in fossil fuel combustion by deploying clean technologies and fuels, further reductions in short-lived climate pollutants, support for sustainable development, increased action on natural and working lands to reduce emissions and sequester carbon, and the capture and storage of carbon.

CARB's Regulations for the Mandatory Reporting of GHG Emissions

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

[25] California Air Resources Board. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. Available at: https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents. Accessed November 2023.

emission levels. Entities that emit more than the 25,000 $MTCO_2e$ per year threshold are required to have their GHG emission report verified by a CARB-accredited third party.

Senate Bill 1383

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

Executive Order B-55-18/Assembly Bill 1279

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

Mobile Sources

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

Assembly Bill 1493

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

Senate Bill 375

SB 375 (Steinberg) (September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035, and to update those targets every eight years. SB 375 requires the State's 18 regional metropolitan planning organizations to prepare a sustainable communities strategy as part of their Regional Transportation Plans that will achieve the GHG reduction targets set by CARB. If a metropolitan planning organization is unable to devise a sustainable communities strategy to achieve the GHG reduction target, the metropolitan planning organization must prepare an alternative planning strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to California Government Code Section 65080(b)(2)(K), a sustainable communities strategy does not (1) regulate the use of land, (2) supersede the land use authority of cities and counties, or (3) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with the sustainable community strategy. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the State-mandated housing element process.

Advanced Clean Cars Program and Zero-Emissions Vehicle Program

The Advanced Clean Cars program (January 2012) is an emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. By 2025, implementation of the rule is anticipated to reduce emissions of smog-forming pollution from cars by 75 percent compared to the average new car sold in 2015. To reduce GHG emissions, CARB, in conjunction with the USEPA and NHTSA, adopted GHG standards for model year 2017 to 2025 vehicles; the standards were estimated to reduce GHG emissions by 34 percent by 2025. The zero-emissions vehicle program acts as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of zero-emissions vehicles and plug-in hybrid electric vehicles in the 2018 to 2025 model years.

Executive Order B-16-12

EO B-16-12 (March 2012) required that State entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. The order directed CARB, California Energy Commission (CEC), California Public Utilities Commission (CPUC), and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. EO B-16-12 did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

Assembly Bill 1236

AB 1236 (October 2015) (Chiu) required a city, county, or city and county to approve an application for the installation of electric-vehicle charging stations, as defined, through the issuance of specified permits unless the city or county makes specified written findings based on substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and a feasible method to satisfactorily mitigate or avoid the specific, adverse impact does not exist. The bill provided for appeal of that decision to the planning commission, as specified. AB 1236 required electric-vehicle charging stations to meet specified standards. The bill required a city, county, or city and county with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that created an expedited and streamlined permitting process for electric-vehicle charging stations. The bill also required a city, county, or city and county with a population of less than 200,000 residents to adopt the ordinance by September 30, 2017.

Water

The following regulations relate to the conservation of water, which reduces GHG emissions related to electricity demands from the treatment and transportation of water.

Executive Order B-29-15

In response to a drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25 percent relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives subsequently became permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the State. In response to EO B-29-15, the California Department of Water Resources modified and adopted a revised version of the Model Water Efficient Landscape Ordinance (MWELO) that, among other changes, significantly increases the requirements for landscape water use efficiency, and broadens the applicability of the ordinance to include new development projects with smaller landscape areas.

The City of Morgan Hill has adopted a Water Conservation in Landscaping Ordinance (Chapter 18.148 of the Morgan Hill Municipal Code) in compliance with the State's MWELO.

Solid Waste

The following regulations relate to the generation of solid waste and means to reduce GHG emissions from solid waste produced within the State.

Assembly Bill 939 and Assembly Bill 341

In 1989, AB 939, known as the Integrated Waste Management Act (California Public Resources Code [PRC] Sections 40000 et seq.), was passed because of the observed increase in waste stream and the decrease in landfill capacity.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that the policy goal of the State is that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery to develop strategies to achieve the State's policy goal.

Other State Actions

The following State regulations are broadly related to GHG emissions.

Senate Bill 97

SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research (OPR) to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, the Governor's OPR issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities. The advisory further recommended that the lead agency determine the significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The California Natural Resource Agency (CNRA) adopted the CEQA Guidelines amendments in December 2009, and the amended CEQA Guidelines became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis, or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, instead allowing a lead agency to develop, adopt, and apply the lead agency's own thresholds of significance or those developed by other agencies or experts. CNRA acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions.

With respect to GHG emissions, the CEQA Guidelines state that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions (14 CCR 15064.4[a]). The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance-based standards" (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent to which a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

Executive Order S-13-08

EO S-13-08 (November 2008) is intended to hasten California's response to the impacts of global climate change, particularly sea-level rise. Therefore, the EO directs State agencies to take specified actions to assess and plan for such impacts. The final 2009 California Climate Adaptation Strategy report was issued in December 2009, and an update, Safeguarding California: Reducing Climate Risk, followed in July 2014. To assess the State's vulnerability, the report summarizes key climate change impacts to the State for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water. Issuance of the Safeguarding California: Implementation Action Plans followed in March 2016. In January 2018, the CNRA released the Safeguarding California Plan: 2018 Update, which communicates current and needed actions that the State government should take to build climate change resiliency.

State Regulations Related to Energy

The primary State regulatory agencies governing energy consumption are the CEC and the CPUC.

The CEC, created by the Legislature in 1974, has seven major responsibilities: forecasting future energy needs; promoting energy efficiency and conservation by setting the State's appliance and building energy efficiency standards; supporting energy research that advances energy science and technology through research, development, and demonstration projects; developing renewable energy resources; advancing alternative and renewable transportation fuels and

technologies; certifying thermal power plants 50 MW and larger; and planning for and directing State response to energy emergencies.[26]

The CPUC regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies. The CPUC is responsible for ensuring that customers have safe, reliable utility service and infrastructure at reasonable rates, regulating utility services, stimulating innovation, and promoting competitive markets.[27]

The State has adopted various regulations aimed at reducing energy consumption, increasing energy efficiency, and mandating sourcing requirements for electricity production. The following regulations are applicable to the proposed project.

Building Energy

The following regulations relate to energy efficiency and energy use reductions in the built environment.

Title 24, Part 6

Title 24 of the CCR, which is known as the California Building Standards Code (CBSC), was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed periodically, and revised, if necessary, by the Building Standards Commission and CEC (PRC Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, with the goal of "reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (PRC Section 25402). The regulations are scrutinized and analyzed for technological and economic feasibility (PRC Section 25402[d]) and cost effectiveness (PRC Sections 25402[b][2] and [b][3]). As a result, the standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The 2022 Title 24 standards are the currently applicable building energy efficiency standards and became effective on January 1, 2023. Compliance with the 2022 Title 24 Building Energy Efficiency Standards will reduce energy use and associated GHG emissions compared to structures built in compliance with the previous 2019 Title 24 standards.

Title 24, Part 11

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24) is commonly referred to as CALGreen, and establishes minimum mandatory standards and voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all

[26] California Energy Commission. *About the California Energy Commission*. Available at: http://www.energy.ca.gov/about. Accessed November 2023.
[27] California Public Utilities Commission. *California Public Utilities Commission*. Available at: https://www.cpuc.ca.gov/about-cpuc. Accessed November 2023.

ground-up, new construction of commercial, industrial, low-rise residential and State-owned buildings and schools and hospitals. The original CALGreen standards have been updated several times. The CALGreen 2022 standards, which are the current standards, improved upon the 2019 CALGreen standards, and went into effect on January 1, 2023. The 2022 CALGreen Code focuses on four key areas in newly constructed homes and businesses:[28]

- Encouraging electric heat pump technology for space and water heating, which consumes less energy and produces fewer emissions than gas-powered units.
- Establishing electric-ready requirements for single-family homes to position owners to use cleaner electric heating, cooking and electric vehicle (EV) charging options whenever they choose to adopt those technologies.
- Expanding solar PV system and battery storage standards to make clean energy available onsite and complement the state's progress toward a 100 percent clean electricity grid.
- Strengthening ventilation standards to improve indoor air quality.

The CALGreen standards also include voluntary efficiency measures that are provided at two tiers and implemented at the discretion of local agencies and applicants. According to Section A4.602 of Appendix A4 of the CALGreen Code, CALGreen's Tier 1 standards call for a 15 percent improvement in energy requirements, stricter water conservation, 65 percent diversion of construction and demolition waste, 10 percent recycled content in building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30 percent improvement in energy requirements, stricter water conservation, 80 percent diversion of construction and demolition waste, 15 percent recycled content in building materials, 30 percent permeable paving, 25 percent cement reduction, and cool/solar-reflective roofs. However, it should be noted that the City of Morgan Hill has not adopted the CALGreen voluntary efficiency measures for use within the City.

Title 20

Title 20 of the CCR requires manufacturers of appliances to meet State and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwaters; clothes washers and dryers; cooking products; electric motors; low-voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: federal and State standards for federally regulated appliances, State standards for federally regulated appliances, and State standards for non-federally regulated appliances.

[28] California Energy Commission. *Energy Commission Adopts Updated Building Standards to Improve Efficiency, Reduce Emissions From Homes and Businesses.* Available at: https://www.energy.ca.gov/news/2021-08/energy-commission-adopts-updated-building-standards-improve-efficiency-reduce-0. Accessed November 2023.

Assembly Bill 1109

Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general-purpose lighting to reduce electricity consumption by 50 percent for indoor residential lighting and by 25 percent for indoor commercial lighting.

Transportation/Fuel Energy

The following regulations relate to fuel efficiency and energy use reductions in the transportation and motorized vehicle sector.

Assembly Bill 1493

In 2002 California adopted AB 1493, also known as the Pavley I standards, which required new passenger vehicles with model years 2009 to 2016 to meet more stringent fuel efficiency standards. Additional laws have extended these rules to cover vehicles from future model years.

Executive Order S-1-07

EO S-1-07, otherwise known as the LCFS, was adopted in 2009 and requires transportation fuels such as gasoline and diesel sold within the state to be less carbon intensive. These policies reduce emissions from on-road transportation and off-road equipment use in the City of Morgan Hill.

Executive Order B-16-12

EO B-16-12 (March 2012) required that State entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. The order directed CARB, CEC, CPUC, and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. EO B-16-12 did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

Assembly Bill 1346

AB 1346 (October 2021) prohibits non-electric small off-road engines. Small off-road engines, which are used primarily in lawn and garden equipment, emit high levels of air pollutants and, in 2020, California daily criteria pollutant emissions from small off-road engines were higher than emissions from light-duty passenger cars. Thus, by January 1, 2024, regulations shall prohibit engine exhaust and evaporative emissions from new small off-road engines.

Senate Bill 500

SB 500 (September 2021) requires that, beginning January 1, 2030, to the extent allowed by federal law, any autonomous vehicle that is model year 2031 or later, has a gross vehicle weight rating of less than 8,501 pounds, and is equipped with Level 3, 4, or 5 automation (as defined by the International Society of Automotive Engineers) to be a zero-emission vehicle to be operated on California public roads.

Climate Change Scoping Plan

The key elements of the Scoping Plan, as introduced above, related to transportation energy include the following:

1. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets; and
2. Adopting and implementing measures pursuant to existing State laws and policies, including California's clean car standards, goods movement measures, and the LCFS (17 CCR, Section 95480 et seq.).

Renewable Energy and Energy Procurement

The following regulation relates to the source of electricity provided to consumers within the State, as well as standards related to the generation of electricity within the State.

Renewable Portfolio Standard (RPS), Senate Bill 350, and Senate Bill 100

Established in 2002 under SB 1078, accelerated in 2006 under SB 107, and expanded in 2011 under SB 2, California's RPS is one of the most ambitious renewable energy standards in the country. The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase procurement from eligible renewable energy resources to 33 percent of total procurement by 2020.

Since the inception of the RPS program, the program has been extended and enhanced multiple times. In 2015, SB 350 extended the State's RPS program by requiring that publicly owned utilities procure 50 percent of their electricity from renewable energy sources by 2030. The requirements of SB 350 were expanded and intensified in 2018 through the adoption of SB 100, which mandated that all electricity generated within the State by publicly owned utilities be generated through carbon-free sources by 2045. In addition, SB 100 increased the previous renewable energy requirement for the year 2030 by 10 percent; thus, requiring that 60 percent of electricity generated by publicly owned utilities originate from renewable sources by the year 2030.

Local Regulations

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

Plan Bay Area 2050

Plan Bay Area 2050 (PBA 50) is a long-range transportation and land use/housing strategy through 2050 for the San Francisco Bay Area, designed to reduce GHG emissions from the mobile sector.[29] PBA 50 was approved by the MTC and ABAG on October 21, 2021. PBA 50 also meets all State and federal requirements for a Regional Transportation Plan and Sustainable Communities Strategy.

Plan Bay Area 2050 provides an outline for growth in four focus areas: Priority Development Areas (PDA); Transit-Rich Areas; Priority Production Areas; and High-Resource Areas. The project site is not located within a PDA. According to the PBA 50 Forecasting and Modeling Appendix, by 2050, housing in Santa Clara County is projected to increase by 452,000 households, or 65 percent, and jobs are projected to increase by 512,000, or 40 percent.[30]

[29] Association of Bay Area Governments and Metropolitan Transportation Commission. *Plan Bay Area 2050: Final.* October 2021.
[30] Association of Bay Area Governments and Metropolitan Transportation Commission. *Forecasting and Modeling Report, Appendix 1: Growth Pattern*. October 2021.

Local jurisdictions seeking to implement development projects consistent with PBA 50 are eligible for funding for PDA planning and transportation projects. In addition, jurisdictions have the option to streamline the development process for projects consistent with PBA 50 and meet the other criteria included in SB 375.

Bay Area Air Quality Management District

The BAAQMD is the public agency entrusted with regulating air pollution in the nine counties that surround San Francisco Bay: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, southwestern Solano, and southern Sonoma counties.

The BAAQMD has prepared Air Quality Guidelines, which are intended to be used for assistance with CEQA review. The BAAQMD Air Quality Guidelines include thresholds of significance and project screening levels for criteria air pollutants (ROG, NO_X, PM_{10}, and $PM_{2.5}$), GHGs, TACs, CO, and odors, as well as methods to assess and mitigate project-level and plan-level impacts. The most recent BAAQMD Air Quality Guidelines were released in April 2023.

Regional Air Quality Plans

As discussed above, the 2001 Ozone Attainment Plan was prepared as a revision to the Bay Area part of the SIP to achieve the federal ozone standard. The plan was adopted on October 24, 2001, approved by the CARB on November 1, 2001, and was submitted to the USEPA on November 30, 2001 for review and approval as a revision to the SIP. In addition, in order to fulfill federal air quality planning requirements, the BAAQMD adopted a $PM_{2.5}$ emissions inventory for the year 2010, which was submitted to the USEPA on January 14, 2013 for inclusion in the SIP.

The most recent State ozone plan is the 2017 Clean Air Plan, adopted on April 19, 2017. The 2017 Clean Air Plan was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, TACs, and GHGs. Although the CCAA does not require the region to submit a plan for achieving the State PM_{10} standard, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2017 Clean Air Plan. It should be noted that on January 9, 2013, the USEPA issued a final rule to determine that the San Francisco Bay Area has attained the 24-hour $PM_{2.5}$ federal standard, which suspends federal SIP planning requirements for the Bay Area.

The aforementioned applicable air quality plans contain mobile source controls, stationary source controls, and transportation control measures to be implemented in the region to attain the State and federal standards within the SFBAAB. The plans are based on population and employment projections provided by local governments, usually developed as part of the General Plan update process.

Rules and Regulations

All projects under the jurisdiction of the BAAQMD are required to comply with all applicable BAAQMD rules and regulations. Applicable BAAQMD's regulations and rules include, but are not limited to, the following:

- Regulation 2: Permits
    - Rule 5: New Source Review of Toxic Air Contaminates
- Regulation 6: Particulate Matter and Visible Emissions
    - Rule 2: Commercial Cooking Equipment
    - Rule 3: Wood-burning Devices
- Regulation 7: Odorous Substances

- Regulation 8: Organic Compounds
  - Rule 3: Architectural Coatings
- Regulation 11: Hazardous Pollutants
  - Rule 2: Asbestos Demolition, Renovation and Manufacturing

Additionally, all projects within BAAQMD jurisdiction are required to implement the Basic Construction Mitigation Measures (BCMMs), which include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph.
7. All trucks and equipment, including their tires, shall be washed off prior to leaving the site.
8. Unpaved roads providing access to sites located 100 feet or further from a paved road shall be treated with a six- to 12-inch layer of compacted layer of wood chips, mulch, or gravel.
9. Publicly visible signs shall be posted with the telephone number and name of the person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District's General Air Pollution Complaints number shall also be visible to ensure compliance with applicable regulations.

In addition to the BCMMs, projects are strongly encouraged to implement enhanced best management practices to control fugitive dust emissions. The enhanced measures are especially important when schools, residential areas, or other sensitive land uses are located near the construction site. BAAQMD recommended enhanced best management practices include the following:

1. Limit the simultaneous occurrence of excavation, grading, and ground-disturbing construction activities.
2. Install wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of construction. Wind breaks should have at maximum 50 percent air porosity.
3. Plant vegetative ground cover (e.g., fast-germinating native grass seed) in disturbed areas as soon as possible and watered appropriately until vegetation is established.
4. Install sandbags or other erosion control measures to prevent silt runoff to public roadways from sites with a slope greater than one percent.
5. Minimize the amount of excavated material or waste materials stored at the site.
6. Hydroseed or apply non-toxic soil stabilizers to construction areas, including previously graded areas, that are inactive for at least 10 calendar days.

City of Morgan Hill General Plan

The following are the applicable goals and policies related to air quality, GHG emissions, and energy from the City of Morgan Hill General Plan.

Goal NRE-10 Reduced air pollution emissions.

Policy NRE-10.3 **Automobile Emissions.** Encourage the use of and infrastructure for alternative fuel, hybrid, and electric vehicles. Encourage new and existing public and private development to include electric vehicle charging stations.

Policy NRE-10.4 **Reduced Automobile Use.** To reduce air pollution the frequency and length of automobile trips and the amount of traffic congestion by controlling sprawl, promoting infill development, and encouraging mixed uses and higher density development near transit. Support the expansion and improvement of alternative modes of transportation. Encourage development project designs that protect and improve air quality and minimize direct and indirect air pollutant emissions by including components that reduce vehicle trips.

Goal NRE-11 Minimized exposure of people to toxic air contaminants such as ozone, carbon monoxide, lead, and particulate matter.

Policy NRE-11.3 **Health Risk Assessments.** For proposed development that emits toxic air contaminants, require project proponents to prepare health risk assessments in accordance with Bay Area Air Quality Management District procedures as part of environmental review and implement effective mitigation measures to reduce potential health risks to less-than-significant levels. Alternatively, require these projects to be located an adequate distance from residences and other sensitive receptors to avoid health risks. Consult with the Bay Area Air Quality Management District to identify stationary and mobile toxic air contaminant sources and determine the need for and requirements of a health risk assessment for proposed developments.

Policy NRE-11.6 **Vegetation Buffers.** Encourage the use of pollution-absorbing trees and vegetation in buffer areas between substantial sources of toxic air contaminants and sensitive receptors.

Goal NRE-12 Minimized air pollutant emissions from demolition and construction activities.

Policy NRE-12.1 **Best Practices.** Requirement that development projects implement best management practices to reduce air pollutant emissions associated with construction and operation of the project.

Policy NRE-12.2 **Conditions of Approvals.** Include dust, particulate matter, and construction equipment exhaust control measures as conditions of approval for subdivision maps, site development and planned development permits, grading permits, and demolition permits. At a minimum, conditions shall conform to construction mitigation measures recommended in the current Bay Area Air Quality Management District CEQA Guidelines.

Policy NRE-12.3 **Control Measures.** Require construction and demolition projects that have the potential to disturb asbestos (from soil or building material) to comply with all the requirements of the California Air Resource Board's air toxics control measures (ATCMs) for Construction, Grading, Quarrying, and Surface Mining Operations.

Goal NRE-13 Use of green building practices in new and existing development to promote a healthful indoor environment.

Policy NRE-13.1 **Building Materials.** Promote the use of building materials that maintain healthful indoor air quality in an effort to reduce irritation and exposure to toxins and allergens for building occupants. Policy NRE-13.2 Construction and Pre-Occupancy Practices. Encourage construction and pre-occupancy practices to improve indoor air quality for new development upon occupancy of the structure.

Goal NRE-14 Minimum exposure of residents to objectionable odors.

Policy NRE-14.1 **New Odor Sources.** For new, expanded, or modified facilities that are potential sources of objectionable odors require an analysis of possible odor impacts and the provision of odor minimization and control measures as mitigation.

Goal NRE-15 An adaptive and resilient community that responds to climate change.

Policy NRE-15.2 **Linking Land Use and Transportation.** Encourage land use and transportation patterns that reduce dependence on automobiles.

	Policy NRE-15.8	**Walkable City.** Encourage retail and office areas to be located within walking and biking distance of existing and proposed residential developments.
	Policy NRE-15.11	**Green Building.** Promote green building practices in new development.
Goal NRE-16	Conservation of energy resources.	
	Policy NRE-16.1	**Energy Standards for New Development.** New development, including public buildings, should be designed to exceed State standards for the use of energy.
	Policy NRE-16.5	**Energy Efficiency.** Encourage development project designs that protect and improve air quality and minimize direct and indirect air pollutant emissions by including components that promote energy efficiency.
	Policy NRE-16.6	**Landscaping for Energy Conservation.** Encourage landscaping plans for new development to address the planting of trees and shrubs that will provide shade to reduce the need for cooling systems and allow for winter daylighting.
	Policy NRE-16.7	**Renewable Energy.** Encourage new and existing development to incorporate renewable energy generating features, like solar panels and solar hot water heaters.

City of Morgan Hill Climate Action Plan

In December of 2021, the City of Morgan Hill adopted a CAP, which aims to reduce Morgan Hill's net CO_2 emissions in the building and transportation sectors to 35 percent below the 2020 baseline level by 2030 and 100 percent below the 2020 baseline level by 2045. In order to achieve such reductions, the City's CAP focuses on two sub-goals: adoption of EVs in the community, and decarbonizing existing buildings by reducing the use of fossil fuels. The CAP includes several action items to help achieve the CAP sub-goals, and, in turn, reduce GHG emissions within the City. However, it should be noted that the City's CAP does not qualify as a local GHG reduction strategy under CEQA Guidelines Section 15183.5(b).

4.1.4 IMPACTS AND MITIGATION MEASURES

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

Standards of Significance

Based on Appendix G of the CEQA Guidelines, an impact related to air quality, GHG emissions, or energy would be considered significant if the proposed project would result in any of the following:

- 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 nonattainment under an applicable federal or State AAQS;
- Expose sensitive receptors to substantial pollutant concentrations;
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people;
- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment;
- Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of GHGs;
- Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources; or
- Conflict with or obstruct a State or local plan for renewable energy or energy efficiency.

Pursuant to CEQA Guidelines Section 15064.4(b)(2), the lead agency is charged with determining a threshold of significance that is applicable to the project. Although the City has not formally adopted BAAQMD's recommended thresholds, the thresholds are uniformly applied to all new developments within the City, and, as such, the BAAQMD's thresholds are used in the analysis presented within this SEIR, as well. The air quality and GHG emissions analysis in this EIR uses the thresholds for criteria pollutants, localized CO, TAC emissions, and GHG emissions, as discussed below.

Issues Not Discussed Further

The IS prepared for the proposed project (see Appendix A) determined that development of the proposed project would result in a less-than-significant impact related to the following:

- Result in other emissions (such as those leading to odors) affecting a substantial number of people;

For the reasons cited in the Initial Study (Section III, Air Quality), the potential impacts associated with the above are not analyzed further in this EIR.

Criteria Pollutant Emissions

The BAAQMD thresholds of significance for ozone precursor and PM emissions are presented in Table 4.1-6 and are expressed in pounds per day (lbs/day) for construction and operational average daily emissions and tons per year (tons/yr) for maximum annual operational emissions.

Emissions of PM can be split into two categories: fugitive emissions and exhaust emissions. The BAAQMD thresholds of significance for exhaust PM emissions are presented in Table 4.1-6. The BAAQMD does not maintain quantitative thresholds for fugitive emissions of PM_{10} or $PM_{2.5}$; rather, BAAQMD requires all projects within the district's jurisdiction to implement BCMMs related to dust suppression.

Table 4.1-6
BAAQMD Thresholds of Significance

Pollutant	Construction	Operational	
	Average Daily Emissions (lbs/day)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tons/yr)
ROG	54	54	10
NO_X	54	54	10
PM_{10}	82 (exhaust)	82	15
$PM_{2.5}$	54 (exhaust)	54	10

Source: BAAQMD, CEQA Guidelines, April 2023.

The BAAQMD thresholds of significance for ozone precursor and PM emissions presented in Table 4.1-6, above, are the same thresholds used in the analysis within the 2020 IS/MND.

Localized CO Emissions

If a project would cause localized CO emissions to exceed the 1-hour and 8-hour CAAQS of 20.0 ppm and 9.0 ppm, respectively, BAAQMD would consider the project to result in a significant impact to air quality. In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a project would result in a less-than-significant impact related to localized CO emission concentrations if the following screening criteria are met:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

The BAAQMD thresholds of significance for CO emissions presented above were in place at the time the 2020 IS/MND was prepared. However, it should be noted that the 2020 IS/MND did not include an analysis related to localized CO concentrations.

TAC Emissions

According to BAAQMD, a significant impact related to TACs would occur if a new source would cause any of the following:

- An increase in cancer risk levels of more than 10 persons in one million;
- A non-cancer (chronic or acute) hazard index greater than 1.0; or
- An annual average $PM_{2.5}$ concentration of 0.3 micrograms per cubic meter ($\mu g/m^3$) or greater.

An impact associated with TACs would also occur if the aggregate total of all past, present, and foreseeable future sources within a 1,000-foot radius from the fence line of a source, or from the location of a receptor, plus the contribution from the project, would exceed the following:

- An increase in cancer risk levels (from all local sources) of more than 100 persons in one million;
- A chronic non-cancer hazard index (from all local sources) greater than 10.0; or
- An annual average $PM_{2.5}$ concentration (from all local sources) of 0.8 µg/m^3 or greater.

The BAAQMD thresholds of significance for TAC emissions presented above are the same thresholds used in the analysis within the 2020 IS/MND.

Greenhouse Gas Emissions

At the time the 2020 IS/MND was prepared, the BAAQMD threshold of significance for project-level operational GHG emissions was 1,100 $MTCO_2e$/yr or 4.6 $MTCO_2e$/yr per service population (population + employees). However, to take into account the GHG reduction goals of SB 32 and EO B-30-15, the 2020 IS/MND used a threshold of 660 $MTCO_2e$/yr or 2.8 $MTCO_2e$/yr per service population for the GHG impact analysis included therein.

As noted previously, in April 2023 the BAAQMD adopted updated CEQA Air Quality Guidelines. The updated guidelines included new GHG thresholds, which are qualitative and consist of two distinct categories of criteria that must be met: Buildings and Transportation.

The BAAQMD's Buildings criteria require that a project must meet the following minimum project design elements:

a. The project will not include natural gas appliances or natural gas plumbing (in both residential and nonresidential development).
b. The project will not result in any wasteful, inefficient, or unnecessary energy usage as determined by the analysis required under CEQA Section 21100(b)(3) and Section 15126.2(b) of the State CEQA Guidelines.

The BAAQMD's Transportation criteria require that a project must meet the following:

c. Achieve a reduction in project-generated vehicle miles traveled (VMT) below the regional average consistent with the current version of the California Climate Change Scoping Plan (currently 15 percent) or meet a locally adopted Senate Bill 743 VMT target, reflecting the recommendations provided in the Governor's Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA:
    i. Residential projects: 15 percent below the existing VMT per capita;
    ii. Office projects: 15 percent below the existing VMT per employee; or
    iii. Retail projects: no net increase in existing VMT.
d. Achieve compliance with off-street EV requirements in the most recently adopted version of CALGreen Tier 2.

Alternatively, a project is not required to implement the foregoing design elements if the project shows consistency with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b). As discussed above, the City's CAP does not qualify as a local GHG reduction strategy under CEQA Guidelines Section 15183.5(b), and, therefore, the analysis included herein uses the BAAQMD's thresholds as presented above.

Energy

Quantitative thresholds for the analysis of potential impacts related to energy consumption have not been adopted by any local, regional, or statewide entities. Consequently, potential impacts of the project related to energy are determined based on whether the project would result in wasteful, inefficient, or unnecessary use of energy. In addition, the potential for the project to conflict with or obstruct a State or local plan for renewable energy generation or energy efficiency is considered. The analysis of energy consumption includes consideration of energy demand during project construction and operations.

Method of Analysis

In cases where an approved project has already undergone environmental review, and the environmental document has been adopted by the lead agency, the lead agency can restrict the current review to the incremental effects of the modified project, rather than having to reconsider the overall impacts of the project. In such cases, as the project under review constitutes only a modification of a previously approved project, the "baseline" for the purposes of CEQA is adjusted such that the originally approved project is assumed to exist. Thus, the environmental baseline for this SEIR is appropriately considered to be the approved 2020 Lillian Commons Project, the Planned Development (PD) Master Plan for which allocated 124,500 sf of medical/commercial uses for the 9.61-acre project site.

Through approval of the PD Master Plan Amendment, the proposed project would result in a net increase of 150,500 sf of medical/commercial uses relative to the originally approved project (275,000 sf – 124,500 sf = 150,500 sf). After accounting for the existing 15,900 sf of medical office use that would be demolished as part of the proposed project, the total net increase would be 134,600 sf. The three medical office buildings would each be located to the south of Rosewood Lane. The maximum building height for the medical office buildings would be increased as part of the PD Master Plan Amendment, from 55 feet to 65 feet.

Therefore, the analysis included herein is focused on the potential for the proposed project to result in new significant air quality, GHG emissions, and energy impacts not previously identified in the 2020 IS/MND, or a substantial increase in the severity of significant impacts previously identified in said IS/MND.

A comparison of project-related emissions to the emissions that would result from buildout of the site under the conditions approved in the 2020 IS/MND, as well as to the thresholds discussed above, shall determine the significance of the potential impacts to air quality and climate change resulting from the proposed project. Emissions attributable to the proposed project that would result in a net increase compared to the emissions anticipated in the 2020 IS/MND and exceed the applicable thresholds of significance could have a significant effect on regional air quality and the attainment of the federal and State AAQS. Where potentially significant air quality impacts are identified, mitigation measures are described that would reduce or eliminate the impact.

Construction Criteria Pollutant and GHG Emissions

In order to determine whether construction of the proposed project would result in new or more severe significant impacts as compared to what was identified for the approved project in the 2020 IS/MND, construction emissions have been estimated for both the Approved Conditions and Proposed Project scenarios using the web-based California Emissions Estimator Model (CalEEMod) Version 2022, which is the industry standard model. CalEEMod is a statewide model designed to provide a uniform platform for government agencies, land use planners, and



environmental professionals to quantify air quality emissions from land use projects. The model applies inherent default values for various land uses; however, where project-specific data was available, such data was input into the model (e.g., construction phases and timing, inherent site or project design features, compliance with applicable regulations, etc.).

The following construction-related inherent design features and project-specific information were included in the modeling conducted for the Approved Conditions Scenario:

- Construction would begin in January 2025, and occur over approximately two years;[31]
- Construction would be split into two phases;
- Approximately 119.29 tons of materials associated with a portion of the existing on-site parking lot would be demolished and removed from the site; and
- All off-road equipment used during construction would be engine Tier 4 Interim.

The following construction-related inherent design features and project-specific information were included in the modeling conducted for the Proposed Project Scenario:

- Construction would begin in January 2025, and occur over approximately three years;[32]
- Construction would be split into three phases;
- Approximately 1,627.18 tons of materials associated with the 15,900-sf existing on-site medical office building and parking lot would be demolished and removed from the site; and
- All off-road equipment used during construction would be engine Tier 4 Final.

The results of the construction emissions modeling were compared to the standards of significance discussed above in order to determine the associated level of impact. Results of the modeling are expressed in lbs/day for criteria air pollutant emissions and $MTCO_2e$/yr for GHG emissions, which allows for comparison between the model results and the thresholds of significance. All CalEEMod modeling results are included in Appendix C to this EIR. It is noted that the estimated construction GHG emissions are presented for disclosure purposes only, as the BAAQMD does not have a threshold of significance for construction GHG emissions.

Operational Criteria Pollutant and GHG Emissions

The 2020 IS/MND estimated operational emissions using CalEEMod Version 2016. The estimated emissions presented in the 2020 IS/MND include operational emissions generated by buildout of a 4,500-sf urgent care facility, a 10,000-sf medical building, a 100,000-sf medical office/hospital with 55 beds, a three-story parking structure with 500 spaces, and a 10,000-sf commercial retail/restaurant building within the project site, as well as a 200-unit multi-family residential complex on Parcel C (which has since been revised to be 120-units and is currently under construction). However, it should be noted that because Parcel C is not included as part of the project site, emissions associated with the multi-family residential complex analyzed in the 2020 IS/MND are not included within the analysis presented herein.

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[31] It is noted that when the air quality analysis was conducted, project construction was anticipated to commence in January 2025. While this is no longer the case, the analysis conducted for this SEIR is conservative because construction fleets and electricity generation are becoming more efficient over time due to State regulations; thus, modeling construction at an earlier start date provides a more conservative analysis.

[32] *Ibid.*

As discussed above, the proposed project would result in a net increase of 134,600 sf on the project site as compared to the Lillian Commons Project. Therefore, in order to determine whether operation of the proposed project would result in new or more severe significant impacts as compared to what was identified for the approved project in the 2020 IS/MND, operational emissions have been estimated for both the Approved Conditions and Proposed Project scenarios using the web-based CalEEMod Version 2022.

Based on the modeling, the Approved Conditions Scenario was assumed to be fully operational by the year 2027, while the Proposed Project Scenario was assumed to be fully operational by the year 2028. The modeling performed for both scenarios included compliance with BAAQMD rules and regulations, as well as with the MWELO and the Building Energy Efficiency Standards Code. Compliance with such would be verified as part of the City's building permit application review process. In addition, Hexagon provided specific trip generation rates for the land uses that would be developed under the Approved Conditions Scenario, and specific trip generation rates and VMT for the land uses that would be developed under the Proposed Project Scenario, which were applied to the project modeling. Finally, both the Approved Conditions Scenario and Proposed Project Scenario were assumed to include the operation of three diesel-powered emergency generators.

The results of the operational emissions modeling were compared to the standards of significance discussed above in order to determine the associated level of impact. Results of the modeling are expressed in lbs/day for project-level emissions, tons/yr for cumulative emissions, and $MTCO_2e$/yr for GHG emissions, which allows for comparison between the model results and the thresholds of significance. All CalEEMod modeling results are included in Appendix C to this EIR. Similar to construction GHG emissions, the estimated operational GHG emissions are presented for disclosure purposes only, as the BAAQMD's applicable thresholds of significance for operational GHG emissions are qualitative only.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts is based on implementation of the proposed project in comparison with the standards of significance identified above. It should be noted that GHG emissions are inherently cumulative; thus, the discussion of GHG impacts is included under the Cumulative Impacts and Mitigation Measures section below.

4.1-1 Conflict with or obstruct implementation of the applicable air quality plan during project construction. Based on the analysis below, similar to the 2020 IS/MND, the impact is *less than significant*.

During construction of the project, various types of equipment and vehicles would temporarily operate on the project site. Construction-related emissions would be generated from construction equipment, vegetation clearing and earth movement activities, construction workers' commute, and construction material hauling for the entire construction period. The aforementioned activities would involve the use of diesel- and gasoline-powered equipment that would generate emissions of criteria pollutants. Project construction activities also represent sources of fugitive dust, which includes $PM_{2.5}$ emissions. As construction of the proposed project would generate emissions of criteria air pollutants, including ROG, NO_X, PM_{10}, and $PM_{2.5}$ intermittently within the site and in the vicinity of the site, until all construction has been completed,

construction is a potential concern, as the proposed project is located in a nonattainment area for ozone and PM.

As presented in Table 4.3-4 of the 2020 IS/MND, the Lillian Commons Project was determined to be below the applicable BAAQMD thresholds for ROG, NO_X, PM_{10}, and $PM_{2.5}$ emissions during construction. Therefore, the 2020 IS/MND concluded that the Lillian Commons Project would result in a less-than-significant impact. As noted in the IS/MND, construction activities, particularly during site preparation and grading, would temporarily generate fugitive dust in the form of PM_{10} and $PM_{2.5}$. Sources of fugitive dust would include disturbed soils at the construction site and trucks carrying uncovered loads of soils. However, the 2020 IS/MND included Standard Condition AIR-1, which required implementation of the BAAQMD BCMMs during all phases of construction.

As described in the Method of Analysis section above, in order to determine whether construction of the proposed project would result in new or more severe significant impacts as compared to what was identified for the approved project in the 2020 IS/MND, emissions have been estimated for both the Approved Conditions and Proposed Project scenarios using CalEEMod. The maximum (i.e., worst-case) average daily unmitigated construction emissions associated with each of the aforementioned scenarios are presented in Table 4.1-7.

Table 4.1-7
Maximum Average Daily Unmitigated Construction Emissions (lbs/day)

	ROG	NO_X	PM_{10}*	$PM_{2.5}$*
Approved Conditions Scenario	2.94	7.08	0.09	0.08
Proposed Project Scenario	2.90	2.64	0.06	0.06
Net Change	*-0.04*	*-4.44*	*-0.03*	*-0.02*
BAAQMD Significance Threshold	**54**	**54**	**82**	**54**
Exceeds Threshold?	**NO**	**NO**	**NO**	**NO**

* Denotes emissions from exhaust only. BAAQMD has not yet adopted PM thresholds for fugitive emissions.

Source: CalEEMod, 2023 (see Appendix C).

As presented in Table 4.1-7 implementation of the Proposed Project Scenario would result in a decrease in construction-related emissions as compared to the Approved Conditions Scenario. In addition, the total construction-related emissions associated with the Proposed Project Scenario would be below the applicable BAAQMD thresholds of significance for all criteria pollutants.

Furthermore, the proposed project would be required to comply with all BAAQMD rules and regulations, including Regulation 8, Rule 3 related to architectural coatings. Furthermore, all projects under the jurisdiction of the BAAQMD are required to implement all of the BCMMs provided in the BAAQMD CEQA Guidelines. Although BAAQMD requires that all construction activity within the SFBAAB implement the above listed BCMMs, both the Proposed Project Scenario and the Approved Conditions Scenario were modeled without the inclusion of such measures to provide a conservative, worst-case emissions estimate. As presented in Table 4.1-7, even under the conservative assumptions used for this analysis, emissions of $PM_{2.5}$ and

PM_{10} would remain below the BAAQMD's thresholds of significance. Implementation of the BCMMs provided herein would ensure the project's compliance with Standard Condition AIR-1 included in the 2020 IS/MND. However, it should be noted that the BCMMs have been updated since the 2020 IS/MND was prepared. Therefore, the BCMMs presented herein are the most currently adopted BAAQMD BCMMs and supersede the measures included in Standard Condition AIR-1.

Based on the above, construction of the proposed project is not anticipated to significantly contribute to the region's nonattainment status for ozone or PM, or obstruct implementation of an applicable air quality plan. As such, similar to the conclusion in the 2020 IS/MND, the proposed project would result in a ***less-than-significant*** impact.

Applicable Mitigation Measure(s) from the 2020 IS/MND
None applicable.

Modified Mitigation Measure(s)
None required.

New Mitigation Measure(s)
None required.

4.1-2 Conflict with or obstruct implementation of the applicable air quality plan during project operation. Based on the analysis below, similar to the 2020 IS/MND, the impact is *less than significant.*

Operational emissions of ROG, NO_X, PM_{10}, and $PM_{2.5}$ would be generated by the proposed project from both mobile and stationary sources. Mobile-source emissions would make up the majority of project-related emissions under unmitigated operations of the proposed project. Emissions would also occur from area sources such as landscape maintenance equipment exhaust and consumer products (e.g., deodorants, cleaning products, spray paint, etc.).

The 2020 IS/MND concluded that development of the Lillian Commons Project would be consistent with all applicable air quality plans and policies. In addition, as presented in Table 4.3-4 of the 2020 IS/MND, the Lillian Commons Project was determined to result in operational emissions below the applicable BAAQMD thresholds for ROG, NO_X, PM_{10}, and $PM_{2.5}$. Therefore, the 2020 IS/MND concluded that the Lillian Commons Project would result in a less-than-significant impact.

As described in the Method of Analysis section above, in order to determine whether operation of the proposed project would result in new or more severe significant impacts as compared to what was identified for the approved project in the 2020 IS/MND, emissions have been estimated for both the Approved Conditions and Proposed Project scenarios using CalEEMod. Operational emissions associated with each of the aforementioned scenarios are presented in Table 4.1-8.

As demonstrated in Table 4.1-8, the Proposed Project Scenario would result in a net increase in operational emissions of ROG and NO_X, and net decrease in emissions of PM_{10} and $PM_{2.5}$ as compared to the Approved Conditions Scenario. However, operational emissions of all applicable criteria pollutants associated with the Proposed Project Scenario would be below the BAAQMD's thresholds of significance. Therefore, operations of the proposed project would not result in any new significant impacts or a substantial increase in the severity of a previously identified significant impact related to air quality compared to the analysis included in the 2020 IS/MND.

Table 4.1-8
Unmitigated Operational Emissions

		ROG	NO_X	PM_{10}*	$PM_{2.5}$*
Approved Conditions Scenario	lbs/day	12.6	8.05	0.29	0.28
	tons/yr	2.3	1.47	0.05	0.05
Proposed Project Scenario	lbs/day	34.7	11.2	0.22	0.22
	tons/yr	6.34	2.05	0.04	0.04
Net Change	*lbs/day*	*+22.1*	*+3.15*	*-0.07*	*-0.06*
	tons/yr	*+4.04*	*+0.58*	*-0.01*	*-0.01*
BAAQMD Significance Threshold	**lbs/day**	**54**	**54**	**82**	**54**
	tons/yr	**10**	**10**	**15**	**10**
Exceeds Threshold?		**NO**	**NO**	**NO**	**NO**

Note:
* Denotes emissions from exhaust only. BAAQMD has not yet adopted PM thresholds for fugitive emissions.

Source: CalEEMod, 2023 (see Appendix C).

Based on the above, the proposed project would not significantly contribute to the region's nonattainment status for ozone or PM, or obstruct implementation of an applicable air quality plan. Therefore, similar to the conclusion in the 2020 IS/MND, a ***less-than-significant*** impact associated with operational-related emissions would occur.

Applicable Mitigation Measure(s) from the 2020 IS/MND
None applicable.

Modified Mitigation Measure(s)
None required.

New Mitigation Measure(s)
None required.

4.1-3 Expose sensitive receptors to substantial pollutant concentrations. Based on the analysis below, unlike the 2020 IS/MND, the impact is *less than significant*.

The major pollutant concentrations of concern are localized CO emissions, TAC emissions, and criteria pollutant emissions, which are addressed in further detail below.

Localized CO Emissions

Emissions of CO result from the incomplete combustion of carbon-containing fuels such as gasoline or wood and are particularly related to traffic levels. Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. As older, more polluting vehicles are retired and replaced with newer, cleaner vehicles, the overall rate of emission of CO for vehicle fleets throughout the State has been and is expected to continue to decrease.

BAAQMD has prepared preliminary screening criteria for determining whether the effect that a project would have on any given intersection would cause a potential CO hotspot. As such, if the following criteria are met by the proposed project at all affected intersections, the proposed project would not be expected to result in a CO hotspot:

- The project is consistent with an applicable congestion management program established by the county congestion management agency for designated roads or highways, regional transportation plan, and local congestion management agency plans;
- The project traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour; and
- The project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage, underpass, etc.).

While BAAQMD has established the foregoing screening criteria for potential impacts, it should be noted that the SFBAAB has been in attainment of CAAQS and NAAQS for CO for more than 20 years.[33] Due to the continued attainment of CAAQS and NAAQS, and advances in vehicle emissions technologies, the likelihood that any single project would create a CO hotspot is minimal.

The 2020 IS/MND did not include an analysis related to localized CO concentrations. Therefore, the analysis herein is focused on new potential project-specific impacts associated with localized CO generated by the proposed project.

The Santa Clara Valley Transportation Authority (VTA) is the applicable Congestion Management Agency for the proposed project. The City's General Plan serves to provide traffic forecasts to the VTA. While the proposed project would include a PD Master Plan Amendment, the site is currently designated for the development of urban uses, and thus, traffic associated with the proposed project would be similar to traffic associated with buildout of the site under the existing land use and zoning designations. As such, the proposed project's increase in traffic levels in the vicinity would not cause a conflict with applicable VTA standards, which are described within Chapter 4.3, Transportation, of this SEIR.

In addition, based on data provided by Hexagon, the project is anticipated to generate a total of 599 AM peak hour trips, and 1,116 PM peak hour trips. According to

[33] Bay Area Air Quality Management District. *Air Quality Summary Reports*. Available at: https://www.baaqmd.gov/about-air-quality/air-quality-measurement/air-quality-summaries. Accessed November 2023.

Hexagon, under 2035 General Plan Buildout Conditions, the intersections within the project area are anticipated to experience between 343 and 4,338 trips during the AM peak hour, and between 254 and 4,495 trips during the PM peak hour. Therefore, the maximum traffic volume anticipated at an affected intersection would not reach 44,000 vehicles per hour with development of the proposed project. In addition, intersections where vertical and/or horizontal mixing is substantially limited do not occur within the project area. As such, operations of the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards.

Based on the above, the proposed project would not result in new significant impacts or substantially more severe significant impacts related to localized CO concentrations or other emissions from vehicles on roadways or intersections in the vicinity of the project site.

TAC Emissions

This chapter does not consider exposure of future residents of the Rosewood residences to potential TAC emissions associated with the construction and operation of the proposed project, given that such an analysis is not required pursuant to CEQA.[34] CEQA is focused on the proposed project's effects on the surrounding physical environment. The Rosewood residences are located on Parcel C of the approved PD Master Plan for the Lillian Commons Project, and thus, are a part of the overall project area covered in the PD Master Plan.[35]

The CARB's Handbook provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified DPM from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel

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34 "[T]he purpose of an EIR is to identify the significant effects of a project on the environment, not the significant effects of the environment on the project." (*Ballona Wetlands Land Trust v. Town of Los Angeles,* (2011) 201 Cal.App.4th 455, 473 (Ballona).) The California Supreme Court recently held that "CEQA does not generally require an agency to consider the effects of existing environmental conditions on a proposed project's future users or residents. What CEQA does mandate… is an analysis of how a project might exacerbate existing environmental hazards." (*California Building Industry Assn. v. Bay Area Air Quality Management Dist*. (2015) 62 Cal.4th 369, 392; see also *Mission Bay Alliance v. Office of Community Investment & Infrastructure* (2016) 6 Cal.App.5th 160, 197 ["identifying the effects on the project and its users of locating the project in a particular environmental setting is neither consistent with CEQA's legislative purpose nor required by the CEQA statutes"], quoting *Ballona, supra*, 201 Cal.App.4th at p. 474.)

35 It is noted that the 2020 IS/MND included an analysis of TAC impacts on new on-site sensitive receptors related to traffic traveling along US-101. According to the HRA prepared for the IS/MND, cancer risks at potential residential locations across the Lillian Commons Project site ranged from 7.7 in one million to 53.6 in one million. As such, the 2020 IS/MND included Condition of Approval AIR-1, which required installation of MERV16 or higher air filtration systems for portions of the site that have annual $PM_{2.5}$ exposure above 1.1 µg/m^3 and MERV13 or higher air filtration systems for all other portions of the site; Condition of Approval AIR-2, which required that electrical power be provided at truck loading docks to avoid use of truck refrigeration units; and Condition of Approval AIR-3, which required that truck circulation routes be designated to avoid residential areas to the greatest extent reasonable. MERV13 filters are rated to capture 80 to 90.9 percent of particles that are 1.3 to 3.0 microns in size, and over 90 percent of particles that are 3.0 to 10.0 microns in size. In addition, the upgrade from standard home filters to MERV13 filters has been shown to result in a decrease in mortality of 0.5 per 1,000 persons. Therefore, the inclusion of MERV13 and 16 filters in the Rosewood residential community would dramatically reduce exposure to $PM_{2.5}$ concentrations, including that which is generated during construction of the proposed project's non-residential uses.

engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to a pollutant concentration would correlate to a higher health risk. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

The potential for buildout of the Lillian Commons Project to result in the release of substantial construction- and operational-related TACs was analyzed in the 2020 IS/MND. As noted therein, based on the HRA prepared for the project, construction of the Lillian Commons Project was determined to result in cancer risks of 34.2 per million at the maximally exposed receptor (i.e., an existing single-family residence located approximately 100 feet to the north), which is above the BAAQMD significance threshold of 10 in one million. In addition, the maximum $PM_{2.5}$ concentration was determined to be 0.31 µg/m^3, which would exceed the BAAQMD significance threshold of 0.3 µg/m^3. Therefore, the 2020 IS/MND included Mitigation Measure AIR-3.1, which required preparation of a DPM exhaust emissions reductions plan to show that DPM exhaust emissions would be reduced by 70 percent through the use of alternative construction equipment, such as the use of Tier 4 engines for all diesel-powered off-road equipment larger than 25 horsepower that would be operating on the site for more than two days continuously. With implementation of Mitigation Measure AIR-3.1, cancer risks were determined to be reduced to three in one million and the $PM_{2.5}$ concentration was determined to be 0.19 µg/m^3. As a result, with implementation of Mitigation Measure AIR-3.1 the IS/MND determined that impacts associated with construction-related DPM would be less than significant.

With regard to operational-related TAC emissions, including emissions generated from on-site emergency generators and project-generated traffic, the 2020 IS/MND determined that all impacts would be less than significant. Specifically, based on an HRA prepared for the Lillian Commons Project, operation of the on-site emergency generators was determined to result in cancer risks of 0.3 per million at the maximally exposed receptor and 0.1 per million at Barrett Elementary School, which is below the BAAQMD significance threshold of 10 in one million. In addition, the maximum $PM_{2.5}$ concentration was determined to be less than 0.01 µg/m^3 at both the maximally exposed receptor and Barrett Elementary School, which would be below the BAAQMD significance threshold of 0.3 µg/m^3. With regard to project-generated traffic, the HRA prepared for the Lillian Commons Project determined that the increased cancer risk would be 0.2 per million at the maximally exposed receptor and the maximum annual $PM_{2.5}$ concentration would be 0.01 µg/m^3, which is below the applicable BAAQMD thresholds of significance. In addition, the increased cancer risk and maximum annual $PM_{2.5}$ concentration at Barrett Elementary School would be 0.7 per million and 0.05 µg/m^3, respectively, which is below the applicable BAAQMD thresholds of significance.

As discussed throughout this EIR, the proposed project would result in a net increase of 134,600 sf of medical uses as compared to what was analyzed for the site in the 2020 IS/MND. However, as discussed in the Method of Analysis section above, the project applicant has committed to the use of all Tier 4 final engine off-road equipment during project construction, which would reduce DPM emissions during construction

to a greater degree than the reduction that would occur with implementation of Mitigation Measure AIR-3.1 of the 2020 IS/MND. In addition, the maximally exposed off-site receptor identified in the 2020 IS/MND (i.e., an existing single-family residence located to the north) would be located approximately 850 feet from the nearest project-related construction area, which is approximately 750 feet further from the nearest construction activities that were anticipated in the 2020 IS/MND. According to BAAQMD, research conducted by CARB indicates that DPM is highly dispersive in the atmosphere, and DPM emissions are reduced by 80 percent at a distance of 500 feet from the source of pollution. As such, emissions at the project site would be substantially dispersed at the nearest sensitive receptors, and, thus, the concentration of DPM at the nearest sensitive receptors would be lower than the concentration of DPM at the source of emissions.

Based on the above, the proposed project would not result in new significant impacts or substantially more severe significant impacts related to TAC emissions.

Criteria Pollutants

As discussed in the Existing Environmental Setting section and summarized in Table 4.1-1, criteria pollutant emissions can cause negative health effects. With regard to the proposed project, the principal criteria pollutants of concern are localized CO, ozone, and PM. As discussed above, the proposed project is not anticipated to result in impacts related to localized exposure of sensitive receptors to substantial concentrations of CO. Unlike CO and many TACs, due to atmospheric chemistry and dynamics, ozone and atmospheric PM typically act to impact public health on a cumulative and regional level, rather than a localized level. Due to the cumulative and regional nature of effects from criteria pollutants, the analysis of potential health effects of criteria pollutants is further discussed in Impact 4.1-5.

Conclusion

As discussed above, the proposed project would not cause any substantial levels of localized CO concentrations or other TACs. Thus, unlike the 2020 IS/MND, the proposed project would be expected to result in a ***less-than-significant*** impact associated with exposure of sensitive receptors to substantial levels of pollutant concentrations, as compared to pollutant concentrations analyzed in the 2020 IS/MND.

Applicable Mitigation Measure(s) from the 2020 IS/MND

As discussed above, while the 2020 IS/MND included Mitigation Measure AIR-3.1, the project applicant has committed to the use of all Tier 4 final engine off-road equipment during project construction, which would be ensured through a Condition of Approval for the proposed project. Use of all Tier 4 final engine off-road equipment during project construction would be sufficient to reduce DPM emissions to a greater degree than the reduction that would occur with implementation of Mitigation Measure AIR-3.1, and, therefore, Mitigation Measure AIR-3.1 of the 2020 IS/MND would not be applicable to the proposed project.

Modified Mitigation Measure(s)

None required.

New Mitigation Measure(s)

None required.

4.1-4 Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency. Based on the analysis below, similar to the 2020 IS/MND, the impact is *less than significant*.

The 2020 IS/MND concluded that, given compliance with 2019 Building Energy Efficiency Standards, as well as the 2019 CALGreen standards, the Lillian Commons Project would not result in a 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, and a less-than-significant impact would occur. It should be noted that current regulations pertaining to energy usage, such as the 2022 CalGreen standards, are much more stringent than the regulations that were in place at the time the 2020 IS/MND was adopted. Therefore, as discussed in further detail below, energy demand from buildout of the proposed project would be less than what was anticipated in the 2020 IS/MND.

The following discussion addresses the proposed project's potential effects related to energy demand during construction and operations.

Construction Energy Use

Construction of the proposed project would involve on-site energy demand and consumption related to use of oil in the form of gasoline and diesel fuel for construction worker vehicle trips, hauling and materials delivery truck trips, and operation of off-road construction equipment. In addition, diesel-fueled portable generators may be necessary to provide additional electricity demands for temporary on-site lighting, welding, and for supplying energy to areas of the site where energy supply cannot be met via a hookup to the existing electricity grid.

Typically, at construction sites, electricity from the existing grid is used to power portable and temporary lights or office trailers. Because grid electricity would be used primarily for steady sources such as lighting, not sudden, intermittent sources such as welding or other hand-held tools, the increase in electricity usage at the site during construction would not be expected to cause any substantial peaks in demand. Construction of the proposed project, which would result in temporary increases in electricity demand, would not cause a permanent or substantial increase in demand that would exceed PG&E's demand projections or exceed the ability of PG&E's existing infrastructure to handle such an increase. Therefore, project construction would not result in any significant impacts on local or regional electricity supplies, the need for additional capacity, or on peak or base period electricity demands. In addition, standards or regulations specific to construction-related electricity usage do not currently exist.

Even during the most intense period of construction, due to the different types of construction activities (e.g., site preparation, grading, building construction), only

portions of the project site would be disturbed at a time, with operation of construction equipment occurring at different locations on the project site, rather than a single location. In addition, the entire construction phase is anticipated to occur over approximately three years. As a result, the increased energy demand associated with construction would take place for a minimal amount of time compared to the operational lifetime of the project.

All construction equipment and operation thereof would be regulated pursuant to the CARB In-Use Off-Road Diesel Vehicle Regulation. The In-Use Off-Road Diesel Vehicle Regulation is intended to reduce emissions from in-use, off-road, heavy-duty diesel vehicles in California by imposing a five-minute limit on idling, requiring all vehicles to be reported to CARB, restricting the addition of older vehicles into fleets, and requiring fleets to reduce emissions by retiring, replacing, or repowering older engines, or installing exhaust retrofits. Furthermore, as a means of reducing emissions, construction vehicles are required to become cleaner through the use of renewable energy resources. Engine tiers are used to describe the emissions intensity and efficiency of an engine. Construction equipment with Tier 0 or Tier 1 engines are the least efficient, and Tier 4 is the most efficient. In November 2021, the CARB began developing standards for Tier 5 engines. As of 2015, vehicles with Tier 0 and Tier 1 engines are prohibited from being added to equipment fleets. Fleets with a total horsepower over 2,501, excluding non-profit training centers, may not add any Tier 2 engines and, starting January 1, 2023, all engines must be Tier 3 or higher.[36] The In-Use Off-Road Diesel Vehicle Regulation would, therefore, help to improve fuel efficiency for equipment used in construction of the proposed project.

The CARB enforces off-road equipment regulations through their reporting system, Diesel Off-road Online Reporting System (DOORS). Each construction fleet is required to update their DOORS account within 30 days of buying or selling a vehicle, and DOORS automatically calculates the fleet average index for each fleet. The fleet average index is an indicator of a fleet's overall emission rate, and is based on each vehicle's engine horsepower and model year, and whether it is equipped with a Verified Diesel Emission Control Strategy (VDECS). If a fleet cannot, or does not want to, meet the fleet average target in a given year, the fleet may instead choose to comply with the Best Available Control Technology (BACT) requirements. A fleet may meet the BACT requirements each year by turning over or installing VDECS on a certain percentage of its total fleet horsepower. 'Turnover' means retiring a vehicle, designating a vehicle as permanent low-use (a vehicle used less than 200 hours per year), repowering a vehicle with a higher tier engine, or rebuilding the engine to a more stringent emission standard. By each compliance date (annually on January 1st), the fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the BACT requirements.[37] The project would be required to comply with such regulations, which would ensure that construction equipment meets all State efficiency requirements.

[36] California Air Resources Board. *In-Use Off Road Diesel-Fueled Fleets Regulation Overview*, *Revised October 2016*. 2016.

[37] California Air Resources Board. *Frequently Asked Questions, Regulation for In-Use Off-Road Diesel-Fueled Fleets (Off-Road Regulation)*. August 2014.

Technological innovations and more stringent standards are being researched, such as multi-function equipment, hybrid equipment, or other design changes, which could help to further reduce demand on oil and limit emissions associated with construction. Over time, as technology progresses and more stringent emissions standards are put in place, construction equipment engines become increasingly efficient. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, which are indirectly related to energy efficiency, which would help to further reduce energy use associated with the proposed project.

Based on the above, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. In addition, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, which would help to reduce the temporary increase in demand. It should also be noted that regulations pertaining to energy use, including, but not limited to, State and federal vehicle standards, are more stringent than the regulations in place at the time the 2020 IS/MND was adopted. Therefore, construction energy usage related to the proposed project would be less than what was anticipated in the 2020 IS/MND.

Building Energy Demand

Energy use associated with operation of the proposed project would be typical of medical office buildings, requiring electricity for interior and exterior building lighting, HVAC, electronic equipment, machinery, refrigeration, appliances, security systems, and more. Maintenance activities during operations, such as landscape maintenance, would involve the use of electric or gas-powered equipment.

The proposed project is required to comply with all applicable standards and regulations regarding energy conservation and fuel efficiency, including the CBSC and CARB standards, which would ensure that the future uses would be designed to be energy efficient to the maximum extent practicable. For example, pursuant to 2022 CBSC, new non-residential buildings are required to be solar ready. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed development on-site would consume energy efficiently through the incorporation of such features as efficient water heating systems, high performance attics and walls, and high efficacy lighting. In addition, State regulations promote the generation of renewable energy and encourage energy efficiency through requirements placed on utility providers and strict development standards. For instance, the RPS requires utilities, including PG&E, to procure an increasing proportion of electricity from renewable sources. Ultimately the RPS requirements mandate that all electricity produced within the State be renewably sourced by the year 2045. It should also be noted that natural gas is prohibited in all new construction within the City of Morgan Hill, effective March 1, 2020, pursuant to City Ordinance No. 2306. Therefore, the proposed project would not include the use of natural gas appliances or natural gas plumbing.

With regard to landscaping and maintenance equipment, AB 1346 would require that all small off-road engines are all-electric by the time that the proposed project is operational. Given that approximately 85 percent of the electricity from PG&E is

generated from clean energy sources,[38] the use of electric maintenance equipment would be considered more energy efficient than diesel- or gas-powered maintenance equipment.

Furthermore, as noted above, regulations pertaining to energy usage, including, but not limited to, Building Energy Efficiency Standards, are much more stringent than the regulations that were in place at the time the 2020 IS/MND was adopted. Therefore, building energy demand from buildout of the proposed project would be less than what was anticipated in the 2020 IS/MND.

Transportation Energy Demand

In addition to building energy demand, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed project. However, California leads the nation in registered alternatively-fueled and hybrid vehicles. In fact, under SB 500, the State has required that, starting in the year 2030, all cars sold shall be zero-emission/electric vehicles. In addition, State-specific regulations encourage fuel efficiency and reduction of dependence on oil. Improvements in vehicle efficiency and fuel economy standards help to reduce consumption of gasoline and reduce the State's dependence on petroleum products. Furthermore, the 2022 CBSC requires new non-residential development such as the proposed project to include the necessary electrical infrastructure for EV charging stations within a portion of the on-site parking spaces. As discussed under Impact 4.1-6 of this SEIR, the proposed project would be required to comply with Transportation criterion d. of BAAQMD's GHG thresholds, which requires that the project achieve compliance with the Tier 2 CALGreen standards related to off-street EV requirements in the most recently adopted version of the CALGreen Code. Specifically, based on the Tier 2 CALGreen standards (see Table A5.106.5.3.2 of the 2022 CALGreen Code), for nonresidential uses with over 201 total parking spaces, 45 percent of all on-site spaces are required to be EV capable, and 33 percent of the EV capable spaces are required to include electric vehicle supply equipment (EVSE), which are installed charging receptacles or permanently installed chargers. The proposed project would include a total of 1,234 parking spaces, consisting of 965 spaces located within a 54,000-sf, six-story parking structure, as well as 269 surface parking spaces, which would be located between the three medical office buildings, and to the east and west of the parking structure. With implementation of Mitigation Measure 4.1-6, as presented under Impact 4.1-6, below, the proposed project would be consistent with Transportation criterion d. of BAAQMD's GHG thresholds, which would ensure the provision of 556 EV capable on-site spaces and 184 on-site EV Capable spaces with EVSE. The provision of on-site EV charging stations would further help to ensure that the proposed project would not result in wasteful, inefficient, or unnecessary transportation energy demand. The proposed project would also be required to comply with all other applicable regulations associated with vehicle efficiency and fuel economy.

It should also be noted that the regulations pertaining to transportation energy usage listed above, including, but not limited to, State and federal vehicle standards, are more

[38] Pacific Gas and Electric Company. *2020 Power Mix*. Available at: https://www.pge.com/pge_global/common/pdfs/your-account/your-bill/understand-your-bill/bill-inserts/2021/1021-PowerContent.pdf. Accessed November 2023.

stringent than the regulations that were in place at the time the 2020 IS/MND was adopted. Therefore, transportation energy usage from buildout of the proposed project would be less than what was anticipated in the 2020 IS/MND.

Conclusion

Based on the above, the proposed project would not be considered to result in a wasteful, inefficient, or unnecessary use of energy, and the proposed project is not anticipated to conflict with a State or local plan for renewable energy or energy efficiency. Therefore, similar to the 2020 IS/MND, impacts would be considered ***less than significant***.

Applicable Mitigation Measure(s) from the 2020 IS/MND

None applicable.

Modified Mitigation Measure(s)

None required.

New Mitigation Measure(s)

None required.

Cumulative Impacts and Mitigation Measures

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

A project's emissions may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The geographic context for the cumulative air quality analysis includes Santa Clara County and surrounding areas within the portion of the SFBAAB that is designated nonattainment for ozone and PM_{10}.

As discussed previously, climate change occurs on a global scale, and emissions of GHGs, even from a single project, contribute to the global impact. However, due to the existing regulations within the State, for the purposes of this analysis, the geographic context for the analysis of GHG emissions presented in this SEIR is California.

Finally, a project's impacts related to energy use may be individually limited, but cumulatively considerable when taken in combination with past, present, and future development projects. The following discussion of energy impacts is based on the implementation of the proposed project in combination with buildout of the adopted City of Morgan Hill General Plan. Additional detail regarding the cumulative project setting can be found in Chapter 5, Statutorily Required Sections, of this SEIR.

4.1-5 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air

quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors). Based on the analysis below, similar to the 2020 IS/MND, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable.*

Buildout of the proposed project would lead to the release of emissions that would contribute to the cumulative regional air quality setting. The following section includes a discussion of the proposed project's cumulative contribution to cumulative operational emissions associated with implementation of the project, and the cumulative health effects of exposure to criteria pollutants. Construction activities result in one-time, relatively short-term emissions, and generally are not considered to contribute to cumulative emissions.

Cumulative Operational Emissions from the Proposed Project

The long-term emissions associated with operation of the proposed project in conjunction with other existing or planned development in the area would incrementally contribute to impacts to the region's air quality. According to the BAAQMD's CEQA Guidelines, if a project were to exceed the identified significance thresholds, the project's emissions would be cumulatively considerable.[39] Operational emissions resulting from development of the project were discussed under Impact 4.1-2, and the results are presented in Table 4.1-8. As shown in the table, the Proposed Project Scenario would result in a net increase in operational emissions of ROG and NO_X, and net decrease in emissions of PM_{10} and $PM_{2.5}$ as compared to the Approved Conditions Scenario. However, operational emissions of all applicable criteria pollutants associated with the Proposed Project Scenario would be below the BAAQMD's thresholds of significance. Therefore, the proposed project would not significantly contribute to the region's nonattainment status for ozone or PM, and the project's contribution to cumulative emissions of criteria pollutants would be considered less than cumulatively considerable.

Cumulative Health Effects of Criteria Pollutants

As noted in Table 4.1-1, exposure to criteria air pollutants can result in adverse health effects. The AAQS presented in Table 4.1-2 are health-based standards designed to ensure safe levels of criteria pollutants that avoid specific adverse health effects. Because the SFBAAB is designated as nonattainment for State and federal eight-hour ozone and State PM_{10} standards, the BAAQMD, along with other air districts in the SFBAAB region, has adopted federal and state attainment plans to demonstrate progress towards attainment of the AAQS. Full implementation of the attainment plans would ensure that the AAQS are attained and sensitive receptors within the SFBAAB are not exposed to excess concentrations of criteria pollutants. The BAAQMD's thresholds of significance were established with consideration given to the health-based air quality standards established by the AAQS, and are designed to aid the district in implementing the applicable attainment plans to achieve attainment of the AAQS.[40] Thus, if a project's criteria pollutant emissions exceed the BAAQMD's

[39] Bay Area Air Quality Management District. *Air Quality Guidelines* [pg. 5-4]. April 2023.
[40] Bay Area Air Quality Management District. *Air Quality Guidelines* [pg. 5-10]. April 2023.

emission thresholds of significance, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts, thereby delaying attainment of the AAQS. Because the AAQS are representative of safe levels that avoid specific adverse health effects, a project's hinderance of attainment of the AAQS could be considered to contribute towards regional health effects associated with the existing nonattainment status of ozone and PM_{10} standards.

As discussed in Impact 4.1-1 and 4.1-2, the proposed project would not result in exceedance of the applicable BAAQMD thresholds of significance during construction or operations. Consequently, implementation of the proposed project would not conflict with the BAAQMD's adopted attainment plans, and, as a result, the proposed project would not inhibit attainment of regional AAQS. Therefore, implementation of the proposed project would not contribute towards regional health effects associated with the existing nonattainment status of ozone and PM_{10} standards.

Conclusion

Based on the above, the proposed project would not result in a cumulatively considerable net increase of criteria pollutant emissions for which the region is in nonattainment under an applicable federal and State AAQS. As such, the proposed project's incremental contribution to regional air quality impacts would be ***less than cumulatively considerable***.

Applicable Mitigation Measure(s) from the 2020 IS/MND

None applicable.

Modified Mitigation Measure(s)

None required.

New Mitigation Measure(s)

None required.

4.1-6 Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Based on the analysis below, unlike the 2020 IS/MND, with implementation of mitigation, the project's incremental contribution to this significant cumulative impact is *less than cumulatively considerable*.

An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of CO_2 and, to a lesser extent, other GHG pollutants, such as CH_4 and N_2O. Sources of GHG emissions include area sources, mobile sources or vehicles, utilities (electricity), water usage, wastewater generation, and the generation of solid waste.

As shown in Table 4.8-1 of the 2020 IS/MND, the Lillian Commons Project was determined to have the potential to generate GHGs that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. However, the 2020 IS/MND concluded that implementation of Mitigation Measure GHG-1.1, which would require development and implementation of a GHG reduction plan, would reduce such impact to a less-than-significant level.

As described in the Method of Analysis section above, emissions have been estimated for both the Approved Conditions and Proposed Project scenarios using CalEEMod.

Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has an adopted threshold of significance for construction-related GHG emissions. Accordingly, construction GHG emissions are presented for disclosure and informational purposes only. Table 4.1-9 presents the estimated unmitigated maximum construction-related GHG emissions under the Approved Conditions Scenario and the Proposed Project Scenario. As shown therein, the Proposed Project Scenario would result in a reduction in construction GHG emissions as compared to construction GHG emissions that would be generated under the Approved Conditions Scenario.

Table 4.1-9
Unmitigated Annual Construction GHG Emissions

	Maximum GHG Emissions ($MTCO_2e$/yr)
Approved Conditions Scenario	778
Proposed Project Scenario	750
Net Change	*-28*

Source: CalEEMod, 2023 (see Appendix C).

The total unmitigated annual operational GHG emissions for the first year of operation for Approved Conditions Scenario and the Proposed Project Scenario were estimated as presented in Table 4.1-10. As shown in the table, the Proposed Project Scenario would result in a reduction in operational GHG emissions as compared to operational GHG emissions that would be generated under the Approved Conditions Scenario.

Since preparation of the 2020 IS/MND, BAAQMD has adopted new GHG thresholds of significance for GHG emissions. As noted previously, the applicable BAAQMD thresholds of significance for GHG emissions are qualitative. Therefore, the information presented in Table 4.1-10 is provided for disclosure purposes only. Potential impacts related to GHG emissions resulting from implementation of the

proposed project are considered in comparison with BAAQMD's adopted thresholds of significance below.

Table 4.1-10
Unmitigated Annual Operational GHG Emissions

Emission Source	GHG Emissions ($MTCO_2e$/yr)		
	Approved Conditions Scenario	Proposed Project Scenario	Net Change
Mobile	2,026	1,280	*-746*
Area	4.99	4.82	*-0.17*
Energy	1,037	920	*-117*
Water	24.2	68.7	*+44.5*
Waste	190	927	*+737*
Refrigerants	2.74	1.16	*-1.58*
Stationary	1.92	1.92	*0.00*
Total Annual GHG Emissions	**3,288**	**3,204**	***-84***

Source: CalEEMod, 2023 (see Appendix C).

BAAQMD Thresholds of Significance

According to the BAAQMD thresholds of significance, a project must either include specific project design elements related to buildings and transportation or be consistent with a local GHG reduction strategy that meets the criteria under State CEQA Guidelines Section 15183.5(b). As discussed above, the City of Morgan Hill adopted a CAP in December 2021; however, the City's CAP does not qualify as a local GHG reduction strategy under CEQA Guidelines Section 15183.5(b). Thus, this discussion evaluates project consistency with the BAAQMD's Buildings and Transportation criteria, as discussed in the Standards of Significance section of this chapter.

With regard to Buildings criterion a., natural gas is prohibited in all new construction within the City of Morgan Hill, effective March 1, 2020, pursuant to City Ordinance No. 2306. Therefore, the proposed project would not include the use of natural gas appliances or natural gas plumbing and, thus, the proposed project would comply with Buildings criterion a.

Consistency with Buildings criterion b. is evaluated under Impact 4.1-4. As noted therein, the temporary increase in energy use occurring during construction of the proposed project would not result in a significant increase in peak or base demands or require additional capacity from local or regional energy supplies. During project operations, the proposed project would be required to comply with all applicable regulations related to energy conservation and fuel efficiency, including the Building Energy Efficiency Standards and the CALGreen Code, which would ensure that building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary. As a result, the proposed project would comply with Buildings criterion b.

Consistency with Transportation criterion c. is evaluated in Chapter 4.3, Transportation, of this SEIR. As discussed therein, on November 6, 2024, the City of

Morgan Hill adopted Resolution No. 24-039, approving a citywide VMT policy. For office and industrial projects, such as the proposed project, the adopted threshold of significance requires that a project's VMT per employee does not exceed the City of Morgan Hill's baseline VMT per employee, which is 21.42. The proposed project was determined to generate 19.69 VMT per employee, which would not exceed the City's adopted VMT impact threshold. Therefore, the proposed project would not conflict with Transportation criterion c.

With regard to Transportation criterion d., the proposed project would be subject to the nonresidential requirements set forth in the CALGreen standards. Based on the Tier 2 CALGreen standards (see Table A5.106.5.3.2 of the 2022 CALGreen Code), for nonresidential uses with over 201 total parking spaces, 45 percent of all on-site spaces are required to be EV capable, and 33 percent of the EV capable spaces are required to include EVSE, which are installed charging receptacles or permanently installed chargers. The proposed project would include a total of 1,234 parking spaces, consisting of 965 spaces located within a 54,000-sf, six-story parking structure, as well as 269 surface parking spaces, which would be located between the three medical office buildings, and to the east and west of the parking structure. Therefore, a total of 556 on-site spaces would be required to be EV capable, and 184 of the EV capable spaces would be required to include EVSE. However, project-specific information is not available to ensure that the proposed project would be designed to include the required number of EV spaces. Thus, without mitigation, the proposed project could conflict with Transportation criterion d.

Conclusion

Based on the above, the proposed project would result in a net decrease in GHG emissions during construction and operations. In addition, the proposed project would comply with Buildings criterion a., related to the prohibition of natural gas on-site, Buildings criterion b., related to the wasteful, inefficient, or unnecessary use of energy, and Transportation criterion c., related to VMT. However, the proposed project has the potential to conflict with Transportation criterion d., related to the provision of EV charging stations.

Because the proposed project could conflict with the BAAQMD's applicable thresholds of significance for GHG emissions, the proposed project could generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Thus, while the proposed project would not result in greater GHG emissions and is not anticipated to be more intensive as compared to the Lillian Commons Project, a previously unidentified ***cumulatively considerable*** and ***significant*** impact related to GHG emissions could occur as a result of a change in the regulatory setting (i.e., the adoption of new BAAQMD GHG thresholds) that has occurred since the 2020 IS/MND was adopted.

Applicable Mitigation Measure(s) from the 2020 IS/MND

As discussed above, since preparation of the 2020 IS/MND, BAAQMD has adopted new thresholds of significance for GHG emissions, which are qualitative, and are aimed at reducing GHG emissions through requirements related to the prohibition of natural gas, energy efficiency, the provision of on-site EV infrastructure, and VMT

reductions. Mitigation Measure GHG-1.1 of the 2020 IS/MND included various measures aimed at reducing GHG emissions. However, aside from the requirement to develop and implement a transportation demand management (TDM) program to reduce mobile GHG emissions, the measures set forth in Mitigation Measure GHG-1.1 would not directly apply to meeting the current BAAQMD thresholds of significance. As discussed above, the proposed project was determined to generate VMT per employee below the City's adopted VMT impact threshold. Therefore, implementation of the TDM program would not be required as part of the proposed project, and Mitigation Measure GHG-1.1 is no longer considered applicable to the proposed project.

Modified Mitigation Measure(s)

None required.

New Mitigation Measure(s)

Implementation of Mitigation Measure 4.1-6 would ensure project consistency with Transportation criterion d. Therefore, with implementation of the following mitigation measure, the project's incremental contribution to the cumulatively significant impact related to GHG emissions and global climate change would be reduced to a *less-than-cumulatively-considerable* level.

4.1-6 Prior to the approval of project improvement plans, the applicant shall implement the following measure:

- *Consistent with BAAQMD's Transportation criterion d., EV Capable parking spaces (including EV Capable parking spaces with electric vehicle supply equipment [EVSE]) shall be installed throughout the project site at the ratio specified by the current CalGreen Tier 2 standards.*

Compliance with the foregoing measure shall be ensured by the City of Morgan Hill Community Development Department.

4.1-7 Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency. Based on the analysis below, similar to the 2020 IS/MND, the project's impact is *less than cumulatively considerable*.

Impact 4.1-5 discusses the consumption of energy on a project level, within the context of existing State plans and regulations. As discussed previously, the project would involve consumption of diesel, gasoline, and electricity throughout construction and operations. However, all proposed structures would be built in compliance with existing statewide mandatory energy efficiency standards, such as those contained in the California Building Energy Efficiency Standards and the CALGreen Code. Compliance with the energy efficiency standards would reduce the amount of electricity consumed by the proposed development. State regulations would also help to reduce the amount of energy consumed by on-road vehicles over time. For instance, State and federal

emissions standards and fuel economy standards result in increased fuel efficiency for on-road vehicles. In addition, Mitigation Measure 4.1-6(a), as presented above, would ensure that the proposed project would install EV Capable parking spaces (including EV Capable parking spaces with EVSE) throughout the project site at the ratio with which the current CalGreen Tier 2 standards require EV Capable spaces. Therefore, a total of 556 on-site spaces would be required to be EV capable, and 184 of the EV capable spaces would be required to include EVSE. Overall, as concluded above, the proposed project would result in a less than significant impact related to the inefficient or wasteful use of energy or conflicting with a State or local plan for renewable energy or energy efficiency.

Similar to the proposed project, all future development within the City of Morgan Hill would be required to comply with applicable State and local regulations related to energy efficiency. Increased efficiency would be ensured in the future as cumulative development occurs due to compliance with the State's robust energy efficiency requirements. For example, the 2022 CBSC has begun phasing in the provision of zero net energy by requiring residential projects to meet 100 percent of their electricity needs through rooftop solar. In addition, pursuant to 2022 CBSC, new non-residential buildings associated with cumulative development would be required to be solar ready. Furthermore, energy efficiency regulations have been getting progressively more stringent over time. Thus, as cumulative development occurs under the increasingly stringent regulations, the energy use associated with such cumulative development is anticipated to be increasingly energy efficient over time as well. Therefore, construction and operational energy usage related to the proposed project, as well as other present and probable future projects in the region, would be less than what was anticipated in the 2020 IS/MND.

Based on the above, the proposed project, in combination with other cumulative development in the project region, would not result in the wasteful or inefficient use of energy. Because the project would not conflict with a local plan to increase energy efficiency and reduce energy consumption, a ***less-than-cumulatively-considerable*** impact would occur.

Applicable Mitigation Measure(s) from the 2020 IS/MND

None applicable.

Modified Mitigation Measure(s)
None required.

New Mitigation Measure(s)
None required.

4.2. Noise

4.2. NOISE

4.2.1 INTRODUCTION

Pursuant to CEQA Guidelines Section 15162, the Noise chapter of this Subsequent Environmental Impact Report (SEIR) assesses whether the proposed project would result in a new significant impact not previously identified in the adopted 2020 Lillian Commons Medical Campus Initial Study/Mitigated Negative Declaration (2020 IS/MND), or a substantial increase in the severity of a significant impact previously identified in the 2020 IS/MND. The City of Morgan Hill has prepared the SEIR to analyze the proposed net increase of 134,600 square feet (sf) of medical office and additional parking garage uses to the Lillian Commons/Morgan Hill Medical Campus Project (Lillian Commons Project). For further details related to the proposed project, refer to Chapter 3, Project Description, of this SEIR.

The methods by which the potential impacts are analyzed are discussed, followed by the identification of potential impacts and the recommended mitigation measures designed to reduce significant noise and vibration impacts to a less-than-significant level, if required. The Noise chapter is primarily based on the project-specific Noise and Vibration Assessment (Noise Assessment) prepared by Illingworth & Rodkin, Inc. (I&R) (see Appendix D of this SEIR).[1] Other sources of information used in this chapter include the City of Morgan Hill General Plan[2] and the City of Morgan Hill General Plan EIR.[3]

4.2.2 EXISTING ENVIRONMENTAL SETTING

The Existing Environmental Setting section provides background information on noise and vibration, a discussion of acoustical terminology and the effects of noise on people, existing sensitive receptors in the project vicinity, existing sources and noise levels in the project vicinity, and groundborne vibration.

Fundamentals of Acoustics

Noise may be defined as unwanted sound and is usually objectionable due to its disturbing or annoying nature. Several noise measurement scales are used to describe noise. A decibel (dB) is a unit of measurement, which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 dB represents a ten-fold increase in acoustic energy, while 20 dB is 100 times more intense, 30 dB is 1,000 times more intense, etc. A relationship exists between the subjective noisiness or loudness of a sound and the sound's intensity. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities.

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1 Illingworth & Rodkin, Inc. *Rosewood/Morgan Hill Medical Campus Project Noise And Vibration Assessment.* November 14, 2023.
2 City of Morgan Hill. *2035 General Plan*. Adopted July 27, 2016.
3 City of Morgan Hill. *2035 General Plan Draft EIR*. Adopted January 13, 2016.

Several methods of characterizing sound exist. The most common is the A-weighted sound level (dBA). The dBA scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in dBA are shown in Table 4.2-1.

Table 4.2-1
Typical Noise Levels in the Environment

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
N/A	110	Rock Band
Jet Flyover at 1,000 feet	100	N/A
Gas Lawn Mower at 3 feet	90	N/A
Diesel Truck at 50 feet at 50 miles per hour	80	Food Blender at 3 feet Garbage Disposal at 3 feet
Noisy Urban Area, Daytime Gas Lawn Mower at 100 feet	70	Vacuum Cleaner at 10 feet
Commercial Area Heavy Traffic at 300 feet	60	Normal Speech at 3 feet
Quiet Urban Daytime	50	Large Business Office Dishwasher in Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room
Quiet Suburban Nighttime	30	Library
Quiet Rural Nighttime	20	Bedroom at Night Concert Hall (Background)
N/A	10	Broadcast/Recording Studio
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Illingworth & Rodkin, Inc., 2023.

Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations is used. Most commonly, environmental sounds are described in terms of an average level with the same acoustical energy as the summation of all the time-varying events, which is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration. In addition, because the sensitivity to noise increases during the evening and at night, due to excessive noise interfering with the ability to sleep, 24-hour descriptors have been developed that incorporate artificial noise penalties to quiet-time noise events. The Community Noise Equivalent Level (CNEL) is a measure of the cumulative noise exposure in a community, with a 5.0 dB penalty added to evening time (7:00 PM to 10:00 PM) and a 10 dB penalty to nocturnal time (10:00 PM to 7:00 AM) noise levels. The Day/Night Average Sound Level (L_{dn} or DNL) is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during the three-hour period are grouped into the daytime period.

Additionally, the highest root-mean-square (RMS) sound level measured over a given period of time is expressed as L_{max}. Stationary noise sources, including construction equipment, attenuate at a rate of 6.0 to 7.5 dB per doubling of distance from the source depending on ground absorption. Physical barriers located between a noise source and the noise receptor, such as berms or sound walls, increase the efficacy of noise attenuation that occurs by distance alone. Finally, Sound Exposure Level (SEL) is the constant sound level that has the same amount of

energy in one second as the original noise event and allows sound exposures of different durations to be related to one another in terms of total acoustic energy.

Existing Sensitive Receptors

Noise-sensitive land uses are generally defined as locations where people reside or where the presence of unwanted sound could adversely affect the primary intended use of the land. Places where people live, sleep, recreate, worship, and study are generally considered to be sensitive to noise, because intrusive noise can be disruptive to such activities. Sensitivity to ambient noise levels is also related to the amount of noise exposure (in terms of both exposure time and shielding from noise sources). Noise-sensitive land uses typically include residences, schools, childcare centers, hospitals, long-term health care facilities, convalescent centers, retirement homes, and recreation areas. The existing noise-sensitive land uses in the project vicinity are the single-family residences to the west of the project site, across Juan Hernandez Drive (represented by LT-1 on Figure 4.2-1); single-family residences and Barrett Elementary School located north of the project site, across Barrett Avenue (represented by LT-2); and a single-family residence and the Bethel Baptist Church south of the site, across Tennant Avenue (represented by ST-3). In addition, a hotel and various commercial uses are located to the east of the project site, across US-101.

Existing Ambient Noise Environment

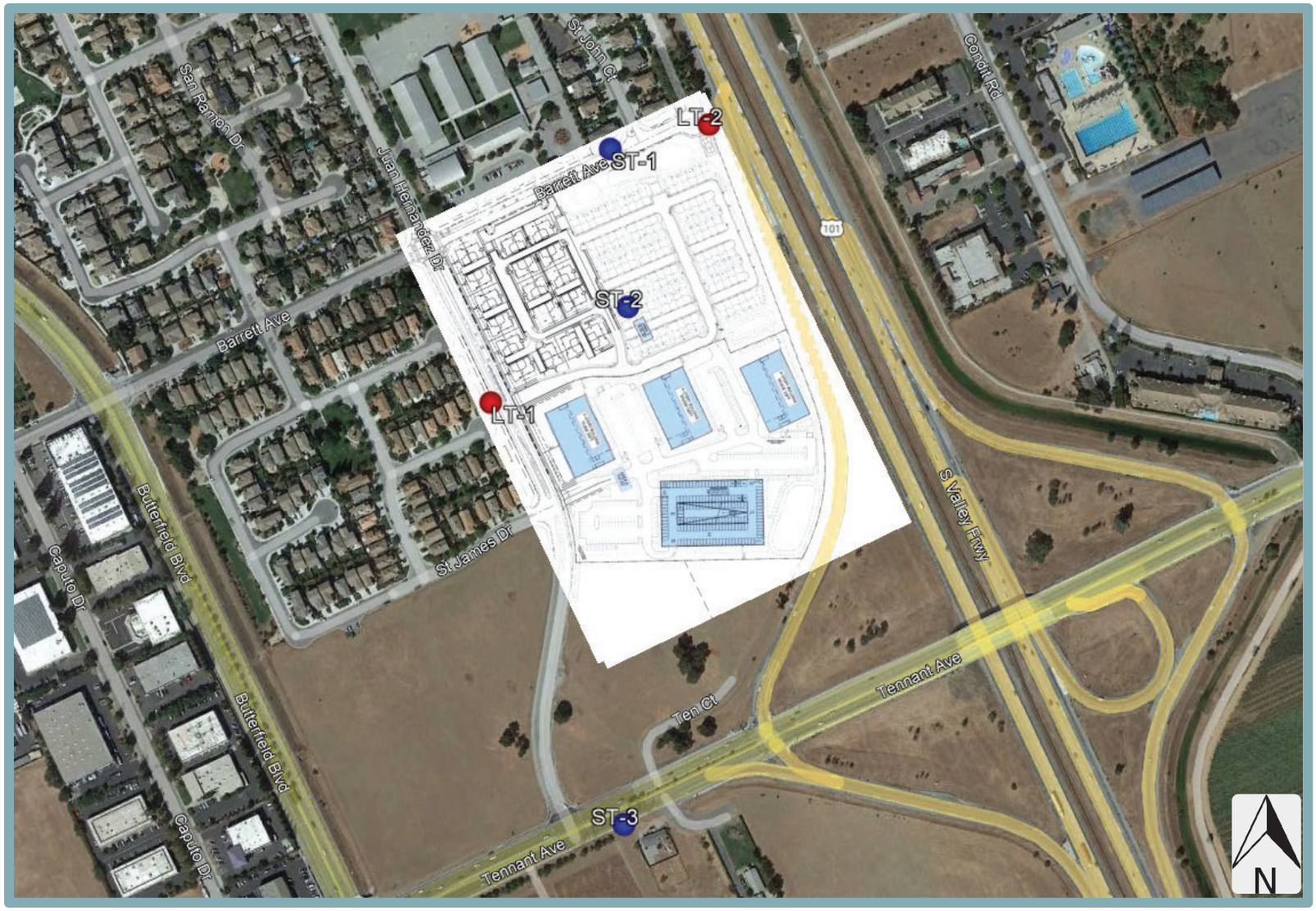
The existing ambient noise environment in the project vicinity is primarily defined by traffic on US-101 to the east of the project site, as well as traffic along Tennant Avenue to the south, Juan Hernandez Drive to the west, and Barrett Avenue to the north. Occasionally, overhead aircraft noise associated with the South County Airport also occurs at the project site.

A noise monitoring survey was conducted between September 24 and 26, 2019 by I&R to quantify the existing ambient noise environment at various locations in the project vicinity (see Figure 4.2-1). Long-term noise measurements were taken at two locations: 30 feet west of the centerline of Juan Hernandez Drive (LT-1) and 65 feet west of the centerline of the nearest through lane along US-101 (LT-2). The LT measurements were taken over a 24-hour period to represent the ambient noise environment at the single-family residences west of the project site (LT-1), as well as at Barrett Elementary School and the single-family residences north of the site (LT-2). In addition, short-term measurements were taken over an approximately one-hour period at three locations: in front of 945 Barrett Avenue, approximately 20 feet north of the centerline of Barrett Avenue (ST-1); the center of the Rosewood residential community (ST-2); and in front of the single-family residence at 800 Tennant Avenue, approximately 40 feet south of the centerline of Tennant Avenue (ST-3).

Hourly average noise levels at LT-1 ranged from 60 to 67 dBA L_{eq} during daytime hours (7:00 AM to 10:00 PM) and from 56 to 63 dBA L_{eq} during nighttime hours (10:00 PM to 7:00 AM). The DNL measured on September 25, 2019 was 67 dBA L_{dn}. Hourly average noise levels at LT-2 typically ranged from 77 to 81 dBA L_{eq} during the day and from 73 to 79 dBA L_{eq} at night. The DNL measured on September 25, 2019 was 83 dBA L_{dn}.

With respect to the short-term noise measurement sites, typical noise levels at ST-1 due to US-101, which was the dominant noise source, ranged from 62 to 65 dBA. Local vehicular traffic along Barrett Avenue, which consisted of about 10 cars during the time period, generated noise levels of 63 to 68 dBA. The 10-minute average noise level measured at ST-1 was 64 dBA L_{eq}.

Figure 4.2-1
Ambient Noise Measurement Locations



Source: Illingworth & Rodkin, Inc., 2023.

The dominant noise source at ST-2 was also US-101, which generated noise levels ranging from 54 to 57 dBA. Local traffic along Juan Hernandez Drive generated noise levels of 54 to 57 dBA. The 10-minute average noise level at ST-2 was 56 dBA L_{eq}.

The dominant noise source at ST-3 was vehicular traffic on Tennant Avenue. ST-3 represents the ambient noise environment of the single-family residence and nearby Bethel Baptist Church located south of the project site, across Tennant Avenue. Eastbound traffic along Tennant Avenue generated noise levels ranging from 75 to 80 dBA at ST-3, while westbound traffic ranged from 62 to 66 dBA. The maximum instantaneous noise level of 93 dBA was generated by an eastbound-traveling motorcycle. The 10-minute average noise level at ST-3 was 76 dBA L_{eq}. Further details of the short-term noise measurements are summarized in Table 4.2-2 below.

Table 4.2-2
Summary of Short-Term Noise Measurements

Noise Measurement Location	Date, Time	Measured Noise Level (dBA)					
		L_{max}	L_1	L_{10}	L_{50}	L_{90}	L_{eq}
ST-1: Approximately 20 feet North of the Centerline of Barrett Avenue	9/24/2019, 7:40 AM – 7:50 AM	69	68	66	63	61	64
ST-2: Center of Rosewood Residential Community	9/24/2019, 8:00 AM – 8:10 AM	59	59	58	56	55	56
ST-3: Approximately 40 feet South of the Centerline of Tennant Avenue	9/24/2019, 8:30 AM – 8:40 AM	93	83	79	73	62	76

Source: Illingworth & Rodkin, Inc., 2023.

It should be noted that, according to the California Department of Transportation (Caltrans) annual average daily traffic (AADT) and peak hour volumes, the traffic volumes along US-101 decreased between 2019 and 2021, likely due to changes in traffic patterns resulting from the COVID-19 pandemic. Since 2021, traffic volumes along roadways have likely returned to pre-pandemic conditions. Therefore, pursuant to the Noise Assessment, the noise measurements completed in 2019 are conservative and adequately represent the existing noise environment in the project vicinity in 2023.

Fundamentals of Vibration

Vibration is similar to noise in that both involve a source, a transmission path, and a receiver. However, while noise is generally considered to be pressure waves transmitted through air, vibration is usually associated with transmission through the ground or structures. As with noise, vibration consists of amplitude and frequency. A person's response to vibration depends on their individual sensitivity, as well as the amplitude and frequency of the source.

Vibration can be described in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of velocity in inches per second (in/sec) peak particle velocities (PPV) or RMS. Standards pertaining to perception, as well as damage to structures, have been developed for vibration in terms of PPV and RMS velocities. As vibrations travel outward from the source, they excite the particles of rock and soil through which they pass and cause them to oscillate. Differences in subsurface geologic conditions and distance from the source of vibration result in different vibration levels characterized by different frequencies and intensities. In all cases, vibration amplitudes decrease with increasing distance.

Human perception of vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level. Vibration can be felt or heard well below the levels that produce any damage to structures. The duration of the event has an effect on human response, as does frequency. Generally, as the duration and vibration frequency increase, the potential for adverse human response increases.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related groundborne vibration levels. The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Structural damage can be classified as cosmetic only (such as paint flaking or minimal extension of cracks in building surfaces), minor (including limited surface cracking), or major (damage that may threaten the structural integrity of the building). Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher. Roadway traffic can also be a source of such vibration. At high enough amplitudes, ground vibration has the potential to damage structures and/or cause cosmetic damage. However, traffic rarely generates vibration amplitudes high enough to cause structural or cosmetic damage.

Existing Ambient Vibration Environment

The existing ambient vibration environment in the project vicinity is primarily defined by traffic on US-101 to the east of the project site, as well as traffic along Tennant Avenue to the south, Juan Hernandez Drive to the west, and Barrett Avenue to the north. Existing groundborne vibration-generating land uses do not occur adjacent to the project site.

4.2.3 REGULATORY CONTEXT

In order to limit exposure to physically and/or psychologically damaging noise levels, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. Applicable federal laws or regulations pertaining to noise or vibration that would directly apply to the proposed project do not exist. The following provides a general overview of the existing State and local regulations that are relevant to the proposed project.

State Regulations

The following are the State environmental laws and policies relevant to noise and vibration.

California Building Code

The California Building Code (Title 24, Part 2 of the California Code of Regulations [CCR]) establishes uniform minimum noise insulation performance standards to protect persons within new buildings that house people, including hotels, motels, dormitories, apartment houses, and dwellings other than single-family dwellings. Title 24 mandates that interior noise levels attributable to exterior sources shall not exceed 45 dB L_{dn} or CNEL in any habitable room. Title 24 also requires that for structures containing noise-sensitive uses to be located where the L_{dn} or CNEL exceeds 60 dB, an acoustical analysis must be prepared to identify mechanisms for limiting exterior noise to the prescribed allowable interior levels. If the interior allowable noise levels are met by requiring that windows be kept closed, the design for the structure must also specify a ventilation or air conditioning system to provide a habitable interior environment.

Local Regulations

The following are the local environmental goals and policies relevant to noise and vibration.

City of Morgan Hill General Plan

The following goals, objectives, and policies from the City of Morgan Hill General Plan Safety, Services, and Infrastructure Element related to noise are applicable to the proposed project.

Goal SSI-8 Prevention of noise from interfering with human activities or causing health problems.

Policy SSI-8.1 Exterior Noise Level Standards. Require new development projects to be designed and constructed to meet acceptable exterior noise level standards (see Table SSI-1 [included as Table 4.2-3 in this SEIR]), as follows:

- Apply a maximum exterior noise level of 60 dBA L_{dn} in residential areas where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing an L_{dn} of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, an L_{dn} of 65 dBA may be permitted.
- Indoor noise levels should not exceed an L_{dn} of 45 dBA in new residential housing units.
- Noise levels in new residential development exposed to an exterior L_{dn} 60 dBA or greater should be limited to a maximum instantaneous noise level (e.g., trucks on busy streets, train warning whistles) in bedrooms of 50 dBA. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA. The maximum outdoor noise level for new residences near the railroad shall be 70 dBA L_{dn}, recognizing that train noise is characterized by relatively few loud events.

Policy SSI-8.2 Impact Evaluation. The impact of a proposed development project on existing land uses should be evaluated in terms of the potential for adverse community response based on significant increase in existing noise levels, regardless of compatibility guidelines.

Policy SSI-8.3 Commercial and Industrial Noise Level Standards. Evaluate interior noise levels in commercial and industrial structures on a case-by-case basis based on the use of the space.

Table 4.2-3
State of California Land Use Compatibility Guidelines for Community Noise Environments (dBA)

Land Use	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Residential – Low Density Single-Family, Duplex, Mobile Homes	≤60	55-70	70-75	>75
Residential – Multiple-Family	≤65	60-70	70-75	>75
Transient Lodging, Motels, Hotels	≤65	60-70	70-80	>80
Schools, Libraries, Churches, Hospitals, Nursing Homes	≤70	60-70	70-80	>80
Auditoriums, Concert Halls, Amphitheaters	N/A	≤70	N/A	65-80+
Sports Arena, Outdoor Spectator Sports	N/A	≤75	N/A	70-80+
Playgrounds, Neighborhood Parks	≤70	67.5-75	N/A	72.5-80+
Golf Courses, Riding Stables, Water Recreation, Cemeteries	≤75	70-80	N/A	>80
Office Buildings, Businesses, Commercial and Professional	≤70	67.5-77	75-80+	N/A
Industrial, Manufacturing, Utilities, Agricultural	≤75	70-80	>75	N/A

1 Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
2 New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
3 New construction or development should generally be discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.
4 New construction or development generally should not be undertaken.

Source: Table SSI-1, City of Morgan Hill General Plan, July 2016.

Policy SSI-8.4 Office Noise Level Standards. Interior noise levels in office buildings should be maintained at 45 dBA L_{eq} (hourly average) or less, rather than 45 dBA L_{dn} (daily average).

Policy SSI-8.5 Traffic Noise Level Standards. Consider noise level increases resulting from traffic associated with new projects significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn}, or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.

Policy SSI-8.6 Stationary Noise Level Standards. Consider noise levels produced by stationary noise sources associated with new projects significant if they substantially exceed existing ambient noise levels.

Policy SSI-8.7 Other Noise Sources. Consider noise levels produced by other noise sources (such as ballfields) significant if an acoustical study demonstrates they would substantially exceed ambient noise levels.

Policy SSI-8.9 Site Planning and Design. Require attention to site planning and design techniques other than sound walls to reduce noise impacts, including: a) installing earth berms, b) increasing the distance between the noise source and the receiver; c) using non-sensitive structures such as parking lots, utility areas, and garages to shield noise-sensitive areas; d) orienting buildings to shield outdoor spaces from the noise source; and e) minimizing the noise at its source.

Goal SSI-9 Protection from noise associated with motor vehicles and railroad activity.

Policy SSI-9.1 Techniques to Reduce Traffic Noise. Use roadway design, traffic signalization, and other traffic planning techniques (such as limiting truck traffic in residential areas) to reduce noise caused by speed or acceleration of vehicles.

Policy SSI-9.2 Noise Barrier Dimensions. If noise barriers are deemed the only effective mitigation for development along major transportation corridors, require an acoustical analysis to determine necessary dimensions.

Policy SSI-9.3 Sound Wall Design. The maximum height of sound walls shall be eight feet. Residential projects adjacent to the freeway shall be designed to minimize sound wall height through location of a frontage road, use of two sound walls or other applicable measures. Sound wall design and location shall be coordinated for an entire project area and shall meet Caltrans noise attenuation criteria for a projected eight-lane freeway condition. If two sound walls are used, the first shall be located immediately adjacent to the freeway right-of-way and the second shall be located as necessary to meet Caltrans noise requirements for primary outdoor areas. The minimum rear yard setback to the second wall shall be 20 feet.

Policy SSI-9.5 Noise Studies for Private Development. In order to prevent significant noise impacts on neighborhood residents which are related to roadway extensions or construction of new roadways, require completion of a detailed noise study during project-level design to quantify noise levels generated by projects such as the Murphy Avenue extension to Mission View Drive and the

Walnut Grove Extension to Diana Avenue. The study limits should include noise sensitive land uses adjacent to the project alignment as well as those along existing segments that would be connected to new segments. A significant impact would be identified where traffic noise levels would exceed the "normally acceptable" noise level standard for residential land uses and/or where ambient noise levels would be substantially increased with the project. Project specific mitigation measures could include, but not be limited to, considering the location of the planned roadway alignment relative to existing receivers in the vicinity, evaluating the use of noise barriers to attenuate project-generated traffic noise, and/or evaluating the use of "quiet pavement" to minimize traffic noise levels at the source. Mitigation should be designed to reduce noise levels into compliance with "normally acceptable" levels for residential noise and land use compatibility.

Policy SSI-9.6 Earth Berms. Allow and encourage earth berms in new development projects as an alternative to sound walls if adequate space is available.

Morgan Hill Municipal Code Chapter 8.28

Morgan Hill Municipal Code Section 8.28.020 defines unlawful noise as "any loud, disturbing, unnecessary or unusual noise or any noise which annoys, disturbs, injures or endangers the comfort, health, repose, peace or safety of other persons within the city." However, as detailed in Section 8.28.030 of the City's Municipal Code, police, fire, and authorized emergency vehicle sirens, as defined by the California Vehicle Code, are exempt from the provisions of Chapter 8.28. Similarly, any stationary fire alarm operated by the California Department of Forestry and Fire Protection (CALFIRE), which the City contracts for fire protection services, is exempt.

Pursuant to Morgan Hill Municipal Code Section 8.28.040, operation of construction equipment is prohibited outside of the hours of 7:00 AM to 8:00 PM, Monday through Friday, and 9:00 AM to 6:00 PM on Saturday. Construction activities may not occur on Sundays or federal holidays.

Morgan Hill Municipal Code Section 18.76.090 establishes quantitative noise performance standards, as replicated in this SEIR in Table 4.2-4. The noise standards do not apply to noise generated by vehicle traffic in the public right-of-way or from noise associated with temporary construction, demolition, and vehicles that enter and leave the site of a noise-generating use (e.g., construction equipment, trains, trucks).

Finally, Morgan Hill Municipal Code Section 18.76.130 states that vibration transmitted through the ground that is discernable without instruments at the lot line of the establishment or use is prohibited. Vibration from temporary construction, demolition, and vehicles that enter and leave the lot (e.g., construction equipment, trains, trucks, etc.) are exempt from the standard.

Table 4.2-4
Maximum Noise Levels

Receiving Land Use	Maximum Noise Level at Lot Line of Receiving Use (dBA)[a]
Industrial and Wholesale	70
Commercial	65
Residential or Public/Quasi Public	60

[a] The planning commission may allow an additional five dBA noise level at the lot line if the maximum noise level shown in Table 18.76-1 cannot be achieved with reasonable and feasible mitigation.

Source: Morgan Hill Municipal Code Section 18.76,090, 2023.

4.2.4 IMPACTS AND MITIGATION MEASURES

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

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, an impact related to noise is considered significant if the proposed project would result in any of the following:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;
- Generation of excessive groundborne vibration or groundborne noise levels; or
- For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels.

Issues Not Discussed Further

The IS prepared for the proposed project (see Appendix A of this SEIR) determined that development of the proposed project would result in no impact or a less-than-significant impact related to the following:

- 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.

For the reasons cited in Section XIII, Noise, of the IS, the potential impacts associated with the above are not analyzed further in this SEIR.

Summary of Applicable Standards

Applicable noise and vibration level standards, including standards from the City of Morgan Hill General Plan and the Municipal Code are summarized below.

Construction Noise Criteria

Morgan Hill Municipal Code Section 8.28.040 establishes allowable hours of construction as occurring between 7:00 AM and 8:00 PM, Monday through Friday, and between the hours of 9:00 AM and 6:00 PM on Saturday. Construction activities may not occur on Sundays or federal holidays. While quantitative noise thresholds for temporary construction are not provided in the City's General Plan or Municipal Code, I&R provided a 45 dBA threshold for speech interference indoors in the Noise Assessment prepared for the 2020 IS/MND. Assuming a 15 dBA exterior-to-interior reduction for standard residential construction and a 25 dBA exterior-to-interior reduction for standard commercial/industrial construction would correlate to an exterior threshold of 60 dBA L_{eq} at residential land uses. Therefore, temporary construction noise impacts would be considered significant if construction activities exceed 60 dBA L_{eq} at nearby residences or 70 dBA L_{eq} at nearby commercial land uses. In addition, in terms of determining the temporary noise increase due to project-related construction activities, an impact would occur if construction activity would noticeably increase ambient noise levels above background levels. Thus, project construction noise impacts would be considered significant if such noise levels exceed the existing ambient noise levels by 5.0 dBA L_{eq} or more for a period of longer than one year.

Substantial Increase and Transportation Noise Criteria

Generally, a project may have a significant effect on the environment if the project substantially increases the ambient noise levels for adjoining areas or exposes people to measurably severe noise levels. In practice, a noise impact may be considered significant if project-generated noise would conflict with local project criteria or ordinances, or substantially increase noise levels at noise sensitive land uses.

According to Policy SSI-8.5 of the City's General Plan, a substantial noise increase related to traffic would occur if the noise level increase is 5.0 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn}; or the noise level increase is 3.0 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater. Based on the long-term measurements conducted as part of the Noise Assessment at LT-1 and LT-2, existing noise-sensitive receptors along roadways serving the project site are currently exposed to noise levels exceeding 60 dBA L_{dn}. Therefore, a significant impact would occur if traffic would increase existing ambient levels by 3.0 dBA L_{dn}.

In addition, Policy SSI-8.6 of the City's General Plan states that noise levels produced by stationary noise sources associated with new projects, such as mechanical equipment, would result in a significant impact if the noise levels substantially exceed existing ambient noise levels. However, Policy SSI-8.6 does not identify a specific numerical increase in dB that would constitute a significant increase. For the purposes of this analysis, a significant impact would occur if mechanical equipment associated with the proposed project would increase existing ambient levels by 3.0 dBA L_{dn}.

Non-Transportation Noise Criteria

Morgan Hill Municipal Code Section 18.76.090 provides maximum noise level thresholds enforced at the property lines of the receiving land uses (see Table 4.2-4). At residential and public/quasi-public land uses (i.e., the existing single-family residences to the north, south, and west of the project site, as well as Barrett Elementary School and Bethel Baptist Church), maximum noise levels cannot exceed 60 dBA. At the hotel and commercial uses east of US-101, maximum noise levels cannot exceed 65 dBA.

Vibration Criteria

Caltrans recommends a vibration limit of 0.5 in/sec PPV for structurally sound buildings designed to modern engineering standards, in order to reduce the potential for cosmetic damage to structures (see Table 4.2-5). Cosmetic damage includes hairline cracking in plaster, the opening of old cracks, the loosening of paint, and the dislodging of loose objects. A vibration limit of 0.3 in/sec PPV has been used for structurally sound buildings where structural damage is a major concern. For historical buildings, or buildings that are documented to be structurally weakened, a conservative limit of 0.08 in/sec PPV is often used to provide the highest level of protection; however, such structures are not adjacent to the project site. Therefore, groundborne vibration levels exceeding 0.3 in/sec PPV at nearby buildings would have the potential to result in a significant vibration impact, because such levels would be capable of cosmetically damaging adjacent buildings.

Table 4.2-5
Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect.
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure.
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected.
0.1	Strongly perceptible	Threshold at which there is a risk of damage to fragile buildings with no risk of damage to most buildings.
0.25	Strongly perceptible to severe	Threshold at which there is a risk of damage to historic and some old buildings.
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential structures.
0.5	Severe – Vibrations considered unpleasant	Threshold at which there is a risk of damage to new residential and modern commercial/industrial structures.

Source: Illingworth & Rodkin, Inc., 2023.

Method of Analysis

The analysis of this SEIR is focused generally on the changes to the proposed project and changes in circumstances following the City's adoption of the 2020 IS/MND, pursuant to CEQA Guidelines Section 15162. The analysis of this chapter is based on the 2020 IS/MND and the Noise Assessment prepared for the currently proposed project by I&R.

As discussed throughout this SEIR, the environmental baseline for this SEIR is appropriately considered to be the Lillian Commons Project, which included a 4,500-sf urgent care facility, a 10,000-sf medical building, a 100,000-sf medical office/hospital with 55 beds, a three-story parking structure with 500 spaces, a 10,000-sf commercial retail/restaurant building to be developed on the project site. As such, noise associated with the Lillian Commons Project would occur as a result of construction activities and operations of such uses.

Below are descriptions of the methodologies used in the Noise Assessment (see Appendix D of this SEIR) to estimate construction noise and vibration associated with the proposed project, future traffic noise, and noise associated with on-site parking and circulation, truck loading and

unloading, ambulance siren noise, and mechanical equipment. Further modeling details and calculations are provided in Appendix D of this SEIR. The results of the noise and vibration impact analyses were compared to the standards of significance discussed above in order to determine the associated level of impact.

Project Construction Noise and Vibration Levels

According to applicant-provided information, construction of the proposed project is anticipated to be completed in three phases. Phase 1 is anticipated to include demolition, grading, and paving for the entire site, as well as construction of the 75,000-sf Building 1, nearest to Juan Hernandez Drive, and the associated parking structure, and is anticipated to require approximately 15 months. Phase 2 is anticipated to include the construction of the 100,000-sf Building 2, in the center of the project site, and would encompass approximately 12 months. Finally, Phase 3 would include the construction of the 100,000-sf Building 3, located next to US-101, and last approximately 13 months. Total project construction is expected to require approximately 40 months (three years and four months). Similar to the currently proposed project, the Lillian Commons project was assumed to consist of three phases, with Phase 2 including the Rosewood residences located on Parcel C of the Lillian Commons Project site, which are currently under construction. The total construction duration of the Lillian Commons Project was estimated to be three years and six months, with construction of the non-residential portion lasting approximately two years and four months.

Construction noise and vibration was analyzed using data compiled for various pieces of construction equipment at a representative distance of 50 feet. It should be noted that, according to the equipment list provided to I&R for the Noise Assessment, pile driving activities, which can cause excessive noise or vibration, are not anticipated for the proposed project. Construction noise is discussed relative to the applicable noise policies and standards presented above.

Project Traffic Noise Level Increases

To estimate traffic noise level increases as a result of development of the proposed project, I&R estimated the existing baseline traffic volumes by incorporating vehicle trips associated with the Lillian Commons Project from the 2020 IS/MND. The Noise Assessment then determined traffic noise level increases that could occur under Existing Baseline Plus Project conditions from the net increase of 134,600 sf of non-residential medical uses proposed by the project. The proposed project's contribution to the overall traffic noise increase was calculated by comparing the Existing Baseline Plus Project volumes to the existing baseline volumes.

In addition, the Noise Assessment incorporated estimates of vehicle trips that were prepared as part of the City's General Plan and determined noise level increases that could occur under 2035 General Plan Plus Project conditions through calculating noise levels associated with the net increase of 134,600 sf of non-residential medical uses proposed by the project.

On-Site Circulation and Parking Noise

On-site circulation and parking noise would consist of vehicle-generated noise associated with the medium-sized parking lots located between Buildings 1 and 2, between Buildings 2 and 3, and to the west and north of the proposed parking structure. Noise sources generated at parking lots would include vehicle circulation, engine starts, door slams, human voices, and occasional car alarms. Pursuant to the Noise Assessment, the sound of slow-moving vehicles, engines starting, doors closing, and people talking in the parking lot would be expected to reach maximum levels of 50 to 60 dBA L_{max} at a distance of 50 feet. Additionally, I&R previously made

measurements outside a parking garage of similar size to the proposed garage. At a distance of 50 feet from the parking garage façade, noise levels ranged from 57 to 62 dBA.

On-Site Truck Delivery Noise

While medical office buildings would not have regular truck deliveries, Building 2 could potentially include a retail/restaurant/pharmacy commercial component that would require regular truck deliveries. According to the Noise Assessment, a pharmacy would have one to two deliveries daily, while a retail/restaurant use would likely have one delivery a week. Medium trucks, which are expected for buildings such as the potential commercial uses, typically generate noise levels ranging from 60 to 65 dBA at a distance of 50 feet. Low-speed truck noise results from a combination of engine, exhaust, and tire noise, as well as the intermittent sounds of back-up alarms and releases of compressed air associated with truck/trailer air brakes. The noise levels produced by backup alarms can vary depending on the type and direction of the sound. Maximum noise levels are typically between 65 to 75 dBA L_{max} at 50 feet. Assuming one to two deliveries each hour, the Noise Assessment found that hourly average noise levels would range from 59 to 62 dBA L_{eq} at 50 feet. Assuming three deliveries during daytime hours, the day-night average noise level would be 50 dBA L_{dn} at 50 feet.

Ambulance Siren Noise

While the specific medical uses of the proposed buildings are not yet confirmed, a hospital could potentially be included at the project site at Building 2 or Building 3. If either building is used as a hospital accepting emergencies, ambulances with emergency sirens could access the site. To provide a conservative analysis, the Noise Assessment assumed one of the proposed buildings would include hospital uses.

Mechanical Equipment Noise

A ground-level transformer would be located along the southern façade of Building 2, which would be located within the center of the project site, west of the proposed parking structure. In addition, an emergency generator would be located on the ground level of either Building 2 or Building 3, which is located immediately west of US-101. To provide a conservative analysis, the emergency generator is assumed to be located along the eastern façade of Building 2.

Typically, transformers up to 1,000 kilo-volt-amperes (kVA) generate noise levels up to 64 dB, as measured at one meter (3.28 feet). Assuming the transformer runs continuously during daytime and nighttime hours, the Noise Assessment determined that the hourly average noise levels would be 64 dBA L_{eq}, and the DNL would be 70 dBA L_{dn}. An enclosed 450-kilowatt (kW) emergency generator would generate up to 88 dBA with a standard weather enclosure, up to 85 dBA with a Level 1 sound enclosure, and up to 74 dBA with a Level 2 sound enclosure, as measured at a distance of seven meters (23 feet).

Each of the proposed medical office buildings would have heating, ventilation, and air condition (HVAC) units on the rooftop. A hospital building would also likely include chillers and heat pumps on the rooftop. According to the Noise Assessment, a typical chiller for a hospital would generate noise levels up to 71 dBA at 50 feet. Typical heat pumps would generate noise levels ranging from 56 to 66 dBA at a distance of three feet. With 10 heating units operating continuously each hour in a 24-hour period, the Noise Assessment concluded that hourly average noise levels would be up to 52 dBA L_{eq} at 50 feet, and the DNL would be 58 dBA L_{dn} at 50 feet. With the inclusion of the chiller operating continuously each hour in a 24-hour period, hourly average noise levels

would be up to 71 dBA L_{eq} at 50 feet, and the day-night average noise level would be 78 dBA L_{dn} at 50 feet.

Project-Specific Impacts and Mitigation Measures

The following discussion of impacts related to noise and vibration is based on implementation of the proposed project in comparison with the baseline and standards of significance identified above.

4.2-1 Generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below and similar to the 2020 IS/MND, with implementation of mitigation, the impact is *less than significant.*

During project construction, heavy equipment would be used for grading, excavation, paving, and building construction, all of which would increase ambient noise levels in the project vicinity when in use. Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive receptors. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Construction activities for individual projects are typically carried out in phases. During each phase of construction, a different mix of equipment would be operating. Consequently, noise levels would vary by phase and vary within phases, based on the amount of equipment in operation and the location at which the equipment is operating. The typical range of maximum instantaneous noise levels for the proposed project would be 70 to 90 dBA L_{max} at a distance of 50 feet from the equipment (see Table 4.2-6). In addition, Table 4.2-7 shows the hourly average noise level ranges typical for various types of projects by construction phase.

Hourly average noise levels generated by construction would be approximately 75 to 89 dBA L_{eq} for medical office buildings and approximately 72 to 89 dBA L_{eq} for parking structures, when measured at a distance of 50 feet from the center of a busy construction site. Construction-generated noise levels drop off at a rate of about 6.0 dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain often results in lower construction noise levels at distant receptors.

The 2020 IS/MND evaluated the potential for the Lillian Commons Project to result in generation of a substantial temporary increase in ambient noise levels under Impact NOI-1 and concluded that, with implementation of Mitigation Measure NOI-1.1, a less-than-significant impact would occur. As discussed therein, the Lillian Commons Project was anticipated to be constructed in three phrases, starting in January 2021 and lasting until August 2024.

Table 4.2-6
Construction Equipment, 50-foot Noise Emission Limits

Equipment Category	L_{max} Level (dBA)[1,2]
Arc Welder	73
Auger Drill Rig	85
Backhoe	80
Bar Bender	80
Boring Jack Power Unit	80
Chain Saw	85
Compressor[3]	70
Compressor (Other)	80
Concrete Mixer	85
Concrete Pump	82
Concrete Saw	90
Concrete Vibrator	80
Crane	85
Dozer	85
Excavator	85
Front End Loader	80
Generator	82
Generator (25 kVA or less)	70
Gradall	85
Grader	85
Grinder Saw	85
Horizontal Boring Hydro Jack	80
Hydra Break Ram	90
Impact Pile Driver	105
Insitu Soil Sampling Rig	84
Jackhammer	85
Mounted Impact Hammer (Hoe Ram)	90
Paver	85
Pneumatic Tools	85
Pumps	77
Rock Drill	85
Scraper	85
Slurry Trenching Machine	82
Soil Mix Drill Rig	80
Street Sweeper	80
Tractor	84
Truck (Dump, Delivery)	84
Vacuum Excavator Truck (Vac-Truck)	85
Vibratory Compactor	80
Vibratory Pile Driver	95
All Other Equipment With Engines Larger Than 5 Horsepower	85

1 Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.
2 Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.
3 Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

Source: Illingworth & Rodkin, Inc. 2023.

Table 4.2-7
Typical Ranges of Construction Noise Levels at 50 feet, L_{eq} (dBA)

	Housing		Office Building and Hospital		Parking Garage		Infrastructure and Roads	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Construction	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I – All pertinent equipment present at site.
II – Minimum required equipment present at site.

Source: Illingworth & Rodkin, Inc., 2023.

Depending on the construction phasing for each parcel associated with the Lillian Commons Project, the 2020 IS/MND found that on-site project buildings could have potentially provided shielding for the existing residences in the project vicinity. Nonetheless, under a worst-case scenario that does not include shielding to attenuate on-site construction noise, the 2020 IS/MND concluded that construction noise levels at existing receptors in the project vicinity would exceed 60 dBA L_{eq} and potentially exceed ambient noise levels by more than 5.0 dBA L_{eq} for a period of approximately 3.5 years.

Although construction activities were reasonably assumed to occur within the allowable hours set forth by Morgan Hill Municipal Code Section 8.28.040, the foregoing noise levels would have conflicted with the 60 dBA L_{eq} standard applied for assessing temporary construction noise in the 2020 IS/MND, as well as the criterion of construction noise levels exceeding existing ambient noise levels by 5.0 dBA L_{eq} or more for longer than one year. Thus, the 2020 IS/MND required Mitigation Measure NOI-1.1, which required development and implementation of a Noise Construction Control Plan that would feature control measures including, but not limited to, use of temporary power service over portable generators, construction of temporary noise barriers, substituting nail guns for manual hammering, and closing windows during interior construction.

With respect to the currently proposed project, the Noise Assessment found that the project would similarly be constructed over three phases, albeit over a timeframe approximately one year longer than what was anticipated for the Lillian Commons Project's non-residential component. Table 4.2-8 summarizes the estimated noise levels for each phase of construction during Phase 1 using the source levels shown in Table 4.2-7 propagated to the receiving property lines of all receptors with direct exposure to construction activities. Because demolition, grading, and paving would be completed for the entire project site in Phase 1, distances for the ground-clearing and excavation phases were estimated from the center of the nearest proposed building to the receiving property lines of the receptors, while distances for the foundation, building construction, and finishing phases of Phase 1 were estimated from the center

of Building 1 or the parking structure to the receiving property line, whichever was closer to the receptor.

Table 4.2-8
Estimated Construction Noise Levels at Property Lines of Surrounding Land Uses During Phase 1

Proposed Project Construction	Estimated Noise Levels at Nearby Land Uses, dBA L_{eq}		
	West Residences (180 feet[a])	South Residence (845 feet[b])	East Hotel & Commercial (530 feet[c] and 855 feet[b])
Ground Clearing	73[a]	59[b]	64[c]
Excavation	68 to 78[a]	54 to 64[b]	59 to 69[c]
Foundations	67[a]	52[b]	52[b]
Construction	64 to 76[a]	47 to 59[b]	47 to 59[b]
Finishing	64 to 78[a]	49 to 64[b]	49 to 64[b]

[a] Noise levels were calculated at a distance measured from the center of Building 1.
[b] Noise levels were calculated at a distance measured from the center of the parking garage.
[c] Noise levels were calculated at a distance measured from the center of Building 3.

Source: Illingworth & Rodkin, Inc., 2023.

The existing single-family residences and Barrett Elementary School to the north of the project site, across Barrett Avenue, would be well-shielded from all project construction activities by the Rosewood residences, which are under construction. As such, the northerly existing receptors would not be considered receptors with direct line-of-sight to the project site. Additionally, Building 1 and the proposed parking structure would be completed in Phase 1; therefore, the existing single-family residences to the west and south of the project site would be shielded from Phase 2 and 3 construction activities. Table 4.2-9 and Table 4.2-10 summarize the estimated noise levels for foundation, construction, and finishing activities during Phases 2 and 3, respectively, as measured from the center of the respective building to the receiving property lines. Because Building 1 and the proposed parking garage would provide shielding for the existing single-family residences to the west and south, a conservative 20 dBA attenuation was applied to all noise levels for the aforementioned receptors.

Table 4.2-9
Estimated Construction Noise Levels at Property Lines of Surrounding Land Uses During Phase 2

Proposed Project Construction	Estimated Noise Levels at Nearby Land Uses, dBA L_{eq}		
	West Residences (460 feet[a])	South Residence (1,135 feet[a])	East Hotel & Commercial (800 feet[a])
Foundations	39[a,b]	31[a,b]	54[a]
Construction	36 to 48[a,b]	28 to 40[a,b]	51 to 63[a]
Finishing	36 to 50[a,b]	28 to 42[a,b]	51 to 65[a]

[a] Noise levels were calculated at a distance measured from the center of Building 2.
[b] Conservative 20 dBA attenuation applied to noise levels due to shielding provided by Building 1 and the parking garage.

Source: Illingworth & Rodkin, Inc., 2023.

Table 4.2-10
Estimated Construction Noise Levels at Property Lines of Surrounding Land Uses During Phase 3

Proposed Project Construction	Estimated Noise Levels at Nearby Land Uses, dBA L_{eq}		
	West Residences (720 feet[a])	South Residence (1,220 feet[a])	East Hotel & Commercial (530 feet[a])
Foundations	35[a,b]	30[a,b]	58[a]
Construction	32 to 44[a,b]	27 to 39[a,b]	55 to 67[a]
Finishing	32 to 46[a,b]	27 to 41[a,b]	55 to 69[a]

[a] Noise levels were calculated at a distance measured from the center of Building 2.
[b] Conservative 20 dBA attenuation applied to noise levels due to shielding provided by Building 1 and the parking garage.

Source: Illingworth & Rodkin, Inc., 2023.

As shown in Table 4.2-8 through Table 4.2-10, when construction activities occur near the center of the project site, construction noise levels would range from 32 to 78 dBA L_{eq} at the existing off-site residences to the west of the project site, from 27 to 64 dBA L_{eq} at the existing single-family residence south of the site, and from 47 to 69 dBA L_{eq} at the hotel and commercial uses east of US-101. However, the existing off-site sensitive receptors (i.e., residences to the west and south of the project site) would be exposed to construction noise levels exceeding the 60 dBA L_{eq} threshold only during Phase 1, as well as to noise levels exceeding 5.0 dBA L_{eq} over existing noise levels only during Phase 1. In addition, the proposed project would not result in construction noise levels higher than those calculated for the Lillian Commons Project. Furthermore, the currently proposed project would exceed the applied thresholds for a shorter period of time relative to noise levels generated by construction of the Lillian Commons Project's non-residential component, as the Noise Assessment determined that construction of the previously approved non-residential uses would have exceeded the applicable noise level thresholds for an estimated 28 months, whereas the current project would exceed the noise level thresholds for an estimated total of 15 months. Additionally, Policy NOI-1.8 requires all phases of construction activity to use reasonable noise reduction measures to minimize the exposure of neighboring properties to excessive noise levels and comply with the City's noise ordinance. In addition, as previously discussed, Morgan Hill Municipal Code Section 8.28.040 requires construction activities to be limited to between 7:00 AM and 8:00 PM on weekdays, and between 9:00 AM and 6:00 PM on Saturdays. Construction activity is not permitted on Sundays or federal holidays. Finally, all gasoline-powered construction equipment must be equipped with an operating muffler or baffling systems as originally provided by the manufacturer, and modification to the systems is not permitted. To ensure the currently proposed project complies with the aforementioned regulations, Mitigation Measure NOI-1.1 from the 2020 IS/MND, as modified in this SEIR, would be required.

Based on the above, construction-related noise associated with the proposed project could be considered to result in generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies, and impacts would be considered ***significant***.

Applicable Mitigation Measure(s) from the 2020 IS/MND

None applicable.

Modified Mitigation Measure(s)

Mitigation Measure NOI-1.1 from the 2020 IS/MND requires preparation and implementation of a Noise Construction Control Plan that incorporates noise control best management practices to address the predicted exceedance of the applicable construction noise level threshold. Thus, the mitigation measure is still applicable to the proposed project. Minor modifications to Mitigation Measure NOI-1.1, which clarify the timing of the mitigation measure, as well as establish specific requirements for temporary noise barrier heights, are shown in ~~strikethrough~~ and double-underline. Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

NOI-1.1 ~~*Develop a noise construction control plan including but not limited to*~~ *Prior to issuance of a grading permit for Phase 1 of the proposed project, the project applicant shall prepare a Noise Construction Control Plan that includes, but is not necessarily limited to, the following construction best management control practices:*

- *Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds);*
- *Impact tools (e.g., jackhammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools; and*
- *Stationary noise sources shall be located as far from noise-sensitive receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or include other measures.*
- *Construct temporary noise barriers, where feasible, to screen stationary noise-generating equipment. ~~Temporary noise barrier fences would provide a 5 dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receptor and if the barrier is constructed in a manner that eliminates any cracks or gaps.~~ A temporary noise barrier with a height of eight feet would provide a minimum 6.0 dBA noise reduction for the residences to the north and to the west of the project site when construction activities occur at the ground level if the barrier is constructed in a manner that eliminates any cracks or gaps.*
- *Unnecessary idling of internal combustion engines should be strictly prohibited.*
- *Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction. Locate material*

stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.

- *Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.*
- *Where feasible, temporary power service from local utility companies should be used instead of portable generators.*
- *Locate cranes as far from noise-sensitive receptors as possible.*
- *During final grading, substitute graders for bulldozers, where feasible. Wheeled heavy equipment are quieter than track equipment and should be used where feasible.*
- *Substitute nail guns for manual hammering, where feasible.*
- *Avoid the use of circular saws, miter/chop saws, and radial arm saws near the adjoining noise-sensitive receptors. Where feasible, shield saws with a solid screen with material having a minimum surface density of two pounds per square foot (e.g., such as 0.75-inch plywood).*
- *Maintain smooth vehicle pathways for trucks and equipment accessing the site, and avoid local residential neighborhoods as much as possible.*
- *During interior construction, the exterior windows facing noise-sensitive receptors should be closed.*
- *During interior construction, locate noise-generating equipment within the building to break the line-of-sight to the adjoining receptors.*
- *The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.*
- *Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.*

The Noise Construction Control Plan shall be submitted for review and approval of the Development Services Director and the Morgan Hill Development Services Department.

New Mitigation Measure(s)

None required.

4.2-2 Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Based on the analysis below and similar to the 2020 IS/MND, with implementation of mitigation, the impact is *less-than-significant.*

Noise sources associated with operation of the proposed project would consist of traffic noise and noise associated with on-site parking and circulation, truck loading and unloading, ambulance siren noise, and mechanical equipment. The noise generated by each of the aforementioned components could result in impacts to existing noise-sensitive receptors in the project vicinity. Each of the foregoing noise sources is discussed in further detail below.

This chapter does not consider exposure of future residents of the Rosewood residences to potential noise or vibration effects associated with the existing and post-construction noise environment, given that such an analysis is not required pursuant to CEQA. CEQA is focused on the proposed project's effects on the surrounding physical environment. The Rosewood residences are located on Parcel C of the approved Planed Development (PD) Master Plan for the Lillian Commons Project, and thus, are a part of the overall project area covered in the PD Master Plan. The potential noise effects upon these residences, which could result from the proposed non-residential uses, will be addressed separately by the City during their planning review of the proposed project to ensure that the noise levels experienced at these future residences would be in compliance with General Plan noise level standards.

Traffic Noise at Existing Noise-Sensitive Receptors

The 2020 IS/MND evaluated the potential for the Lillian Commons Project to result in a substantial increase in ambient noise levels due to project-generated traffic under Impact NOI-1 and concluded that a less-than-significant impact would occur. As discussed therein, the traffic noise increase was determined to be 2.0 dBA L_{dn} or less along each roadway segment in the project vicinity. As such, the 2020 IS/MND concluded that project-generated traffic would not result in a substantial permanent increase in ambient noise levels at noise-sensitive receptors.

With respect to the currently proposed project, using the methodology described in the Method of Analysis section above, the Noise Assessment found that noise level increases due to project-generated (net) traffic would result in a 1.0 dBA L_{dn} or less increase along all roadway segments in the project vicinity, as summarized in Table 4.2-11.

As shown in Table 4.2-11, the 1.0 dBA L_{dn} increase to the existing ambient noise environment from project-generated traffic would be less than the 2.0 to 3.0 dBA L_{dn} increase to ambient noise levels previously anticipated for the Lillian Commons Project. Additionally, as previously discussed, the applicable threshold in this chapter is if project-generated traffic would result in an increase to existing ambient levels of 3.0 dBA L_{dn}. Given that an increase of 1.0 dBA L_{dn} or less would occur to existing ambient noise levels as a result of the proposed project, the project would result in a less-than-significant impact.

Table 4.2-11
Estimated Noise Level Increases Under Existing Baseline Plus Project Conditions Compared to Existing Baseline Conditions

Roadway	Segment	Estimated Noise Level Increase, dBA L_{dn}
Tennant Avenue/ Edmunson Avenue	West of Monterey Road	0
	Monterey Road to Vineyard Avenue	0
	Vineyard Avenue to Butterfield Boulevard	0
	Butterfield Boulevard to Juan Hernandez Drive	0
	Juan Hernandez Drive to US-101 Southbound Ramps	1
	US-101 Southbound Ramps to US-101 Northbound Ramps	1
	US-101 Northbound Ramps to Condit Road	0
	East of Condit Road	0
St. James Drive	West of Juan Hernandez Drive	0
Barrett Avenue	West of Butterfield Boulevard	0
	Butterfield Boulevard to San Ramon Drive	0
	San Ramon Drive to Juan Hernandez Drive	0
	East of Juan Hernandez Drive	0
San Pedro Avenue	West of Butterfield Boulevard	0
	Butterfield Boulevard to Juan Hernandez Drive	0
	East of Juan Hernandez Drive	0
Dunne Avenue	West of Butterfield Boulevard	0
	Butterfield Boulevard to Walnut Grove Drive	0
	Walnut Grove Drive to US-101 Southbound Ramps	0
	US-101 Southbound Ramps to US-101 Northbound Ramps	0
	East of US-101 Northbound Ramps	0
Main Avenue	West of Butterfield Boulevard	0
	East of Butterfield Boulevard	0
Juan Hernandez Drive	Tennant Avenue to St. James Drive	1
	St. James Drive to Barrett Avenue	1
	North of Barrett Avenue	0
Monterey Road	South of Watsonville Road/Butterfield Boulevard	0
	Watsonville Road/Butterfield Boulevard to Tennant/Edmunson Avenue	0
	North of Tennant Avenue/Edmunson Avenue	0
Watsonville Road/ Butterfield Boulevard	West of Monterey Road	0
	Monterey Road to Tennant Avenue	0
	Tennant Avenue to Barrett Avenue	0
	Barrett Avenue to San Pedro Avenue	1
	San Pedro Avenue to Dunne Avenue	1
	Dunne Avenue to Main Avenue	0
	North of Main Avenue	0

(Continues on next page)

Table 4.2-11
Estimated Noise Level Increases Under Existing Baseline Plus Project Conditions Compared to Existing Baseline Conditions

Roadway	Segment	Estimated Noise Level Increase, dBA L_{dn}
Vineyard Avenue	South of Tennant Avenue	0
	North of Tennant Avenue	0
San Ramon Drive	South of Barrett Avenue	0
	North of Barrett Avenue	1
Walnut Grove Drive	South of Dunne Avenue	0
	North of Dunne Avenue	0
Condit Road	North of Tennant Avenue	1
US-101 Northbound On-Ramp	At Tennant Avenue	0
US-101 Northbound Off-Ramp	At Tennant Avenue	1
US-101 Northbound Ramps	At Dunne Avenue	0
US-101 Southbound On-Ramp	At Tennant Avenue	1
	At Dunne Avenue	0
US-101 Southbound Off-Ramp	At Tennant Avenue	0
	At Dunne Avenue	0

Source: Illingworth & Rodkin, Inc., 2023.

On-Site Parking and Circulation Noise at Existing Sensitive Receptors

The 2020 IS/MND evaluated the potential for the Lillian Commons Project to result in a substantial increase in ambient noise levels due to on-site parking and circulation noise under Impact NOI-1 and concluded that a less-than-significant impact would occur. As discussed therein, based on the direct line-of-sight to the previously proposed parking lots and a 135-foot distance between the center of the nearest on-site parking lot and the residences to the west, the 2020 IS/MND found that the existing single-family residences across Juan Hernandez Drive would experience noise levels of 59 dBA L_{dn} as a result of on-site parking and circulation noise. With respect to the noise receptors to the north, across Barrett Avenue, the 2020 IS/MND measured the existing residences as being 205 feet from the center of the nearest on-site parking lot, which would have resulted in a DNL at the residences of 54 dBA L_{dn} as a result of on-site parking and circulation noise. Finally, the southern residence would have been located approximately 820 feet from the center of the nearest Lillian Commons Project parking lot, which would have resulted in noise levels at the residence of 42 dBA L_{dn}. The aforementioned DNL noise levels generated as part of on-site parking and circulation noise would have been below the threshold of 60 dBA L_{dn}. Thus, the 2020 IS/MND concluded that project-generated parking and circulation noise would not

result in a substantial permanent increase in ambient noise levels at noise-sensitive receptors.

With respect to the currently proposed project, using the methodology described in the Method of Analysis section above, the Noise Assessment found that existing residences and Barrett Elementary School to the north of the project site, across Barrett Avenue, would be shielded from all parking lot noise generated at the project site by the Rosewood residences. Additionally, US-101, which lies between the project site and existing receptors to the east, would dominate the noise environment such that on-site parking lot and parking garage noise sources would not be audible at existing receptors east of the project site. However, the existing single-family residences to the west and south of the project site would be exposed to noise generated from the proposed parking garage and from the parking lot located west of the parking garage.

Table 4.2-12 summarizes the L_{eq} at the property lines of the existing residences to the west and south of the site due to the proposed on-site parking activities. Table 4.2-13 summarizes the L_{dn} and noise level increase at the aforementioned residences due to the proposed on-site parking and circulation activities. It should be noted that the Noise Assessment assumed maximum parking lot activities during each hour in a 24-hour period in order to provide a conservative analysis. While maximum parking lot activity during nighttime hours is unlikely at the project site, such assumptions would represent a worst-case scenario. Similarly, in order to calculate the worst-case maximum noise levels produced by the proposed project, the Noise Assessment did not assume attenuation would be provided.

Table 4.2-12
Estimated Parking Noise Sources, L_{eq}

Receptor	Municipal Code L_{eq} Threshold, (dBA[a])	Project Estimated Hourly Average Noise Levels, L_{eq}		
		Distance (feet)	L_{eq} (dBA)	Threshold Exceeded?
Parking Lot				
West Residences	60	240	46	No
South Residence	60	800	36	No
Parking Garage				
West Residences	60	370	44	No
South Residence	60	730	38	No

Notes:
[a] L_{eq} thresholds established by Table 18.76-1 of the City's Municipal Code.

Source: Illingworth & Rodkin, Inc., 2023.

As previously discussed, the applicable threshold in this chapter is if maximum noise levels would exceed 60 dBA at the property line of the nearest receptor. As shown in

Table 4.2-12, noise associated with the proposed parking lot and parking garage activities would not result in ambient noise levels at the property lines of the existing single-family residences to the west and south of the project site in excess of the 60 dBA standard. Additionally, as shown in Table 4.2-13, on-site parking lot and parking garage noise levels would not result in a 3.0 dBA L_{dn} noise level increase to the existing ambient noise environment at receptors to the west and south of the site, and therefore, would not exceed the applicable threshold for potential impacts related to increases to the existing ambient noise environment. Finally, L_{dn} noise levels associated with the proposed on-site parking lot and parking garage would be generally similar to the levels anticipated for on-site parking and circulation noise anticipated for the Lillian Commons Project. Thus, the proposed project would result in a less-than-significant impact.

Table 4.2-13
Estimated Parking Noise Sources, L_{dn}

Receptor	General Plan Increase L_{dn} Threshold, dBA[a]	Project-Generated L_{dn} for Parking Lot and Garage, dBA	Existing Plus Project, dBA L_{dn}[b]		
			L_{dn}, dBA	Noise Level Increase, L_{dn} dBA	Threshold Exceeded?
West Residences	3	55	67	0	No
South Residences	3	47	67	0	No

[a] Permanent noise level increase established by Policy SSI-8.5 of the City's General Plan.
[b] Existing Plus Project L_{dn} includes project-generated noise levels added to existing ambient L_{dn} to estimate noise level increase.

Source: Illingworth & Rodkin, Inc., 2023.

On-Site Truck Loading and Unloading Noise at Existing Noise-Sensitive Receptors

The 2020 IS/MND evaluated the potential for the Lillian Commons Project to result in a substantial increase in ambient noise levels due to on-site truck deliveries under Impact NOI-1 and concluded that a less-than-significant impact would occur. As discussed therein, the nearest residential property line to the nearest potential delivery area was approximately 100 feet to the west of the Lillian Commons Project site. Assuming deliveries would occur during one daytime hour in a 24-hour period, the DNL was determined to be 50 dBA L_{dn}. With ambient hourly average noise levels ranging from 60 to 67 dBA L_{eq} during daytime hours and a day-night average noise level of 67 dBA L_{dn}, the 2020 IS/MND concluded that the nearest residences would be exposed to delivery noise levels below ambient levels and below the 60 dBA threshold for residential land uses.

With respect to the currently proposed project, while the site plan is conceptual, truck loading and unloading activities are reasonably assumed to occur along the western façade of Building 2 in the southwestern corner. Therefore, the existing residences and school to the north of the project site, across Barett Avenue, as well as the westerly

existing residences and hotel and commercial uses across US-101, would be shielded from noise associated with truck loading and loading activities.

Table 4.2-14 summarizes the truck loading and unloading L_{eq} at the property line of the unshielded single-family residence to the south of the project site, across Tennant Avenue. Table 4.2-15 summarizes the L_{dn} and noise level increases due to truck loading and unloading activities from three daytime deliveries occurring in one 24-hour period. Attenuation from intervening structures was not assumed in order to provide a conservative analysis.

Table 4.2-14
Estimated Operational L_{eq} for Truck Loading and Unloading Activities at Building 2

Receptor	Municipal Code L_{eq} Threshold, dBA[a]	Distance from Center of the Loading Zone, feet	L_{eq}, dBA	Threshold Exceeded?
South Residence	60	1,025	33 to 36	No

[a] L_{eq} thresholds established by Table 18.76-1 of the City's Municipal Code.

Source: Illingworth & Rodkin, Inc., 2023.

Table 4.2-15
Estimated Operational L_{dn} for Truck Loading and Unloading Activities at Building 2

Receptor	General Plan Increase Threshold, dBA L_{dn}[a]	Project-Generated L_{dn} for Truck Loading and Unloading, dBA	Existing Plus Project, dBA L_{dn}[b]		
			L_{dn}, dBA	Noise Level Increase, dBA L_{dn}	Threshold Exceeded?
South Residence	3	24	67	0	No

[a] Permanent noise level increase established by Policy SSI-8.5 of the City's General Plan.
[b] Existing Plus Project L_{dn} includes project-generated noise levels added to existing ambient L_{dn} to estimate noise level increase.

Source: Illingworth & Rodkin, Inc., 2023.

As previously discussed, the applicable threshold in this chapter is if maximum noise levels would exceed 60 dBA at the property line of the nearest receptor. As shown in Table 4.2-14, truck loading and unloading noise associated with the proposed project would not exceed 60 dBA at the existing single-family residence to the south of the project site. In addition, as shown in Table 4.2-15, on-site truck loading and unloading noise levels would not result in a 3.0 dBA L_{dn} noise level increase to existing ambient noise levels at the southerly residence, and therefore, would not exceed the applicable threshold for potential impacts related to increases to the existing ambient noise environment. Finally, L_{eq} and L_{dn} noise levels associated with the on-site truck loading and unloading activities would be lower than the levels anticipated for truck loading

and unloading noise anticipated for the Lillian Commons Project. Thus, the proposed project would result in a less-than-significant impact.

On-Site Ambulance Siren Noise at Existing Noise-Sensitive Receptors

The 2020 IS/MND did not evaluate the potential for the Lillian Commons Project to result in a substantial increase in ambient noise levels due to on-site ambulance siren noise.

With respect to the currently proposed project, the Noise Assessment determined that sirens would generally be infrequent and intermittent. In addition, pursuant to Morgan Hill Municipal Code Chapter 8.28.030, noise from ambulance sirens would be exempt from all noise level standards. Furthermore, sirens are typically only used near intersections or where needed in congested traffic situations, given that ambulances generally arrive at hospitals with lights on and sirens off. Therefore, ambulance siren noise would not result in a substantial increase to the existing ambient noise environment at existing receptors in the project vicinity, and the project would result in a less-than-significant impact.

Mechanical Equipment Noise at Existing Noise-Sensitive Receptors

The 2020 IS/MND evaluated the potential for the Lillian Commons Project to result in a substantial increase in ambient noise levels due to mechanical equipment under Impact NOI-1 and concluded that, with implementation of Mitigation Measure NOI-2.1, a less-than-significant impact would occur. As discussed therein, rooftop mechanical equipment, which was estimated to be located approximately 400 feet from the nearest single-family residence with direct exposure (i.e., without intervening buildings to provide shielding), would generate a DNL noise level of 55 dBA L_{dn}, assuming that the equipment would operate continuously during daytime and nighttime hours. The 55 dBA L_{dn} noise level was found to be below ambient noise levels of 60 to 67 dBA L_{eq} during daytime hours and 56 to 63 dBA L_{eq} during nighttime hours. As such, the 2020 IS/MND concluded the mechanical equipment associated with the Lillian Commons Project would not result in a substantial increase in ambient noise levels.

With respect to the emergency generator, the 2020 IS/MND determined that a 1,500-kW emergency generator would be used for the Lillian Commons Project and would result in 65 dBA at 50 feet from the generator, if noise-suppressing features are included. Based on the assumption that emergency generators are tested monthly for a period of one hour between 7:00 AM and 10:00 PM and assuming a worst-case scenario of direct exposure, the emergency generator was found to result in noise levels that could exceed the 60 dBA threshold, as well as increase existing ambient noise levels above allowable noise levels (see Table 4.13-8 of the 2020 IS/MND). Thus, the 2020 IS/MND set forth Mitigation Measure NOI-2.1, which required the inclusion of adequate noise-suppressing features to reduce potential noise impacts on surrounding receptors. It should be noted that analysis of transformer noise was not included in the 2020 IS/MND.

Finally, the 2020 IS/MND concluded that typical ventilation equipment under a worst-case scenario (i.e., atop the previously proposed restaurant building, which would have been 105 feet from the nearest residential property line) would generate 59 dBA L_{dn}, assuming 24-hour operations, which would have been below the ambient noise

levels of 60 to 67 dBA L_{eq} during daytime hours, 56 to 63 dBA L_{eq} during nighttime hours, and 67 dBA L_{dn} in the project vicinity. However, because the final design of the Lillian Commons Project had not yet been prepared, the 2020 IS/MND required as part of Mitigation Measure NOI-2.1 that a qualified acoustical consultant be retained to review mechanical equipment systems to determine if specific noise-reduction measures are necessary to comply with the City's noise regulations.

With respect to the currently proposed project, using the methodology described in the Method of Analysis section above and assuming a rooftop elevation of 64 feet and a minimum setback of 10 feet from the nearest edge of the building, the estimated attenuation for westerly receptors within 140 feet of the project site would be 13 dBA. The northerly existing residences and Barrett Elementary School, across Barrett Avenue, would be shielded from rooftop equipment noise by the proposed buildings. The existing residences to the west and south would be exposed to equipment noise only from the rooftop of Building 1 and would be shielded from noise generated at the other proposed medical buildings. The hotel and commercial buildings to the east of the project site, across US-101, would be exposed to equipment noise from the rooftop of Building 3 and would be shielded from noise generated at the other medical buildings.

The estimated operational L_{eq} and L_{dn} noise levels for the proposed rooftop mechanical equipment are summarized in Table 4.2-16 and Table 4.2-17, respectively. A conservative 13 dBA attenuation is assumed for applicable receptors, as shown in both tables. As detailed therein, operational L_{eq} due to rooftop equipment at all proposed medical buildings would not exceed the City's daytime thresholds of 60 dBA at residential land uses or 65 dBA at commercial land uses. Additionally, for all existing receptors, the noise level increase due to rooftop noise sources would not be measurable or detectable (0 dBA L_{dn} increase).

Furthermore, the L_{dn} associated with the proposed mechanical equipment would be lower than the 55 dBA L_{dn} noise level determined by the 2020 IS/MND for mechanical equipment associated with the Lillian Commons Project. Nevertheless, similar to the analysis of the Lillian Commons Project, the final design of the currently proposed project has not yet been prepared. Therefore, to ensure that the final design and location of the proposed rooftop mechanical equipment complies with the noise regulations set forth by Morgan Hill Municipal Code Section 18.76.090 and Policy SSI-8.5 of the City's General Plan, the proposed project would be subject to Mitigation Measure NOI-2.1.

With respect to the proposed transformer and generator, using the methodology described in the Method of Analysis section above and assuming that the transformer would be located along the southern façade of Building 2, near the southeastern corner of the building, the Noise Assessment concluded that existing noise receptors to the north, south, and east in the project vicinity would be shielded from transformer noise generated at the project site. The westerly residences, across Juan Hernandez Drive, would be partially shielded. Therefore, the Noise Assessment applied a conservative 5 dBA attenuation.

Table 4.2-16
Estimated Operational L_{eq} for Rooftop Mechanical Equipment Sources

Project Building	Receptors	Project Estimated Hourly Average Noise Levels, L_{eq}			
		Municipal Code L_{eq} Threshold, dBA[a]	Distance from Equipment, feet	L_{eq}, dBA	Threshold Exceeded?
Building 1	West Residences	60	125	31[b]	No
	South Residence	60	965	26	No
Building 3	East Hotel and Commercial	65	465	32	No
Combined	West Residences	60	--	31	No
	South Residence	60	--	26	No
	East Hotel and Commercial	65	--	32	No

[a] L_{eq} thresholds established by Table 18.76-1 of the City's Municipal Code.
[b] Conservative 13 dBA attenuation assumed for rooftop mechanical equipment due to elevation of the rooftop above the ground.

Source: Illingworth & Rodkin, Inc., 2023.

Table 4.2-17
Estimated Operational L_{dn} for Rooftop Mechanical Equipment Sources

Project Building	Receptors	General Plan Increase L_{dn} Threshold, dBA[a]	Project-Generated L_{dn} for the Rooftop Equipment, dBA	Existing Plus Project, dBA L_{dn}[b]		
				L_{dn}, dBA	Noise Level L_{dn} Increase, dBA	Threshold Exceeded?
Building 1	West Residences	3	37[c]	67	0	No
	South Residence	3	32	67	0	No
Building 3	East Hotel and Commercial	3	39	83	0	No
Combined	West Residences	3	37	67	0	No
	South Residence	3	32	67	0	No
	East Hotel and Commercial	3	39	83	0	No

[a] Permanent noise level increase established by Policy SSI-8.5 of the City's General Plan.
[b] Existing Plus Project L_{dn} includes project-generated noise levels added to existing ambient L_{dn} to estimate noise level increase.
[c] Conservative 13 dBA attenuation assumed for rooftop mechanical equipment due to elevation of the rooftop above the ground.

Source: Illingworth & Rodkin, Inc., 2023.

Similar to the assumptions contained in the 2020 IS/MND, the Noise Assessment concluded that testing of the emergency generator would occur each month for a period of one hour between 7:00 AM and 10:00 PM. Assuming that the emergency generator would be located along the eastern façade of Building 2 near the southeastern corner of the building, the Noise Assessment found that all existing sensitive receptors in the project vicinity would be shielded from emergency generator noise generated at the project site.

The L_{eq} and L_{dn} noise levels resulting from the project's transformer and emergency generator equipment at the closest receptors are summarized in Table 4.2-18 and Table 4.2-19, respectively. As shown therein, operational L_{eq} due to transformer noise would not exceed the City's thresholds at the property lines of the surrounding land uses and receptors in the project vicinity would be shielded from emergency generator noise. In addition, for all existing receptors, the noise level increase from existing conditions due to transformer and emergency generator noise would not be measurable or detectable (0 dBA L_{dn} increase). In addition, the combined L_{dn} associated with the proposed transformer and emergency generator equipment would be lower than the noise levels determined by the 2020 IS/MND for the generator associated with the Lillian Commons Project (see Table 4.13-8 of the 2020 IS/MND).

Nonetheless, because the final design of the currently proposed project has not yet been prepared, the proposed project would be subject to Mitigation Measure NOI-2.1 to ensure that a qualified acoustical consultant is retained to review the proposed mechanical equipment systems, including the emergency generator and transformer, to confirm if specific noise-reduction measures are necessary.

Total Combined On-Site Noise at Existing Noise-Sensitive Receptors

The 2020 IS/MND did not evaluate the potential for the Lillian Commons Project to result in a substantial increase in ambient noise levels due to combined on-site project operational noise.

With respect to the currently proposed project, the Noise Assessment concluded that combined operational noise levels generated by the proposed project would result in an increase of less than 3.0 dBA L_{dn} at all existing noise-sensitive receptors in the project vicinity. However, as previously discussed, because the final design of the proposed project has not yet been prepared, the proposed project would still be subject to Mitigation Measure NOI-2.1, which would ensure that the final design and location of the proposed mechanical equipment systems are reviewed by a qualified acoustical consultant prior to completion of the project's final design.

The consultant would also determine if specific noise-reduction measures are necessary to ensure that sensitive receptors adjacent to the project site are not subject to potential mechanical noise impacts.

Conclusion

Based on the above, the proposed project could result in the generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Therefore, a ***significant*** impact could occur.

Table 4.2-18
Estimated Operational L_{eq} for Ground-Level Mechanical Equipment Sources

Receptor	Municipal Code L_{eq} Threshold, dBA[a]	Project Estimated Hourly Average Noise Levels, L_{eq}					
		Transformer			Emergency Generator		
		Distance, feet	L_{eq}, dBA	Threshold Exceeded?	Distance, feet	L_{eq}, dBA	Threshold Exceeded?
West Residences	60	510	<20[b]	No	--	--	No

[a] L_{eq} thresholds established by Table 18.76-1 of the City's Municipal Code.
[b] Conservative 5 dBA attenuation assumed for partial shielding from intervening project buildings.

Source: Illingworth & Rodkin, Inc., 2023.

Table 4.2-19
Estimated Operational L_{dn} for Ground-Level Mechanical Equipment Sources

Receptor	General Plan Increase L_{dn} Threshold, dBA[a]	Project-Generated L_{dn} for Transformer and Emergency Generator, dBA	Existing Plus Project, dBA L_{dn}[b]		
			L_{dn}, dBA	Noise Level L_{dn} Increase, dBA	Threshold Exceeded?
West Residences	3	22[c]	67	0	No

[a] Permanent noise level increase established by Policy SSI-8.5 of the City's General Plan.
[b] Existing Plus Project L_{dn} includes project-generated noise levels added to existing ambient L_{dn} to estimate noise level increase.
[c] Conservative 5 dBA attenuation assumed for partial shielding from intervening project buildings.

Source: Illingworth & Rodkin, Inc., 2023.

Applicable Mitigation Measure(s) from the 2020 IS/MND

None applicable.

Modified Mitigation Measure(s)

Mitigation Measure NOI-2.1 from the 2020 IS/MND requires an acoustical consultant to review mechanical equipment systems. Thus, the mitigation measure is still applicable to the proposed project. Minor modifications to Mitigation Measure NOI-2.1, which clarify that the location of the proposed transformer would also be required to be reviewed, are shown in ~~strikethrough~~ and double-underline. Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

NOI-2.1 *A qualified acoustical consultant shall be retained to review mechanical equipment systems during final design of the proposed project. The consultant shall review selected equipment, including the emergency generator and transformer, and determine specific noise reduction measures necessary to reduce noise to comply with the City's noise level requirements. Prior to issuance of building permits for the project, the emergency generator and transformer must be selected and approved by the City of Morgan Hill Planning Division. The generator and transformer shall include adequate noise suppressing features to reduce impacts on surrounding land uses to meet the City's exterior and interior noise level requirements of 60 dBA.*

New Mitigation Measure(s)

None required.

4.2-3 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels. Based on the analysis below and similar to the 2020 IS/MND, the impact is *less than significant*.

Due to the medical office uses proposed as part of the project, project operations are not expected to involve any activities that would generate significant amounts of groundborne noise or vibration. Therefore, the only source of vibration associated with the proposed project would occur during project construction. Construction of the proposed project may generate vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. Construction activities would include grading, foundation work, paving, and new building framing and finishing. According to the Noise Assessment, impact or vibratory pile driving activities, which can cause excessive vibration, are not expected for the proposed project.

Table 4.2-20 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet and summarizes the distances to the 0.3 in/sec PPV threshold for all conventional buildings. The potential groundborne vibration impacts on existing structures in the project vicinity are discussed further below.

Table 4.2-20
Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 feet (in/sec)	Minimum Distance to Meet 0.3 in/sec PPV (feet)
Clam Shovel Drop		0.202	18
Hydromill (Slurry Wall)	In Soil	0.008	1
	In Rock	0.017	2
Vibratory Roller		0.210	19
Hoe Ram		0.089	9
Large Bulldozer		0.089	9
Caisson Drilling		0.089	9
Loaded Trucks		0.076	8
Jackhammer		0.035	4
Small Bulldozer		0.003	<1

Source: Illingworth & Rodkin, Inc., 2023.

The 2020 IS/MND evaluated the potential for the Lillian Commons Project to generate excessive groundborne vibration or groundborne noise levels under Impact NOI-2 and concluded that a less-than-significant impact would occur. As discussed therein, typical vibration levels from construction equipment at 60 feet, or the distance of the nearest residence to the Lillian Commons Project site, are below the 0.3 in/sec PPV threshold. As shown in Table 4.13-9 of the 2020 IS/MND, the strongest vibration level of equipment reasonably expected to be used as part of the Lillian Commons Project was concluded to be 0.080 in/sec PPV, which would have been below the applicable threshold at which a structure would be at risk of damage. Therefore, the 2020 IS/MND concluded that excessive groundborne vibration levels would not have occurred at existing receptors in the vicinity of the Lillian Commons Project site.

With respect to the currently proposed project, Table 4.2-21 summarizes the vibration levels that would occur at existing receptors to the north, east, south and west of the project site as a result of standard construction equipment that would be reasonably assumed to be used as part of project construction activities. As shown therein, project construction would not generate vibration levels at or exceeding the 0.3 in/sec PPV threshold at existing structures surrounding the project site.

Furthermore, groundborne vibration levels at the nearest existing structures in the project vicinity as a result of project construction would be less than the levels anticipated as part of construction activities associated with the Lillian Commons Project. Therefore, a less-than-significant impact would occur.

Conclusion

Based on the above, the proposed project would not result in the generation of excessive groundborne vibration or groundborne noise levels, and a ***less-than-significant*** impact would occur.

Table 4.2-21
Vibration Source Levels for Construction Equipment at Existing Receptors

Equipment		PPV at 25 feet (in/sec)	Estimated Vibration Levels at Structures Surrounding the Project Site, in/sec PPV			
			Existing North Residences and School (635 feet)	West Residences (85 feet)	South Residence (745 feet)	East Hotel and Commercial Uses (450 feet)
Clam Shovel Drop		0.202	0.006	0.053	0.005	0.006
Hydromill (Slurry Wall)	In Soil	0.000	0.000	0.002	0.000	0.000
	In Rock	0.000	0.000	0.004	0.000	0.001
Vibratory Roller		0.210	0.006	0.055	0.005	0.009
Hoe Ram		0.089	0.003	0.023	0.002	0.004
Large Bulldozer		0.089	0.003	0.023	0.002	0.004
Caisson Drilling		0.089	0.003	0.023	0.002	0.004
Loaded Trucks		0.076	0.002	0.020	0.002	0.003
Jackhammer		0.035	0.001	0.009	0.001	0.001
Small Bulldozer		0.003	0.000	0.001	0.000	0.000

Source: Illingworth & Rodkin, Inc., 2023.

Applicable Mitigation Measure(s) from the 2020 IS/MND
None applicable.

Modified Mitigation Measure(s)
None required.

New Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

As defined in Section 15355 of the CEQA Guidelines, "cumulative impacts" refers to two or more individual effects which, when considered together, are considerable, compound, or increase other environmental impacts. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. For further details related to the cumulative setting of the proposed project, refer to Chapter 5, Statutorily Required Sections, of this SEIR.

4.2-4 Generation of a substantial permanent increase in ambient noise levels associated with development of the proposed project in combination with cumulative development. Based on the analysis below, the project's incremental contribution to the significant cumulative impact is *less than cumulatively considerable*.

Future development projects within the Morgan Hill General Plan planning area, in combination with the proposed project, would incrementally affect the future cumulative ambient noise environment. A significant cumulative traffic noise increase would occur if the proposed project would make a cumulatively considerable contribution, which is defined as an increase of 1.0 dBA L_{dn} or more attributable solely to the proposed project.

Table 4.2-22 summarizes the estimated increases with and without the project by the year 2035, as well as the project's contribution to the overall traffic noise increase.

As shown in Table 4.2-22, the net new traffic associated with a net increase of 134,600 sf of medical office uses on the project site would not result in any incremental increase in traffic noise on the surrounding roadway network (see right hand column in the table below).

Based on the above, although cumulative buildout would result in a significant cumulative impact related to generation of a substantial permanent increase in ambient noise levels, the proposed project's contribution to the significant impact would be ***less than cumulatively considerable***.

Table 4.2-22
Noise Level Increases: 2035 General Plan and 2035 General Plan Plus Project Traffic Volumes Compared to Existing Baseline at Receptors in Project Vicinity

Roadway	Segment	Estimated Noise Level Increase, dBA L_{dn}		Project's Contribution to the Overall Noise Level Increase, dBA L_{dn}
		2035 General Plan	2035 General Plan Plus Project	
Tennant Avenue/Edmunson Avenue	West of Monterey Road	1	1	0
	Monterey Road to Vineyard Avenue	0	1	1
	Vineyard Avenue to Butterfield Boulevard	1	1	0
	Butterfield Boulevard to Juan Hernandez Drive	2	2	0
	Juan Hernandez Drive to US-101 Southbound Ramps	2	2	0
	US-101 Southbound Ramps to US-101 Northbound Ramps	2	2	0
	US-101 Northbound Ramps to Condit Road	3	3	0
	East of Condit Road	3	3	0
St. James Drive	West of Juan Hernandez Drive	0	0	0
Barrett Avenue	West of Butterfield Boulevard	0	0	0
	Butterfield Boulevard to San Ramon Drive	0	0	0
	San Ramon Drive to Juan Hernandez Drive	0	0	0
	East of Juan Hernandez Drive	0	0	0
San Pedro Avenue	West of Butterfield Boulevard	1	1	0
	Butterfield Boulevard to Juan Hernandez Drive	0	1	1
	East of Juan Hernandez Drive	1	2	1
Dunne Avenue	West of Butterfield Boulevard	1	1	0
	Butterfield Boulevard to Walnut Grove Drive	0	0	0
	Walnut Grove Drive to US-101 Southbound Ramps	0	0	0
	US 101 Southbound Ramps to US-101 Northbound Ramps	1	1	0
	East of US-101 Northbound Ramps	1	1	0
Main Avenue	West of Butterfield Boulevard	1	1	0
	East of Butterfield Boulevard	1	1	0

(Continues on next page)

Table 4.2-22
Noise Level Increases: 2035 General Plan and 2035 General Plan Plus Project Traffic Volumes Compared to Existing Baseline at Receptors in Project Vicinity

Roadway	Segment	Estimated Noise Level Increase, dBA L_{dn}		Project's Contribution to the Overall Noise Level Increase, dBA L_{dn}
		2035 General Plan	2035 General Plan Plus Project	
Juan Hernandez Drive	Tennant Avenue to St. James Drive	0	1	1
	St. James Drive to Barrett Avenue	0	2	2
	North of Barrett Avenue	3	3	0
Monterey Road	South of Watsonville Road/Butterfield Boulevard	1	1	0
	Watsonville Road/Butterfield Boulevard to Tennant/Edmunson Avenue	1	1	0
	North of Tennant Avenue/Edmunson Avenue	0	1	1
Watsonville Road/ Butterfield Boulevard	West of Monterey Road	1	1	0
	Monterey Road to Tennant Avenue	2	2	0
	Tennant Avenue to Barrett Avenue	1	1	0
	Barrett Avenue to San Pedro Avenue	1	1	0
	San Pedro Avenue to Dunne Avenue	1	1	0
	Dunne Avenue to Main Avenue	0	1	1
	North of Main Avenue	0	0	0
Vineyard Avenue	South of Tennant Avenue	0	0	0
	North of Tennant Avenue	1	1	0
San Ramon Drive	South of Barrett Avenue	2	2	0
	North of Barrett Avenue	0	0	0
Walnut Grove Drive	South of Dunne Avenue	0	0	0
	North of Dunne Avenue	0	0	0
Condit Road	North of Tennant Avenue	0	1	1
US-101 Northbound On-Ramp	At Tennant Avenue	0	0	0
US-101 Northbound Off-Ramp	At Tennant Avenue	0	0	0

(Continues on next page)

Table 4.2-22
Noise Level Increases: 2035 General Plan and 2035 General Plan Plus Project Traffic Volumes Compared to Existing Baseline at Receptors in Project Vicinity

Roadway	Segment	Estimated Noise Level Increase, dBA L_{dn}		Project's Contribution to the Overall Noise Level Increase, dBA L_{dn}
		2035 General Plan	2035 General Plan Plus Project	
US-101 Northbound Ramps	At Dunne Avenue	0	0	0
US-101 Southbound On-Ramp	At Tennant Avenue	0	0	0
	At Dunne Avenue	0	0	0
US-101 Southbound Off-Ramp	At Tennant Avenue	0	0	0
	At Dunne Avenue	0	0	0

Source: Illingworth & Rodkin, Inc., 2023.

Applicable Mitigation Measure(s) from the 2020 IS/MND

None applicable.

Modified Mitigation Measure(s)

None required.

New Mitigation Measure(s)

None required.

4.3. TRANSPORTATION

4.3. TRANSPORTATION

4.3.1 INTRODUCTION

Pursuant to CEQA Guidelines Section 15162, the Transportation chapter of this Subsequent Environmental Impact Report (SEIR) assesses whether the changes to the proposed project would result in a new significant impact not previously identified within the adopted 2020 Lillian Commons Medical Campus Initial Study/Mitigated Negative Declaration (2020 IS/MND), or a substantial increase in the severity of a significant impact previously identified in the 2020 IS/MND. The City of Morgan Hill is conducting the SEIR to analyze the proposed net increase of 134,600 square feet (sf) of medical office and additional parking garage uses to the Lillian Commons/Morgan Hill Medical Campus Project (Lillian Commons Project). For further details related to the proposed project, refer to Chapter 3, Project Description, of this SEIR.

The information contained within this chapter is primarily based on the Transportation Analysis prepared for the proposed project by Hexagon Transportation Consultants, Inc. (Hexagon) (see Appendix E of this EIR),[1] as well as the 2020 IS/MND, the City of Morgan Hill General Plan,[2] and the General Plan EIR.[3]

Pursuant to the CEQA Guidelines Section 15064.3, environmental documents must use vehicle miles traveled (VMT) rather than level of service (LOS) as the metric to analyze transportation impacts. Therefore, the analysis included in this chapter focuses on VMT. The State's requirement to transition from LOS to VMT is aimed at promoting infill development, public health through active transportation, and a reduction in greenhouse gas (GHG) emissions. However, an analysis of LOS will be provided in a separate project-specific report prepared by Hexagon, and will be used by the City in the project review process for determining consistency with General Plan goals and policies.

4.3.2 EXISTING ENVIRONMENTAL SETTING

The majority of the project site is currently undeveloped and contains ruderal (non-native) grasses. Two medical office buildings totaling 15,900 sf, as well as a paved surface parking lot and landscaping trees, occur on a 1.69-acre portion of the 9.61-acre project site. Since approval of the 2020 IS/MND, the project site has not been substantially altered. The section below describes the physical and operational characteristics of the existing transportation system within the study area, including the surrounding roadway network, transit, bicycle, and pedestrian facilities. With respect to CEQA Guidelines 15162 considerations, the roadways and transit, bicycle, and pedestrian facilities in the project vicinity have not changed since the 2020 IS/MND was approved.

Existing Roadways

The following sections provide a summary of the existing roadways within the project area.

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1 Hexagon Transportation Consultants, Inc. *Rosewood Medical Office Development Transportation Analysis.* November 10, 2023.
2 City of Morgan Hill. *2035 General Plan*. Adopted July 27, 2016.
3 City of Morgan Hill. *2035 General Plan Draft EIR*. Adopted January 13, 2016.

US-101

US-101 is a north-south freeway extending northward to San Francisco and southward through Gilroy. US-101 is an eight-lane freeway consisting of three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction north of Cochrane Road. South of Cochrane Road, US-101 is a six-lane freeway without HOV lanes. Access to and from the project area is provided by a full interchange at Tennant Avenue.

Tennant Avenue

Tennant Avenue is a four- to six-lane major arterial road. Tennant Avenue extends from Monterey Road eastward to the east foothills, terminating at a T-intersection with Carey Avenue. West of Monterey Road, Tennant Avenue changes designation to Edmunson Avenue. Tennant Avenue provides regional access to the project site via its full interchange with US-101.

Barrett Avenue

Barrett Avenue is an east-west, two-lane undivided roadway that extends from Railroad Avenue eastward to just west of US-101. East of US-101, Barrett Avenue continues eastward from west of Murphy Avenue to Trail Drive, in the east foothills, where it terminates. The posted speed limit on Barrett Avenue is 30 miles per hour (mph) and reduces to 25 mph in the vicinity of the Barrett Elementary School when children are present. Sidewalks on both sides of the street are found along Barrett Avenue, west of US-101, with the exception of two short segments along two undeveloped parcels located just east of Railroad Avenue. Sidewalks are not found along Barrett Avenue, east of US-101. Barrett Avenue is just north of the project site and would provide access to the project site via its intersection with Juan Hernandez Drive.

San Pedro Avenue

San Pedro Avenue is an east-west, two-lane undivided roadway that extends from Monterey Road eastward to just west of US-101, then continues again on the east side of US-101 to its terminus point at Hill Road. West of US-101, San Pedro Avenue has a posted speed limit of 35 mph. San Pedro Avenue would provide access to the project site via its intersections with Butterfield Boulevard and the future Juan Hernandez Drive extension.

Dunne Avenue

Dunne Avenue is classified in the City of Morgan Hill General Plan as a four-lane major arterial, with the exception of the two-lane arterial segment between Del Monte Avenue and Peak Avenue. Dunne Avenue transverses the City, extending from the east to the west, with a posted speed limit of 35 to 40 mph and sidewalks along both sides of the street. Bike lanes are found along both sides of Dunne Avenue between Peak Avenue and east of US-101. Dunne Avenue would provide access to the project site via its intersections with Butterfield Boulevard and Walnut Grove Avenue.

Monterey Road

Monterey Road is classified in the City of Morgan Hill General Plan as a four-lane major arterial that runs directly through Morgan Hill. Monterey Road extends from Market Street, in downtown San Jose, to US-101 south of the City of Gilroy. Monterey Road has posted speed limits ranging from 25 to 50 mph. Within the Morgan Hill downtown area (between Main Avenue and Dunne Avenue), sidewalks are present along both sides of the street. However, north and south of the downtown area, segments of sidewalks are missing along one or both sides of Monterey Road. The segment of Monterey Road between Main Avenue and Dunne Avenue is designated as a bike route (Class III facility), while the segments of Monterey Road north of Main Avenue and

south of Dunne Avenue currently provide bike lanes (Class II) along both sides of the street. Monterey Road would provide access to the project site via its intersections with Tennant Avenue and Butterfield Boulevard.

Butterfield Boulevard

Butterfield Boulevard is a north-south, four-lane divided arterial roadway that begins in the northern part of the City, at the intersection with Cochrane Road, and extends southward to its intersection with Monterey Road where the roadway changes designation to Watsonville Road. Butterfield Boulevard has a posted speed limit of 45 mph. Along with Monterey Road, Butterfield Boulevard serves as a primary north-south route within the City of Morgan Hill. Butterfield Boulevard is planned to be extended north of Cochrane Road as a two-lane arterial to connect to Madrone Parkway. Bike lanes are currently provided along the entire length of Butterfield Boulevard. Butterfield Boulevard would provide access to the project site via its intersections with Barrett Avenue and Tennant Avenue.

Juan Hernandez Drive

Juan Hernandez Drive is a two-lane, north-south undivided roadway that begins at Tennant Avenue and extends northward to north of San Vicente Drive where it currently terminates. Juan Hernandez Drive is planned to be extended northward from the current terminus point to connect to San Pedro Avenue. The posted speed limit on Juan Hernandez Drive is 35 mph and reduces to 25 mph in the vicinity of Barrett Elementary School when children are present. Juan Hernandez Drive has sidewalks on both sides of the street, with the exception of the west side of the street between Tennant Avenue and St. James Drive. Being the western project site boundary, Juan Hernandez Drive would provide direct access to the project site via two driveways.

Condit Road

Condit Road is a two-lane, north-south undivided roadway that extends from Tennant Avenue northward to Half Road (north of Main Street) where Condit Road currently terminates. Condit Road runs parallel to and east of US-101, with a posted speed limit of 45 mph. Condit Road would provide access to the project site via its intersection with Tennant Avenue.

St. James Drive

St. James Drive functions as a two-lane, east-west local roadway, serving as an access route for the residential community located to the west of the project site. The proposed project includes the construction of a new east approach at the Juan Hernandez Drive/St. James Drive intersection, which would provide direct access to the project site.

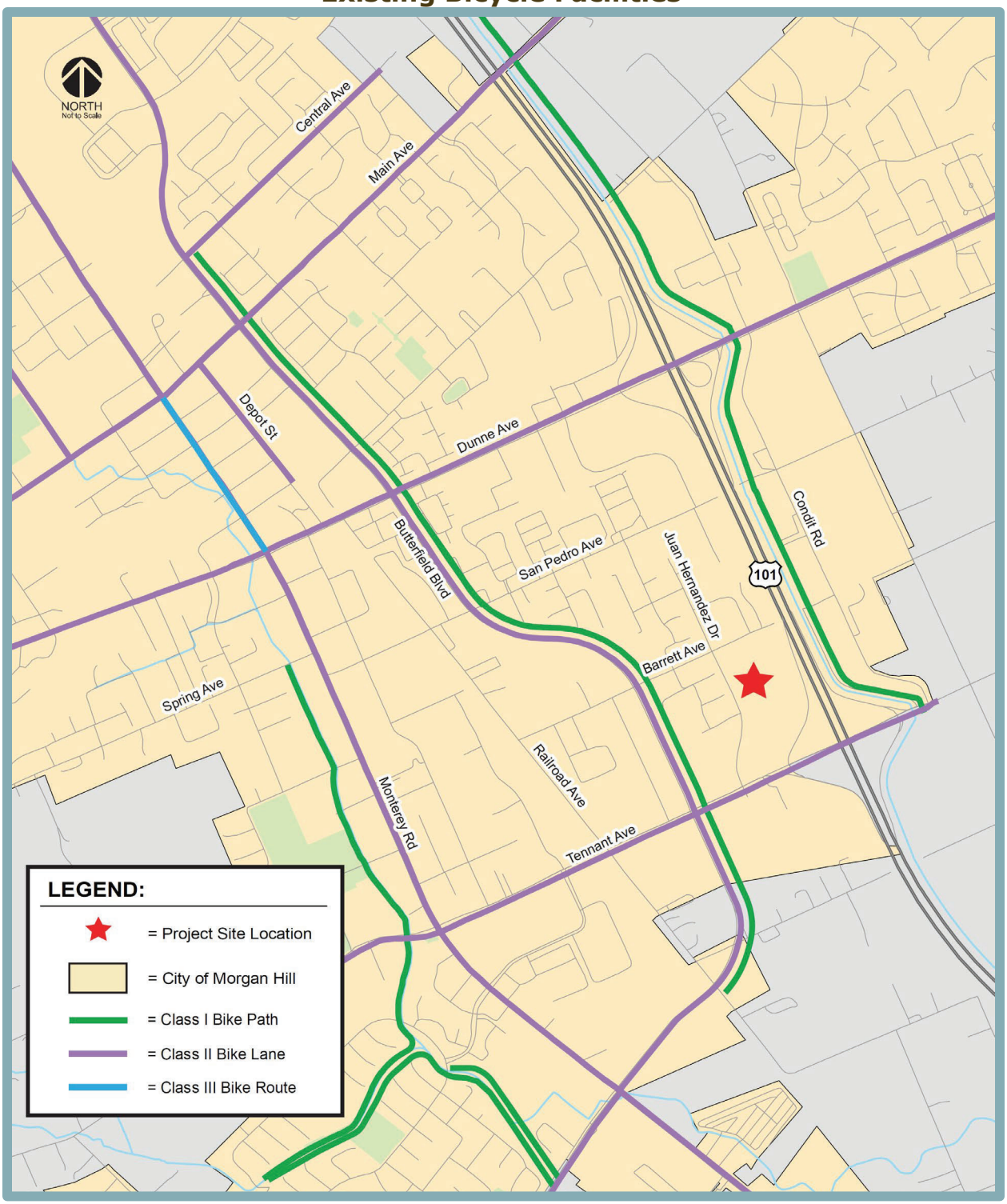
Pedestrian, Bicycle, and Transit Facilities

The sections below describe the existing pedestrian, bicycle, and transit facilities located within the vicinity of the project site.

Bicycle and Pedestrian Facilities

Bicycle paths, bike lanes, bike routes, and separated bikeways are typical examples of bicycle transportation facilities. The existing bicycle facilities in the project vicinity, as shown in Figure 4.3-1, are listed below, and include definitions of each facility, as established by the California Department of Transportation (Caltrans):

Figure 4.3-1
Existing Bicycle Facilities



Source: Hexagon Transportation Consultants, Inc., 2023.

- Shared-Use Paths (Class I) – Shared-use paths provide a separate right-of-way and are designated for the exclusive use of bicycles and pedestrians, with vehicle and pedestrian cross-flow minimized. In general, bike paths serve corridors where on-street facilities are not feasible or where sufficient right-of-way exists to allow them to be constructed. Class I bikeways are currently provided at the following locations:
    - Along the west bank of Little Llagas Creek, extending from Watsonville Road and La Crosse Drive north to Spring Avenue.
    - Along the east side of Butterfield Boulevard between Central Avenue and Railroad Avenue.
    - Along the east side of US-101 between Tennant Avenue and Cochrane Road.
- Bicycle Lanes (Class II) – Bicycle lanes are dedicated lanes for bicyclists, generally adjacent to the outer vehicle travel lanes. Class II lanes have special lane markings, pavement legends, and signage. Bicycle lanes are typically five feet wide. Adjacent vehicle parking and vehicle/pedestrian cross-flow are permitted. Within the project vicinity, Class II lanes are present along the following roadways:
    - Along Tennant Avenue, between Olympic Drive and Condit Road.
    - Along the entire length of Butterfield Boulevard.
    - Along the majority of Monterey Road within the City limits.
    - Along Dunne Avenue, between Peak Avenue and east of Hill Road.
    - Along Main Avenue, between Peak Avenue and east of US-101.
- Bicycle Routes (Class III) – Bicycle routes are designated by signs or pavement markings for shared use with pedestrians or motor vehicles but do not have separated bike right-of-way or lane striping. Bike routes serve either to a) provide a connection to other bicycle facilities where dedicated facilities are infeasible, or b) designate preferred routes through high-demand corridors.
- Cycle Tracks/Separated Bikeways (Class IV) – Cycle tracks/separated bikeways provide a right-of-way designated exclusively for bicycle travel within a roadway and are protected from other vehicle traffic by physical barriers including, but not limited to, grade separation, flexible posts, inflexible vertical barriers such as raised curbs, or parked cars.

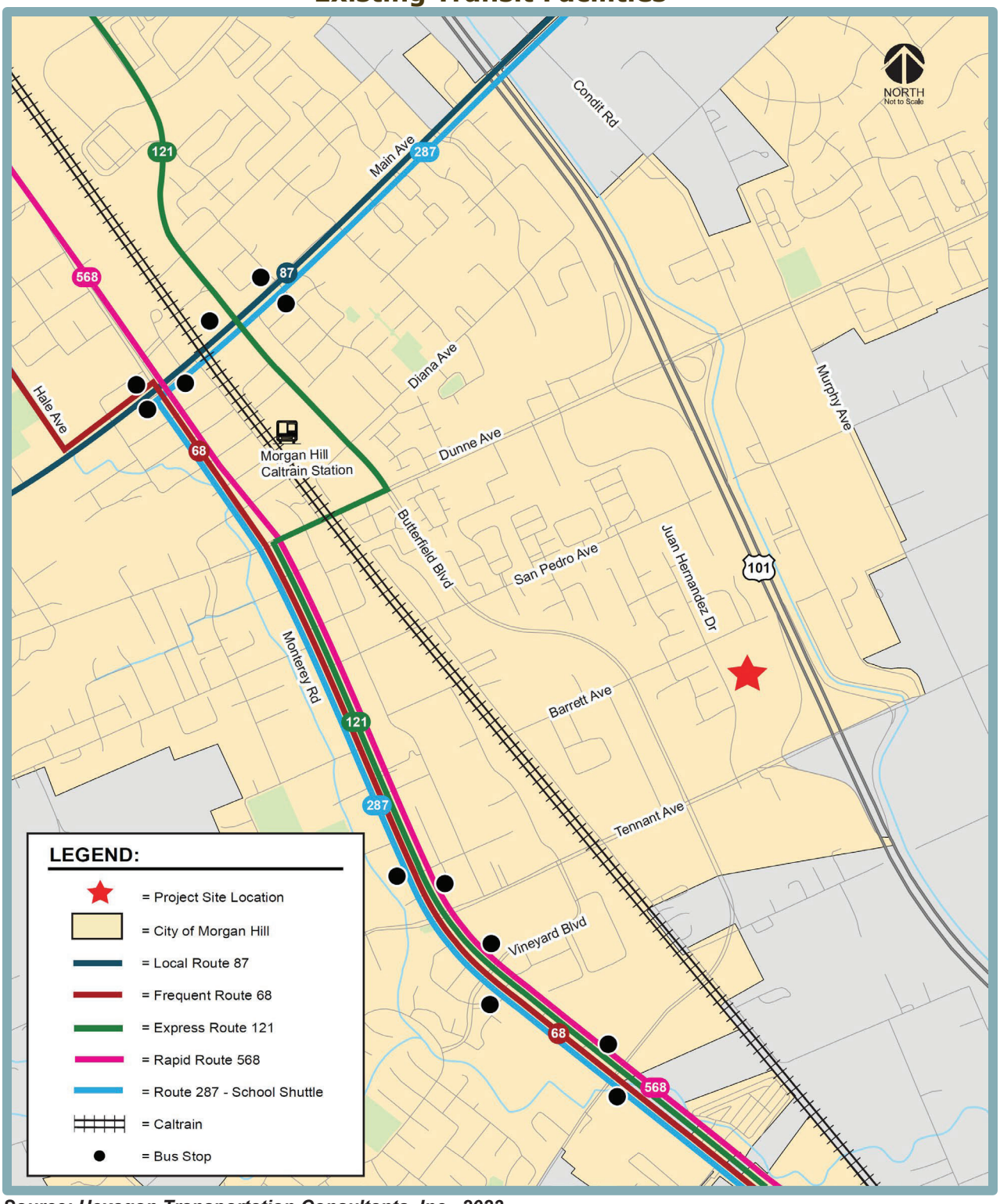
The roadways in the immediate project vicinity, including Juan Hernandez Drive and Barrett Avenue, do not currently provide bicycle facilities.

Pedestrian facilities in the project area include sidewalks, crosswalks, and pedestrian signals at signalized intersections. All of the signalized intersections in the vicinity of the project site have marked crosswalks with pedestrian push buttons and signal heads along at least two of the legs of the intersection. However, while residential neighborhoods are located both north and west of the project site, the site is located within an undeveloped area. The parcels south of the project site are mainly undeveloped. Tennant Avenue, east of Butterfield Boulevard, is lined with predominantly undeveloped parcels. As such, continuous sidewalks along some roadway segments in the vicinity of the project site are not available, in particular, along undeveloped areas. Additionally, curb ramps at intersections surrounding the project site are non-Americans with Disabilities Act (ADA)-compatible wheelchair ramps.

Transit Services and Facilities

Transit service within the City of Morgan Hill is provided by the Santa Clara Valley Transportation Authority (VTA). Although the City of Morgan Hill is served by various bus routes, none of the existing bus routes currently serve the project area directly. As shown in Figure 4.3-2, the nearest bus stops to the project site are located approximately one mile west of the project site near the Monterey Road/Tennant Avenue intersection.

Figure 4.3-2
Existing Transit Facilities



Source: Hexagon Transportation Consultants, Inc., 2023.

In addition, commuter rail service between San Francisco and Gilroy is provided by Caltrain. The Morgan Hill Caltrain Station is located along Depot Street, with main access and parking off Butterfield Boulevard, approximately 1.5 miles northwest of the project site.

At the Morgan Hill Station, Caltrain provides service in the northbound direction only during the AM commute period and in the southbound direction only during the PM commute period with approximately 20- to 80-minute headways during each of the commute hours.

The VTA routes that serve the City are discussed below.

Express Route 121

Express Route 121 operates on Butterfield Boulevard and Monterey Road in the project vicinity on a route between the Gilroy/Morgan Hill Transit Center and the Lockheed Martin Transit Center. Express Route 121 operates northbound only with 70- to 120-minute headways during the AM commute period and southbound only with 60- to 90-minute headways during the PM commute period. The nearest Route 121 bus stop to the project site is located approximately one mile to the west at the intersection of Monterey Road and Tennant Avenue.

Rapid Bus Route 568

Rapid Bus Route 568 operates on Monterey Road in the project vicinity on a route between the Gilroy Transit Center and the San Jose Diridon Transit Center with 30-minute headways on weekdays in the AM and PM commute periods. Route 568 operates between 5:00 AM and 9:00 AM. The nearest Route 568 bus stop to the project site is located approximately one mile to the west at the intersection of Monterey Road and Tennant Avenue.

Frequent Bus Route 68

Frequent Bus Route 68 operates on Monterey Road in the project vicinity on a route between the Gilroy Transit Center and the San Jose Diridon Transit Center with 15-minute headways on weekdays in the AM and PM commute periods. Route 68 operates between 4:00 AM and 1:00 AM. The nearest Route 68 bus stop to the project site is located approximately one mile to the west at the intersection of Monterey Road and Tennant Avenue.

Local Bus Route 87

Local Bus Route 87 operates on Main Avenue in the project vicinity on a route between Burnett Avenue and the Morgan Hill Civic Center with approximately 60-minute headways in the AM and PM commute periods. Route 87 operates between 7:00 AM and 6:00 PM. The nearest Route 87 bus stop to the project site is located approximately two miles to the northwest, near the intersection of Monterey Road and Main Avenue.

School Shuttle Route 287

School Shuttle Route 287 operates on Main Avenue and Monterey Road in the project vicinity on a route between Live Oak High School and San Martin Avenue. School Shuttle Route 287 operates a single southbound trip at 3:44 PM from Live Oak High School to the intersection of Monterey Road and San Martin Avenue.

Vehicle Miles Travelled

As a result of Senate Bill (SB) 743, as discussed in further detail in Section 4.3.3 below, local jurisdictions may no longer rely on vehicle LOS and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA. Consistent with the CEQA

Guidelines (15064.3), VMT is the primary metric used to identify transportation impacts to roadway systems within this chapter. VMT is a measure of the total amount of vehicle travel occurring on a given roadway system. VMT is the product of the total number of vehicles traveling and the number of miles traveled per vehicle.

On November 6, 2024, the City of Morgan Hill adopted Resolution No. 24-039, approving a citywide VMT policy. According to the Morgan Hill VMT Methodology Memo, for office and industrial projects such as the proposed project, the adopted threshold of significance is the City of Morgan Hill's baseline VMT per employee of 21.42.[4]

4.3.3 REGULATORY CONTEXT

Existing transportation policies, laws, and regulations that would apply to the proposed project are summarized below and provide a context for the impact discussion related to the project's consistency with the applicable regulatory conditions. Federal plans, policies, regulations, or laws related to transportation and circulation are not directly applicable to the proposed project. Rather, the analysis presented herein focuses on State and local regulations, which govern the regulatory environment related to transportation and circulation at the project level.

State Regulations

The following are the regulations pertinent to the proposed project at the State level, organized chronologically.

Senate Bill 743

In 2013, SB 743 was passed to amend Sections 65088.1 and 65088.4 of the Government Code, amend Sections 21181, 21183, 21186, 21187, 21189.1, and 21189.3 of the Public Resources Code (PRC), to add Section 21155.4 to the PRC, to add Chapter 2.7 (commencing with Section 21099) to Division 13 of the PRC, to add and repeal Section 21168.6.6 of the PRC, and to repeal and add Section 21185 of the PRC, relating to environmental quality. In response to SB 743, the Governor's Office of Land Use and Climate Innovation (LCI)has updated the CEQA Guidelines to include new transportation-related evaluation metrics. In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update package along with an updated Technical Advisory related to Evaluating Transportation Impacts in CEQA. Full statewide compliance with the Guidelines became effective July 1, 2020. As a result of SB 743, and Section 15064.3 of the CEQA Guidelines, local jurisdictions may no longer rely on vehicle LOS and similar measures related to delay as the basis for determining the significance of transportation impacts under CEQA, and instead a VMT metric should be evaluated.

The adopted Lillian Commons IS/MND was released for public review in June 2020, prior to the statewide requirement for VMT evaluation in CEQA review. While qualitative discussion of VMT was included in the IS/MND, no project-specific, quantitative analysis of VMT was included.

Technical Advisory on Evaluating Transportation Impacts in CEQA

In December of 2018, the LCI published the Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory), which is a guidance document to provide advice and recommendations regarding assessment of VMT, thresholds of significance, and mitigation measures. The Technical Advisory is intended to be a resource for the public to use at their discretion, and the LCI does not enforce any part of the recommendations contained therein. The

[4] TJKM. *Morgan Hill VMT Methodology Memo (Final)*. May 12, 2023.

Technical Advisory includes recommendations regarding methodology, screening thresholds, and recommended thresholds per land use type.

Vehicle Miles Traveled-Focused Transportation Impact Study Guide

In May of 2020, Caltrans adopted the Vehicle Miles Traveled-Focused Transportation Impact Study Guide (TISG) to provide direction to lead agencies regarding compliance with SB 743. The TISG replaces the Caltrans' 2002 Guide for the Preparation of Traffic Impact Studies and is for use with local land use projects, not for transportation projects on the State Highway System. The objectives of the TISG are to provide:[5]

a) Guidance in determining when a lead agency for a land use project or plan should analyze possible impacts to the State Highway System, including its users.
b) An update to the Guide for the Preparation of Traffic Impact Studies (Caltrans, 2002) that is consistent with SB 743 and the CEQA Guidelines adopted on December 28, 2018.
c) Guidance for Caltrans land use review that supports state land use goals, state planning priorities, and GHG emission reduction goals.
d) Statewide consistency in identifying land use projects' possible transportation impacts, to the State Highway System, and to identify potential non-capacity increasing mitigation measures.
e) Recommendations for early coordination during the planning phase of a land use project to reduce the time, cost, and/or frequency of preparing a Transportation Impact Study or other indicated analysis.

Caltrans has jurisdiction over State highways. Therefore, Caltrans controls all construction, modification, and maintenance of State highways, and any improvements to such roadways require Caltrans approval.

California Air Pollution Control Officers Association

The California Air Pollution Control Officers Association (CAPCOA) is a non-profit association of the Air Pollution Control Officers from all 35 local air quality agencies throughout California. Given the connection between air pollution emissions and the use of motor vehicles, the CAPCOA has issued recommendations that can be used by development projects to reduce project-wide VMT. One such document, the Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity, provides methods to quantify the efficacy of certain methods in their ability to reduce VMT and, in turn, GHG emissions.

Local Regulations

Local rules and regulations applicable to the proposed project are discussed below.

Santa Clara Valley Transportation Authority

The Santa Clara VTA is an independent special district that provides sustainable, accessible, community-focused transportation options for the region. VTA provides bus, light rail, and paratransit services, as well as participates as a funding partner in regional rail service including Caltrain, Capitol Corridor, and the Altamont Corridor Express. As the county's congestion management agency, VTA is responsible for countywide transportation planning, including congestion management, design and construction of specific highway, pedestrian, and bicycle improvement projects, as well as promotion of transit-oriented development.

[5] Caltrans. *Vehicle Miles Traveled-Focused Transportation Impact Study Guide*. May 20, 2020.

VTA Congestion Management Program

The VTA oversees the Congestion Management Program (CMP), which is aimed at reducing regional traffic congestion. The relevant state legislation requires that urbanized counties in California prepare a CMP in order to obtain each county's share of gas tax revenues. State legislation requires that each CMP define traffic LOS standards, transit service standards, a trip reduction and transportation demand management plan, a land use impact analysis program, and a capital improvement element. The VTA has review responsibility for proposed development projects that are expected to affect CMP-designated intersections.

City of Morgan Hill 2035 General Plan

The following goals and policies adopted as part of the City of Morgan Hill 2035 General Plan are applicable to the proposed project:

Goal TR-1 A balanced, safe, and efficient circulation system for all segments of the community, meeting local needs and accommodating projected regional and sub-regional traffic while protecting neighborhoods.

Policy TR-1.1 *System Efficiency*. Plan, construct, and maintain a coordinated and efficient system of local streets and highways throughout the community, meeting local needs and accommodating projected regional and sub-regional traffic, while protecting neighborhoods from cut-through traffic.

Goal TR-2 A system designed for a healthy, active community based on complete streets, smart growth, and Sustainable Communities strategies; reflecting a balanced, safe, multimodal transportation system for all users, especially in Downtown where pedestrian, bicycle, and transit facilities will be emphasized along with vehicular facilities.

Policy TR-2.1 *Multi-Modal System for All Users*. A balanced multi-modal system offers viable choices for residents, employees, customers, visitors, and recreational users. Use smart growth and Sustainable Communities principles throughout the city to provide a balanced transportation system which assures access to all, and which integrates all appropriate modes of transportation into an effectively functioning system, including modes such as auto, ride sharing, public rail and bus transit, paratransit, bicycling, and walking.

Goal TR-3 A coordinated, continuous network of streets and roads.

Policy TR-3.2 *Safe and Complete Improvements*. Avoid creating incomplete public improvements that create public safety hazards.

Goal TR-9 Expanded pedestrian opportunities.

Policy TR-9.1 *Private Development Connections*. Ensure adequate pedestrian access in all developments, with special emphasis on pedestrian connections in the downtown area, in shopping

areas, and major work centers, including sidewalks in industrial areas in accordance with the Trails and Natural Resources Master Plan.

Policy TR-9.10 *Sidewalk Connectivity*. Improve sidewalk connectivity by installing new sidewalks where they do not exist, consistent with the Trails and Natural Resources Master Plan.

City of Morgan Hill Transportation Study Guidelines

On November 6, 2024, the City of Morgan Hill adopted Resolution No. 24-039, approving a citywide VMT policy. The VMT policy establishes analysis techniques for transportation studies based on the current state-of-the-practice in transportation planning and engineering. For example, the VMT policy sets forth a number of VMT thresholds for use in analyses within the City, including significance thresholds based on land use type and screening criteria.

4.3.4 IMPACTS AND MITIGATION MEASURES

This section describes the standards of significance and methodology utilized to analyze and determine the proposed project's potential impacts related to transportation and circulation.

Standards of Significance

Consistent with Appendix G of the CEQA Guidelines, a significant impact related to transportation would occur if the project would result in any of the following:

- Conflict with a program, plan, ordinance, or policy, addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;
- Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);
- Substantially increase hazards to vehicle safety due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- Result in inadequate emergency access.

VMT Standards of Significance

As discussed above, on November 6, 2024, the City of Morgan Hill adopted Resolution No. 24-039, approving a citywide VMT policy establishing VMT thresholds of significance and screening criteria. Table 4.3-1 summarizes the VMT thresholds of significance for the City. Based on the table, for the proposed project, a VMT impact would be considered less than significant if the VMT per employee does not exceed the City of Morgan Hill's baseline VMT per employee. As previously stated, the City of Morgan Hill's baseline VMT per employee is 21.42.

Table 4.3-1
VMT Thresholds of Significance by Project Type

Land Use	Threshold of Significance
Residential	VMT per capita does not exceed the City of Morgan Hill's baseline VMT per capita
Office & Industrial	VMT per employee does not exceed the City of Morgan Hill's baseline VMT per employee
All Other Uses (includes commercial/retail uses over 50,000 square feet)	No net increase in total VMT within the City of Morgan Hill

Source: City of Morgan Hill, 2024.

Method of Analysis

The analysis of this SEIR is focused on the changes to the proposed project and changes in circumstances following the City's adoption of the 2020 IS/MND, pursuant to CEQA Guidelines Section 15162. The analysis of this chapter is based on the 2020 IS/MND and the Transportation Analysis prepared on November 10, 2023 for the proposed project by Hexagon.[6]

As discussed in Chapter 3, Project Description, of this SEIR, the City has conservatively chosen to use the existing site conditions as the baseline for the VMT analysis, given that the adopted 2020 IS/MND only included a qualitative analysis of VMT. In other words, with the exception of the existing 15,900 sf of medical office space currently located in the southernmost portion of the project site, other VMT-generating uses previously approved for the 2020 IS/MND are not assumed in the environmental baseline.

The methods of analysis provided in the Transportation Analysis are described in further detail below.

Project Trip Generation

Trip generation refers to the process of estimating how much vehicular traffic a project would add to the surrounding roadway system. Project trip generation estimates are prepared for a 24-hour weekday period and the anticipated peak periods of project arrival and departure trips.

As shown in Table 4.3-2, the trip generation estimates for the proposed project were derived from daily trip rates published in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition (2021). Based on the daily trip rate for ITE Land Use #720 (Dental-Medical Office Building), the proposed 275,000 sf of medical office space is estimated to generate 11,709 daily trips. After netting out the approved land uses and the existing on-site medical office uses, the total net increase in project trips would be approximately 8,844 daily trips, with 348 net new AM peak hour trips and 878 net new PM peak hour trips.

Vehicle Miles Traveled Assessment

Given the limitations of VTA's VMT Evaluation Tool, which is designed to assess general office employment uses or industrial uses, Hexagon converted the proposed medical office space into an equivalent amount of office space for the purpose of tool input and VMT evaluation. This approach was taken because both medical office and office uses share similar trip-making characteristics in regard to the origin and destination of employee and visitor trips.

The proposed medical office space was converted into an equivalent amount of office space based on trip generation estimates derived from daily trip rates published in the ITE Trip Generation Manual, 11th Edition (2021). Based on the daily trip rate for ITE Land Use #720 (Dental-Medical Office Building), the proposed 275,000 sf of medical office space is estimated to generate 11,709 daily trips, which are equivalent to the trips estimated to be generated by approximately 1,081,000 sf of office space using ITE Land Use #710 (General Office Building).

[6] It is important that Hexagon's November 2023 Transportation Analysis for the Rosewood Medical Office Development (i.e., the proposed project) compares the project's VMT per employee estimate to OPR's (now LCI) recommended VMT thresholds, which are now superseded by the City of Morgan Hill's adopted VMT policy. Therefore, as will be demonstrated below (see Impact 4.3-2), while Hexagon's report concludes that the proposed project's VMT impact would be significant, requiring mitigation, this is no longer the case when comparing the project's VMT per employee estimate with the City's recently adopted VMT policy, which is now in effect and considered the appropriate threshold for determining VMT impact significance for project's within the City of Morgan Hill.

Table 4.3-2
Project Trip Generation Estimates

Land Use	Size	Daily		AM Peak Hour						PM Peak Hour					
					Split		Trip				Split		Trip		
		Rate	Trip	Rate	In	Out	In	Out	Total	Rate	In	Out	In	Out	Total
Proposed Land Use															
Medical Office Building (ITE Land Use #720)[1]	275,000 sf	42.5777	11,709	2.178	79%	21%	473	126	599	4.058	30%	70%	335	781	1,116
Approved Land Uses															
High-Turnover (Sit-Down) Restaurant (ITE Land Use #932)[2]	10,000 sf	112.180	1,122	9.940	55%	45%	54	45	99	9.770	62%	38%	61	37	98
15 Percent Housing and Retail Mixed-Use Reduction[3]	--		*-163*	--			*-8*	*-3*	*-11*	--			*-5*	*-8*	*-13*
20 Percent PM Passby Reduction[4]	--		*-17*	--			*0*	*0*	*0*	--			*-11*	*-6*	*-17*
100,000-sf Hospital with 55 Beds (ITE Land Use #610)[2]	55 Beds	22.320	1,228	1.840	72%	28%	73	28	101	1.890	28%	72%	29	75	104
Medical-Dental Office Building (ITE Land Use #720)[2]	10,000 sf	34.800	348	2.780	78%	22%	22	6	28	3.460	28%	72%	10	25	35
Urgent Care (Clinic) (ITE Land Use #630)[2]	4,500 sf	38.160	172	3.690	78%	22%	13	4	17	3.280	29%	71%	4	11	15
Three Percent Housing and Employment Mixed-Use Reduction[5]	--		*-33*	--			*-2*	*-1*	*-3*	--			*-1*	*-2*	*-3*
Total Approved Project Trips	**124,500 sf**	**--**	**2,657**	**--**			**152**	**79**	**231**	**--**			**87**	**132**	**219**
Existing Land Use															
Medical Office Building (ITE Land Use #720)[1]	15,900 sf	--	208	--			17	3	20	--			4	15	19
Net Project Trips (Proposed – Approved – Existing Use)															
--	**134,600 sf**	**--**	**8,844**	**--**			**304**	**44**	**348**	**--**			**244**	**634**	**878**

Notes:
1. ITE Trip Generation Manual, 11th Edition 2021.
2. ITE Trip Generation Manual, 10th Edition 2017 (The same trip generation rates used in the 2020 IS/MND).
3. As prescribed by the VTA Transportation Impact Analysis Guidelines, the maximum trip reduction for a mixed-use development project with housing and retail components is equal to 15 percent off the smaller trip generator.
4. A 20 percent pass-by reduction is typically applied during the PM peak-hour to retail projects in Morgan Hill.
5. As prescribed by the VTA Transportation Impact Analysis Guidelines, the maximum trip reduction for a mixed-use development project with housing and employment components is equal to three percent off the smaller trip generator.
6. Peak-hour trips were obtained from driveway counts collected on February 6, 2020, and daily trips were estimated based on the ratio between the peak-hour driveway counts and ITE rates.

Source: Hexagon Transportation Consultants, Inc., 2023.

Table 4.3-3 presents the equivalency calculation. The 1,081,000 sf of equivalent office space was input into VTA's VMT Tool to generate the VMT per employee estimates for the proposed project.

Table 4.3-3
Medical Office to Office Equivalency Calculation

ITE Land Use	Size (square feet)	Daily	
		Rate	Trips
Medical Office Building (#720)	275,000	42.577	11,709
General Office Building (#710)	1,081,000[1]	10.840	11,709

[1] Equivalent office space.

Source: ITE Trip Generation Manual, 11th Edition 2021.

Project-Specific Impacts and Mitigation Measures

The proposed project impacts on the transportation system are evaluated in this section based on the thresholds of significance and methodology described above. Each impact is followed by recommended mitigation to reduce the identified impacts, if needed.

4.3-1 Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway bicycle, and pedestrian facilities. Based on the analysis below, similar to the 2020 IS/MND, the impact is *less than significant*.

As discussed throughout this chapter, LOS is not the applicable metric for evaluating CEQA transportation impacts of a project. The evaluation of VMT is discussed in Impact 4.3-2 of this chapter. The following discussion focuses on whether the proposed project would result in impacts to existing or planned pedestrian facilities, bicycle facilities, or transit facilities and services within the project area.

Pedestrian Facilities

The 2020 IS/MND concluded a less-than-significant impact would occur related to pedestrian facilities due to the proposed development of new sidewalks along all internal drive aisles within the project site, as well as the construction of an internal jogging/walking trail that would extend through the project site from the southern site boundary to along the eastern perimeter. As a condition of approval, the 2020 IS/MND required that all existing and proposed curb ramps along the project site frontage, and at intersections providing direct access to the project site, are upgraded to comply with ADA standards.

The currently proposed project involves the development of a net increase of 134,600 sf of medical/commercial uses relative to the originally approved project, and does not include any alterations to the proposed pedestrian improvements beyond what was analyzed in the 2020 IS/MND. As discussed therein, the existing sidewalks along both sides of Barrett Avenue and high-visibility crosswalks at the Juan Hernandez Drive/Barrett Avenue intersection, in conjunction with the proposed sidewalks on the project site frontage along Juan Hernandez Drive and the sidewalks on Barrett Avenue, would provide continuous and safety-enhanced access between the project

site and Barrett Elementary School. Thus, according to the Transportation Analysis prepared for the proposed project, the proposed pedestrian facility improvements would not physically disrupt an existing pedestrian facility, nor interfere with implementation of a planned pedestrian facility.

It should be noted, however, that while pedestrian facilities along Butterfield Boulevard could be accessed from the project site by way of the continuous sidewalks on Barrett Avenue, pedestrian access to the commercial areas along Tennant Avenue would remain challenging due to the discontinuous pedestrian network in the intervening area. The lack of connectivity between the project site and the nearby pedestrian facilities could potentially discourage pedestrian activity or force pedestrians to walk along undeveloped roadway shoulders and/or within the street. Nonetheless, the aforementioned condition of approval to upgrade all existing and proposed curb ramps along the project site frontage and adjacent intersections to comply with ADA standards would still be applicable to the proposed project. Furthermore, while the increase in the proposed medical office uses may generate new pedestrian traffic beyond what was anticipated in the 2020 IS/MND, such an increase would not be substantial. As such, implementation of the proposed project would not adversely affect pedestrian facilities.

Bicycle Facilities

The roadways in the immediate project vicinity, including Juan Hernandez Drive and Barrett Avenue, do not currently provide bicycle facilities. However, as shown in Figure TR-2, Bikeways, of the City's General Plan, Class II bicycle lanes are planned along both sides of Juan Hernandez Drive, between Tennant Avenue and San Pedro Avenue. Neither the previously approved project nor the currently proposed project would include any development that would interfere with the planned improvements to the existing bicycle network.

In addition, the 2020 IS/MND determined that buildout of the Lillian Commons Project would generate a maximum of three new bicycle trips during peak hours, which would not have an adverse effect on the existing or future bicycle facilities and would not require new off-site bicycle facilities. The net increase of 134,600 sf of medical/commercial uses associated with the proposed project would not generate a significant increase in bicycle trips beyond what was anticipated in the 2020 IS/MND. Therefore, the proposed project would not conflict with adopted policies, plans, or programs regarding bicycle facilities, or otherwise decrease the performance or safety of such facilities.

Transit Facilities

Given the absence of existing bus routes directly serving the project site, the potential use of public transportation by employees and visitors of the proposed project could be limited. However, according to the Transportation Analysis, the available bus routes with stops at the Monterey Road/Tennant Avenue intersection located approximately one mile west of the project site would be sufficient to accommodate the transit demand generated by the proposed project. The 2020 IS/MND determined that the Lillian Commons Project would result in three to four new transit riders during peak hours. The net increase of 134,600 sf of medical/commercial uses associated with the proposed project would not generate a significant increase in transit system use

beyond what was anticipated in the 2020 IS/MND. Therefore, the proposed project would not conflict with adopted policies, plans, or programs regarding transit facilities, or otherwise decrease the performance or safety of such facilities. Nonetheless, as a condition of approval, the City would require the project applicant to implement Hexagon's recommendation that the project applicant discuss the possibility for the VTA to expand bus service to the project site and the surrounding vicinity, which is currently underserved; should transit services be expanded to the project area, a bus stop could be provided along the project site frontage along Juan Hernandez Drive to allow potential transit service for the proposed project and the adjacent residential neighborhoods.

Conclusion

Based on the above, the proposed project would not conflict with adopted policies, plans, or programs supporting alternative transportation (i.e., bus turnouts, bicycle lanes, bicycle racks, public transit, pedestrian facilities, etc.). Thus, similar to the conclusion in the 2020 IS/MND, the project would result in a ***less-than-significant*** impact to pedestrian, bicycle, and transit facilities.

Applicable Mitigation Measure(s) from the 2020 IS/MND

None applicable.

Modified Mitigation Measure(s)

None required.

New Mitigation Measure(s)

None required.

4.3-2 Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). Based on the analysis below, similar to the 2020 IS/MND, the impact is *less than significant*.

Pursuant to the City's adopted VMT thresholds of significance, the proposed project would result in a significant VMT impact if the VMT per employee would exceed the City's baseline VMT per employee of 21.42. Using the VTA VMT Evaluation Tool, the Transportation Analysis concluded that the proposed project would generate 19.69 VMT per employee, which would not exceed the VMT impact threshold. As such, a significant impact would not occur.

Based on the above, , although new citywide VMT thresholds of significance have been adopted since the 2020 IS/MND was adopted, the proposed project would not conflict or be inconsistent with the applicable threshold, resulting in a ***less than significant*** impact regarding a conflict with CEQA Guidelines section 15064.3, subdivision (b).

Applicable Mitigation Measure(s) from the 2020 IS/MND

None applicable.

Modified Mitigation Measure(s)
None required.

New Mitigation Measure(s)
None required.

4.3-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access. Based on the analysis below, unlike the 2020 IS/MND, with implementation of mitigation, the impact is *less than significant*.

Construction
Construction activities associated with the proposed project would include use of construction equipment, including on-site earth-moving vehicles, bulldozers, and other heavy machinery, as well as building materials delivery, and construction worker commutes. The transport of heavy construction equipment to the site, haul truck trips, and construction worker commutes could affect the local roadway network.

Construction workers typically arrive before the morning peak hour and leave before the evening peak hours of the traditional commute time periods. Deliveries of building material (lumber, concrete, asphalt, etc.) would also normally occur outside of the traditional commute time periods. In addition, any truck traffic to the site would follow designated truck routes, and project construction would likely stage any large vehicles (i.e., earth- moving equipment, cranes, etc.) on the site prior to beginning site work and remove such vehicles at project completion. While the previously approved project would result in similar daily on-site construction activities, the potential temporary effects on the surrounding roadway network during construction were not specifically addressed in the adopted 2020 IS/MND. For the current analysis, because detailed information related to the construction routes and equipment staging, or a construction management plan, is not available, this SEIR conservatively concludes that construction activities could include disruptions to the transportation network near the project site, such as along Juan Hernandez Drive, Barrett Avenue, and Tennant Avenue.

Operation
The proposed project would not include the installation of any sharp curves or dangerous intersections. Given the nature of the proposed medical offices, the use of incompatible equipment would not occur.

Access to the project site would be provided by St. James Drive, which would include connections to Juan Hernandez Drive to the east of the site and the previously approved Rosewood Lane to the north of the site. St. James Drive would consist of a 36-foot-wide right-of-way (ROW) along the majority of the street, comprised of two 13-foot-wide vehicle lanes, a five-foot-wide landscape strip, and a five-foot-wide sidewalk. Near the entrance from Juan Hernandez Drive, St. James Drive would feature a 51-foot-wide ROW, comprised of a 13-foot-wide right-turn lane, two vehicle lanes, a five-

foot-wide landscape strip, and a five-foot-wide sidewalk. Additionally, emergency vehicle access to Barrett Avenue would be available through the Rosewood residential community that is currently under construction north of the project site.

Proposed project site access has been minimally altered since the approval of the 2020 IS/MND. In compliance with the City's recommendation, the existing entrance driveway located along the site's southern boundary is proposed to be relocated to align with St. James Drive. As such, the 2020 IS/MND's determination that a less-than-significant impact would occur related to increasing hazards or resulting in inadequate emergency access would still apply to the currently proposed project. In addition, the project design would be required to comply with the City of Morgan Hill Street Design Standards.

Conclusion

Based on the above, without proper planning of construction activities, construction traffic and potential street closures could interfere with existing roadway operations, including pedestrian, bicycle, and transit facilities, during the construction phase. Therefore, unlike the conclusion in the 2020 IS/MND, the proposed project has the potential to substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access, and a ***significant*** impact could occur.

Applicable Mitigation Measure(s) from the 2020 IS/MND

None applicable.

Modified Mitigation Measure(s)

None required.

New Mitigation Measure(s)

Implementation of the following mitigation measure would reduce the above potential impact to a *less-than-significant* level, similar to the conclusion in the 2020 IS/MND. Therefore, the proposed project would not result in a new significant impact.

4.3-3 *Prior to the commencement of construction, a construction signage and traffic control plan shall be provided to the City's Development Services Department for review and approval. The construction signage and traffic control plan shall include (but not be limited to) items such as:*

- *Guidance on the number and size of trucks per day entering and leaving the project site;*
- *Identification of arrival/departure times that would minimize traffic impacts;*
- *Approved truck circulation patterns;*
- *Locations of staging areas;*
- *Locations of employee parking and methods to encourage carpooling and use of alternative transportation;*
- *Methods for partial/complete street closures (e.g., timing, signage, location, and duration restrictions);*
- *Criteria for use of flaggers and other traffic controls;*

- *Preservation of safe and convenient passage for bicyclists and pedestrians through/around construction areas;*
- *Monitoring for roadbed damage and timing for completing repairs;*
- *Limitations on construction activity during peak/holiday weekends and special events;*
- *Preservation of emergency vehicle access;*
- *Coordination of construction activities with construction of other projects that occur concurrently in the City to minimize potential additive construction traffic disruptions, avoid duplicative efforts (e.g., multiple occurrences if similar signage), and maximize effectiveness of traffic mitigation measures (e.g., joint employee alternative transportation programs);*
- *Removing traffic obstructions during emergency evacuation events; and*
- *Providing a point of contact for nearby residents to obtain construction information, have questions answered, and convey complaints.*

The construction signage and traffic control plan shall be developed such that the following minimum set of performance standards is achieved throughout project construction. It is anticipated that additional performance standards would be developed once details of project construction are better known.

- *All construction employees shall park in designated lots owned by the project applicant or on private lots otherwise arranged for by the project applicant.*
- *Roadways shall be maintained clear of debris (e.g., rocks) that could otherwise impede travel and impact public safety.*

Cumulative Impacts and Mitigation Measures

For further detail related to the cumulative setting of the proposed project, refer to Chapter 5, Statutorily Required Sections, of this SEIR. The cumulative setting for the following analysis is the City of Morgan Hill.

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

It should be noted that increased traffic volumes on local roadway facilities under cumulative conditions would not conflict with a program, plan, ordinance, or policy, addressing the circulation system, including bicycle facilities, pedestrian facilities, transit facilities and services, and emergency vehicle access. Rather, impacts to such facilities under cumulative plus project conditions would be similar to those discussed above under Impacts 4.3-1 and 4.3-3. In addition, construction activities associated with the project would be complete prior to the cumulative

analysis year. Therefore, such topics are not discussed further in the cumulative analysis presented herein.

Similarly, the VMT impact conclusion presented under Impact 4.3-2 would also apply to cumulative plus project conditions. The Technical Advisory indicates that VMT efficiency metrics, such as VMT per service population or VMT per unit of development, may not be appropriate for CEQA cumulative analysis because they employ a denominator. Instead, the Technical Advisory recommends that an impact finding from an efficiency-based project-specific VMT analysis (i.e., existing plus project conditions) would imply an identical impact finding for a cumulative VMT analysis.[7] An example provided by LCI explains that a project that falls below an efficiency-based threshold that is aligned with long-term environmental goals and relevant plans would have no cumulative impact distinct from the project impact. Therefore, an analysis of VMT is not presented in this cumulative discussion as the conclusion would remain identical to that presented under Impact 4.3-2.

[7] Governor's Office of Planning and Research. *Technical Advisory on Evaluating Transportation Impacts in CEQA* [pg. 6]. December 2018.

5. Statutorily Required Sections

5. STATUTORILY REQUIRED SECTIONS

5.1 INTRODUCTION

The Statutorily Required Sections chapter of the Draft Subsequent EIR (SEIR) includes discussions regarding those topics that are required to be included in an EIR, pursuant to CEQA Guidelines, Section 15126.2. The chapter includes a discussion of the proposed project's potential to result in growth-inducing impacts; the cumulative setting analyzed in this SEIR; significant irreversible environmental changes; and significant and unavoidable impacts caused by the proposed project.

5.2 GROWTH-INDUCING IMPACTS

State CEQA Guidelines Section 15126.2(e) requires an EIR to evaluate the potential growth-inducing impacts of a proposed project. Specifically, an EIR must discuss the ways in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Growth can be induced in a number of ways, including the elimination of obstacles to growth, or by encouraging and/or facilitating other activities that could induce growth. Examples of projects likely to have growth-inducing impacts include extensions or expansions of infrastructure systems beyond what is needed to serve project-specific demand, and development of new residential subdivisions or office complexes in areas that are currently only sparsely developed or are undeveloped.

CEQA Guidelines are clear that while analyzing growth-inducing effects is required, such effects are not necessarily significant or adverse. This analysis examines the following potential growth-inducing impacts related to implementation of the proposed project and assesses whether these effects are significant and adverse (see CEQA Guidelines, Section 15126.2[e]):

1. Foster population and economic growth and construction of housing.
2. Eliminate obstacles to population growth.
3. Affect service levels, facility capacity, or infrastructure demand.
4. Encourage or facilitate other activities that could significantly affect the environment.

Foster Population and Economic Growth and Construction of Housing

The proposed project would include the development of three medical office buildings and a parking structure. Because of the medical nature of the proposed project, buildout would not directly result in an increase in population or construction of housing.

Although the project would temporarily create construction employment opportunities, such positions would likely be filled by the local workforce. Therefore, an increase in permanent population and a demand for housing in the vicinity of the project site as a result of the construction-related employment opportunities associated with the proposed project would not occur. Buildout of the proposed project would also provide 150 to 200 long-term employment opportunities associated with the proposed medical facilities. However, long-term employment opportunities associated with the proposed project would also likely be filled from the local

employee base. Therefore, the proposed project is not anticipated to result in a substantial increase in permanent population or demand for housing in the vicinity of the project site.

The proposed project has the potential to foster economic growth due to the employment opportunities of the proposed project. However, it is reasonable to assume that the magnitude of economic growth would not be substantial such that new business growth would result elsewhere in the region which could necessitate additional housing to support the employment base. In addition, the proposed project is consistent with the site's General Plan land use designation; therefore, development of the project site with the proposed uses has been generally anticipated by the City. Thus, while the project would foster economic growth, a less-than-significant impact related to population and economic growth would occur.

Eliminate Obstacles to Population Growth

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing effect. A physical obstacle to growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that are not currently provided with these services, would be expected to support new development. Similarly, the elimination or change to a regulatory obstacle, including existing growth and development policies, could result in new growth.

As discussed in Chapter 3, Project Description, of this EIR and Section XIX, Utilities and Service Systems, of the Initial Study prepared for the proposed project, the proposed project would require new connections to the water and sewer infrastructure in the project vicinity. However, the proposed on-site water and sewer infrastructure would be sized to accommodate the proposed project only. In addition, land in the project vicinity has already been developed or is currently being developed, and is not planned for future redevelopment. Therefore, the proposed infrastructure improvements would not result in the elimination of obstacles to population growth in the project vicinity.

Based on the above, all utility infrastructure improvements involved in the proposed project would exclusively serve the proposed project; and, therefore, the project would not be anticipated to eliminate any obstacles to population growth.

Affect Service Levels, Facility Capacity, or Infrastructure Demand

Increases in population that occur as a result of a project may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental impacts. However, as discussed in Section XV, Public Services, of the Initial Study prepared for the proposed project, increased demands for fire and police protection services attributable to the proposed project would not necessitate the construction of new or expanded facilities that could cause significant environmental impacts. In addition, as discussed in Section XIX, Utilities and Service Systems, of the Initial Study prepared for the proposed project, wastewater generated by the proposed project would be accommodated by proposed wastewater infrastructure, and/or by existing infrastructure facilities. Furthermore, water supply exists to accommodate the water demand associated with the proposed project and future anticipated development.

The landfill that would serve the proposed project has adequate capacity to manage the solid waste generated as result of the project. Furthermore, as discussed in Section X, Hydrology and Water Quality, of the Initial Study prepared for the proposed project, with implementation of Standard Condition HYD-3 included in the Lillian Commons Project Initial Study/Mitigated

Negative Declaration (IS/MND), the proposed project would not create or contribute runoff water that would exceed the capacity of the City's stormwater drainage systems. Therefore, the proposed project would not substantially affect service levels, facility capacity, or infrastructure demand, and would not require construction of new facilities that could cause significant environmental impacts.

Encourage or Facilitate Other Activities That Could Significantly Affect the Environment

A comprehensive assessment of the potential for environmental impacts associated with implementation of the proposed project is provided in the Initial Study prepared for the proposed project (see Appendix A) and this SEIR. Please refer to Chapters 4.1 through 4.3 of this SEIR, which comprehensively address the potential for impacts from development on the project site. As discussed therein, development of the proposed project would not encourage or facilitate other activities that could significantly affect the environment.

5.3 CUMULATIVE IMPACTS

CEQA Guidelines, Section 15130 requires that an EIR discuss the cumulative and long-term effects of the proposed project that would adversely affect the environment. "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (CEQA Guidelines, Section 15355). "[I]ndividual effects may be changes resulting from a single project or a number of separate projects" (CEQA Guidelines, Section 15355, subd. [a]). "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time" (CEQA Guidelines, Section 15355, subd. [b]).

The need for cumulative impact assessment reflects the fact that, although a project may cause an "individually limited" or "individually minor" incremental impact that, by itself, is not significant, the increment may be "cumulatively considerable," and, thus, significant, when viewed together with environmental changes anticipated from past, present, and probable future projects (CEQA Guidelines, Section 15064, subd. [h(1)], Section 15065, subd. [c], and Section 15355, subd. [b]). Accordingly, particular impacts may be less than significant on a project-specific basis but significant on a cumulative basis if their small incremental contribution, viewed against the larger backdrop, is cumulatively considerable. However, it should be noted that CEQA Guidelines, Section 15064, subdivision (h)(4) states, "[t]he mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, even where cumulative impacts are significant, any level of incremental contribution is not necessarily deemed cumulatively considerable.

Section 15130(b) of CEQA Guidelines indicates that the level of detail of the cumulative analysis need not be as great as for the project impact analyses, but that analysis should reflect the severity of the impacts and their likelihood of occurrence, and that the analysis should be focused, practical, and reasonable. To be adequate, a discussion of cumulative effects must include the following elements:

> (1) Either (a) a list of past, present and probable future projects, including, if necessary, those outside the agency's control, or (b) a summary of projections contained in an

adopted local, regional, or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions. A summary of projections may also be contained in an adopted or certified prior environmental document for such a plan. Such projections may be supplemented with additional information such as a regional modeling program. Any such documents shall be referenced and made available to the public at a location specified by the lead agency;

(2) When utilizing a list, as suggested in paragraph (1) of subdivision (b), factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.;

(3) Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used;

(4) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

(5) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.(Section 15130[b]).

For some projects, the only feasible mitigation measures will involve the adoption of ordinances or regulations, rather than the imposition of conditions on a project-by-project basis (Section 15130[c]). Section 15130(a)(3) states that an EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable, and thus not significant, if a project is required to implement or fund the project's fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

A discussion of cumulative impacts is provided within each of the technical chapters of this EIR pursuant to CEQA Guidelines Section 15130.

Cumulative Setting

The lead agency should define the relevant geographic area of inquiry for each impact category (id., Section 15130, subd. [b][3]), and should then identify the universe of "past, present, and probable future projects producing related or cumulative impacts" relevant to the various categories, either through the preparation of a "list" of such projects or through the use of "a summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect" or "in an adopted or certified prior environmental document for such a plan…"" (id., subd. [b][1]). The cumulative analysis in this SEIR is based upon the buildout projections included in the adopted City of Morgan Hill General Plan.

Limited situations exist where the geographic setting differs for the various resource areas. For example, the cumulative geographic setting for air quality is the San Francisco Bay Area Air Basin (SFBAAB), which is the air basin that the proposed project is located within. Global climate change is, by nature, a cumulative impact. Emissions of greenhouse gases (GHG) contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change (e.g., sea level rise, impacts to water supply and water quality, public health impacts, impacts to

ecosystems, impacts to agriculture, and other environmental impacts). A single project could not generate enough GHG emissions to contribute noticeably to a change in the global average temperature. However, the GHG emissions from a project in combination with other past, present, and future projects could contribute substantially to the world-wide phenomenon of global climate change and the associated environmental impacts. Although the geographical context for global climate change is the Earth, for analysis purposes under CEQA, and due to the regulatory context pertaining to GHG emissions and global climate change applicable to the proposed project, the geographical context for global climate change in this EIR is limited to the State of California.

5.4 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

As established in CEQA Guidelines Section 15126.2(d), this EIR is required to include consideration of significant irreversible environmental changes that would be caused by the proposed project, should the project be implemented. An impact would be determined to be a significant and irreversible change in the environment under Section 15126.2(d) if:

- Buildout of the project area could involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of development could generally commit future generations to similar uses (e.g., a highway provides access to a previously remote area);
- Development of the proposed project could involve uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing and eventual development of the project could result in an unjustified consumption of resources (e.g., the wasteful use of energy).

The proposed project would likely result in, or contribute to, the following significant irreversible environmental changes:

- Conversion of predominantly undeveloped land to medical office uses, thus precluding alternative land uses in the future;
- Irreversible consumption of goods and services, such as fire and police services, associated with project buildout; and
- Irreversible consumption of energy and natural resources, such as water and electricity, associated with project buildout.

5.5 SIGNIFICANT AND UNAVOIDABLE IMPACTS

According to CEQA Guidelines, an EIR must include a description of those impacts identified as significant and unavoidable should the proposed action be implemented (CEQA Guidelines Section 15126.2[c]). Such impacts would be considered unavoidable when the determination is made that either mitigation is not feasible or only partial mitigation is feasible such that the impact is not reduced to a level that is less than significant. All significant impacts identified in this SEIR can be eliminated or reduced to a less-than-significant level by mitigations imposed by the City. The final determination of the significance of impacts and the feasibility of mitigation measures would be made by the City as part of the City's certification action.

6. Alternatives Analysis

6. ALTERNATIVES ANALYSIS

6.1 INTRODUCTION

This chapter of the Subsequent EIR (SEIR considers and discusses a range of reasonable alternatives to the proposed project, as required by CEQA Guidelines Section 15126.6. Generally, the chapter includes discussions of the following: the purpose of an alternatives analysis; alternatives considered but dismissed; a reasonable range of project alternatives and their associated impacts in comparison to the proposed project's impacts; and the environmentally superior alternative.

6.2 PURPOSE OF ALTERNATIVES

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126.6(a) of the CEQA Guidelines, is to "[…] describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives." In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

> ...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Section 15126.6(f) of CEQA Guidelines states, "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." Section 15126.6(f) of CEQA Guidelines further states:

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

In addition, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

CEQA Guidelines offer the following direction for discussing alternatives to a proposed project:

- "An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines Section 15126.6[a]).
- "Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (Public Resources Code Section 21002.1), the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if

these alternatives would impede to some degree the attainment of the project objectives, or would be more costly" (CEQA Guidelines Section 15126.6[b]).

- The EIR should briefly describe the rationale for selecting the alternatives to be discussed. "The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination […] Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts" (CEQA Guidelines Section 15126.6[c]).
- "The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. A matrix displaying the major characteristics and significant environmental effects of each alternative may be used to summarize the comparison" (CEQA Guidelines Section 15126.6[d]).
- "If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed" (CEQA Guidelines Section 15126.6[d]).
- "The specific alternative of "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis which does establish that baseline" (CEQA Guidelines Section 15126.6[e][1]).
- "If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives" (CEQA Guidelines Section 15126.6[e][2]).

Project Objectives

Based on the above, reasonable alternatives to the project must be capable of feasibly attaining most of the basic objectives of the project. The proposed project is being pursued with the following objectives:

1. Create an entitled (close to shovel-ready) project that has the breadth of uses and maximum capacity to ensure the optimal pathway to deliver high-quality medical services to Morgan Hill and the surrounding South County communities.
2. Approve a project that has the ability to be phased to meet existing needs and scale up in size as demand increases.
    a. As a hospital would be the last piece of a medical campus (according to hospital groups), the existing approved 124,500 square feet (sf) of space would not be large enough to eventually accommodate a hospital footprint, this amendment rectifies that.
3. Additionally, as Morgan Hill does not have the population density of other parts of the Bay Area to justify a standalone hospital, this amendment enables a continuum of care to create the localized demand for a centralized healthcare facility. Allowing uses such as skilled-nursing facilities, assisted living and residential care as permitted uses on a portion of the campus would help create demand desired by healthcare providers to make an investment of such magnitude for clinics, medical office buildings and a hospital, as well as create additional services for residents of Morgan Hill seeking healthcare options.

4. Provide easy/direct vehicular access to and from US-101 for medical services that are located on Juan Hernandez Drive, a street that can accommodate the anticipated traffic demands of the proposed project, and can be served by existing (nearby) utilities.
5. Take advantage of the investments made by the Rosewood residential project, which has made the investment and has constructed the access road, detention pond, and utility infrastructure for the medical campus site that will remove potential obstacles for rapid development by a medical services provider.
6. Enable a highly desirable site to incentivize the investment of hundreds of millions of dollars creating hundreds of jobs (construction and permanent) in the Morgan Hill community.
7. Deliver healthcare options for Morgan Hill residents.
    a. The City's Economic Blueprint identifies four industries that are key to Morgan Hill's future, one of which is "Healthcare." Under "Healthcare," the explicit goal is to "[g]row and foster the medical service and diagnostics industry by attracting services and facilities."
    b. The Economic Blueprint has specific action items related to healthcare:
        i. Expand Locations for Medical Uses: The main tools the City has to regulate land development are the General Plan and the Zoning Code. These tools support medical uses through ease and clear rules for development. The City should Ensure General Plan & Zoning Code Allow for a Range of Medical Uses (Action #32).
        ii. Actively Promote Locations for Medical Uses: The City should Identify & Market PreZoned Medical Sites (Action #33) to clearly outline pre-approved locations for medical services. Similar to the Auto Dealer Incentive Policy. This direction clearly announces that the City wants these uses in the community and eases their ability to locate. To create awareness of new zoning regulations the City should Increase Outreach and Medical Service Providers (Action #34) and Create & Implement a Targeted Marketing Campaign (Action #35).

Impacts Identified in the SEIR

In addition to attaining the majority of project objectives, reasonable alternatives to the project must be capable of reducing the magnitude of, or avoiding, identified significant environmental impacts of the proposed project. The level of impacts identified in the SEIR are presented below.

No New Significant Impacts or Substantial Increase in Severity of Previously Identified Significant Impacts

In cases where an approved project has already undergone environmental review, and the environmental document has been adopted by the lead agency, the current review can be restricted to the incremental effects of the modified project, rather than having to reconsider the overall impacts of the project. The CEQA Guidelines provide guidance in this process by requiring an examination of whether, since the certification of the EIR or adoption of the Initial Study/Mitigated Negative Declaration (IS/MND), changes in the approved project or circumstances under which the approved project would be undertaken have occurred to such an extent that the proposal may result in a new significant impact (not previously identified in the certified EIR or adopted IS/MND) or substantial increase in the severity of a previously identified significant impact. As discussed in each respective section of this SEIR, the proposed project would not result in changes in the Lillian Commons/Morgan Hill Medical Campus Project (Lillian Commons Project) or circumstances under which the Lillian Commons Project would be

undertaken such that a new significant impact or substantial increase in the severity of a previously identified significant impact within the adopted 2020 Lillian Commons Medical Campus Initial Study/Mitigated Negative Declaration (2020 IS/MND) would occur related to the following topics associated with the resource area indicated. It should be noted that the analysis within this SEIR identifies the mitigation measures set forth within the 2020 IS/MND that remain applicable to the proposed project, and new or modified mitigation measures related to the following topics would not be required.

- ***Air Quality, Greenhouse Gas Emissions, and Energy***
  - Conflict with or obstruct implementation of the applicable air quality plan during project construction.
  - Conflict with or obstruct implementation of the applicable air quality plan during project operation.
  - Expose sensitive receptors to substantial pollutant concentrations.
  - Result in the inefficient or wasteful use of energy, or conflict with a State or local plan for renewable energy or energy efficiency.
  - Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or State ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
  - Result in a cumulatively considerable inefficient or wasteful use of energy or conflict with a State or local plan for renewable energy or energy efficiency.

- ***Noise***
  - Generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
  - Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
  - Generation of a substantial permanent increase in ambient noise levels associated with development of the proposed project in combination with buildout of the City of Morgan Hill General Plan.

- ***Transportation***
  - Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway bicycle, and pedestrian facilities, during operations.
  - Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

In addition, the Initial Study prepared for the proposed project during the scoping period (see Appendix A) includes a detailed environmental checklist addressing a range of technical environmental issues. The Initial Study evaluated whether the proposed project, as compared to the 2020 IS/MND, would result in the following: changes to the Lillian Commons Project that would have the potential to result in new or more severe significant impacts; new circumstances that would have the potential to result in new or more severe significant impacts; and new information requiring new analysis or verification. Environmental issue areas and topics identified for the proposed project in the Initial Study as not meeting any of these criteria are listed below and summarized further in Chapter 4.0, Introduction to the Analysis, of this EIR:

- ***Aesthetics***
  - Have a substantial adverse effect on a scenic vista.
  - Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.
  - Conflict with applicable zoning and other regulations governing scenic quality.
  - Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

- ***Agriculture and Forestry Resources***
  - Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use.
  - Conflict with existing zoning for agricultural use, or a Williamson Act contract.
  - Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220[g]), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104[g]).
  - Result in the loss of forest land or conversion of forest land to non-forest uses.
  - Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use.

- ***Air Quality***
  - Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

- ***Biological Resources***
  - 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 or U.S. Fish and Wildlife Service.
  - Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service.
  - Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
  - Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites.
  - Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
  - Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State habitat conservation plan.

- ***Cultural and Tribal Cultural Resources***
  - Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines, Section 15064.5.

- Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5.
- Disturb any human remains, including those interred outside of dedicated cemeteries.

- ***Geology and Soils***
  - Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, and landslides.
  - Result in substantial soil erosion or the loss of topsoil.
  - Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
  - Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.
  - 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 wastewater.
  - Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

- ***Hazards and Hazardous Materials***
  - Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
  - Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment.
  - Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
  - Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
  - For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area.
  - Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
  - Expose people of structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?

- ***Hydrology and Water Quality***
  - Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.
  - Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.

- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: result in substantial erosion or siltation on- or off-site; substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or impede or redirect flows.
- In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

- ***Land Use and Planning/Population and Housing***
  - Physically divide an established community.
  - 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.

- ***Mineral Resources***
  - 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.
  - Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other local land use plan.

- ***Noise***
  - For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the project area to excessive noise levels.

- ***Population and Housing***
  - Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure).
  - Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

- ***Public Services***
  - Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, parks, and other public facilities.

- ***Recreation***
  - Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
  - Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

- ***Tribal Cultural Resources***
  - 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:
    - 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).
    - 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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

- ***Utilities and Service Systems***
  - Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
  - Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
  - Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
  - Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
  - Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

- ***Wildfire***
  - Substantially impair an adopted emergency response plan or emergency evacuation plan.
  - Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
  - Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that

may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
    - 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.

- ***Mandatory Findings of Significance***
    - 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.

As stated above, reasonable alternatives to the project must be capable of reducing the magnitude of, or avoiding, identified significant environmental impacts of the proposed project. Because the proposed project would not result in any new significant impacts or a substantial increase in severity of previously identified significant impacts related to the resource areas listed above, a comparison of impacts associated with the aforementioned resource areas as a result of project alternatives versus the proposed project is not provided in this chapter. Rather, this chapter focuses on those resource areas and specific impacts listed below that have been identified for the proposed project in this SEIR as requiring new mitigation to reduce the new or more severe significant impacts to less than significant, or have been found to remain significant and unavoidable.

No New Significant Impacts or Substantial Increase in Severity of Previously Identified Significant Impacts with Implementation of New or Modified Mitigation

Environmental impacts (including cumulative impacts) of the proposed project that have been identified as requiring new or modified mitigation measures to ensure that a new significant impact or a substantial increase in severity of a previously identified significant impact, as compared to the 2020 IS/MND, would not occur, and the level of significance is ultimately less than significant, include the following:

- ***Air Quality, Greenhouse Gas Emissions, and Energy***
    - The SEIR determined that, unlike the 2020 IS/MND, the proposed project could result in a cumulatively considerable impact related to the generation of greenhouse gas (GHG) emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The SEIR includes a new mitigation measure, Mitigation Measure 4.1-6, which requires consistency with the applicable Bay Area Air Quality Management District (BAAQMD) criteria related to electric vehicle (EV) requirements. The new mitigation measure would ensure that the impact would be reduced to less than cumulatively considerable.

- ***Noise***
    - The SEIR determined that, similar to the conclusion in the 2020 IS/MND, implementation of the proposed project could result in a significant impact related

to the generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. However, the SEIR includes minor modifications to Mitigation Measure NOI-1.1, which clarify the timing of the mitigation measure, as well as establish specific requirements for temporary noise barrier heights. The modified mitigation measure would ensure that the impacts would be reduced to less than significant.

- The SEIR determined that, similar to the conclusion in the 2020 IS/MND, implementation of the proposed project could generate a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. However, the SEIR includes minor modifications to Mitigation Measure NOI-2.1, which clarify that the final location of the proposed transformer would also need to be reviewed and assessed to determine resulting noise levels at nearby receptors, and if necessary, identification of attenuation measures. The modified mitigation measure would ensure that the impacts would be reduced to less than significant.

- ***Transportation***
  - The SEIR determined that, unlike the conclusion in the 2020 IS/MND, implementation of the proposed project could substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or result in inadequate emergency access. However, the SEIR includes a new mitigation measure, Mitigation Measure 4.3-3, which requires implementation of a construction signage and traffic control plan. The new mitigation measure would ensure that the impact would be reduced to less than significant.

6.3 SELECTION OF ALTERNATIVES

The requirement that an EIR evaluate alternatives to the proposed project or alternatives to the location of the proposed project is a broad one; the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained, while reducing the magnitude of, or avoiding, one or more of the significant environmental impacts of the proposed project. Alternatives that are included and evaluated in the EIR must be feasible alternatives. However, the CEQA Guidelines require the EIR to "set forth only those alternatives necessary to permit a reasoned choice." As stated in Section 15126.6(a), an EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. The CEQA Guidelines provide a definition for "a range of reasonable alternatives" and thus limit the number and type of alternatives that may need to be evaluated in a given EIR. According to the CEQA Guidelines Section 15126.6(f):

> The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could feasibly attain most of the basic objectives of the project.

First and foremost, alternatives in an EIR must be feasible. In the context of CEQA Guidelines Section 21061.1, "feasible" is defined as:

> ...capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.

Finally, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."

Alternatives Considered But Dismissed From Further Analysis

Consistent with CEQA, primary consideration was given to alternatives that could reduce significant impacts, while still meeting most of the basic project objectives.

As stated in Guidelines Section 15126.6(c), among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are:

(i) failure to meet most of the basic project objectives,
(ii) infeasibility, or
(iii) inability to avoid significant environmental impacts.

Regarding item (ii), infeasibility, among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). None of these factors individually establish a fixed limit on the scope of reasonable alternatives.

The off-site alternative was considered but dismissed from detailed analysis in this SEIR. The reason(s) for dismissal, within the context of the three above-outlined permissible reasons, are provided below.

Off-Site Alternative

An Off-Site Alternative would involve construction of the proposed project on an alternative site. However, the project site is located within an area that has been previously approved for 124,500 sf of medical uses as part of the Lillian Commons Project, which was subject to prior environmental review. Therefore, the project site is generally a suitable location for the proposed project, and other properties within the City are reasonably assumed to not be as well-suited for the proposed project as the project site. In addition, Objective #2 establishes the goal of developing a project that has the ability to be phased to meet existing needs and scaled up in size as demand increases. An Off-Site Alternative would require construction of the 275,000 sf of medical campus buildings included as part of the proposed project elsewhere in order to provide an adequate medical campus environment that could be scaled. In addition, as noted previously, the purpose of an alternatives analysis is to develop alternatives to the proposed project that avoid or substantially lessen at least one of the significant environmental effects identified as a result of the project, while still meeting most, if not all, of the basic project objectives. Development of the proposed project at an off-site location would not be capable of meeting the majority of project objectives due to a number of the project objectives being specific to the project site location, such as Objective #4, to provide easy/direct vehicular access to and from US-101 for medical services that are located on Juan Hernandez Drive, or Objective #5, to take advantage of the access road, detention pond, and utility infrastructure for the medical campus site provided by the Lillian Commons Project. Therefore, a feasible location that would meet the project objectives does not exist.

Furthermore, the project applicant does not own an alternative location that would be adequate to construct the proposed project. The project site is located in an area served by existing regional infrastructure and arterial roadways, and is located adjacent to existing urban development in the City of Morgan Hill. Overall, a feasible off-site location that would meet the requirements of CEQA, as well as meet the basic objectives of the proposed project, does not exist. Therefore, an Off-Site Alternative was dismissed from detailed analysis within this SEIR.

6.4 ALTERNATIVES CONSIDERED IN THIS SEIR

The following alternatives are considered potentially feasible alternatives to the project and are evaluated in further detail in this section:

- No Project (No Build) Alternative;
- No Project (Buildout Pursuant to Approved PD Master Plan) Alternative; and
- Reduced Size Alternative.

Each of the project alternatives is described in detail below, with a corresponding analysis of each alternative's impacts in comparison to the proposed project. As discussed above, reasonable alternatives to the project must be capable of avoiding or substantially lessening a new significant impact or substantial increase in severity of a significant impact, as identified by this SEIR. Therefore, this chapter focuses on the resource areas and specific impacts listed above that have been identified in this SEIR for the proposed project as requiring new or modified mitigation to reduce significant impacts to less than significant. While an effort has been made to include quantitative data for certain analytical topics, where possible, qualitative comparisons of the various alternatives to the project are primarily provided. Such an approach to the analysis is appropriate as evidenced by CEQA Guidelines Section 15126.6(d), which states that the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.

The analysis evaluates impacts that would occur with the alternatives relative to the significant impacts identified for the proposed project. When comparing the potential impacts resulting from implementation of the foregoing alternatives, the following terminology is used:

- "Fewer" = Less than Proposed Project;
- "Similar" = Similar to Proposed Project;
- "Greater" = Greater than Proposed Project; and
- "None" = No impact.

When the term "fewer" is used, the reader should not necessarily equate this to elimination of significant impacts identified for the proposed project. For example, in many cases, an alternative would reduce the relative intensity of a significant impact identified for the proposed project, but the impact would still be expected to remain significant under the alternative, thereby requiring mitigation. In other cases, the use of the term "fewer" may mean the actual elimination of an impact identified for the proposed project altogether. Similarly, use of the term "greater" does not necessarily imply that an alternative would require additional mitigation beyond what has been required for the proposed project. To the extent possible, this analysis will distinguish between the two implications of the comparative words "fewer" and "greater."

Please see Table 6-1 for a general comparison of the environmental impacts resulting from the considered alternatives and the proposed project.

No Project (No Build) Alternative

CEQA requires the evaluation of the comparative impacts of the "No Project" alternative (CEQA Guidelines Section 15126.6[e]). Analysis of the no project alternative shall:

> "… discuss […] existing conditions […] as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." (*Id.*, subd. [e][2]) "If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the 'no project' alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in the property's existing state versus environmental effects that would occur if the project were approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this 'no project' consequence should be discussed. In certain instances, the no project alternative means 'no build,' wherein the existing environmental setting is maintained. However, where failure to proceed with the project would not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment." (*Id.*, subd. [e][3][B]).

The City has decided to evaluate a No Project (No Build) Alternative, which assumes that the current conditions of the project site would remain, and the site would not be developed. As described in this SEIR, the majority of the project site is currently undeveloped and contains ruderal (non-native) grasses. Two medical office buildings and a paved surface parking lot featuring landscaping trees occur on a 1.69-acre portion of the 9.61-acre project site. The site is bounded to the west by Juan Hernandez Drive and to the east by US-101.

The No Project (No Build) Alternative would not meet any of the project objectives.

Air Quality, Greenhouse Gas Emissions, and Energy

Because the No Project (No Build) Alternative would not involve any development of the project site, construction and operational activities would not occur under the Alternative. Therefore, the Alternative would not result in construction or operational emissions, and would not generate GHG emissions in excess of the applicable BAAQMD thresholds of significance. Thus, the impacts identified for the proposed project related to the generation of GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs would not occur under the No Project (No Build) Alternative, and the mitigation measures identified for the proposed project would not be required. Overall, impacts related to Air Quality, GHG Emissions, and Energy would not occur under the No Project (No Build) Alternative.

Noise

The No Project (No Build) Alternative would consist of the continuation of the existing conditions of the project site. Because the No Project (No Build) Alternative would not introduce any new development on-site and construction would not occur, new temporary or permanent noise sources would not be generated on-site. Therefore, the mitigation measures identified for the proposed project would not be required, and impacts related to noise would not occur under the No Project (No Build) Alternative.

Transportation

Because the No Project (No Build) Alternative would not involve any development of the project site, construction and operational activities would not occur under the Alternative. Thus, the No Project (No Build) Alternative would not potentially interfere with existing roadway operations, including pedestrian, bicycle, and transit facilities, during construction, and Mitigation Measure 4.3-3 related to preparation and implementation of a construction signage and traffic control plan would not be required. Overall, the impact identified for the proposed project related to transportation would not occur under the No Project (No Build) Alternative.

No Project (Buildout Pursuant to Approved PD Master Plan) Alternative

The No Project (Buildout Pursuant to Approved PD Master Plan) Alternative assumes that the site would be developed pursuant to the currently approved uses set forth in the Planned Development (PD) Master Plan, as evaluated by the 2020 IS/MND. Specifically, the project site would contain 124,500 sf of medical/commercial uses, including a 4,500-sf urgent care facility, a 10,000-sf medical building, a 100,000-sf medical office/hospital with 55 beds, a three-story parking structure with 500 spaces, and a 10,000-sf commercial retail/restaurant building. Because the City has already approved the General Plan Amendment, Zoning Amendment, PD Master Plan, and Tentative Parcel Map associated with the Lillian Commons Project, the No Project (Buildout Pursuant to the Approved PD Master Plan) Alternative would not be expected to require City approval of any further entitlements with the possible exception of Conditional Use Permits (CUPs) for uses requiring a CUP. The No Project (Buildout Pursuant to Approved PD Master Plan) Alternative would fully meet the project objectives, with the exception of Objective #2. Objective #2 specifies that the existing approved 124,500 sf of space would not be large enough to accommodate a hospital footprint. Therefore, the No Project (Buildout Pursuant to Approved PD Master Plan) Alternative would not have the ability to be phased to meet existing needs and scale up in size as demand increases, and Project Objective #2 would not be met.

Air Quality, Greenhouse Gas Emissions, and Energy

The Lillian Commons Project was reviewed for consistency with the then-current BAAQMD Guidelines and CEQA GHG quantitative thresholds, which determined that the project would have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, the 2020 IS/MND included implementation of Mitigation Measure GHG-1.1, which required development and implementation of a GHG reduction plan to reduce the impact to a less-than-significant level.

Unlike the Lillian Commons Project, the currently proposed amendment to the PD Master Plan is subject to review for consistency with BAAQMD's updated Air Quality Guidelines and qualitative GHG emissions thresholds. Under the new thresholds, the proposed project could have an impact due to the project conflicting with Transportation criterion d of BAAQMD's new GHG standards, related to providing sufficient EV parking spaces. Should the developer proceed with developing the approved uses consistent with the approved PD Master Plan (i.e., the No Project [Buildout Pursuant to Approved PD Master Plan] Alternative), the developer would be required to comply with Mitigation Measure GHG-1.1 as written in the 2020 IS/MND. Compliance with Mitigation Measure GHG-1.1 would ensure development under the Alternative is consistent with the regulations in effect at the time of the 2020 IS/MND, and the currently proposed project's potential impact would not occur. Therefore, the impact related to air quality, GHG emissions, and energy could be considered fewer than the proposed project under the Alternative.

Noise

The 2020 IS/MND evaluated the potential for the Lillian Commons Project to result in generation of a substantial temporary increase in ambient noise levels under Impact NOI-1 and concluded that, with implementation of Mitigation Measure NOI-1.1, a less-than-significant impact would occur. Mitigation Measure NOI-1.1 requires compliance with Policy NOI-1.8 and Morgan Hill Municipal Code Section 8.28.040, including the development of a Noise Construction Control Plan, all gasoline-powered construction equipment be equipped with an operating muffler or baffling systems as originally provided by the manufacturer, and prohibition of modification to the systems. The currently proposed project would exceed the applied thresholds related to a substantial temporary increase in ambient noise for a shorter period of time relative to noise levels generated by construction of the Lillian Commons Project's non-residential component (i.e., the No Project [Buildout Pursuant to Approved PD Master Plan] Alternative), as the Noise Assessment prepared for the proposed project determined that construction of the previously approved non-residential uses would have exceeded the applicable noise level thresholds for an estimated 28 months, whereas the current project would exceed the noise level thresholds for an estimated total of 15 months. Should the developer proceed with developing the approved uses consistent with the approved PD Master Plan (i.e., the No Project [Buildout Pursuant to Approved PD Master Plan] Alternative), the developer would be required to comply with Mitigation Measure NOI-1.1 as written in the 2020 IS/MND. Compliance with Mitigation Measure NOI-1.1 would ensure development under the Alternative would reduce any potentially significant impacts associated with construction noise to a less-than-significant level. Because the Alternative would exceed the applicable threshold for a longer period of time than the proposed project, impacts related to a substantial temporary increase in ambient noise levels would be slightly greater under the Alternative compared to the proposed project.

The 2020 IS/MND evaluated the potential for the Lillian Commons Project to result in a substantial increase in ambient noise levels due to mechanical equipment under Impact NOI-1 and concluded that, with implementation of Mitigation Measure NOI-2.1, a less-than-significant impact would occur. The Alternative would involve similar mechanical equipment to the proposed project. Thus, Mitigation Measure NOI-2.1 as set forth in the 2020 IS/MND would remain applicable under the Alternative.

Overall, because the No Project (Buildout Pursuant to Approved PD Master Plan) Alternative would exceed the applied thresholds related to a substantial temporary increase in ambient noise for a greater period of time relative to noise levels generated by the proposed project, the impacts identified for the proposed project related to noise would be slightly greater under the Alternative.

Transportation

The SEIR determined that the No Project (Buildout Pursuant to Approved PD Master Plan) Alternative could result in similar daily on-site construction activities and associated temporary increase in construction vehicle traffic to area roadways as compared to the proposed project. Therefore, while both the Alternative and the proposed project would be anticipated to have similar temporary effects on the roadway network during construction, the potential temporary effects on the surrounding roadway network during construction were not specifically addressed in the adopted 2020 IS/MND. Out of an abundance of caution, the SEIR determined that the proposed project could result in a potentially significant impact and includes Mitigation Measure 4.3-3 requiring preparation and implementation of a construction signage and traffic control plan. Therefore, for purposes of this alternatives analysis, the impact identified for the proposed project related to substantially increased hazards due to a geometric design feature (e.g., sharp curves

or dangerous intersections) or incompatible uses (e.g., farm equipment) or inadequate emergency access would be fewer under the Alternative.

Overall, for purposes of this alternatives analysis, the impact related to transportation could be fewer than the proposed project under the Alternative.

Reduced Size Alternative

The Reduced Size Alternative would include 225,000 sf of medical office uses, split between a four-story, 100,000-sf building, a three-story 75,000-sf building, and a two-story 50,000-sf building (see Figure 6-1). The Reduced Size Alternative would retain the two existing medical buildings and parking lot located on Parcel D, thereby reducing the overall site acreage and disturbance area. The Alternative would still require a PD Master Plan Amendment to increase the maximally allowed medical office square footage from 124,500 sf to 225,000, building coverage to 60 percent, medical office parking to one space per 250 sf, and to increase the maximum building height from 55 feet to 65 feet. Additionally, floor area ratio (FAR) would still be eliminated, assisted living facilities would still be added as a permitted use, and day care centers, farmers markets, residential care facilities, and skilled nursing facilities would still be changed from conditionally permitted to permitted uses.

Because the Reduced Size Alternative would still provide medical office uses, the project objectives would be fully met under the Alternative, with the possible exception of Objective #2. Objective #2 specifies that the existing approved 124,500 sf of space would not be large enough to accommodate a hospital footprint. Therefore, while the Reduced Size Alternative would have the ability to be phased to meet existing needs and scale up in size as demand increases, the flexibility to do so would be constrained due to the reduction in square footage by 50,000 sf.

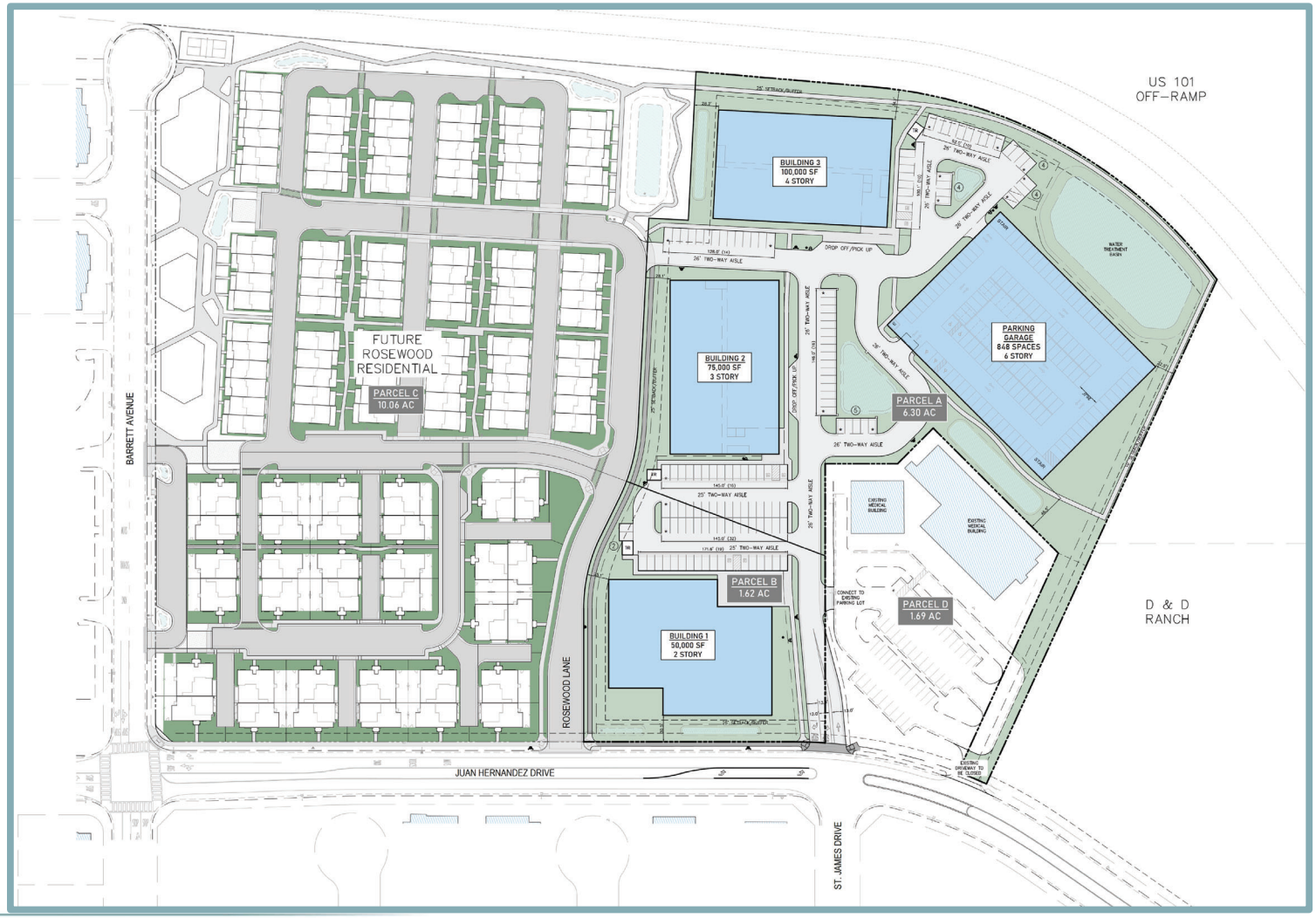
Air Quality, Greenhouse Gas Emissions, and Energy

Because the Reduced Size Alternative would involve a smaller area of disturbance and building envelope than the proposed project, the GHG emissions associated with the Alternative would be less than the proposed project. Similar to the proposed project, the Alternative would result in a net decrease in GHG emissions during construction and operations from what was anticipated in the 2020 IS/MND due to the reduced square footage.

In addition, similar to the proposed project, the Alternative would be expected to comply with BAAQMD's Buildings criterion a., related to the prohibition of natural gas on-site, and Buildings criterion b., related to the wasteful, inefficient, or unnecessary use of energy, as well as Transportation criterion c., related to VMT. However, similar to the proposed project, the Alternative would still conflict with BAAQMD's Transportation criterion d., related to the provision of EV charging stations. Therefore, Mitigation Measure 4.1-6would still be required under the Reduced Size Alternative.

Based on the above, although the Alternative would have the same potentially significant GHG impact as the proposed project (related to a potential conflict with BAAQMD's GHG criterion concerning EV charging stations), because the Alternative would result in a reduction of GHG emissions compared to the proposed project, it is reasonable to conclude that the impacts related to air quality, GHG emissions, and energy would be fewer than the proposed project.

Figure 6-1
Reduced Size Alternative Site Plan



Noise

Because the Reduced Size Alternative would involve less building square footage as compared to the proposed project, the intensity of construction activities would be slightly reduced. Thus, noise related to construction associated with the Alternative could be slightly reduced as compared to the proposed project.

However, because construction noise would still occur under the Alternative, construction of the Alternative could still result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Therefore, implementation of Mitigation Measure NOI-1.1, as modified from the 2020 IS/MND, would still be required under the Alternative.

Although the Reduced Size Alternative would result in less square footage on a reduced project site, the proposed medical buildings would still feature emergency generator equipment and transformers. As such, similar to the proposed project, the mechanical equipment at the medical buildings could result in the generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. Therefore, the Reduced Size Alternative would still be subject to Mitigation Measure NOI-2.1, as modified from the 2020 IS/MND, to ensure that a qualified acoustical consultant is retained to review the proposed mechanical equipment systems, including the emergency generator and transformer, to confirm if specific noise-reduction measures are necessary.

Overall, the impacts identified for the Reduced Size Alternative related to noise would be similar to the proposed project.

Transportation

Similar to the proposed project, the Reduced Size Alternative would temporarily add construction vehicle traffic to area roadways. Thus, similar to the proposed project, construction traffic and potential street closures could interfere with existing roadway operations, including pedestrian, bicycle, and transit facilities, during the construction phase. As such, Mitigation Measure 4.3-3, related to preparation and implementation of a construction signage and traffic control plan, would still be required under the Alternative. However, because the Alternative would involve less building square footage as compared to the proposed project, the intensity of construction activities would be slightly reduced, and the amount and overall duration of construction traffic would be reduced. Accordingly, the impact identified for the proposed project related to an increase in hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) or inadequate emergency access would be fewer under the Alternative.

Overall, development of the Reduced Size Alternative could result in fewer impacts related to transportation compared to the proposed project.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. The environmentally superior alternative is generally the alternative that would be expected to generate the least amount of significant impacts. Identification of the environmentally superior alternative is an informational procedure and the

alternative selected may not be the alternative that best meets the goals or needs of the City. Section 15126(e)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states, "If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives." In this case, the No Project (No Build) Alternative would be considered the environmentally superior alternative, because the project site is assumed to remain in its current condition under the alternative. Consequently, many of the impacts resulting from the proposed project would not occur under the Alternative, as shown in Table 6-1 below. In addition, the No Project (Buildout Pursuant to the Approved PD Master Plan) Alternative could result in fewer impacts than the proposed project related to two of the three resources areas where new or more severe significant impacts were identified for the proposed project, and greater impacts to the remaining resource area. However, the No Project (No Build) Alternative would not meet any of the project objectives, and the No Project (Buildout Pursuant to Approved PD Master Plan) Alternative would meet six of the seven project objectives. Furthermore, the No Project (Buildout Pursuant to the Approved PD Master Plan) Alternative would be considered a form of a no project alternative and, thus, an environmentally superior alternative among the other alternatives must be identified pursuant to CEQA.

Apart from the no project alternatives, as discussed above, the Reduced Size Alternative would be considered the environmentally superior alternative. The Reduced Size Alternative would fully meet six of the seven project objectives. In addition, as discussed throughout this chapter and shown in Table 6-1, the Reduced Size Alternative could result in fewer impacts than the proposed project related to air quality, GHG emissions, and energy and transportation, and would result in similar impacts as the proposed project related to noise.

Table 6-1
Comparison of Environmental Impacts for Project Alternatives

Resource Area	Proposed Project	No Project (No Build) Alternative	No Project (Buildout Pursuant to Approved PD Master Plan) Alternative	Reduced Size Alternative
Air Quality, Greenhouse Gas Emissions, and Energy	Less-Than-Significant with Mitigation	None	Fewer	Fewer
Noise	Less-Than-Significant with Mitigation	None	Greater	Similar
Transportation	Less-Than-Significant with Mitigation	None	Fewer	Fewer
Total No Impact:		**3**	**0**	**0**
Total Fewer:		**0**	**2**	**2**
Total Greater:		**0**	**1**	**0**
Total Similar:		**0**	**0**	**1**

Note: No Impact = "None;" Less than Proposed Project = "Fewer;" Greater than Proposed Project = "Greater;" and Similar to Proposed Project = "Similar"

7. SEIR Authors and Persons Consulted

7. SEIR AUTHORS AND PERSONS CONSULTED

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Appendix A

CITY OF MORGAN HILL

NOTICE OF PREPARATION
of a Draft Subsequent Environmental Impact Report

Date: August 25, 2023

To: Agencies and Interested Parties

From: Joey Dinh, Associate Planner, Morgan Hill Development Services

Subject: Notice of Preparation of a Draft Subsequent Environmental Impact Report for the Rosewood/Morgan Hill Medical Campus Project (formerly known as the Lillian Commons Medical Campus Project)

Review Period: August 25, 2023 to September 25, 2023

The City of Morgan Hill (City) will be the Lead Agency and will prepare a Subsequent Environmental Impact Report (SEIR) for the Rosewood/Morgan Hill Medical Campus Project (project or proposed project) in the City of Morgan Hill. This Notice of Preparation (NOP) initiates the environmental scoping process in accordance with the California Environmental Quality Act (14 California Code of Regulations [CCR] Section 15082). The purpose of an NOP is to provide sufficient information about the proposed project and its potential environmental impacts to allow agencies and interested parties the opportunity to provide a meaningful response related to the scope and content of the SEIR, including mitigation measures and alternatives that should be considered in the SEIR (CEQA Guidelines 14 CCR Section 15082[b]). The project description and location are described below.

Public Scoping Meetings and Comment Submittal

A scoping meeting, open to agencies, organizations, and individual members of the public will be held to receive public comments and suggestions on the scope of environmental issues to be studied in the SEIR. The scoping meeting will be open to the public and held as follows:

A virtual scoping meeting will be held:

Date: Tuesday, September 19, 2023
Time: 6:00 PM
Link: https://bit.ly/RosewoodNOPScopingMeeting
Meeting ID: 879 6339 7454

The City is soliciting comments from public agencies, private organizations, and individuals regarding the scope and content of the environmental documentation. Because of time limits mandated by State law, **comments should be provided no later than 5:00 PM on September 25, 2023**. Please send all comments to:

Joey Dinh, Associate Planner Morgan Hill Development Services
17575 Peak Avenue
Morgan Hill, CA 95037
Phone: (408) 778-6480
Email: Joey.Dinh@MorganHill.CA.gov

Agencies that will need to use the SEIR when considering permits or other approvals for the proposed project should provide the name of a contact person, phone number, and email address in their comment. Comments provided by email should include "Rosewood/Morgan Hill Medical Campus Project NOP Comment" in the subject line, and the name and physical address of the commenter in the body of the email.

Project Background

On November 4, 2020, the Morgan Hill City Council reviewed and approved the Lillian Commons Medical Campus Project (Lillian Commons Project), a mixed-use development project proposed for a 19.67-acre site southeast of the Juan Hernandez Drive/Barrett Avenue intersection in the City of Morgan Hill, California. The site is composed of three parcels, identified by Assessor's Parcel Numbers (APNs) 817-09-039, -040, and -041. The Lillian Commons Project, for which an Initial Study/Mitigated Negative Declaration (IS/MND) was prepared and adopted (State Clearinghouse No. 2020060601), originally proposed to construct a 4,500-square-foot (sf) urgent care facility, a 10,000-sf medical building, a 100,000-sf medical office/hospital with 55 beds, a three-story parking structure with 500 spaces, a 10,000-sf commercial retail/restaurant building, and a 200-unit multi-family residential complex.[1] The project applicant, Brookfield Properties (BFH CM LLC), requested City approval of the following entitlements:

- A General Plan Amendment (GPA) to redesignate the site from Commercial to Mixed-Use Flex;
- A Zoning Amendment to amend the site's zoning from Service Commercial with a Planned Development (PD) Combining District overlay to MU-F with a PD Combining District overlay;
- A Planned Development (PD) Master Plan to allow for flexibility in the permitted land uses within the project site; and
- A Tentative Parcel Map to subdivide the site into four parcels: Parcels A, B, C, and D.

The Lillian Commons Project IS/MND ultimately concluded that although potentially significant impacts could occur through development of the project, with incorporation of the mitigation measures set forth therein, all potential impacts would be reduced to a less-than-significant level. After reviewing the applicant's request to amend the site's land use designation from Commercial to MU-F and to create a PD zoning district and associated Master Plan, the City Council voted to approve the Lillian Commons Project, while incorporating Morgan Hill Planning Commission recommendations of limiting housing to only the northern portion of the site (Parcel C), reducing the number of new multi-family residential units that could be developed by the project from 200 units to 150 units, and requiring that, for the remainder of the site, any allowed uses in the PD are tied to a medical campus (Resolution Nos. 20-058, 20-059, and 20-060 and Ordinance No. 2318).

The applicant is proceeding with development of the residential component of the City-approved Lillian Commons Project on Parcel C (10.06 acres), now known as "Rosewood". The approved vesting tentative map consists of 120 units (34 duet units and 86 townhome units), rather than the 150 units previously approved by the City Council. The remaining Parcels A, B, and D comprise approximately 9.61 acres and represent the area within the PD Master Plan approved for medical and commercial uses. Parcels A and B are currently undeveloped, while Parcel D contains 15,900 sf of existing medical office space. The applicant

[1] City of Morgan Hill. *Lillian Commons Medical Campus Initial Study*. June 2020.

is proposing certain modifications to the 9.61-acre area, thus, necessitating an Amendment to the PD Master Plan. The 9.61-acre site is the subject of this SEIR and is considered the project site for the purposes of CEQA. In general, the modifications consist of increasing the allowable medical office square footage and maximum building height, as well as a General Plan text amendment to amend the Mixed Use Flex designation to exempt medical uses, including hospitals, from floor area ratio requirements with an approved Planned Development (PD) Combining District and PD Master Plan. Additional project details are provided below.

In situations when a lead agency has certified an EIR or adopted a Negative Declaration for a project, and then the project is modified and subject to additional discretionary approvals, the lead agency must consider the need for subsequent environmental review. In the case of an adopted Negative Declaration, depending on the nature of the project modifications, a lead agency may prepare an Addendum to the Negative Declaration, a Subsequent Negative Declaration, or an SEIR. According to CEQA Guidelines Section 15164, a lead agency can prepare an Addendum to a previously adopted Negative Declaration if some changes or additions are necessary, but none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of an SEIR have occurred.

While the environmental analysis for the proposed project has not yet been completed, the City of Morgan Hill has decided to take a conservative approach for the Rosewood/Morgan Hill Medical Campus Project and assume the project may result in new significant impacts not previously identified or a substantial increase in the severity of significant impact(s) previously identified in the 2020 Lillian Commons IS/MND.

In cases where an approved project has already undergone environmental review, and the environmental document has been adopted by the lead agency, the lead agency can restrict the current review to the incremental effects of the modified project, rather than having to reconsider the overall impacts of the project. In such cases, as the project under review constitutes only a modification of a previously approved project, the "baseline" for the purposes of CEQA is adjusted such that the originally approved project is assumed to exist.[2] Thus, the environmental baseline for the SEIR is appropriately considered to be the approved Lillian Commons Project, the PD Master Plan for which allocated 124,500 sf of medical/commercial uses for the 9.61-acre project site. While the City could legitimately use this baseline for evaluation of all CEQA topics in the SEIR, the City has conservatively chosen to use the existing site conditions as the baseline for the vehicle miles traveled (VMT) analysis, given that the adopted 2020 Lillian Commons IS/MND only included a qualitative analysis of VMT. In other words, with the exception of the existing 15,900 sf of medical office space currently located in the southernmost portion of the project site, other VMT-generating uses previously approved for the Lillian Commons Project IS/MND are not assumed in the environmental baseline.

Project Location

The project site consists of two parcels (APNs 817-09-039 through -041) totaling 9.61 acres located to the southeast of the Juan Hernandez Drive/Barrett Avenue intersection in the City of Morgan Hill (see Figure 1). The City of Morgan Hill General Plan designates the project site MU-F, and the site is zoned MU-F with a PD Combining District overlay.

Pursuant to the City of Morgan Hill General Plan, the Mixed Use Flex designation allows for a mix of residential, commercial, and office uses applied either vertically (i.e., one structure with multiple uses) or horizontally (i.e., structures with different land uses located adjacent to one another), a density of seven to 24 dwelling units per acre (du/ac), and a maximum FAR of 0.5. As established by the approved Lillian Commons PD Master Plan, the project site's permitted uses include, but are not limited to, the following: banks and financial institutions, business support services, commercial recreation, cultural institutions, day

[2] See Michael H. Remy et al. *Guide to CEQA, 11th Edition*. Point Arena: Solano Press Books (2007), pg. 207; Stephen L. Kostka and Michael H. Zischke. *Practice Under the Environmental Quality Act, Second Edition* (Vol. 1). Oakland: Continuing Education of the Bar (2018), pgs. 12-32; *Benton v. Board of Supervisors* (1st Dist. 1991) 226 Cal. App. 3d 1467.

care centers, general retail, hospitals, medical offices and clinics, parking lots and structures, and professional offices.

Site Characteristics

The majority of the project site is currently undeveloped and contains ruderal (non-native) grasses. Two medical office buildings totaling 15,900 sf, as well as a paved surface parking lot and landscaping trees, occur on a 1.69-acre portion of the project site. The site is bounded to the west by Juan Hernandez Drive and to the east by US-101.

Surrounding Land Uses

The 10.06-acre Parcel C, which is currently being developed with a 120-unit multi-family Rosewood residential community facilitated by the previously approved Lillian Commons Project, is to the north of the project site, across the approved Street A. Barrett Elementary School and single-family residences are located further to the north, across Barrett Avenue. To the east of US-101 are various commercial uses, including Microtel Inn & Suites, Comfort Inn & Suites, Patioworld, and House of Thunder Harley-Davidson. To the south is undeveloped land designated for Commercial uses. To the west are single-family residences and undeveloped land designated Residential Attached Medium, across Juan Hernandez Drive.

Project Description

The proposed project would require approval of a General Plan Text Amendment and Planned Development Master Plan Amendment, which are discussed in further detail below.

General Plan Text Amendment

According to the Morgan Hill General Plan, the Mixed Use Flex designation allows for a mix of residential, commercial, and office uses applied either vertically or horizontally with a maximum FAR of 0.5. As part of the proposed General Plan Text Amendment, the Mixed Use Flex designation would be amended to exempt medical uses, including hospitals, from floor area ratio requirements with an approved Planned Development (PD) Combining District and PD master plan.

Planned Development Master Plan Amendment

The PD Master Plan Amendment would allow for an increase in medical office square footage within the 9.61-acre project site. The project applicant has prepared two site plans for the project site, one of which identifies the probable medical square footage for the project site, and the other represents the potential maximum medical square footage. For CEQA analysis purposes, the City has chosen to focus the environmental analysis within the SEIR on the maximum square footage so that the full envelope of potential environmental impacts is assessed and mitigated, as required. The PD Master Plan Amendment sets the maximum medical square footage at 275,000 sf. The probable medical square footage site plan includes a total footprint of 225,000 sf of medical office uses and will be included as a Reduced Project alternative in the Alternatives Analysis chapter of the SEIR.

The proposed project would consist of three medical office buildings and a parking structure (see Figure 2) and would result in the following building footprints:

- Building 1: A 75,000-sf, three-story medical office building immediately east of Juan Hernandez Drive;
- Building 2: A 100,000-sf, four-story medical office/hospital/urgent care/pharmacy/retail/restaurant building south of Rosewood Lane, generally within the center of the project site;
- Building 3: A 100,000-sf, four-story medical office building immediately west of US-101; and
- A 54,000-sf, six-story parking structure, comprised of 965 parking spaces, located to the south of the proposed medical buildings.

Through approval of the PD Master Plan Amendment, the proposed project would result in a net increase of 150,500 sf of medical/commercial uses relative to the originally approved project (275,000 sf – 124,500 sf = 150,500 sf). After accounting for the existing 15,900 sf of medical office use that would be demolished as part of the proposed project, the total net increase would be 133,600 sf. The three medical office buildings would each be located to the south of Rosewood Lane. The maximum building height for the medical office buildings would be increased as part of the PD Master Plan Amendment, from 55 feet to 65 feet.

With respect to the parking structure, the originally approved project included construction of a three-story, 32-foot-tall parking structure, whereas the proposed project is proposing development of a six-story, 65-foot-tall structure. Thus, the proposed project modifications would result in a net increase of three floors and 33 feet.

In addition, whereas the originally approved project sited the parking structure immediately south of Rosewood Lane and adjacent to the east of US-101, the proposed project would place the parking structure within the southern portion of the project site, generally equidistant from US-101 and Juan Hernandez Drive. The proposed project would also include demolition of the existing 15,900 sf of medical office buildings within Parcel D, which would be replaced with a paved surface parking lot.

Access, Circulation, and Parking

Access to the project site would be provided by St. James Drive, which would include connections to Juan Hernandez Drive to the east of the site and the previously approved Rosewood Lane to the north of the site. St. James Drive would consist of a 36-foot-wide right-of-way (ROW) along the majority of the street, comprised of two 13-foot-wide vehicle lanes, a five-foot-wide landscape strip, and a five-foot-wide sidewalk. Near the entrance from Juan Hernandez Drive, St. James Drive would feature a 51-foot-wide ROW, comprised of a 13-foot-wide right-turn lane, two vehicle lanes, a five-foot-wide landscape strip, and a five-foot-wide sidewalk. Additionally, emergency vehicle access to Barrett Avenue would be available through the Rosewood subdivision that is currently under construction north of the project site.

With respect to parking, the parking structure would include 965 parking spaces across six floors, including 30 spaces designed in compliance with the Americans with Disabilities Act (ADA). In addition, the proposed project would include 269 surface parking spaces, which would be located between the three medical office buildings, as well as to the east and west of the parking structure. In addition, the project would be required to provide 165 total bicycle parking spaces (55 covered spaces, 110 uncovered spaces).

In regard to pedestrian access, new sidewalks would be provided along all internal drive aisles within the project site. The new sidewalks would ultimately provide access to the existing sidewalks along Juan Hernandez Drive. In addition, an internal jogging/walking trail would be constructed to extend through the project site from the southern site boundary to along the eastern perimeter. The proposed internal jogging/walking trail would connect to similar trails within the Rosewood residential community under construction to the north, which would ultimately connect to Barrett Avenue further to the north.

Utilities

Water and sewer service for the proposed project would be provided by the City of Morgan Hill through connections to existing infrastructure located in the project vicinity. From the existing 10-inch water line in Juan Hernandez Drive, new 8- and 10-inch water lines would be extended into the site within St. James Drive, to which the proposed medical office buildings would connect by way of new laterals. Fire flow would be provided to all proposed structures through the proposed pipe network. Similarly, from the existing 8-inch sewer line in Juan Hernandez Drive, new 6- and 8-inch sewer lines would be extended into the site within St. James Drive, to which the proposed medical office buildings would connect by way of new laterals.

With respect to storm drainage facilities, runoff from new impervious surfaces within the developed project site would be directed to inlets located throughout the project site, as well as new bioretention basins sited in various locations, which would provide preliminary treatment and temporary storage of runoff during peak rainfall. From the inlets and bioretention basins, flows would be conveyed by way of new 15- and 18-inch

storm drain lines to the water treatment basin located to the southeast of the parking structure, where flows would ultimately be piped to the existing storm drain infrastructure in Juan Hernandez Drive.

Finally, electricity would be provided to the proposed project by Pacific Gas & Electric Co. (PG&E) through the existing underground utility lines along Juan Hernandez Drive. The project would not include natural gas, as natural gas has been prohibited in all new construction since March 1, 2020, pursuant to City Ordinance No. 2306.

Landscaping

New landscaping would be provided throughout the project site, adjacent to the proposed structures, internal drive aisles, and site perimeters. Plant selection would be consistent with the landscaping planted as part of the previously approved Rosewood multi-family residential community to the north. In addition, new vegetation would be selected in accordance with Morgan Hill Municipal Code Section 18.64.060, which requires that all plants and trees shall be categorized as low or very low water use.

Requested Entitlements

As the lead agency under CEQA, the City of Morgan Hill is responsible for considering and determining the adequacy of the SEIR and determining if the proposed project should be approved. The City of Morgan Hill City Council is responsible for certifying the CEQA document and approving the following discretionary actions:

- PD Master Plan Amendment to increase the maximally allowed medical office square footage within the project site to 275,000 and maximum building height to 65 feet; and
- General Plan Text Amendment to amend the Mixed Use Flex designation to exempt medical uses, including hospitals, from floor area ratio requirements with an approved Planned Development (PD) Combining District and PD Master Plan.

Environmental Effects and Scope of the SEIR

An Initial Study was prepared for the proposed project (see Attachment to this NOP), which determined that the content of the SEIR shall focus on the following areas of potential significant impacts:

- Air Quality and Greenhouse Gas Emissions (including Energy);
- Noise; and
- Transportation.

In addition, statutorily required sections and discussion of project alternatives will be included. Some refinement to the aforementioned issues may be required based on comments received during the NOP scoping process. The following section describes each of the technical chapters of the SEIR in further detail.

Information will be drawn from the City of Morgan Hill General Plan and General Plan EIR, 2020 Lillian Commons Medical Campus IS/MND, technical studies prepared for the proposed project, and any other information pertinent to the project area. Consistent with CEQA and the requirements of the City of Morgan Hill, each environmental chapter will include an introduction, environmental setting, regulatory context, and impacts and mitigation measures.

Air Quality and Greenhouse Gas Emissions (including Energy)

Air Quality

The Air Quality and Greenhouse Gas (GHG) Emissions (including Energy) chapter of the SEIR will summarize the regional air quality setting, including climate and topography, existing ambient air quality, regulatory setting, and presence of any sensitive receptors near the project site. The air quality impact

analysis will include a quantitative assessment of short-term (i.e., construction) and long-term (i.e., operational) increases of criteria air pollutant emissions of primary concern (i.e., ROG, NO_X, and PM_{10}) resulting from the incremental growth proposed with the PD Master Plan Amendment. The analysis will additionally address toxic air contaminant (TAC) emissions using the California Air Resources Board (CARB) "Air Quality and Land Use Handbook: A Community Health Perspective." Consistent with California court rulings, the CEQA air quality impact analysis will focus solely on the proposed project's effects to the surrounding environment and will not include an analysis of the surrounding environment's effects, such as emissions from US 101, on future site patrons. The significance of air quality impacts will be determined in comparison to the Bay Area Air Quality Management District's (BAAQMD's) significance thresholds. Mitigation measures will be incorporated to reduce any significant air quality impacts, and anticipated reductions in emissions associated with proposed mitigation measures will be quantified.

Greenhouse Gas Emissions

The BAAQMD has recently adopted new thresholds of significance for GHG emissions. Pursuant to the new BAAQMD thresholds of significance for GHG emissions, new land use development projects need to implement specific design elements (i.e., no natural gas, electric vehicle charging, reduce VMT by 15 percent) or show consistency with a local GHG reduction strategy in order to do its "fair share" of implementing the goal of carbon neutrality by 2045. If the project can implement the specific design elements, it can reasonably be determined that the proposed project will not make a cumulatively considerable contribution to global climate change. Though not required by CEQA, for information disclosure purposes, the GHG section of the chapter will include a quantitative estimation of the proposed project's GHG emissions resulting from incremental growth proposed as part of the PD Master Plan Amendment. Mitigation measures would be identified, as appropriate, in coordination with the City and BAAQMD to identify feasible mitigations for GHG emissions.

Energy

An analysis will be included as to whether the proposed project could result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. The discussion will also evaluate whether the proposed project would conflict with or obstruct a state or local plan for renewable energy.

Noise

The Noise chapter of the SEIR will be based on a Noise Study prepared under contract with the City and will include a description of the existing noise level environment associated with the project site. As previously noted, the approved Lillian Commons Project will be used as the environmental baseline for the noise analysis of the proposed project; thus, the noise analysis will focus on the net increase in noise and vibration associated with the new modified project.

As part of the Noise Study, project-generated noise that could affect existing noise-sensitive receptors will be calculated, as well as traffic noise increases, noise from the project's mechanical systems, and other features of the project. Noise generated by project construction, as well as vibration levels expected from demolition and construction, will be estimated at nearby uses. Noise and vibration impacts will be assessed pursuant to CEQA guidelines, as well as in comparison to applicable State and local City noise thresholds to identify any potential noise impacts at sensitive receptors in the area resulting from the proposed project. New mitigation measures and mitigation measures included in the original noise study will be identified to mitigate any new significant noise or vibration impacts.

Transportation

The Transportation chapter of the SEIR will be based on a project-specific Traffic Impact Analysis (TIA) to be prepared under contract with the City. Since July 1, 2020, the metric of analysis to determine whether a project's transportation impact(s) would be significant under CEQA is VMT. According to CEQA Guidelines Section 15064.3, VMT is the most appropriate measure of transportation impacts. VMT refers to the amount

and distance of automobile travel attributable to a project. The project-specific TIA will evaluate VMT, the project's effect on transit services, bicycle, and pedestrian services in the area, and will review site circulation and access from a safety perspective to determine the adequacy of the proposed site plan in accordance with the generally accepted traffic engineering standards.

The project's VMT will be estimated and compared to applicable thresholds. Based on the results of the VMT evaluation, the TIA will identify and describe any impacts due to the site-generated VMT and provide recommendations that identify the locations and potential improvements or modifications necessary to mitigate impacts, to the extent feasible, which could include but not be limited to improvements to the transit, bicycle, and pedestrian infrastructure and Travel Demand Management (TDM) measures that promote multi-modal travel and reduce the use of single-occupant automobile travel for the purpose of reducing VMT.

Statutorily Required Sections

Pursuant to CEQA Guidelines Section 21100(B)(5), the Statutorily Required Sections chapter of the SEIR will address the potential for growth-inducing impacts of the proposed project, focusing on whether removal of any impediments to growth would occur with the proposed project. A summary of the significant and unavoidable impacts identified within the SEIR will be included in this chapter, if applicable, as well as a discussion of significant irreversible impacts. The chapter will generally describe the cumulative setting for the proposed project; however, a detailed description of the subject-specific cumulative setting, as well as analysis of the cumulative impacts, will be included in each technical chapter of the SEIR.

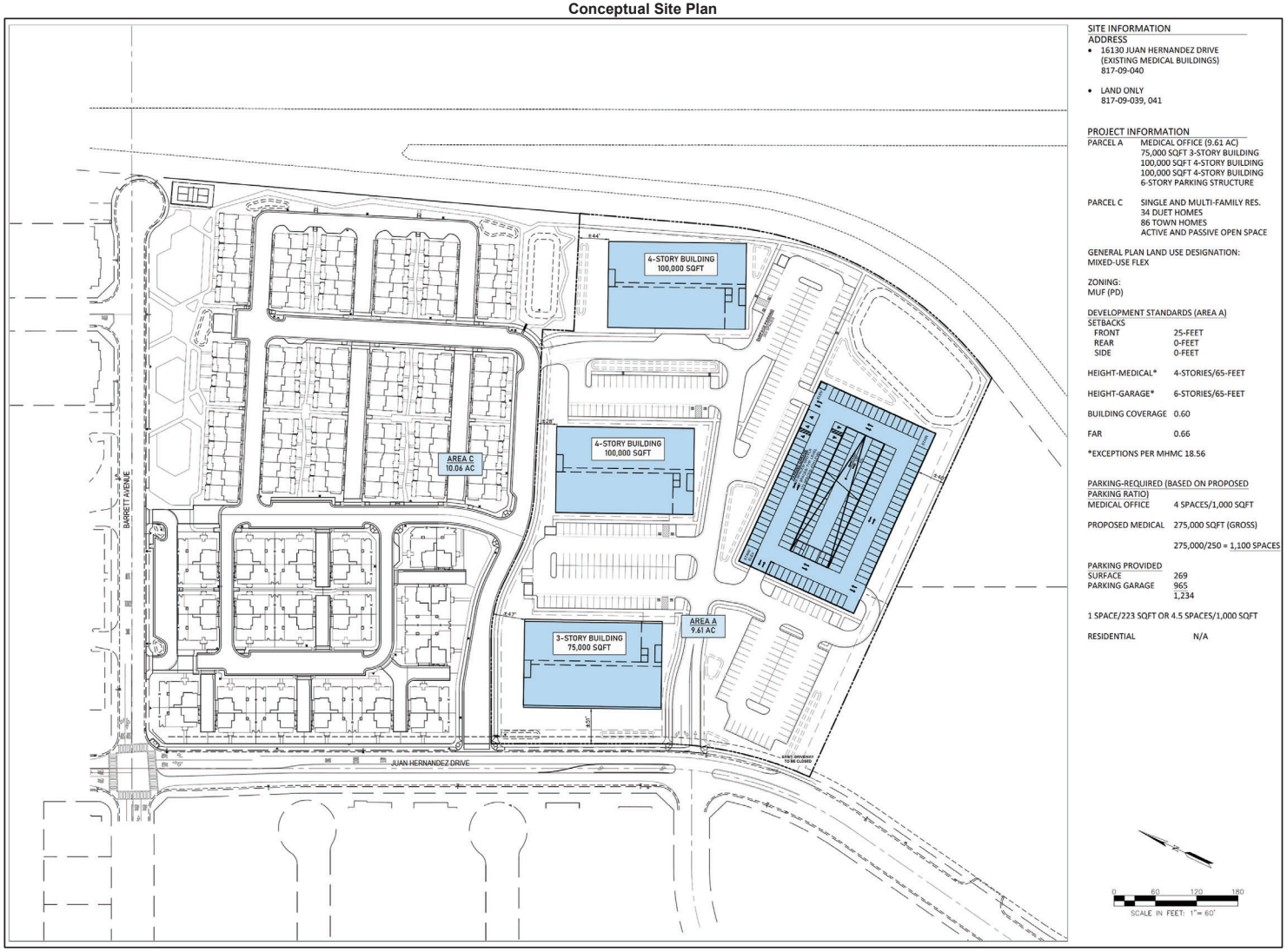
Alternatives Analysis

In accordance with Section 15126.6(a) of the CEQA Guidelines, the SEIR will include an analysis of a range of alternatives, including a No Project Alternative, which is anticipated to assume implementation of the approved 2020 Lillian Commons Project. In addition, as discussed above, the project applicant has prepared two site plans for the project site, one of which identifies the probable medical square footage for the project site, and the other represents the potential maximum medical square footage. The probable medical square footage site plan includes a total footprint of 225,000 sf of medical office uses and will be included as a Reduced Project alternative. Any additional project alternatives will be selected when more information related to project impacts is available in order to be designed to reduce significant project impacts. The chapter will also include a section of alternatives considered but dismissed, if necessary. The Alternatives Analysis chapter will describe the alternatives and identify the environmentally superior alternative. The alternatives will be analyzed at a level of detail less than that of the proposed project; however, the analyses will include sufficient detail to allow a meaningful comparison of the impacts. Such detail may include conceptual site plans for each alternative, basic quantitative traffic information (e.g., trip generation), as well as a table that will compare the features and the impacts of each alternative.

Figure 1
Project Site Boundaries



Figure 2
Conceptual Site Plan



Attachment

Initial Study

City of Morgan Hill
Development Services Department

Rosewood/Morgan Hill Medical Campus Project

Initial Study

August 2023

Prepared by

RANEY PLANNING & MANAGEMENT, INC. 20 years
1501 Sports Drive, Suite A, Sacramento, CA 95834

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INITIAL STUDY
AUGUST 2023

A. BACKGROUND

1. Project Title: Rosewood/Morgan Hill Medical Campus Project

2. Lead Agency Name and Address: City of Morgan Hill
Development Services Department
Morgan Hill, CA
17575 Peak Avenue
Morgan Hill, CA 95037

3. Contact Person and Phone Number: Joey Dinh
Associate Planner
(408) 778-6480

4. Project Location: South of the Juan Hernandez Drive/
Barrett Avenue Intersection
Morgan Hill, CA, 95037
APNs: 817-09-039 through -041

5. Project Sponsor's Name and Address: Brookfield Properties (BFH CM LLC)
12657 Alcosta Blvd, Suite 250
San Ramon, CA 94583

6. Existing General Plan Designation: Mixed Use Flex

7. Existing Zoning Designation: Mixed-Use Flex (MU-F) with a
Planned Development (PD) Combining District overlay

8. Required Approvals from Other Public Agencies: None Anticipated

9. Surrounding Land Uses and Setting:

The approximately 9.61-acre project site (identified by Assessor's Parcel Numbers [APNs] 817-09-039 through -041) is located to the southeast of the Juan Hernandez Drive/Barrett Avenue intersection in the City of Morgan Hill. The majority of the project site is currently undeveloped and contains ruderal (non-native) grasses. Two medical office buildings totaling 15,900 square feet (sf), as well as a paved surface parking lot and landscaping trees, occur on a 1.69-acre portion of the project site. A 10.06-acre parcel north of the project site, across the approved Street A, is currently being developed with the 120-unit multi-family Rosewood residential community. Barrett Elementary School and single-family residences are located further to the north, across Barrett Avenue. To the east of U.S. Highway 101 (US-101) are various commercial uses, including Microtel Inn & Suites, Comfort Inn & Suites, Patioworld, and House of Thunder Harley-Davidson. To the south is undeveloped land designated for Commercial uses. To the west are single-family residences and undeveloped land designated Residential Attached Medium, across Juan Hernandez Drive. The City of Morgan Hill General Plan designates the project site Mixed

Use Flex, and the site is zoned Mixed-Use Flex (MU-F) with a Planned Development (PD) Combining District overlay.

10. Project Description Summary:

The Rosewood/Morgan Hill Medical Campus Project (proposed project) consists of a request to amend an adopted Planned Development Master Plan to allow an increase in medical office square footage within the 9.61-acre project site. Through approval of the PD Master Plan Amendment, the proposed project would result in a net increase of 150,500 sf of medical/commercial uses relative to the originally approved project (275,000 sf – 124,500 sf = 150,500 sf). After accounting for the existing 15,900 sf of medical office use that would be demolished as part of the proposed project, the total net increase would be 133,600 sf. The development would generally include three new medical office buildings, a six-story, 65-foot-tall parking structure with 965 parking spaces, additional surface parking, and installation of utilities. The proposed project would also require the approval of a General Plan Text Amendment to amend the Mixed Use Flex designation to exempt medical uses, including hospitals, from floor area ratio requirements with an approved Planned Development (PD) Combining District and PD Master Plan.

B. INTRODUCTION

This Initial Study identifies and analyzes the potential environmental impacts of the proposed project. The information and analysis presented in this document is organized in accordance with the order of the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines.

On November 4, 2020, the Morgan Hill City Council reviewed and approved the Lillian Commons Medical Campus Project (Lillian Commons Project), a mixed-use development project proposed for a 19.67-acre site southeast of the Juan Hernandez Drive/Barrett Avenue intersection in the City of Morgan Hill, California. The site is composed of three parcels, identified by Assessor's Parcel Numbers (APNs) 817-09-039, -040, and -041. The Lillian Commons Project, for which an Initial Study/Mitigated Negative Declaration (IS/MND) was prepared and adopted (State Clearinghouse No. 2020060601), originally proposed to construct a 4,500-sf urgent care facility, a 10,000-sf medical building, a 100,000-sf medical office/hospital with 55 beds, a three-story parking structure with 500 spaces, a 10,000-sf commercial retail/restaurant building, and a 200-unit multi-family residential complex.[1] The project applicant, Lillian Commons, LLC, requested City approval of the following entitlements:

- A General Plan Amendment (GPA) to redesignate the site from Commercial to Mixed Use Flex;
- A Zoning Amendment to amend the site's zoning from Service Commercial with a PD Combining District overlay to MU-F with a PD Combining District overlay;
- A PD Master Plan to allow for flexibility in the permitted land uses within the project site; and
- A Tentative Parcel Map to subdivide the site into four parcels: Parcels A, B, C, and D.

The Lillian Commons Project IS/MND ultimately concluded that although potentially significant impacts could occur through development of the project, with incorporation of the mitigation measures set forth therein, all potential impacts would be reduced to a less-than-significant level. After reviewing the applicant's request to amend the site's land use designation from Commercial

[1] City of Morgan Hill. *Lillian Commons Medical Campus Initial Study*. June 2020.

to MU-F and to create a PD zoning district and associated Master Plan, the City Council voted to approve the Lillian Commons Project, while incorporating Morgan Hill Planning Commission recommendations of limiting housing to only the northern portion of the site (Parcel C), reducing the number of new multi-family residential units that could be developed by the project from 200 units to 150 units, and requiring that, for the remainder of the site, any allowed uses in the PD are tied to a medical campus (Resolution Nos. 20-058, 20-059, and 20-060 and Ordinance No. 2318).

The applicant is proceeding with development of the residential component of the City-approved Lillian Commons Project on Parcel C (10.06 acres), now known as "Rosewood". The approved vesting tentative map consists of 120 units (34 duet units and 86 townhome units), rather than the 150 units previously approved by the City Council. The remaining Parcels A, B, and D comprise approximately 9.61 acres and represent the area within the PD Master Plan approved for medical and commercial uses. Parcels A and B are currently undeveloped, while Parcel D contains 15,900 sf of existing medical office space. The applicant is proposing certain modifications to the 9.61-acre area, thus, necessitating an Amendment to the PD Master Plan. The 9.61-acre site is the subject of this Initial Study and is considered the project site for the purposes of CEQA. In general, the modifications consist of increasing the allowable medical office square footage and maximum building height, as well as a General Plan Text Amendment to amend the Mixed Use Flex designation to exempt medical uses including hospitals from floor area ratio requirements with an approved Planned Development (PD) Combining District and PD master plan. Additional project details are provided within the Project Description section below.

In the case of a project proposal requiring discretionary approval by the City for which the City has adopted an EIR or IS/MND for the overall project, the City must determine whether a subsequent EIR is required. The CEQA Guidelines provide guidance in this process by requiring an examination of whether, since the certification of the EIR or IS/MND, changes in the approved project or circumstances under which the approved project would be undertaken have occurred to such an extent that the proposal may result in a new significant impact (not previously identified in the certified EIR or IS/MND) or substantial increase in the severity of a previously identified significant impact. If so, the City would be required to prepare a subsequent EIR.

Based on the analysis contained in this Initial Study, the City of Morgan Hill finds that the Rosewood/Morgan Hill Medical Campus Project may result in new significant impacts not previously identified or a substantial increase in the severity of significant impact(s) previously identified in the 2020 Lillian Commons Project IS/MND. Thus, the City will prepare a SEIR focused on the topics identified in this Initial Study as potentially having significant effects.

In cases where an approved project has already undergone environmental review, and the environmental document has been adopted by the lead agency, the lead agency can restrict the current review to the incremental effects of the modified project, rather than having to reconsider the overall impacts of the project. In such cases, as the project under review constitutes only a modification of a previously approved project, the "baseline" for the purposes of CEQA is adjusted such that the originally approved project is assumed to exist.[2] Thus, the environmental baseline for this Initial Study is appropriately considered to be the approved 2020 Lillian Commons Project, the PD Master Plan for which allocated 124,500 sf of medical/commercial uses for the 9.61-acre project site. While the City could legitimately use this baseline for evaluation of all CEQA topics in this Initial Study, the City has conservatively chosen to use the existing site conditions as the

[2] See Michael H. Remy et al. *Guide to CEQA, 11th Edition*. Point Arena: Solano Press Books (2007), pg. 207; Stephen L. Kostka and Michael H. Zischke. *Practice Under the Environmental Quality Act, Second Edition* (Vol. 1). Oakland: Continuing Education of the Bar (2018), pgs. 12-32; *Benton v. Board of Supervisors* (1st Dist. 1991) 226 Cal. App. 3d 1467.

baseline for the vehicle miles traveled (VMT) analysis, given that the adopted 2020 Lillian Commons Project IS/MND only included a qualitative analysis of VMT. In other words, with the exception of the existing 15,900 sf of medical office space currently located in the southernmost portion of the project site, other VMT-generating uses previously approved for the Lillian Commons Project IS/MND are not assumed in the environmental baseline.

The examination of impacts is the first step taken by the City in reviewing the CEQA treatment of the project. The following review proceeds with the requirements of CEQA Guidelines Section 15162 as discussed in detail below.

For the purposes of this Initial Study, the checklist to document evaluation of the proposed project will be based, generally, on the Appendix G format. Modifications have been made to the checklist sections, generally consisting of additional questions related to CEQA Guidelines Section 15162. Per CEQA Guidelines Section 15064, an addendum to an adopted EIR or IS/MND may be prepared if only minor technical changes or additions are required, and none of the conditions identified in CEQA Guidelines Section 15162 are present. The following identifies the standards set forth in Section 15162(a):

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or IS/MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;

2. Substantial changes occur with respect to the circumstances under which the project is undertaken which will require major revisions of the previous EIR or IS/MND due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR or IS/MND was certified as complete or the negative declaration was adopted, shows any of the following:

    a) The project will have one or more significant effects not discussed in the previous EIR or IS/MND;

    b) Significant effects previously examined will be substantially more severe than shown in the previous EIR [or IS/MND];

    c) Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or

    d) Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR or IS/MND would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

The following discussion confirms that the proposed project modifications have been evaluated for significant impacts pursuant to CEQA. The determination in this Initial Study evaluation is that the proposed modifications to the approved project could be reasonably anticipated to result in one or more new significant environmental impacts not previously identified in the adopted 2020 Lillian Commons Project IS/MND and/or a substantial increase in the severity of one or more significant impacts previously identified. The discussion concludes that the conditions set forth in

Section 15162 are reasonably anticipated to be triggered by the modified project. As such, a subsequent EIR is the appropriate environmental document for the proposed project, pursuant to CEQA Guidelines Section 15162.

C. PROJECT DESCRIPTION

The following provides a description of the project site's current location and setting, as well as the proposed project components.

Project Location and Setting

The approximately 9.61-acre project site (identified by APNs 817-09-039 through -041) is located to the southeast of the Juan Hernandez Drive/Barrett Avenue intersection in the City of Morgan Hill (see Figure 1 and Figure 2).

The majority of the project site is currently undeveloped and contains ruderal (non-native) grasses. Two medical office buildings totaling 15,900 sf, as well as a paved surface parking lot and landscaping trees, occur on a 1.69-acre portion of the project site.

A 10.06-acre parcel north of the project site, across the approved Street A, is currently being developed with the 120-unit multi-family Rosewood residential community. Barrett Elementary School and single-family residences are located further to the north, across Barrett Avenue. To the east of US-101 are various commercial uses, including Microtel Inn & Suites, Comfort Inn & Suites, Patioworld, and House of Thunder Harley-Davidson. To the south is undeveloped land designated for Commercial uses. To the west are single-family residences and undeveloped land designated Residential Attached Medium, across Juan Hernandez Drive. Table 1 describes the land use and zoning designations of the parcels surrounding the project site.

Table 1
Surrounding Land Use and Zoning Designations

Parcel Location	Land Use	Zoning
North of the Project Site	Mixed Use Flex	MU-F with a PD Combing District overlay
East of the Project Site	US-101, Commercial	General Commercial with a Planned Unit Development overlay
South of the Project Site	Commercial	Highway Commercial with Planned Unit Development overlay
West of the Project Site	Juan Hernandez Drive, Residential Attached Low and Residential Attached Medium	Residential Attached Low Density with a Residential Planned Development overlay and Residential Attached Medium Density

The City of Morgan Hill General Plan designates the project site Mixed Use Flex, and the site is zoned MU-F with a PD Combining District overlay.

Project Components

The proposed project would consist of three medical office buildings and a parking structure and would require the approval of a General Plan Text Amendment and Planned Development Master Plan Amendment. The proposed project components are discussed further below.

Figure 1
Regional Project Location

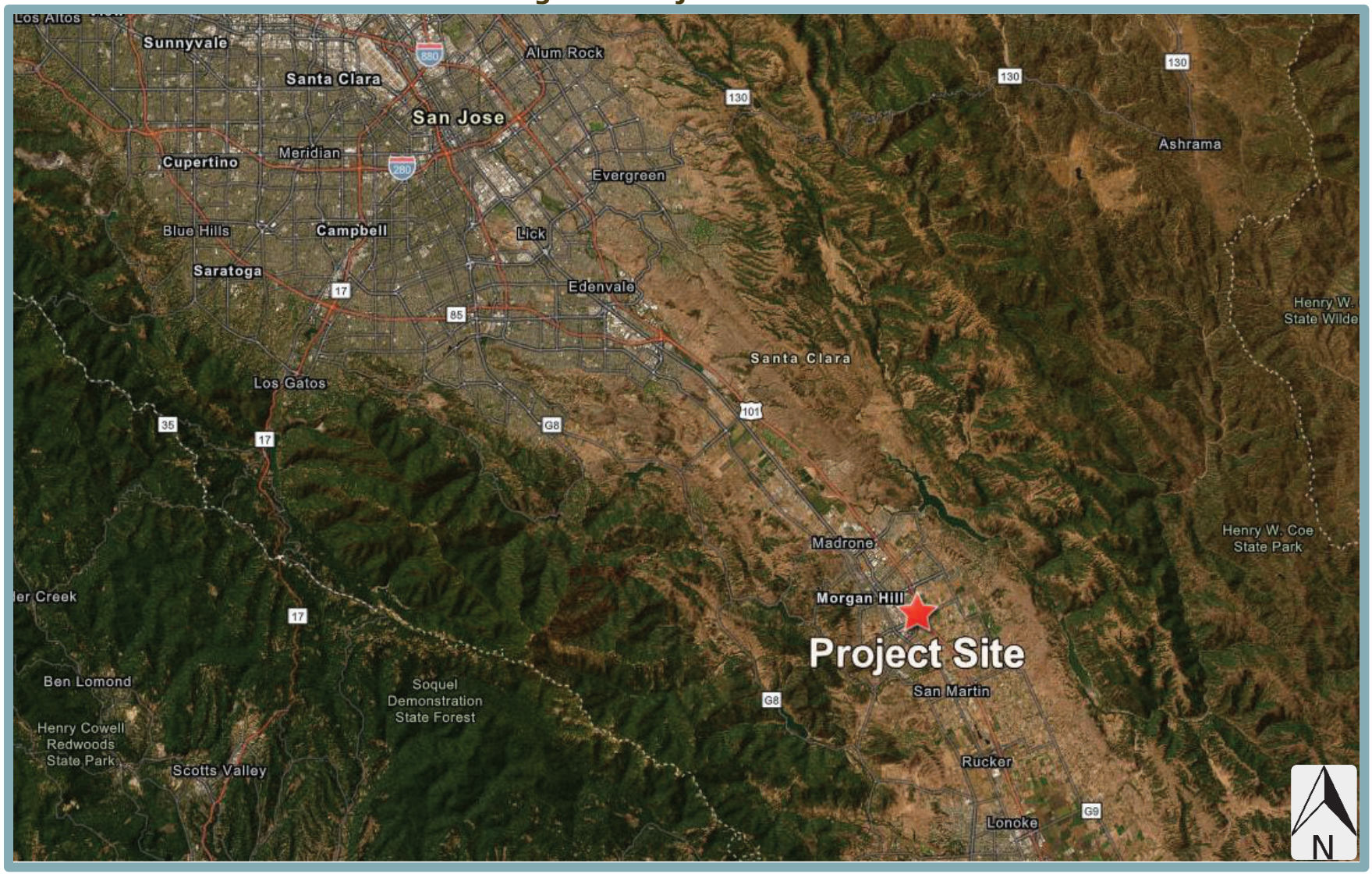


Figure 2
Project Site Boundaries Map



General Plan Text Amendment

According to the Morgan Hill General Plan, the Mixed Use Flex designation allows for a mix of residential, commercial, and office uses applied either vertically or horizontally with a maximum FAR of 0.5. As part of the proposed General Plan Text Amendment, the Mixed Use Flex designation would be amended to exempt medical uses, including hospitals, from floor area ratio requirements with an approved Planned Development (PD) Combining District and PD master plan.

Planned Development Master Plan Amendment

The PD Master Plan Amendment would allow for an increase in medical office square footage within the 9.61-acre project site. The project applicant has prepared two site plans for the project site, one of which identifies the probable medical square footage for the project site, and the other represents the potential maximum medical square footage. For CEQA analysis purposes, the City has chosen to focus the environmental analysis within this Initial Study on the maximum square footage so that the full envelope of potential environmental impacts is assessed and mitigated, as required. The PD Master Plan Amendment sets the maximum medical square footage at 275,000 sf.

The proposed project would consist of three medical office buildings and a parking structure (see Figure 3) and would result in the following building footprints:

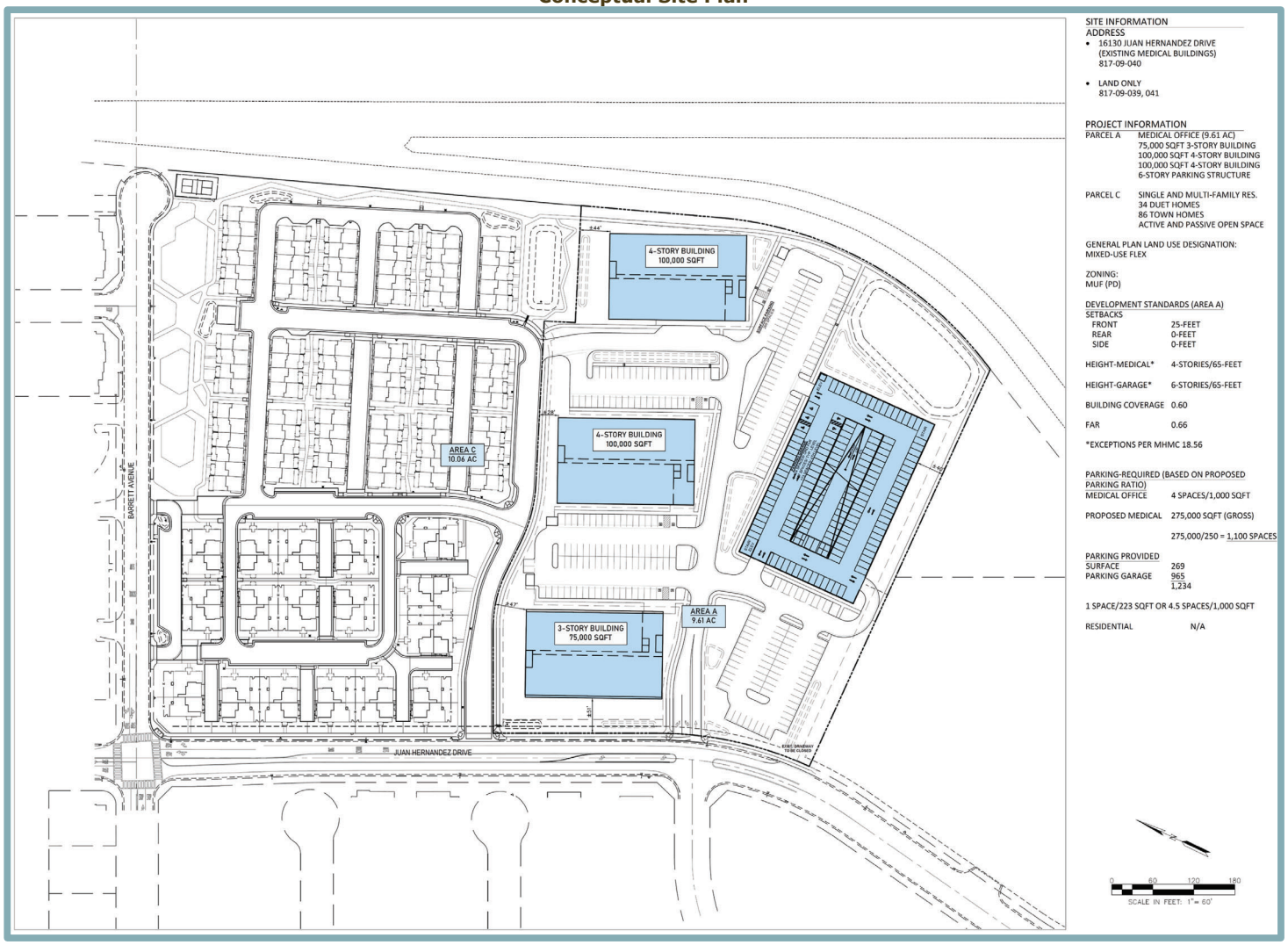
- Building 1: A 75,000-sf, three-story medical office building immediately east of Juan Hernandez Drive;
- Building 2: A 100,000-sf, four-story medical office/hospital/urgent care/pharmacy/retail/ restaurant building south of Rosewood Lane, generally within the center of the project site;
- Building 3: A 100,000-sf, four-story medical office building immediately west of US-101; and
- A 54,000-sf, six-story parking structure, comprised of 965 parking spaces, located to the south of the proposed medical buildings.

Through approval of the PD Master Plan Amendment, the proposed project would result in a net increase of 150,500 sf of medical/commercial uses relative to the originally approved project (275,000 sf – 124,500 sf = 150,500 sf). After accounting for the existing 15,900 sf of medical office use that would be demolished as part of the proposed project, the total net increase would be 133,600 sf. The three medical office buildings would each be located to the south of Rosewood Lane. The maximum building height for the medical office buildings would be increased as part of the PD Master Plan Amendment, from 55 feet to 65 feet.

With respect to the parking structure, the originally approved project included construction of a three-story, 32-foot-tall parking structure, whereas the proposed project is proposing development of a six-story, 65-foot-tall structure. Thus, the proposed project modifications would result in a net increase of three floors and 33 feet.

In addition, whereas the originally approved project sited the parking structure immediately south of Rosewood Lane and adjacent to the east of US-101, the proposed project would place the parking structure within the southern portion of the project site, generally equidistant from US-101 and Juan Hernandez Drive. The proposed project would also include demolition of the existing 15,900 sf of medical office buildings within Parcel D, which would be replaced with a paved surface parking lot.

Figure 3
Conceptual Site Plan



Access, Circulation, and Parking

Access to the project site would be provided by St. James Drive, which would include connections to Juan Hernandez Drive to the east of the site and the previously approved Rosewood Lane to the north of the site. St. James Drive would consist of a 36-foot-wide right-of-way (ROW) along the majority of the street, comprised of two 13-foot-wide vehicle lanes, a five-foot-wide landscape strip, and a five-foot-wide sidewalk. Near the entrance from Juan Hernandez Drive, St. James Drive would feature a 51-foot-wide ROW, comprised of a 13-foot-wide right-turn lane, two vehicle lanes, a five-foot-wide landscape strip, and a five-foot-wide sidewalk.

Additionally, emergency vehicle access to Barrett Avenue would be available through the Rosewood subdivision that is currently under construction north of the project site. With respect to parking, the parking structure would include 965 parking spaces across six floors, including 30 spaces designed in compliance with the Americans with Disabilities Act (ADA). In addition, the proposed project would include 269 surface parking spaces, which would be located between the three medical office buildings, as well as to the east and west of the parking structure. In addition, the project would be required to provide 165 total bicycle parking spaces (55 covered spaces, 110 uncovered spaces).

In regard to pedestrian access, new sidewalks would be provided along all internal drive aisles within the project site. The new sidewalks would ultimately provide access to the existing sidewalks along Juan Hernandez Drive. In addition, an internal jogging/walking trail would be constructed to extend through the project site from the southern site boundary to along the eastern perimeter. The proposed internal jogging/walking trail would connect to similar trails within the Rosewood residential community under construction to the north, which would ultimately connect to Barrett Avenue further to the north.

Grading and Earthwork

As shown in Figure 4, the earthwork volume on the project site would be balanced by lowering the proposed parking structure, thickening the building foundations, or a combination of the two.

Utilities

Water and sewer service for the proposed project would be provided by the City of Morgan Hill through connections to existing infrastructure located in the project vicinity. From the existing 10-inch water line in Juan Hernandez Drive, new 8- and 10-inch water lines would be extended into the site within St. James Drive, to which the proposed medical office buildings would connect by way of new laterals (see Figure 5). Fire flow would be provided to all proposed structures through the proposed pipe network. Similarly, from the existing 8-inch sewer line in Juan Hernandez Drive, new 6- and 8-inch sewer lines would be extended into the site within St. James Drive, to which the proposed medical office buildings would connect by way of new laterals.

With respect to storm drainage facilities, runoff from new impervious surfaces within the developed project site would be directed to inlets located throughout the project site, as well as new bioretention basins sited in various locations, which would provide preliminary treatment and temporary storage of runoff during peak rainfall. From the inlets and bioretention basins, flows would be conveyed by way of new 15- and 18-inch storm drain lines to the water treatment basin located to the southeast of the parking structure, where flows would ultimately be piped to the existing storm drain infrastructure in Juan Hernandez Drive.

Figure 4
Conceptual Grading Plan

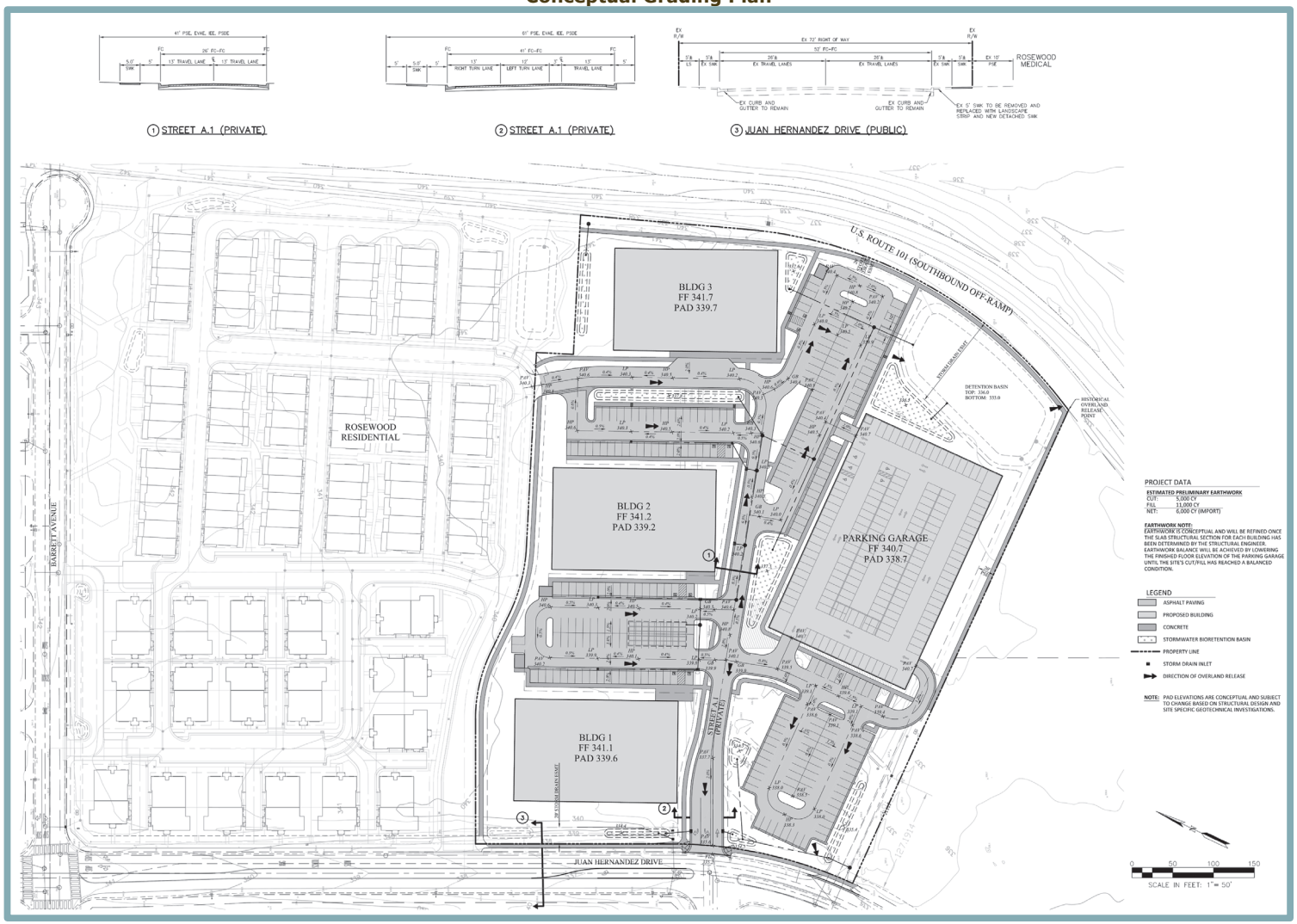
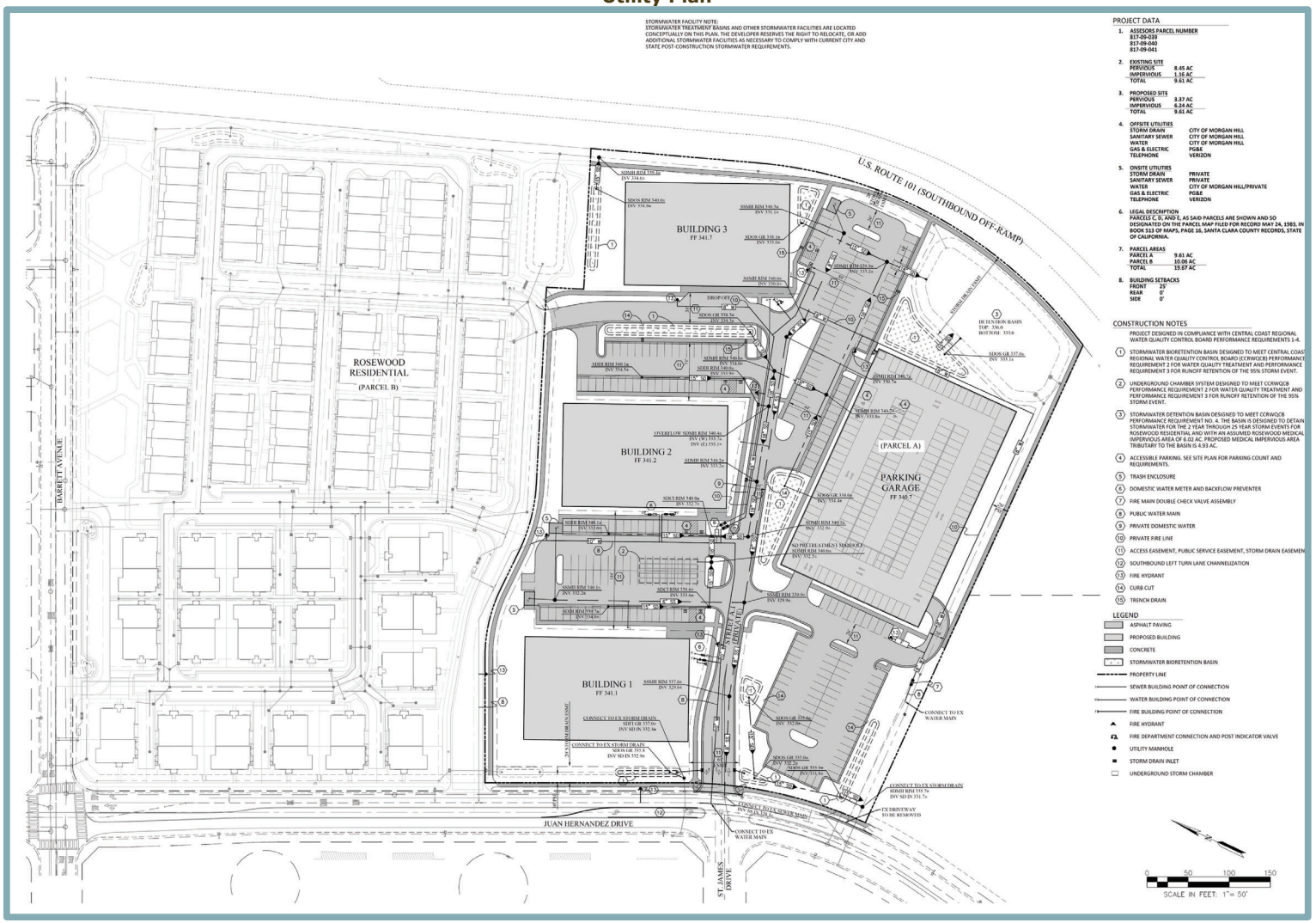


Figure 5
Utility Plan



Finally, electricity would be provided to the proposed project by Pacific Gas & Electric Co. (PG&E) through the existing underground utility lines along Juan Hernandez Drive. The project would not include natural gas, as natural gas has been prohibited in all new construction since March 1, 2020, pursuant to City Ordinance No. 2306.

Landscaping

New landscaping would be provided throughout the project site, adjacent to the proposed structures, internal drive aisles, and site perimeters. Plant selection would be consistent with the landscaping planted as part of the previously approved Rosewood multi-family residential community to the north. In addition, new vegetation would be selected in accordance with Morgan Hill Municipal Code Section 18.64.060, which requires that all plants and trees shall be categorized as low or very low water use.

Requested Entitlements

The proposed project would require approval of the following entitlements by the City of Morgan Hill:

- PD Master Plan Amendment to increase the maximally allowed medical office square footage within the project site to 275,000 and maximum building height to 65 feet; and
- General Plan Text Amendment to amend the Mixed Use Flex designation to exempt medical uses, including hospitals, from floor area ratio requirements with an approved Planned Development (PD) Combining District and PD master plan.

D. SOURCES

Previously completed technical studies for the 2020 Lillian Commons Project IS/MND are available on the City's website at: https://www.morganhill.ca.gov/2037/Lillian-Commons.

The following documents are referenced information sources used for the purpose of this Initial Study:

1. Andi Borowski, Environmental Services Assistant, Morgan Hill Environmental Services Department. Personal communication [email] with Jesse Fahrney, Associate, Raney Planning and Management, Inc. July 26, 2022.
2. CAL FIRE. *FHSZ Viewer.* Available at: https://egis.fire.ca.gov/FHSZ/. Accessed July 2023.
3. California Department of Conservation. *California Important Farmland Finder*. Available at: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed July 2023.
4. California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details: Monterey Peninsula Landfill (27-AA-0010)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2642?siteID=1976. Accessed July 2023.
5. California Department of Transportation. *California State Scenic Highway System Map*. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed July 2023.
6. City of Morgan Hill. *Lillian Commons Medical Campus Initial Study*. June 2020.
7. City of Morgan Hill. *Water System Master Plan Updated*. December 2021.
8. Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese).* Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed July 2023.

9. Dwight Good, Assistant Chief Cooperative Fire Protection, Morgan Hill Fire Department. Personal communication [phone] with Nick Pappani, Vice President, Raney Planning and Management, Inc. June 1, 2021.
10. EMC Planning Group, Inc. *Geologic Impact Analysis: Lillian Commons/Morgan Hill Medical Campus*. October 16, 2019.
11. Governor's Office of Planning and Research. *Technical Advisory on Evaluation Transportation Impacts in CEQA*. December 2018.
12. Santa Clara Valley Habitat Agency. *Habitat Agency Geobrowser*. Available at: http://www.hcpmaps.com/habitat/. Accessed July 2023.
13. See https://morganhilltimes.com/expansion-to-increase-south-county-recycled-water-capacity/; accessed July 13, 2023.
14. See Michael H. Remy et al. *Guide to CEQA, 11th Edition*. Point Arena: Solano Press Books (2007), pg. 207; Stephen L. Kostka and Michael H. Zischke. *Practice Under the Environmental Quality Act, Second Edition* (Vol. 1). Oakland: Continuing Education of the Bar (2018), pgs. 12-32; *Benton v. Board of Supervisors* (1st Dist. 1991) 226 Cal. App. 3d 1467.
15. WRA Environmental Consultants, Inc. *Lillian Commons/Morgan Hill Medical Campus Biological Resources Assessment*. March 2020.

E. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

On the basis of the following Initial Study, the City has determined that the proposed modifications to the approved project could result in new significant impacts not previously identified in the adopted 2020 Lillian Commons Project IS/MND and/or a substantial increase in the severity of significant impacts previously identified. The environmental factors indicated below require further analysis in an SEIR.

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

F. DETERMINATION

On the basis of this Initial Study:

× As demonstrated in this Initial Study Checklist, the City has determined that the proposed modified project presents a legal or evidentiary basis for the preparation of a Supplemental or Subsequent EIR pursuant to State CEQA Guidelines Section 15162 and that a Subsequent EIR, pursuant to State CEQA Guidelines Section 15162, is the appropriate environmental document for the proposed project.

Signature	Date
Jennifer Carman, Development Services Director Printed Name	City of Morgan Hill For

G. ENVIRONMENTAL CHECKLIST

The purpose of the comparison is to evaluate the categories in terms of any "**changes**" or "**new information**" that may result in a changed environmental impact evaluation. A "no" answer does not necessarily mean that potential impacts do not exist relative to the environmental category, but that a relevant change would not occur in the condition or status of the impact due to its insignificance or its treatment in a previous environmental document. The following impact evaluation categories will be used to evaluate the proposed project as compared to the adopted 2020 Lillian Commons Project IS/MND:

Where Impact Was Analyzed in the Previous CEQA Documents: This column provides a reference to the page(s) of the Lillian Commons Project IS/MND where information and analysis may be found relative to the environmental issue listed under each topic.

Do Proposed Changes Involve New or More Severe Impacts? Pursuant to Section 15162(a)(1) of the CEQA Guidelines, this column indicates whether the changes represented by the current project will result in new significant impacts that have not already been considered and mitigated by a previous EIR or IS/MND or that substantially increase the severity of a previously identified significant impact. If a "yes" answer is given and more severe impacts are specified, additional mitigations will be specified in the discussion section including a statement of impact status after mitigation.

Any New Circumstances Involving New or More Severe Impacts? Pursuant to Section 15162(a)(2) of the CEQA Guidelines, this column indicates whether there have been changes to the project site or the vicinity (environmental setting) that have occurred subsequent to the certification of an EIR or IS/MND, which would result in the current project having significant impacts that were not considered or mitigated by that EIR or IS/MND or which substantially increase the severity of a previously identified significant impact.

Any New Information Requiring New Analysis or Verification? Pursuant to Section 15162(a)(3)(A-D) of the CEQA Guidelines, this column indicates whether new information of substantial importance which was not known and could not have been known with the exercise of reasonable diligence at the time the previous environmental documents were certified as complete is available, requiring an update to the analysis of the previous environmental documents to verify that the environmental conclusions and mitigation measures remain valid. If the new information shows that: (A) the project will have one or more significant effects not discussed in the prior environmental documents; or (B) that significant effects previously examined will be substantially more severe than shown in the prior environmental documents; or (C) that mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects or the project, but the project proponents decline to adopt the mitigation measure or alternative; or (D) that mitigation measures or alternatives which are considerably different from those analyzed in the prior environmental documents would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative, the question would be answered 'Yes' requiring the preparation of a subsequent EIR or supplement to the EIR or IS/MND. However, if the additional analysis completed as part of this Environmental Checklist Review finds that the conclusions of the prior environmental documents remain the same and no new significant impacts are identified, or identified significant environmental impacts are not found to be substantially more severe, the

question would be answered 'No' and no additional EIR documentation (supplement to the EIR or IS/MND or subsequent EIR) would be required.

The 2020 Lillian Commons Project IS/MND includes both standard conditions and mitigation measures for certain CEQA topics. Standard conditions are distinguished from mitigation measures by being standard conditions of approval for development projects and are not necessarily required to mitigate a significant environmental impact.

I. AESTHETICS. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Have a substantial adverse effect on a scenic vista?	Pg. 18	No	No	No
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	Pg. 19	No	No	No
c. In non-urbanized areas, 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?	Pg. 19	No	No	No
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Pg. 20	No	No	No

Discussion

a. The Lillian Commons Project IS/MND analyzed the Lilian Commons Project's potential impacts to scenic vistas and concluded that scenic corridors, highways, or vistas are not present in Morgan Hill that are designated by the State or the City. However, The City of Morgan Hill General Plan EIR identified El Toro as one of the most prominent visual landmarks in the City. El Toro is located to the west and is visible from US-101, along Monterey Road, and along Cochrane Avenue, Main Avenue, Dunne Avenue, and Tennant Avenue. Broader views of the Diablo Range to the east and the Santa Cruz Mountains to the west are visible from US-101 and from many points within the City. The Lillian Commons Project IS/MND determined that although views of mountains are visible to the northeast and south from the residences west of the project site, and although the new buildings would be taller than the surrounding buildings, the mountains would still be intermittently visible between buildings. Thus, the impact was identified as less than significant.

The currently proposed project would be built within the area of impact previously analyzed by the Lillian Commons Project IS/MND. The proposed project would involve the same number of buildings constructed, but with an increase in square footage, FAR, and height, as further described in Question 'c' below. As such, the project would generally result in a greater concentration of development than what was previously analyzed. However, mountains would still be intermittently visible between buildings. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts related to scenic vistas than were previously analyzed in the Lillian Commons Project IS/MND, and the proposed project would be consistent with the conclusions of the Lillian Commons Project IS/MND.

b. The Lillian Commons Project IS/MND concluded that the Project would not substantially damage scenic resources, including, but not limited to rock outcroppings, and historic buildings within a State scenic highway. As noted within the Lillian Commons Project

IS/MND, rock outcroppings are not present on-site, and the project site is not located within or adjacent to a state-designated scenic highway. The Lillian Commons Project IS/MND states that the nearest state-designated scenic highway is located 26.5 miles northwest of the project site. The Lillian Commons Project IS/MND did determine that although the project would remove trees, including coast live oak, Monterey pine, and Peruvian pepper, the project would offset the aesthetic effects of tree removal by replacing trees in accordance with the City's requirements. As such, the Lillian Commons Project IS/MND determined that a less-than-significant impact would occur.

According to the California Department of Transportation's (Caltrans) Scenic Highway System Lists,[3] additional State scenic highways have not been designated in the project area since the Lillian Commons Project IS/MND was adopted. In addition, the baseline for this environmental analysis constitutes the approved project and additional tree removal is not anticipated as a result of the proposed project modifications. Removal of on-site trees has already been adequately addressed in the Lillian Commons Project IS/MND. As such, the currently proposed project would not substantially damage scenic resources, including, but not limited to rock outcroppings, and historic buildings within a State scenic highway. Thus, the proposed project would not result in new significant impacts or substantially more severe significant impacts than were previously analyzed in the Lillian Commons Project IS/MND, and the proposed project would be consistent with the conclusions of the Lillian Commons Project IS/MND.

c. The Lillian Commons Project IS/MND assessed the project's potential to substantially degrade the existing visual character or quality of the site and its surroundings or conflict with applicable zoning and other regulations governing scenic quality. It is noted that because the project site is within an urbanized area of the City, the IS/MND could have appropriately focused the discussion on whether the project would conflict with applicable zoning and other regulations governing scenic quality. Nevertheless, because the IS/MND addressed both non-urbanized (substantial degradation of visual character or quality) and urbanized criteria (conflict with applicable scenic quality regulations), this Initial Study will do the same.

The 2020 IS/MND determined that development of the residential and medical buildings, as well as installation of a parking structure and landscaping, would change the existing visual character of the site. However, the Lillian Commons Project IS/MND determined that because all development would be subject to review and approval by the City of Morgan Hill Design Permit process, the project would be required to meet local design and aesthetic standards, and, thus, the project would not constitute a significant adverse change to the aesthetic environment. Therefore, the Lillian Commons Project IS/MND determined that a less-than-significant impact would occur.

With respect to the applicable zoning and other regulations governing scenic quality, the project site is zoned MU-F with a Planned Development Combining District overlay. A PD Master Plan was adopted along with the PD zoning. Thus, the applicable development standards for the project site are set forth in the site-specific PD Master Plan. The current PD Master Plan (Table 2) identifies a maximum building height of four stories or 55 feet for Hospital use. The project requests an amendment to the PD Master Plan to increase the maximum height of medical uses to 65 feet, a net increase of 10 feet. With respect to the parking structure, the approved project identified a 3-story, 32-foot-tall structure,

[3] California Department of Transportation. *California State Scenic Highway System Map*. Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed July 2023.

whereas the proposed amendments to the PD Master Plan specifies a maximum height of six stories or 65 feet.

The currently proposed project would involve the same development footprint that was analyzed in the Lillian Commons Project IS/MND; however, the proposed medical office buildings and the parking structure will be taller than what was previously analyzed. As such, photo-simulations of the proposed project were prepared to assess the proposed project's potential to substantially degrade the existing visual character or quality of public views of the site and its surroundings. Prominent public views of the project site are afforded from Juan Hernandez Drive and US-101. Changes to the aforementioned public views due to development of the proposed project are discussed separately in further detail below. Existing views from Juan Hernandez Drive looking east, as well as from the southbound and northbound lanes of US-101 are shown in Figure 6, Figure 7, and Figure 8, respectively.

Views From Juan Hernandez Drive

Currently, the view of the project site from Juan Hernandez Drive consists of the roadway and signage associated with the existing medical office in the foreground. The midground features the existing medical office building, as well as grassy vegetation and trees. The background consists of residential development and distant views of mountains. A rendering of the existing public view from Juan Hernandez Drive looking east, towards the project site, with the addition of the proposed project is included in Figure 9.

The currently proposed project would result in an increase in FAR and building height from what was anticipated in the Lillian Commons Project IS/MND. While this would result in the on-site structures being more prominent and readily visible from Juan Hernandez Drive, similar to the concept of the original layout, the shortest building would be located closest to Juan Hernandez Drive behind which would be located the taller buildings, in an effort to provide some level of transition in building heights from Juan Hernandez Drive towards US-101. And while the medical office buildings could be up to 10 feet taller from this viewpoint, as compared to the original conceptual site plan layout, this would not necessarily be considered a substantial degradation of the existing visual character or quality of the site and its surroundings. For example, the originally proposed structures would have similarly blocked views of the distant foothills, similar to post-construction conditions of the currently proposed project, as shown in Figure 9. In addition, prior to construction, each structure will be required to obtain a design review permit. Each design review permit will be approved by resolution of the Planning Commission.

Such alterations to the project design, while noticeable, would not be considered a substantial degradation of the visual character or quality of the site and its surroundings beyond what was previously analyzed in the Lillian Commons Project IS/MND. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. As such, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

Figure 6
Existing View from Juan Hernandez Drive



Figure 7
Existing View from Southbound US-101



Figure 8
Existing View from Northbound US-101



Figure 9
Post-Construction View from Juan Hernandez Drive



Views From US-101

Public views of the project site looking west are available from both the southbound and northbound lanes of US-101. Current views from the southbound lane of US-101 toward the project site consist of the roadway, a grassy median, and the Tennant Avenue off-ramp in the foreground. Current views from the northbound lane of US-101 toward the project site are generally the same as from the southbound lane, with the addition of the southbound lane and a guardrail in the immediate foreground. For both southbound and northbound lanes of US-101, the midground features the mostly vacant project site and scattered vegetation, while the background features existing residential and commercial development, with distant views of the mountains.

A rendering of existing public views from the southbound and northbound lanes of US-101, with the addition of the proposed project, are included in Figure 10 and Figure 11, respectively. As shown therein, development of the currently proposed project would obscure views of mountains from US-101. However, as discussed above, the Lillian Commons Project IS/MND already addressed impacts related to developing the project site with medical office and parking structure uses. The original conceptual site plan layout included a three-story, 32-foot-tall parking structure adjacent to US-101, behind which would be located a three-story, 52-foot maximum height medical building (plus mechanical equipment), whereas the proposed modified conceptual site plan layout includes a four-story, 65-foot-tall medical office building adjacent to US-101 and a more centrally located six-story, 65-foot parking structure at the south end of the project site. By relocating the parking structure further from US-101, the massing and height of the structure would be less imposing. Such alterations to the project design, while noticeable, would not necessarily be considered a substantial degradation of the visual character or quality of the site and its surroundings beyond what was previously analyzed in the Lillian Commons Project IS/MND. While partially obstructed, intermittent views of the hills, looking west from US-101, would still be visible as a driver passes by the project site. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. As such, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

Conclusion

Based on the above information, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

d. The Lillian Commons Project IS/MND analyzed the project's potential to create a new source of substantial light and glare which would adversely affect day or nighttime views in the area. The Lillian Commons Project IS/MND determined that although the project would incrementally increase light and glare in the project area, all development would be subject to review by the City of Morgan Hill Design Permit process for conformance to City standards, and all lighting and signage plans would be required to comply with the City of Morgan Hill Municipal Code. As such, the Lillian Commons Project IS/MND determined that a less-than-significant impact would occur.

Figure 10
Post-Construction View from Southbound US-101



Figure 11
Post-Construction View from Northbound US-101



As discussed above, the proposed project would consist of the development of medical office buildings and a parking structure at a greater height and density than what was previously analyzed in the Lillian Commons Project IS/MND, which could result in increased light and glare on the project site. However, similar to the approved project, and as identified in Table 2 of the PD Master Plan, all on-site lighting would be required to comply with Section 18.72.060.G of the Morgan Hill Municipal Code. As specified therein, all parking space area lighting shall be energy efficient and designed so that any glare or spillage is directed away from residential properties, and all fixtures shall be hooded and downward facing.

Based on the above, the proposed project would not result in new significant impacts or substantially more severe significant impacts than were previously analyzed in the Lillian Commons Project IS/MND, and the proposed project would be consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

New Mitigation Measures

None Required.

II. AGRICULTURE AND FORESTRY RESOURCES. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use?	Pg. 23	No	No	No
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	Pg. 23	No	No	No
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	Pg. 23	No	No	No
d. Result in the loss of forest land or conversion of forest land to non-forest use?	Pg. 23	No	No	No
e. Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use?	Pg. 23	No	No	No

Discussion

a-e. The Lillian Commons Project IS/MND determined that the project site is designated by the California Resources Agency Farmland Mapping and Monitoring Program as "Urban and Built-Up Land" and "Other Land," and, therefore, the project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use. Similarly, the project site is not zoned for agricultural use or as forest land or timberland, and is not subject to a Williamson Act contract. Therefore, the Lillian Commons Project IS/MND determined that no impact would occur related to conflicting with the existing zoning designation or resulting in the loss of or conversion of Farmland or timberland.

With respect to the currently proposed project, according to the California Department of Conservation's California Important Farmland Finder tool, the project site is still designated as "Urban and Built-Up Land" and "Other Land."[4] In addition, the project site is still zoned and designated for urban uses, does not contain forest land or timberland, and is not subject to a Williamson Act contract.

Based on the above, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously

[4] California Department of Conservation. *California Important Farmland Finder*. Available at: https://maps.conservation.ca.gov/dlrp/ciff/. Accessed July 2023.

analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

New Mitigation Measures

None Required.

III. AIR QUALITY. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Conflict with or obstruct implementation of the applicable air quality plan?	Pg. 30	Yes	Yes	Yes
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?	Pgs. 31 and 32	Yes	Yes	Yes
c. Expose sensitive receptors to substantial pollutant concentrations?	Pgs. 33 to 38	Yes	No	No
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Pg.38	No	No	No

Discussion

a,b. The City of Morgan Hill is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). The Lillian Commons Project IS/MND assessed the project's compliance with the 2017 BAAQMD CEQA Air Quality Guidelines to determine consistency with the 2017 Clean Air Plan. As shown in Table 4.3-3 and Table 4.3-4 of the Lillian Commons Project IS/MND, construction and operational emissions associated with the Lillian Commons Project, respectively, were determined to be below BAAQMD thresholds. As such, the Lillian Commons Project IS/MND concluded that the project would not conflict with or obstruct implementation of the applicable air quality plan, or 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, and a less-than-significant impact would occur.

The analysis presented in the Lillian Commons Project IS/MND is based on compliance with the 2017 BAAQMD CEQA Air Quality Guidelines; however, BAAQMD adopted new Guidelines in April 2023. As such, further analysis is required to assess the currently proposed project's compliance with the current guidelines. In addition, compared to the approved project, the proposed project could result in the development of up to 133,600 sf (net) of additional medical/commercial uses. This increased development potential would result in the generation of more vehicle trips and associated criteria pollutant emissions compared to what was analyzed in the Lillian Commons Project IS/MND. Therefore, the proposed project modifications have the potential to involve new or more severe significant air quality impacts than what was analyzed in the Lillian Commons Project IS/MND.

Further analysis of the above potential impact will be discussed in the Air Quality and Greenhouse Gas Emissions (including Energy) chapter of the Rosewood/Morgan Hill Medical Campus Project SEIR.

c. Based on the analysis presented therein, the Lillian Commons Project IS/MND determined that the project would not result in the exposure of sensitive receptors, such as the Barrett Elementary School located north of the project site and the single-family residences located to the west, to concentrations of toxic air contaminant (TAC) emissions and localized carbon monoxide (CO) emissions during project operations such that a significant impact would occur. However, the Lillian Commons Project IS/MND determined

that implementation of Mitigation Measure AIR-3.1 would be required to reduce construction emissions of diesel particulate matter (DPM) to a less-than-significant level. Mitigation Measure AIR-3.1 requires the project applicant to develop a plan demonstrating that off-road equipment used on-site would achieve an adequate reduction in emissions. Given compliance with Mitigation Measure AIR-3.1, the Lillian Commons Project IS/MND determined that a less-than-significant impact would occur related to the exposure of sensitive receptors to substantial pollutant concentrations.

Although the currently proposed project would have the same development footprint as the Lillian Commons Project, the level of on-site construction would be more intensive due to the increased development potential resulting from the requested entitlements. This increased level of construction activity has the potential to result in an increase in construction period emissions compared to the level of construction emissions identified in the Lillian Commons IS/MND. Additional analysis is required to assess whether Mitigation Measure AIR-3.1 would be sufficient to reduce impacts of the proposed project to a less-than-significant level. Therefore, the proposed project has the potential to involve new or more severe significant impacts than what was analyzed in the Lillian Commons Project IS/MND.

Further analysis of the above potential impact will be discussed in the Air Quality and Greenhouse Gas Emissions (including Energy) chapter of the Rosewood/Morgan Hill Medical Campus Project SEIR.

d. The Lillian Commons Project IS/MND analyzed the potential for the project to create objectionable odors affecting a substantial number of people and determined that the project would generate localized emissions of diesel exhaust during construction equipment operation and truck activity. According to the Lillian Commons Project IS/MND, such emissions may be noticeable from time to time by adjacent receptors, but the odors would be localized and temporary and would not affect people off-site. As such, the Lillian Commons Project IS/MND concluded that the project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people, and a less-than-significant impact would occur.

As discussed above, the proposed project would involve a greater amount of development than was analyzed in the Lillian Commons Project IS/MND, which has the potential to result in an increase in emissions, including those leading to odors. However, similar to the Lillian Commons Project, construction activities associated with the currently proposed project would be temporary, and operation of construction equipment would be regulated and intermittent. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions, as well as any associated odors. Accordingly, substantial objectionable odors would not occur during construction activities or affect a substantial number of people.

In addition, the BAAQMD rules and regulations would act to reduce construction related dust, which would ensure that construction of the proposed project does not result in substantial emissions of dust. Following project construction, the project site would not include any exposed topsoil. Thus, project operations would not include any substantial sources of dust. As such, the proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the

Lillian Commons Project IS/MND. Therefore, the proposed project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

The analysis that will be included in the SEIR will determine whether Mitigation Measure AIR-3.1 from the Lillian Commons IS/MND (e.g., reduction of DPM through fleet-wide modifications) is still applicable, requires modification(s), or should be substituted for equally effective mitigation.

New Mitigation Measures

To be determined in the SEIR.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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 Wildlife or U.S. Fish and Wildlife Service?	Pgs. 45 and 46	No	No	No
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	Pg. 46	No	No	No
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?	Pg. 46	No	No	No
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	Pg. 47	No	No	No
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Pgs. 47 and 48	No	No	No
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	Pgs. 48 and 49	No	No	No

Discussion

a. The Lillian Commons Project IS/MND analyzed the potential for buildout of the project to substantially impact a candidate, sensitive, or special-status plant or wildlife 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). The Lillian Commons Project IS/MND states that the project site is not located in an area containing any of the sensitive natural communities or special-status species identified in the City's General Plan EIR. However, according to the Biological Resources Assessment (BRA)[5] prepared by WRA Environmental Consultants, Inc. for the Lillian Commons Project IS/MND, three species of special-status birds have the potential to occur on-site, including white-tailed kite, loggerhead shrike, and grasshopper sparrow. In addition, the Lillian Commons Project

[5] WRA Environmental Consultants, Inc. *Lillian Commons/Morgan Hill Medical Campus Biological Resources Assessment*. March 2020.

IS/MND determined that because the project would include the removal of 16 trees, the project could result in the removal of nesting or foraging habitat for nesting raptors and migratory birds. As such, the Lillian Commons Project IS/MND determined that impacts upon special-status species could be significant. Therefore, Mitigation Measures BIO-1.1 and BIO-1.2 were included in the Lillian Commons Project IS/MND to ensure that impacts to special-status bird species would be less than significant. The forgoing mitigation measures require pre-construction surveys for on-site nesting bird species, as well as the imposition of buffer zones should such species be discovered.

Because the proposed project would be within the same disturbance footprint evaluated in the Lillian Commons Project IS/MND, the proposed project would be subject to all applicable mitigation measures therein, including Mitigation Measures BIO-1.1 and BIO-1.2. Although the proposed project would involve a greater intensity of development than was analyzed in the Lillian Commons Project IS/MND, as well as greater building heights, the proposed project would not result in the removal of a greater number of trees or the disturbance of a larger area than was previously analyzed. As such, the proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. Therefore, the proposed project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

b,c According to the Lillian Commons Project IS/MND, the project site is located within a mixed urban and rural area of the City, and the site does not contain riparian habitat or other sensitive natural communities, or any protected wetlands. As such, the Lillian Commons Project IS/MND determined that the project would not result in any adverse impacts to any of the aforementioned resources, and no impact would occur.

The currently proposed project's area of impact is within the previously analyzed area of impact of the Lillian Commons Project IS/MND. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. As such, the proposed project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

d. According to the Lillian Commons Project IS/MND, the project area is an open field bordered by roads and other developments. The BRA reviewed the California essential connectivity project, which showed that the project site is not located within a connectivity area, core reserve or corridor, landscape block or general wildlife corridors. In addition, as discussed above, the Lillian Commons Project IS/MND determined that riparian or wetland habitats do not occur on-site. As such, the Lillian Commons Project IS/MND concluded that implementation of the project would result in a less-than-significant impact to wildlife movement within the project area.

As discussed above, the currently proposed project would be implemented within the previously analyzed footprint of the Lillian Commons Project IS/MND. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. As such, the proposed project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

e. According to the Lillian Commons Project IS/MND, the project site contains multiple trees that qualify for protection under the City of Morgan Hill Municipal Code, including 14 coast live oaks, one Peruvian pepper, and one Monterey pine, all of which would be removed for project construction. The Lillian Commons Project IS/MND concluded a less-than-significant impact would occur with implementation of Mitigation Measures BIO-5.1 and BIO-5.2. Mitigation Measure BIO-5.1 requires the avoidance of on-site trees to the maximum extent feasible, and Mitigation Measure BIO-5.2 requires compliance with Chapter 12.32 of the City's Municipal Code, which requires the project applicant to apply for a tree removal permit, and to plant replacement trees for those removed.

The currently proposed project's area of impact is the same as the previously analyzed area of impact of the Lillian Commons Project IS/MND. The proposed project would be subject to Mitigation Measures BIO-5.1 and BIO-5.2 from the Lillian Commons Project IS/MND, which would ensure that the proposed project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. As such, the proposed project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

f. According to the Lillian Commons Project IS/MND, the project site is covered under the Santa Clara Valley Habitat Plan/Natural Community Conservation Plan (SCVHP) and is designated as "Urban Development Equal to or Greater than 2 Acres Covered." The land cover of the Lillian Commons Project site, which encompasses the currently proposed project site, is comprised of approximately 17 acres of "Grain, Row-crop, Hay and Pasture, Disked/Short-term Fallowed" and approximately three acres of "Urban-Suburban." A total of approximately 17 acres of the site is located within Fee Zone B (Agricultural and Valley Floor Lands). The City of Morgan Hill has adopted an ordinance that implements the measures and conditions set forth in the SCVHP; as such, the Lillian Commons Project IS/MND determined that all applicable impact fees and relevant conditions would be imposed on the project. The Lillian Commons Project IS/MND concluded that compliance with SCVHP requirements, as implemented through the City ordinance, would ensure that the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or State habitat conservation plan, and a less-than-significant impact would occur.

According to the Santa Clara Valley Habitat Agency's Habitat Agency Geobrowser,[6] the currently proposed project site's land cover consists almost entirely of "Grain, Row-crop, Hay and Pasture, Disked/Short-term Fallowed" land, and is located within Fee Zone B (Agricultural and Valley Floor Lands). The portion of the project site developed with an existing medical office is designated "Urban-Suburban." Because the proposed project has the same development footprint as the Lillian Commons Project, impacts related to compliance with the SCVHP related to the proposed project would be the same as those anticipated in the Lillian Commons Project IS/MND. As such, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. Therefore, the proposed project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

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6 Santa Clara Valley Habitat Agency. *Habitat Agency Geobrowser*. Available at: http://www.hcpmaps.com/habitat/. Accessed July 2023.

Prior Mitigation Measures

The following mitigation measure(s) from the Lillian Commons Project IS/MND would apply to the proposed project:

BIO-1.1 *Construction shall be scheduled to avoid the nesting season to the extent feasible. If construction can be scheduled to occur between September 1st and January 31st (inclusive) to avoid the raptor nesting season, no impacts will be expected. If construction will take place between February 1st and August 31st, then pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. Surveys shall be completed within 30 days of the on-set of site clearing or construction activities. During this survey, the ornithologist shall inspect all trees and other potential nesting habitats (e.g., trees, shrubs, buildings) on-site trees as well as all trees within 250 feet of the site for nests.*

BIO-1.2 *If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist shall determine the extent of a disturbance-free buffer zone to be established around the nest (typically 250 feet for raptors and 50-100 feet for other species) that shall remain off limits to construction until the nesting season is over, to ensure that no nests of species protected by the Migratory Bird Treaty Act and California Fish and Wildlife Code will be disturbed during project implementation. A report indicating the result of the survey and any designated buffer zones shall be submitted to the satisfaction of the Development Services Director prior to issuance of a grading permit.*

BIO-5.1 *To the extent feasible, activities shall avoid impacts to any protected trees. Avoidance is considered to be completely avoiding any work or staging under the dripline of trees. The boundary of the designated avoidance buffer shall be flagged or fenced prior to initial ground disturbance. If complete avoidance is not feasible, BIO-5.2 shall be implemented.*

BIO-5.2 *The project proponent shall comply with local ordinances and submit permit applications for removal, trimming, damage, or relocation of all trees covered by the City ordinance. Any trees to be removed shall require replacement at a two-to-one ratio on a comparable ratio of size. The replacement trees shall be planted on-site to the extent feasible and the project proponent shall comply with all other replacement requirements imposed by the City.*

New Mitigation Measures

None Required.

V. CULTURAL RESOURCES. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Pg. 52	No	No	No
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	Pgs.52 to 54	No	No	No
c. Disturb any human remains, including those interred outside of dedicated cemeteries.	Pg. 54	No	No	No

Discussion

a-c. According to the Lillian Commons Project IS/MND, historic structures are not located on or near the project site, and the nearest historic property to the site is the Newbold House, which is located 1.3 miles to the northeast. Given the distance between the site and the nearest historic property, the Lillian Commons Project IS/MND concluded that no impact would occur upon historic resources. Similarly, the Lillian Commons Project IS/MND determined that the project site is not located in a known archeologically sensitive area of the City, according to the City's Archeological Sensitivity Map. As such, the Lillian Commons Project IS/MND concluded that implementation of Standard Condition CUL-1 would be sufficient to reduce potential impacts to unique archeological resources and human remains to a less-than-significant level.

The currently proposed project would be implemented within the previously analyzed footprint of the Lillian Commons Project IS/MND, and thus, would not be anticipated to result in a greater potential to adversely affect archaeological resources, as compared to the approved project. Standard Condition CUL-1, as presented in the Lillian Commons Project IS/MND, was the City's then-current standard protection measure for cultural resources. The protection measures have been modified over time, and have been replaced with following City standard Condition of Approval related to the protection of historical and archaeological resources, consistent with Section 18.60.090 of the Morgan Hill Municipal Code:

A. The developer shall enter into written contracts with an archaeologist and the Tamien Nation Tribe, and pay all fees associated with the activities required by this condition. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply:

1. Prior to start of grading or earthmoving activity (includes demolition and moving of heavy equipment on site) on the "first day of construction", the archaeologist and Tamien Nation Tribal Monitor shall hold a preconstruction meeting for the purposes of "cultural sensitivity training" with the general contractor and subcontractors.

2. An archaeologist and a Tamien Nation Tribal Monitor shall be present on-site to monitor all ground disturbing activities and an archaeologist shall be on-call. Where historical or archaeological artifacts are found,

work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met, as described below:

a) Work at the location of the find will halt immediately within fifty feet of the find. If an archaeologist is not present at the time of the discovery, the applicant shall contact an archaeologist for evaluation of the find to determine whether it qualifies as a unique archaeological resource as defined by this chapter.

b) If the find is determined not to be a Unique Archaeological Resource, construction can continue. The archaeologist will prepare a brief informal memo/letter in collaboration with a tribal representative that describes and assesses the significance of the resource, including a discussion of the methods used to determine significance for the find;

c) If the find appears significant and to qualify as a unique archaeological resource, the archaeologist will determine if the resource can be avoided and will detail avoidance procedures in a formal memo/letter; and

d) If the resource cannot be avoided, the archaeologist in collaboration with a tribal representative shall develop within forty-eight hours an action plan to avoid or minimize impacts. The field crew shall not proceed until the action plan is approved by the Development Services Director. The action plan shall be in conformance with California Public Resources Code 21083.2.

3. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply. If human remains are discovered, it is probable they are the remains of Native Americans,

a) If human remains are encountered, they shall be treated with dignity and respect as due to them. Discovery of Native American remains is a very sensitive issue and serious concern. Information about such a discovery shall be held in confidence by all project personnel on a need-to-know basis. The rights of Native Americans to practice ceremonial observances on sites, in labs and around artifacts shall be upheld.
b) Remains should not be held by human hands. Surgical gloves should be worn if remains need to be handled.
c) Surgical mask should also be worn to prevent exposure to pathogens that may be associated with the remains.

4. In the event that known or suspected Native American remains are encountered, or significant historic or archaeological materials are discovered, ground-disturbing activities shall be immediately stopped. Examples of significant historic or archaeological materials include, but are not limited to, concentrations of historic artifacts (e.g., bottles, ceramics) or prehistoric artifacts (chipped chert or obsidian, arrow

points, ground stone mortars and pestles), culturally altered ash stained midden soils associated with pre-contact Native American habitation sites, concentrations of fire-altered rock and/or burned or charred organic materials and historic structure remains such as stone lined building foundations, wells or privy pits. Ground-disturbing project activities may continue in other areas that are outside the exclusion zone as defined below.

5. An "exclusion zone" where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area plus a reasonable buffer zone by the contractor foreman or authorized representative, or party who made the discovery and initiated these protocols, or if on-site at the time or discovery, by the monitoring archaeologist and tribal representative (typically twenty-five to fifty feet for single burial or archaeological find).

6. The discovery locale shall be secured (e.g., 24-hour surveillance) as directed by the City or County if considered prudent to avoid further disturbances.

7. The Contractor Foreman or authorized representative, or party who made the discovery and initiated these protocols shall be responsible for immediately contacting by telephone the parties listed below to report the find and initiate the consultation process for treatment and disposition:

    - The City of Morgan Hill Development Services Director (408) 779-7247
    - The Contractor's Point(s) of Contact
    - The Coroner of the County of Santa Clara (if human remains found) (408) 793-1900
    - The Native American Heritage Commission (NAHC) in Sacramento (916) 653-4082
    - The Amah Mutsun Tribal Band (916) 481-5785 (H) or (916) 743-5833 (C)
    - The Tamien Nation (707) 295-4011 (office) and (925) 336-5359 (THPO)

8. The Coroner has two working days to examine the remains after being notified of the discovery. If the remains are Native American the Coroner has 24 hours to notify the NAHC.

9. The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD). (Note: NAHC policy holds that the Native American Monitor will not be designated the MLD.)

10. Within 24 hours of their notification by the NAHC, the MLD will be granted permission to inspect the discovery site if they so choose.

11. Within 24 hours of their notification by the NAHC, the MLD may recommend to the City's Development Services Director the recommended means for treating or disposing, with appropriate dignity, the human remains and any associated grave goods. The recommendation may include the scientific removal and non-destructive or destructive analysis of human remains and items associated with Native American burials. Only those osteological analyses or DNA analyses recommended by the appropriate tribe may be considered and carried out.

12. If the MLD recommendation is rejected by the City of Morgan Hill the parties will attempt to mediate the disagreement with the NAHC. If mediation fails then the remains and all associated grave offerings shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Compliance with the foregoing Condition of Approval would ensure that the proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. As a result, the proposed project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

New Mitigation Measures

None Required.

VI. ENERGY. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	Pgs. 59 and 60	Yes	No	Yes
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Pg. 60	Yes	No	Yes

Discussion

a,b. According to the Lillian Commons Project IS/MND, electrical services would be provided to the project site by PG&E; consistent with the City's natural gas ordinance, natural gas infrastructure would not be provided in the proposed buildings. In addition, the Lillian Commons Project IS/MND concluded that given compliance with 2019 Building Energy Efficiency Standards, as well as the 2019 California Green Building Standards Code (CALGreen) standards, the project would not result in a 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, and a less-than-significant impact would occur.

Compared to the approved project, the proposed project could result in the development of up to 133,600 sf (net) of additional medical/commercial uses. This increased development potential would result in greater energy consumption. Further analysis is required to determine whether the proposed project's net increase in energy demand would be considered significant. This analysis will also consider the more recent energy efficiency requirements adopted by the State of California since the adoption of the Lillian Commons Project IS/MND in 2020. Therefore, the proposed project has the potential to involve new or more severe significant impacts than what was analyzed in the Lillian Commons Project IS/MND.

Further analysis of the above potential significant impact will be discussed in the Air Quality and Greenhouse Gas Emissions (including Energy) chapter of the Rosewood/Morgan Hill Medical Campus Project SEIR.

Prior Mitigation Measures

None Required.

New Mitigation Measures

To be determined in the SEIR.

VII. GEOLOGY AND SOILS. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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 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?	Pg. 67	No	No	No
b. Result in substantial soil erosion or the loss of topsoil?	Pg. 68	No	No	No
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?	Pg. 68	No	No	No
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	Pg. 69	No	No	No
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	Pg. 69	No	No	No
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Pg. 69	No	No	No

Discussion

ai.-aiv. According to the Geologic Impact Analysis prepared by EMC Planning Group, Inc.[7] for the Lillian Commons Project IS/MND, the project site is located within the seismically active San Francisco Bay Area, which has a 72 percent probability of experiencing at least one magnitude 6.7 earthquake in the next 30 years; in the event of a large earthquake, the project site would experience intense ground shaking. Because known faults do not occur beneath the project site, and because the project site is not located within an earthquake fault zone on an Alquist-Priolo Earthquake Fault Zoning Map, the Lillian Commons Project IS/MND determined that the potential for fault rupture at the project site is low. In addition, the Lillian Commons Project IS/MND determined that there is a low potential for liquefaction, lateral spreading, and/or landslides to occur on-site. Therefore, the Lillian

[7] EMC Planning Group, Inc. *Geologic Impact Analysis: Lillian Commons/Morgan Hill Medical Campus*. October 16, 2019.

Commons Project IS/MND concluded that given compliance with Standard Condition GEO-1, which is described below, the Lillian Commons Project would not expose people or structures to substantial adverse effects, and a less-than-significant impact would occur.

Implementation of Standard Condition GEO-1 would consist of the following: To avoid or minimize potential damage from seismic shaking, the proposed development shall be built using standard engineering and seismic safety design techniques. Building design and construction at the site shall be completed in conformance with the recommendations of a design-level geotechnical investigation, which will be included in a report to the City. The structural designs for the proposed development will account for repeatable horizontal ground accelerations. The report shall be reviewed and approved by the City of Morgan Hill Building Division prior to issuance of a building permit. The buildings shall be required to meet the requirements of applicable Building and Fire Codes, including the 2019 California Building Code Chapter 16, Section 1613, as adopted or updated by the City. The project shall be designed to withstand soil hazards identified on the site and the project shall be designed to reduce the risk to life or property to the extent feasible and in compliance with the Building Code.

The currently proposed project's area of impact is within the area of impact previously analyzed in the Lillian Commons Project IS/MND. In addition, the proposed project would be subject to the same standards and requirements established in Standard Condition GEO-1. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. As such, the proposed project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

b. According to the Lillian Commons Project IS/MND, grading, trenching, and construction of the project would result in ground disturbance at the site, which would expose soils and increase the potential for wind- or water-related erosion and sedimentation at the site until construction is complete. The Lillian Commons Project IS/MND determined that compliance with Standard Conditions GEO-2 and GEO-3, as defined below, would ensure that the Lillian Commons Project would not result in substantial soil erosion or the loss of topsoil, and a less-than-significant impact would occur.

Implementation of Standard Condition GEO-2 would consist of the following: Prior to final map approval or issuance of a grading permit the applicant shall complete the following to the satisfaction of the City Engineer:

1. Plan describing how material excavated during construction will be controlled to prevent this material from entering the storm drain system.
2. Water Pollution Control Drawings for Sediment and Erosion Control.

Implementation of Standard Condition GEO-3 would consist of the following: As required by the State Water Resources Control Board (SWRCB) Order No. 99-08-DWQ, construction activity resulting in a land disturbance of one acre or more of soil, or whose projects are part of a larger common plan of development that in total disturbs more than one acre, are required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Associated with Construction Activity (General Permit). To be permitted with the SWRCB under the General Permit, owners must file a complete Notice of Intent (NOI) package and develop a Storm Water Pollution Prevention Plan (SWPPP) Manual in accordance with Section A, B, and C of the General Permit prior to the commencement of

soil disturbing activities. A NOI Receipt Letter assigning a Waste Discharger Identification number to the construction site will be issued after the State Water Resources Control Board (SWRCB) receives a complete NOI package (original signed NOI application, vicinity map, and permit fee); copies of the NOI Receipt Letter and SWPPP shall be forwarded to the Building and Land Development Engineering Divisions for review. The SWPPP shall be made a part of the improvement plans (SWRCB NPDES General Permit CA000002).

The currently proposed project's area of impact would be within the footprint of the previously analyzed Lillian Commons Project and the proposed modifications to the project would not result in substantial additional earthwork. The proposed project would be subject to Standard Conditions GEO-2 and GEO-3 and all applicable State and local regulations related to erosion control. Such measures would ensure the proposed project is designed in accordance with the necessary specifications to reduce impacts associated with substantial soil erosion and loss of topsoil.

Based on the above information, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. Therefore, the proposed project would be consistent with the conclusions of the Lillian Commons Project IS/MND.

c,d. As discussed above, the Lillian Commons Project IS/MND determined that the project site and area are not subject to landslides and have a low potential for liquefaction, lateral spreading, and/or soil expansion. As such, the Lillian Commons Project IS/MND concluded that implementation of Standard Condition GEO-1, as defined above, would ensure that impacts related to unstable soils and being located on expansive soil would be reduced to a less-than-significant level.

The currently proposed project's area of impact is within the area of impact previously analyzed in the Lillian Commons Project IS/MND. In addition, the proposed project would be subject to the same standards and requirements established in Standard Condition GEO-1. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. As such, the proposed project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

e. Because the Lillian Commons Project would obtain wastewater treatment and sewer services from the City of Morgan Hill, and septic systems would not be developed as part of the project, the Lillian Commons Project IS/MND determined that the project would have no impact related to septic systems.

The currently proposed project would not include installation of septic tanks or construction of alternative wastewater systems. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. As such, the proposed project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

f. According to the Lillian Commons Project IS/MND, paleontological resources have not been identified in the City of Morgan Hill. In addition, the Lillian Commons Project IS/MND determined that because the project would excavate to a maximum depth of approximately six feet below ground surface to install utilities, and, thus, would not contact bedrock,

paleontological resources would not be discovered during construction. Thus, the Lillian Commons Project IS/MND concluded that the project would have a less-than-significant impact related to paleontological resources.

As discussed above, the currently proposed project's area of impact is within the area of impact previously analyzed in the Lillian Commons Project IS/MND. In addition, the proposed project would not require substantial excavation activities beyond those anticipated and analyzed within the Lillian Commons Project IS/MND. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. As such, the proposed project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

New Mitigation Measures

None Required.

VIII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Pgs. 73 to 75	Yes	Yes	Yes
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	Pg. 75	Yes	Yes	Yes

Discussion

a,b. According to the Lillian Commons Project IS/MND, implementation of the project would contribute to an increase in emissions of GHGs that are associated with global climate change. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and other GHGs, such as methane (CH_4) and nitrous oxide (N_2O), from mobile sources and utility usage. As shown in Table 4.8-1 of the Lillian Commons Project IS/MND, the Lillian Commons Project would have the potential to generate GHGs that may have a significant impact on the environment, or conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. However, the Lillian Commons Project IS/MND concluded that implementation of Mitigation Measure GHG-1.1 would reduce such impacts to a less-than-significant level.

Compared to the approved project, the proposed project could result in the development of up to 133,600 sf (net) of additional medical/commercial uses. This increased development potential would result in the generation of more vehicle trips and associated mobile source GHG emissions compared to the approved project. Similarly, the increased development would result in greater energy and utility demands (e.g., water and sewer) which are considered indirect sources of GHGs.

Since preparation of the 2020 IS/MND, BAAQMD has adopted new GHG thresholds of significance for GHG emissions. Pursuant to the new BAAQMD thresholds of significance for GHG emissions, new land use development projects need to implement specific design elements (i.e., no natural gas, electric vehicle charging, reduce VMT by 15 percent) or show consistency with a local GHG reduction strategy in order to do its “fair share” of implementing the goal of carbon neutrality by 2045. If the project can implement the specific design elements, it can reasonably be determined that the proposed project will not make a cumulatively considerable contribution to global climate change.

Therefore, the proposed project has the potential to involve new or more severe significant impacts than what was analyzed in the Lillian Commons Project IS/MND.

Further analysis of the above potential significant impact will be discussed in the Air Quality and Greenhouse Gas Emissions (including Energy) chapter of the Rosewood/Morgan Hill Medical Campus Project SEIR.

Prior Mitigation Measures

The analysis that will be included in the SEIR will determine whether Mitigation Measure GHG-1.1 from the Lillian Commons IS/MND (e.g., GHG reduction plan) is still applicable, requires modification(s), or should be substituted for equally effective mitigation.

New Mitigation Measures

To be determined in the SEIR.

IX. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	Pg. 79	No	No	No
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	Pg. 79	No	No	No
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Pg. 80	No	No	No
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?	Pg. 80	No	No	No
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?	Pg. 80	No	No	No
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Pg. 80	No	No	No
g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	Pg. 81	No	No	No

Discussion

a,b. According to the Lillian Commons Project IS/MND, construction of the project may involve the use and transport of hazardous materials, such as fuels, oils, mechanical fluids, and other chemicals used during construction. The residential and retail components of the Lillian Commons Project would involve only minimal transport, use, and disposal of hazardous materials. In contrast, the medical offices component of the project may routinely transport hazardous materials. However, the Lillian Commons Project IS/MND determined that construction and operation of the project would be regulated by the Santa Clara County Department of Environmental Health Hazardous Materials Compliance Division (SCCDEH). The Lillian Commons Project IS/MND concluded that compliance with applicable federal, State, and local regulations would ensure that the project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials, as well as ensure that the project would not 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, and a less-than-significant impact would occur.

The proposed project would include the operation of the same land types within the same footprint that was already analyzed in the Lillian Commons Project IS/MND. As such, construction and operation of the proposed project would not differ from the Lillian Commons Project, and would be required to comply with the same applicable federal, State, and local regulations which would ensure that the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

c. The Lillian Commons Project IS/MND determined that although the Barrett Elementary School is located less than 0.25-mile north of the project site, compliance with applicable local, State, and federal regulations would ensure that the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or wastes within one-quarter mile of an existing or proposed school, and a less-than-significant impact would occur. The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project site. In addition, since the Lillian Commons Project IS/MND has been prepared, additional schools have not been constructed within 0.25-mile of the project site. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

d. The Lillian Commons Project IS/MND reviewed the Department of Toxic Substances Control (DTSC) Cortese list, which includes a database of hazardous materials sites compiled pursuant to Government Code Section 65962.5. According to the Lillian Commons Project IS/MND, the Lillian Commons Project site was not included on the DTSC Cortese list. Other components of the Cortese List include the list of leaking underground storage tank sites from the SWRCB's GeoTracker database, the list of solid waste disposal sites identified by the SWRCB, and the list of active Cease and Desist Orders (CDO) and Cleanup and Abatement Orders (CAO) from the SWRCB. The project site is not located on the Cortese List.[8] The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND, and the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

e. According to the Lillian Commons Project IS/MND, the project site is not located within an airport land use plan within two miles of a public airport, or near a private landing strip. Therefore, the Lillian Commons Project IS/MND concluded that the project would not result in a safety hazard or excessive noise for people residing or working in the project area, and no impact would occur.

The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project, and, thus, would not be located within any airport land use plan, or in the vicinity of a public airport or public use airport. Therefore, the currently

[8] Department of Toxic Substances Control. *Hazardous Waste and Substances Site List (Cortese).* Available at: https://www.envirostor.dtsc.ca.gov/public/. Accessed July 2023.

proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

f. The Lillian Commons Project IS/MND determined that the project would be constructed in accordance with current building and fire codes to ensure structural stability and safety. In addition, according to the Lillian Commons Project IS/MND, the Morgan Hill Fire Department would review the site development plans to ensure that fire protection design features are incorporated and adequate emergency access is provided. Based on the foregoing information, the Lillian Commons Project IS/MND concluded that the project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan, and no impact would occur.

Implementation of the proposed project would not result in any substantial modifications to the existing roadway system. Additionally, the project would include lanes and drive aisles sized to accommodate emergency vehicle access to the site. Because the project would not involve physical changes that would significantly alter the existing roadway network in a manner that would interfere with circulation, the proposed project would not be anticipated to interfere with any emergency response or evacuation plan. Furthermore, the currently proposed project, which would be constructed within the footprint of the previously analyzed Lillian Commons Project, would be designed and implemented in accordance with all applicable federal, State, or local plans adopted for emergency response and evacuation. Therefore, the proposed project would not interfere with the emergency operations plan or other federal, State, or local plans adopted for emergency response and evacuation.

Based on the above information, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

g. The Lillian Commons Project IS/MND analyzed the project's potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires. As noted therein, the project site is not designated by the California Department of Forestry and Fire Protection (CAL FIRE) as a Very High Fire Hazard Severity Zone (FHSZ). As such, the Lillian Commons Project IS/MND concluded that the project would not expose people or structures to a significant risk of loss, injury or death involving wildland fires, and no impact would occur. Since the Lillian Commons Project IS/MND was drafted, CAL FIRE has released updated FHSZ maps. According to the most recent CAL FIRE data, the project site is still not located within a FHSZ.[9]

The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project. As discussed above, according to the most recent CAL FIRE data, the project site is not located within a FHSZ. In addition, the proposed project would be required to adhere to all standards included in the California Building Code and the California Fire Code. Therefore, the proposed project would not expose people or structures to risk of loss, injury or death involving wildland fires.

[9] CAL FIRE. *FHSZ Viewer.* Available at: https://egis.fire.ca.gov/FHSZ/. Accessed July 2023.

Based on the above information, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

New Mitigation Measures

None Required.

X. HYDROLOGY AND WATER QUALITY. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Pgs. 86 and 87	No	No	No
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	Pgs. 87 and 88	No	No	No
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?	Pgs. 88 and 89	No	No	No
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	Pg. 89	No	No	No
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Pg. 89	No	No	No

Discussion

a. According to the Lillian Commons Project IS/MND, construction of the project would have the potential to result in water quality impacts. Since construction of the project would disturb more than one acre of soil, the project would be required to comply with the NPDES General Permit for Construction Activities, as well as Standard Condition GEO-3, as defined in Section VII, Geology and Soils, of this Initial Study, and Standard Conditions HYD-1 and HYD-2, which are defined below. The Lillian Commons Project IS/MND concluded that compliance with the foregoing regulations would reduce construction water quality impacts to a less-than-significant level. With respect to post-construction water quality impacts, the Lillian Commons Project IS/MND determined that conformance with the City's Stormwater Management Guidance Manual for Low Impact Development (LID) and Post-Construction Requirements for implementing pollutant source controls and LID-based treatment controls would reduce impacts to a less-than-significant level.

Implementation of Standard Condition HYD-1 would consist of the following: In accordance with the City of Morgan Hill Standard Conditions of Approval and the Construction General Permit, the following measures shall be included in the project to ensure compliance with applicable water quality standards. The following best management practices (BMPs) shall be implemented during project construction:

- Burlap bags filled with drain rock will be installed around storm drains to route sediment and other debris away from the drains.
- Earthmoving or other dust-producing activities will be suspended during periods of high winds.
- All exposed or disturbed soil surfaces will be watered at least twice daily to control dust.
- Stockpiles of soil or other materials that can be blown by the wind will be watered or covered.
- All trucks hauling soil, sand, and other loose materials will be covered and all trucks will be required to maintain at least two feet of freeboard.
- All paved access roads, parking areas, staging areas and residential streets adjacent to the construction site will be swept daily (with water sweepers).
- Vegetation in disturbed areas will be replanted as quickly as possible.

Implementation of Standard Condition HYD-2 would consist of the following: In accordance with the City of Morgan Hill Standard Conditions of Approval and the Construction General Permit, the following measures shall be included in the project to ensure construction-related water quality impacts are less than significant:

- As required by the State Water Resources Control Board (SWRCB) Order No. 99-08-DWQ, construction activity resulting in a land disturbance of one acre or more of soil, or whose projects are part of a larger common plan of development that in total disturbs more than one acre, are required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Associated with Construction Activity (General Permit). To be permitted with the SWRCB under the General Permit, owners must file a complete Notice of Intent (NOI) package and develop a Storm Water Pollution Prevention Plan (SWPPP) Manual in accordance with Section A, B, and C of the General Permit prior to the commencement of soil disturbing activities. A NOI Receipt Letter assigning a Waste Discharger Identification number to the construction site will be issued after the State Water Resource Control Board (SWRCB) receives a complete NOI package (original signed NOI application, vicinity map, and permit fee); copies of the NOI Receipt Letter and SWPPP shall be forwarded to the Building and Land Development Engineering Divisions review. The SWPPP shall be made a part of the improvement plans. (SWRCB NPDES General Permit CA000002).

The currently proposed project, which would be constructed within the footprint of the previously analyzed Lillian Commons Project, would be subject to the same federal, State, and local regulations regarding water quality, specified in the Lillian Commons Project IS/MND, as well as the aforementioned Standard Conditions. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

b. The Lillian Commons Project IS/MND determined that although the site is currently mostly undeveloped, and that the increase in impervious surfaces associated with the proposed development could impact groundwater recharge, the Lillian Commons Project would be required to implement site design measures, LID, and BMPs which would contribute to groundwater recharge and minimize stormwater runoff. In addition, according to the Lillian Commons Project IS/MND, the highest depth to groundwater expected at the project site is 20 feet below the ground surface; the maximum depth of excavation associated with the project would be six feet below the ground surface. As such, the Lillian Commons Project IS/MND determined that the groundwater is deep enough such that ground disturbance during construction would not interfere with groundwater flow or expose any aquifers. Furthermore, because the project site is not an aquifer recharge facility, the Lillian Commons Project IS/MND determined that the project would not substantially interfere with aquifer recharge. Overall, the Lillian Commons Project IS/MND concluded that the project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin, and a less-than-significant impact would occur.

The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project. While the proposed project would include the development of more square footage than was anticipated in the Lillian Commons Project IS/MND, the currently proposed project would not include the development of more impervious surfaces than previously anticipated. In addition, as discussed above, the implementation of site design measures, LID, and BMPs would be appropriately sized for the amount of proposed development and would contribute to groundwater recharge and minimize stormwater runoff. As such, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. Therefore, the proposed project would be consistent with the conclusions of the Lillian Commons Project IS/MND.

c.i-iii. The Lillian Commons Project IS/MND states that because the project would create or replace 22,500 sf or more of impervious surfaces, pursuant to the City's Stormwater Management Guidance Manual for Low Impact Development and Post-Construction Requirements, the project would be required to implement LID treatment systems designed to retain stormwater runoff generated by the 85th percentile 24-hour storm event. The Lillian Commons Project IS/MND determined that implementation of Standard Condition HYD-3, as defined below, as well as Standard Conditions GEO-3, HYD-1, and HYD-2, would ensure that that the Lillian Commons Project would not result in substantial erosion during construction. Furthermore, the Lillian Commons Project IS/MND concluded that in addition to the foregoing requirements, because the final drainage system design for the project would be subject to review and approval by the City of Morgan Hill Land Development Engineering Division, which confirms that the proposed drainage system for the project would be consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval, impacts related to altering the existing drainage pattern of the site would be reduced to a less-than-significant level.

Implementation of Standard Condition HYD-3 would consist of the following: The Project Engineer shall provide a hydrology report demonstrating that post-development stormwater runoff peak flows discharged from the site do not exceed pre-project peak flows for the two- through 10-year storm events. Peak flow controls must also meet the flood control standards established by the Santa Clara County Drainage Manual.

While the proposed project would include the development of more square footage than was anticipated in the Lillian Commons Project IS/MND, the currently proposed project would not result in an increase of impervious surfaces or urban runoff than previously anticipated. In addition, the currently proposed project would direct stormwater runoff to inlets located throughout the project site, as well as new bioretention basins sited in various locations, which would be appropriately-sized, based on the total amount of proposed impervious surfaces, to provide preliminary treatment and temporary storage of runoff during peak rainfall. From the inlets and bioretention basins, flows would be conveyed by way of new 15- and 18-inch storm drain lines to the water treatment basin located to the southeast of the parking structure, where flows would ultimately be piped to the existing storm drain infrastructure in Juan Hernandez Drive.

Based on the above information, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. Therefore, the proposed project would be consistent with the conclusions of the Lillian Commons Project IS/MND.

c.iv,d. According to the Lillian Commons Project IS/MND, because the project site is identified by FEMA as being located in Zone X (outside of the 100-year floodplain), the Lillian Commons Project IS/MND concluded that no impact would occur related to the risk of flooding, including flooding risk from rising sea levels associated with climate change, or of risk of inundation by mudflow, seiche, or tsunami.

The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project, and, therefore, would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. As such, the proposed project would be consistent with the conclusions of the Lillian Commons Project IS/MND.

e. The Lillian Commons Project IS/MND concluded that through compliance with the Central Coast RWQCB requirements and the City's Stormwater Management Guidance Manual for Low Impact Development and Post-Construction Requirements, the project would not impact groundwater recharge and would not conflict with the SCVWD's Groundwater Management Plan, and a less-than-significant impact would occur. The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project, and would be required to comply with the same requirements. Therefore, the proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. As such, the proposed project would be consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

New Mitigation Measures

None Required.

XI. LAND USE AND PLANNING. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Physically divide an established community?	Pg. 91	No	No	No
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?	Pg. 91	No	No	No

Discussion

a. Because the Lillian Commons Project would include the construction of multi-family residential, hospital, medical office, and retail/restaurant buildings, the Lillian Commons Project IS/MND determined that the mix of uses would provide convenient services to the surrounding existing residential community, as well as to the proposed residential uses and medical offices/hospital uses. As such, the Lillian Commons Project IS/MND concluded that the project would not physically divide an established community, and a less-than-significant impact would occur. The currently proposed project would be built within the footprint of the previously analyzed Lillian Commons Project. In addition, the currently proposed project does not include any linear features, such as roads, walls, railroad lines, that would physically divide an established community. Therefore, the proposed project would not divide an established community.

Based on the above, the proposed project would not result in new significant impacts or substantially more severe significant impacts than were analyzed in the Lillian Commons Project IS/MND and would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

b. The Lillian Commons Project included a General Plan and Zoning Amendment to redesignate the site from a Service Commercial designation to a Mixed Use Flex designation to allow for residential, commercial, and medical office uses. The Lillian Commons Project IS/MND concluded that given approval of the foregoing amendments, the project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation, and a less-than-significant impact would occur.

The proposed project consists of an expansion of the approved medical/commercial uses evaluated in the Lillian Commons Project IS/MND. As such, the proposed use would be consistent with the General Plan and zoning designations for the site. The currently proposed project requires the approval of a GPA to amend the Mixed Use Flex designation to exempt medical uses, including hospitals, from floor area ratio requirements with an approved Planned Development (PD) Combining District and PD master plan, as well as a PD Master Plan Amendment to set the maximum medical square footage at 275,000 sf and to increase the maximum allowable building height. The environmental effects of the requested amendments to the maximum allowable heights for the project site and maximum floor area ratio established by the site-specific PD Master Plan and General Plan Mixed Use Flex land use designation, respectively, are considered and evaluated throughout the other sections of this Initial Study, and with respect to criteria pollutant and GHG emissions, noise, and transportation, will be evaluated in the SEIR. Following approval of the foregoing modifications, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than were previously analyzed in the Lillian Commons Project IS/MND. Therefore, the proposed

project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

New Mitigation Measures

None Required.

XII. MINERAL RESOURCES. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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?	Pg. 93	No	No	No
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?	Pg. 93	No	No	No

Discussion

a,b. According to the Lillian Commons Project IS/MND, based on the United States Geological Survey (USGS) map of mines and mineral resources, the project site is not comprised of known mineral resources or mineral resource production areas. In addition, the Lillian Commons Project IS/MND determined that the City's General Plan does not identify the project site or area as a mineral resource recovery site. As such, the Lillian Commons Project IS/MND concluded that the project would not 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, or result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan, and no impact would occur.

The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project, and, therefore, would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. As such, the proposed project would be consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

New Mitigation Measures

None Required.

XIII. NOISE. *Would the project result in:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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?	Pgs. 100 to 111	Yes	No	No
b. Generation of excessive groundborne vibration or groundborne noise levels?	Pgs. 111 to 112	Yes	No	No
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?	Pg. 112	No	No	No

Discussion

a. The Lillian Commons Project IS/MND analyzed the project's potential to generate a substantial temporary increase in ambient noise levels at residential uses in the vicinity of the project in excess of standards established by the City of Morgan Hill and concluded that implementation of Mitigation Measure NOI-1.1 would be required to ensure that impacts related to temporary short-term exposure to construction generated noise would be less than significant. In addition, the Lillian Commons Project IS/MND determined that while sources of permanent noise increases associated with the Lillian Commons Project, such as traffic noise, on-site vehicle circulation, and truck deliveries, would not expose nearby sensitive receptors to noise levels above the City's thresholds of significance, operation of on-site mechanical equipment would have the potential to exceed the noise level thresholds established in the City's Municipal Code. However, the Lillian Commons Project IS/MND concluded that implementation of Mitigation Measure NOI-2.1 would ensure that the project would not generate a permanent increase in ambient noise levels in excess of standards established by the City, and a less-than-significant impact would occur.

The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project, and, thus, would have the potential to result in impacts upon the same sensitive noise receptors evaluated in the Lillian Commons Project IS/MND. Because the proposed project consists of the intensification of the previously approved land uses evaluated in the Lillian Commons Project IS/MND, implementation of Mitigation Measures NOI-1.1 and NOI-2.1 is anticipated to be required for the proposed project. However, the proposed project would require a greater amount of construction activity than was evaluated in the Lillian Commons Project IS/MND. In addition, the currently proposed project would result in increased on-site activity; for example, a greater number of parking spaces available on-site would result in increased on-site circulation, and the expanded medical/commercial uses would allow for more employees and patrons. Therefore, additional analysis is required to assess whether Mitigation Measures NOI-1.1 and NOI-2.1 would be sufficient to reduce noise impacts of the proposed project to a less-than-significant level. As such, the proposed project has the potential to involve new or

more severe significant impacts than what was analyzed in the Lillian Commons Project IS/MND.

Further analysis of the above potential significant impact will be discussed in the Noise chapter of the Rosewood/Morgan Hill Medical Campus Project SEIR.

b. The Lillian Commons Project IS/MND analyzed the project's potential to result in the generation of excessive groundborne vibration or groundborne noise levels and concluded buildout of the project would result in a less-than-significant impact. Although the currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project, the proposed project would consist of a greater amount of development than was anticipated and analyzed in the Lillian Commons Project IS/MND. Therefore, additional analysis is required to assess whether the currently proposed project would result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND.

Further analysis of the above potential significant impact will be discussed in the Noise chapter of the Rosewood/Morgan Hill Medical Campus Project SEIR.

c. According to the Lillian Commons Project IS/MND, the Reid-Hillview Airport and Mineta San Jose International Airport are located approximately 18 miles and 23 miles northwest of the project site, respectively. In addition, the San Martin Airport is located approximately 2.8 miles southeast of the project site. The Lillian Commons Project IS/MND determined that because the project site is located outside of each airport's planning boundary and 60 decibel (dBA) Community Noise Equivalent Level (CNEL) noise contour, noise levels resulting from aircraft would be insignificant at the site and would be compatible with the proposed land uses. Therefore, the Lillian Commons Project IS/MND concluded that impacts would be less than significant.

The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project, and new airport land uses have not been built in the project vicinity since the adoption of the Lillian Commons Project IS/MND. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND, and the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

The analysis that will be included in the SEIR will determine whether Mitigation Measure NOI-1.1 (e.g., implement noise control BMPs during construction) and NOI-1.2 (e.g., implement noise reduction measures, as necessary, for on-site operational mechanical equipment) from the Lillian Commons IS/MND are still applicable, require modification(s), or should be substituted for equally effective mitigation.

New Mitigation Measures

To be determined in the SEIR.

XIV. POPULATION AND HOUSING. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	Pg. 116	No	No	No
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	Pgs. 116 and 117	No	No	No

Discussion

a. The Lillian Commons Project IS/MND determined that although the project would include the construction of 200 multi-family residential units, which would lead to a net increase in the local population by approximately 1,102 residents, such an increase in population would not be considered substantial unplanned population growth. In addition, according to the Lillian Commons Project IS/MND, housing is considered a critical need in the Bay Area, and the proposed residential units would provide a housing option for employees of the proposed retail or hospital uses. As such, the Lillian Commons Project IS/MND concluded that the project would not induce substantial unplanned population growth in an area, either directly or indirectly, and a less-than-significant impact would occur.

The currently proposed project consists of an increase in density and square footage of the proposed medical/commercial uses, and, thus, would not result in the creation of additional housing which would directly induce population growth. In addition, while the increase in medical/commercial uses may result in the project generating a greater number of employees than what was analyzed and anticipated in the Lillian Commons Project IS/MND, such an increase would not indirectly induce substantial unplanned population growth in the area beyond what was assumed in the Lillian Commons Project IS/MND. Therefore, the currently proposed would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

b. Because the project site does not contain existing residences, the existing medical offices do not support residents, and the approved project would include the development of housing, the Lillian Commons Project IS/MND concluded that the Lillian Commons Project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, and no impact would occur. The currently proposed project would be built within the footprint of the previously analyzed Lillian Commons Project and would not include the demolition of existing residential buildings. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

New Mitigation Measures

None Required.

XV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Fire protection?	Pgs. 120 to 122	No	No	No
b. Police protection?		No	No	No
c. Schools?		No	No	No
d. Parks?		No	No	No
e. Other Public Facilities?		No	No	No

Discussion

a-e. The Lillian Commons Project IS/MND analyzed the potential for buildout of the project to result in substantial adverse physical impacts related to fire protection, police protection, schools, parks, and other public facilities and concluded that a less-than-significant impact would occur.

With respect to fire protection, the Lillian Commons Project IS/MND determined that although the residential portion of the project would create an increase in population, which would result in an incremental increase in demand on the Morgan Hill Fire Department, such an increase would not lead to a substantial lowering of response times due to the project site's location in an urban area of Morgan Hill. In addition, according to the Lillian Commons Project IS/MND, the development proposed therein would be reviewed by the Morgan Hill Fire Department/CAL FIRE to ensure appropriate safety features to reduce fire hazards are incorporated into the project. Given that the Lillian Commons Project is surrounded by existing development, the Lillian Commons Project IS/MND concluded that the project would not substantially increase the demand for fire protection, or otherwise require construction or expansion of fire facilities, and a less-than-significant impact would occur.

Similarly, although the approved project would result in an increase in population, the Lillian Commons Project IS/MND determined that a substantial increase in the need for police and protection services would not occur. In addition, according to the Lillian Commons Project IS/MND, the Morgan Hill Police Department (MHPD) would review the development plans to ensure that safety features to reduce the risk of criminal activity are incorporated into the project design. Therefore, the Lillian Commons Project IS/MND concluded that the project would not result in a significant increase in demand for police services or require the expansion or construction of police facilities, and a less-than-significant impact would occur.

With respect to schools, the Lillian Commons Project IS/MND determined that the residential component of the project would likely increase the need for school capacity. According to the Lillian Commons Project IS/MND, school impact fees would be paid to the affected school districts prior to the issuance of a building permit by the City. The Lillian

Commons Project IS/MND concluded that payment of such fees would be adequate mitigation from development of the Lillian Commons Project, and that a less-than-significant impact would occur.

According to the Lillian Commons Project IS/MND, the existing parks in the project area, as well as the open space, passive park, and recreational areas proposed as part of the Lillian Commons Project would be sufficient to serve the residents of the project. In addition, the Lillian Commons Project IS/MND concluded that through the payment of in-lieu fees, the project would not result in the substantial physical deterioration of existing and recreational facilities or require the expansion or construction of new facilities, and a less-than-significant impact would occur.

According to the Lillian Commons Project IS/MND, although residents of the project would be likely to utilize nearby libraries and community centers, demand for such facilities would not necessitate the construction of new facilities or the expansion of existing facilities. As such, the Lillian Commons Project IS/MND concluded that a less-than-significant impact would occur.

The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project. In addition, the proposed project would not result in the development of more residences than what was assessed in the Lillian Commons Project IS/MND. As such, the proposed project would not result in an increase in the number of residents assumed for the Lillian Commons Project, and the proposed project would not require the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, particularly schools, parks, and other public facilities.

However, police and fire protection services have the potential to be affected by the intensified medical/commercial uses included in the proposed project. The nearest MHPD facility to the project site is located at 16200 Vineyard Boulevard, approximately one mile west of the project site. As noted in the General Plan EIR, the MHPD's goal is to respond to calls within five to eight minutes.

Currently, the closest fire station to the project site is the CAL FIRE headquarters station located at 15670 Monterey Road, approximately 0.95-mile southwest of the project site. However, since the adoption of the Lillian Commons Project IS/MND, the City has authorized funds to construct the new Butterfield Boulevard Station, which will be located at 17285 Butterfield Boulevard, approximately 1.2 miles from the project site. A relatively direct travel route will be available from the Butterfield Boulevard Station down Butterfield Boulevard, to Barret Avenue, and to the project site. Construction of the Butterfield Boulevard Station is anticipated to be completed by July 2024. Although the City has not adopted response time standards or goals related to fire suppression, CAL FIRE is held to a seven minute, 59 second response time standard based on the 911 Emergency Medical Services Provider Agreement between the City of Morgan Hill and the County of Santa Clara Emergency Medical Services Agency.[10] Due to the close proximity to existing and proposed fire and police stations, response times to the project site will be met.

[10] Dwight Good, Assistant Chief Cooperative Fire Protection, Morgan Hill Fire Department. Personal communication [phone] with Nick Pappani, Vice President, Raney Planning and Management, Inc. June 1, 2021.

As previously discussed, the maximum building height for the medical office buildings would be increased as part of the PD Master Plan Amendment, from 55 feet to 65 feet. With respect to the parking structure, the originally approved project included construction of a three-story, 32-foot-tall parking structure, whereas the proposed project is proposing development of a six-story, 65-foot-tall structure. Thus, the proposed project modifications would result in a net increase of three floors and 33 feet. The Morgan Hill Fire Department/CAL FIRE is equipped with a ladder truck that can reach 105 feet; thus, it will be able to reach the 65-foot building heights if placed in the proper position.

Overall, as required under CEQA, the incremental increase in demand for fire and police protection associated with the proposed project would not necessitate new or physically altered fire or police protection facilities, the construction of which could cause significant environmental impacts. Analysis of issues related to new equipment or personnel being needed is not required under CEQA; rather, such issues are related to funding.

Based on the above information, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

New Mitigation Measures

None Required.

XVI. RECREATION. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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?	Pg. 124	No	No	No
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?	Pg. 124	No	No	No

Discussion

a,b. According to the Lillian Commons Project IS/MND, the existing parks in the project area, as well as the open space, passive park, and recreational areas proposed as part of the Lillian Commons Project would be sufficient to serve the residents of the project. In addition, the Lillian Commons Project IS/MND concluded that through the payment of in-lieu fees, the project would result in a less-than-significant impact with regard to recreational resources.

The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project. In addition, the proposed project would not result in the development of more residences than what was assessed in the Lillian Commons Project IS/MND. As such, the proposed project would not result in an increase in the number of residents assumed for the Lillian Commons Project, and the proposed project would not result in adverse impacts related to recreational resources.

Based on the above information, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

New Mitigation Measures

None Required.

XVII. TRANSPORTATION. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	Pgs. 131 to 136	Yes	No	No
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Pg. 136	Yes	No	Yes
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	Pg. 137	Yes	No	No
d. Result in inadequate emergency access?	Pg. 137	Yes	No	No

Discussion

a. The Lillian Commons Project IS/MND performed a level of service (LOS) analysis for several roadway segments and intersections within the project vicinity. Since the release of the Lillian Commons Project IS/MND, the law has changed with respect to how transportation-related impacts may be addressed under CEQA. Traditionally, lead agencies used LOS to assess the significance of such impacts, with greater levels of congestion considered to be more significant than lesser levels. Mitigation measures typically took the form of capacity-increasing improvements, which often had their own environmental impacts (e.g., to biological resources). Depending on circumstances, and an agency's tolerance for congestion (e.g., as reflected in its general plan), LOS D, E, or F often represented significant environmental effects. In 2013, however, the Legislature passed legislation with the intention of ultimately removing LOS in most instances as a basis for environmental analysis under CEQA. Enacted as part of SB 743 (2013), PRC Section 21099, subdivision (b)(1), directed the Governor's OPR to prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption proposed CEQA Guidelines addressing "criteria for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. In developing the criteria, [OPR] shall recommend potential metrics to measure transportation impacts that may include, but are not limited to, vehicle miles traveled, vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated. The office may also establish criteria for models used to analyze transportation impacts to ensure the models are accurate, reliable, and consistent with the intent of this section."

Subdivision (b)(2) of Section 21099 further provides that "[u]pon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to [CEQA], except in locations specifically identified in the guidelines, if any."

Pursuant to SB 743, the Natural Resources Agency promulgated CEQA Guidelines Section 15064.3 in late 2018. It became effective in early 2019. Subdivision (a) of that section provides that "[g]enerally, vehicle miles traveled is the most appropriate measure of transportation impacts. For the purposes of this section, 'vehicle miles traveled' refers to the amount and distance of automobile travel attributable to a project. Other relevant considerations may include the effects of the project on transit and non-motorized travel. Except as provided in subdivision (b)(2) below (regarding roadway capacity), a project's effect on automobile delay shall not constitute a significant environmental impact."

Please refer to Question 'b' for a discussion of VMT.

Existing roadways in the project vicinity include the following:

- US-101 is a north-south freeway extending northward to San Francisco and southward through Gilroy. US-101 is an eight-lane freeway consisting of three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction north of Cochrane Road. South of Cochrane Road, US-101 is a six-lane freeway without HOV lanes. Access to and from the project area is provided by a full interchange at Tennant Avenue.
- Tennant Avenue is a four to six lane major arterial road. Tennant Avenue extends from Monterey Road eastward to the east foothills, terminating at a T-intersection with Carey Avenue. West of Monterey Road, Tennant Avenue changes designation to Edmunson Avenue. Tennant Avenue provides regional access to the project site via its full interchange with US-101.
- Barrett Avenue is an east-west two-lane undivided roadway that extends from Railroad Avenue eastward to just west of US-101. East of US-101, Barrett Avenue continues eastward from west of Murphy Avenue to Trail Drive, in the east foothills, where it terminates. The posted speed limit on Barrett Avenue is 30 miles per hour (mph) and reduces to 25 mph in the vicinity of the Barrett Elementary School when children are present. Sidewalks on both sides of the street are found along Barrett Avenue, west of US-101, with the exception of two short segments along two undeveloped parcels located just east of Railroad Avenue. Sidewalks are not found along Barrett Avenue, east of US-101. Barrett Avenue is just north of the project site and provides direct access to the Rosewood subdivision currently under construction north of the project site.
- Juan Hernandez Drive is a two-lane north-south undivided roadway that begins at Tennant Avenue and extends northward to north of San Vicente Drive where it currently terminates. Juan Hernandez Drive is planned to be extended northward from the current terminus point to connect to San Pedro Avenue. The posted speed limit on Juan Hernandez is 35 mph and reduces to 25 mph in the vicinity of Barrett Elementary School when children are present. Juan Hernandez Drive has sidewalks on both sides of the street, with the exception of the west side of the street between Tennant Avenue and St. James Drive. Being the western project site boundary, Juan Hernandez Drive would provide direct access to the project site via two driveways.

The Lillian Commons Project IS/MND evaluated impacts upon pedestrian, bicycle, and transit facilities in the project vicinity. According to the Lillian Commons Project IS/MND, existing pedestrian facilities in the area consist of sidewalks and crosswalks. Although crosswalks with pedestrian signal heads and ADA-compliant ramps are located at all

nearby signalized intersections, and sidewalks are available in the residential neighborhoods located north and west of the site, continuous sidewalks are not available along the undeveloped parcels south of the project site. The only existing bicycle facility in the project vicinity is a Class II Bike Lane on Tennant Avenue, south of the project site. Transit service within the City of Morgan Hill is provided by the Santa Clara Valley Transportation Authority (SCVTA). According to the Lillian Commons Project IS/MND, bus routes do not currently exist that provide direct service between the project site and other pedestrian destinations in Morgan Hill. The nearest bus stop, Route 87, is located approximately 1.5 miles northwest of the project site. The Lillian Commons Project IS/MND concluded that the project would not require the development of additional pedestrian, bicycle, or transit facilities, and a less-than-significant impact would occur.

Due to the proposed intensification of medical/commercial uses on the project site, the currently proposed project would result in additional use of pedestrian, bicycle, and transit facilities in the project vicinity. Additional analysis is required to evaluate the currently proposed project's connectivity to the existing network in the project vicinity and whether the incremental increase in project use and ridership of alternative transportation networks would conflict with the level of anticipated use for such systems. Similarly, additional analysis is required to assess how additional ridership associated with the proposed project would impact transit services based on available capacity.

Based on the above, additional analysis is required to assess whether the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND.

Further analysis of the above potential significant impact will be discussed in the Transportation chapter of the Rosewood/Morgan Hill Medical Campus Project SEIR.

b. At the time that the Lillian Commons Project IS/MND was approved, the City of Morgan Hill had not yet adopted a standard approach or guidelines to evaluate a project's VMT impact. Therefore, the Lillian Commons Project IS/MND concluded that the project would not conflict with CEQA Guidelines Section 15064.3, Subdivision (b), and no impact would occur.

Pursuant to Section 15064.3(b)(3), a lead agency may analyze a project's VMT qualitatively based on the availability of transit, proximity to destinations, etc. The City of Morgan Hill is undertaking a process of updating its General Plan policies to incorporate VMT methodologies and significance thresholds to be consistent with SB 743 and has released draft VMT thresholds. These draft city-wide VMT thresholds have been recommended by the Planning Commission for City Council approval. Compared to the approved project, the proposed project could result in the development of up to 133,600 sf (net) of additional medical/commercial uses. This increased development potential would result in the generation of more vehicle trips and increased VMT than the approved project. In addition, given that the 2020 IS/MND did not quantitatively evaluate VMT, the City has conservatively chosen to use the existing site conditions as the baseline for the VMT analysis. In other words, with the exception of the existing 15,900 sf of medical office space currently located in the southernmost portion of the project site, other VMT-generating uses previously approved for the Lillian Commons Project IS/MND are not assumed in the environmental baseline.

Based on the above, the currently proposed project would have the potential to generate a new significant impact related to VMT and further analysis is required.

Further analysis of the above potential significant impact will be discussed in the Transportation chapter of the Rosewood/Morgan Hill Medical Campus Project SEIR.

c,d. According to the Lillian Commons Project IS/MND, the proposed development would be accessed by two driveways along Juan Hernandez Drive. The Lillian Commons Project IS/MND determined that because the project would comply with the City's design standards, the project driveways would provide adequate width for site access and would not result in hazards. As such, the Lillian Commons Project IS/MND concluded that the project would not substantially increase hazards due to a geometric feature or incompatible use, and a less-than-significant impact would occur. Similarly, the Lillian Commons Project IS/MND concluded that by adhering to the City of Morgan Hill's standards and requirements for emergency access, the project would not result in inadequate emergency access, and no impact would occur.

The foregoing conclusions from the Lillian Commons Project IS/MND are based on the development of the project site with 124,500 sf of medical uses. The currently proposed project consists of an expansion of the approved medical/commercial uses evaluated in the Lillian Commons Project IS/MND. Specifically, the proposed project could result in a total net increase of 133,600 sf of medical/commercial uses. Because the additional development was not analyzed in the Lillian Commons Project IS/MND, the proposed project has the potential to result in increased hazards due to a geometric feature or incompatible use, requiring further analysis in the SEIR. Therefore, the proposed project has the potential to involve new or more severe significant impacts than what was analyzed in the Lillian Commons Project IS/MND.

Further analysis of the above potential significant impact will be discussed in the Transportation chapter of the Rosewood/Morgan Hill Medical Campus Project SEIR.

Prior Mitigation Measures

None Required

New Mitigation Measures

To be determined in the SEIR.

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:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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).	Pg. 140	No	No	No
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 Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	Pg. 140	No	No	No

Discussion

a,b. According to the Lillian Commons Project IS/MND, tribes did not request notice under Assembly Bill (AB) 52, and known tribal cultural resources are not present on-site. In addition, the City of Morgan Hill initiated the Senate Bill (SB) 18 consultation process for the Lillian Commons Project on January 29, 2020; the City did not receive any responses or requests for consultation. The Lillian Commons Project IS/MND concluded that implementation of the measures listed under Standard Condition CUL-1 would be sufficient to reduce any potential impacts upon tribal cultural resources to a less-than-significant level.

As discussed in Section V, Cultural Resources, of this Initial Study, the currently proposed project would be implemented within the previously analyzed footprint of the Lillian Commons Project IS/MND. Standard Condition CUL-1, as presented in the Lillian Commons Project IS/MND, was the City's then-current standard protection measure for cultural resources. The protection measures have been modified over time and have been replaced with the City standard Condition of Approval related to the protection of historical and archaeological resources, consistent with Section 18.60.090 of the Morgan Hill Municipal Code (see Section V of this Initial Study). Given compliance with the foregoing Condition of Approval, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts than what were previously analyzed in the Lillian Commons Project IS/MND. As a result, the proposed project would remain consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

New Mitigation Measures

None Required.

XIX. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	Pgs. 144 and 145	No	No	No
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	Pgs. 145 and 146	No	No	No
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?	Pg. 146	No	No	No
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?	Pgs. 146 and 147	No	No	No
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	Pg. 147	No	No	No

Discussion

a. The Lillian Commons Project IS/MND assessed the potential for buildout of the project to result in the relocation or construction of new or expanded water, wastewater treatment, or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects and concluded that impacts would be less than significant.

According to the Lillian Commons Project IS/MND, the Lillian Commons Project would install new water lines, sanitary sewer lines, and storm drains that would connect to the existing utility lines on Juan Hernandez Drive and Barrett Avenue. The on-site storm drains would connect the existing storm drain on Juan Hernandez Drive, and the Lillian Commons Project would include a stormwater management area on the southwest corner of the project site. The Lillian Commons Project IS/MND determined that because the on-site retention would be designed to convey a 10-year storm event, and because the City's existing storm drainage system would have the capacity to serve the site, the project would not require expansion of the City's existing storm drainage system. In addition, the Lillian Commons Project IS/MND determined that the project would utilize the existing utility connections to connect to the electric power and telecommunication facilities. In compliance with City Ordinance No. 2306, natural gas infrastructure would not be developed in the new buildings. As such, the Lillian Commons Project IS/MND concluded that the project would not require or result in the relocation of new or expanded utilities infrastructure, and a less-than-significant impact would occur.

As discussed throughout this Initial Study, the currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project. As such, the same existing utilities systems within adjacent roadways would be available to serve the currently proposed project. In addition, the project engineer, in consultation with the City of Morgan Hill, have confirmed that no off-site infrastructure improvements are necessary to accommodate the increased demand associated with the 133,600 sf of additionally proposed medical/commercial uses. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the IS/MND.

b. According to the Lillian Commons Project IS/MND, the City's Urban Water Management Plan (UWMP) determined that sufficient water supply was available to accommodate buildout of the project site with commercial development, as anticipated in the City's General Plan. The Lillian Commons Project IS/MND determined that the proposed uses, including multi-family residences, hospital and medical offices, and restaurant/commercial uses, would not significantly increase water demand compared to the water demand of the originally anticipated commercial development. As such, the Lillian Commons Project IS/MND concluded that sufficient water supplies would be available to serve the project, and a less-than-significant impact would occur.

   The currently proposed project consists of the expansion of the medical uses analyzed in the Lillian Commons Project IS/MND by up to 133,600 sf. According to the City's Water System Master Plan, among non-residential uses, commercial uses have the highest water unit factor.[11] Thus, the currently proposed project would not result in greater water consumption that what was anticipated for the site in the General Plan and City UWMP. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

c. The Lillian Commons Project IS/MND estimated that the Lillian Commons Project would generate approximately 75,520 gallons of wastewater per day. According to the Lillian Commons Project IS/MND, the City's General Plan EIR determined that wastewater generated at buildout of the General Plan would exceed the current design of permitted treatment capacity. However, at the time that the Lillian Commons Project IS/MND was approved, the South County Regional Wastewater Authority (SCRWA) Wastewater Treatment Facility (WWTF) was planned for expansion by 2025. The Lillian Commons Project IS/MND concluded that after expansion of the WWTF, the project would not adversely affect the functionality or the capacity of the existing wastewater treatment system, and a less-than-significant impact would occur.

   Currently, the expansion project is underway at the SCRWA WWTF and is expected to be complete in 2024.[12] The plant expansion will increase the facility's wastewater treatment capacity from 8.5 to 11 million gallons per day (mgd). The General Plan EIR determined that, after expansion of the treatment plant, wastewater generated by General Plan buildout, including the project site, would not exceed the expanded permitted treatment

[11] City of Morgan Hill. *Water System Master Plan Updated*. December 2021.
[12] See https://morganhilltimes.com/expansion-to-increase-south-county-recycled-water-capacity/; accessed July 13, 2023.

capacity of the SCRWA WWTF facility. Thus, although the currently proposed project would incrementally increase wastewater demand beyond what was anticipated for the site in the Lillian Commons Project IS/MND, the conclusions of the Lillian Commons Project IS/MND would not be altered such that wastewater generated by the proposed project would have a new significant impact.

Based on the above information, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

d,e. The Lillian Commons Project IS/MND used the California Emissions Estimator Model (CalEEMod) to estimate that the project's solid waste generation would total to approximately 1,338 tons per year, or 7,330 pounds per day. At the time when the Lillian Commons Project IS/MND was approved, the City of Morgan Hill contracted with Recology South Valley to dispose of solid waste from the City at the Johnson Canyon Sanitary Landfill, which would have adequate capacity for the solid waste associated with the Lillian Commons Project. As such, the Lillian Commons Project IS/MND concluded that the project would not generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals and would comply with federal, State, and local management and reduction statutes and regulations related to solid waste, and a less-than-significant impact would occur.

Since the approval of the Lillian Commons Project IS/MND, Recology South Valley has contracted with the Monterey Regional Waste Management District to provide solid waste disposal services at the Monterey Peninsula Landfill and Materials Recovery Facility for the waste collected by Recology.[13] Pursuant to the Landfill's current Solid Waste Facility Permit, the Landfill has a maximum permitted tonnage limit of 3,500 tons per day and a design capacity of 49,700,000 cubic yards, with remaining capacity of 48,560,000 cubic yards.[14]

The currently proposed project consists of the expansion of the previously approved medical uses; as such, construction and operation of the proposed project would result in an increase in solid waste beyond what was anticipated in the Lillian Commons Project IS/MND. However, such an increase would not exceed the available capacity of the Monterey Peninsula Landfill and Materials Recovery Facility. Therefore, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND . Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

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[13] Andi Borowski, Environmental Services Assistant, Morgan Hill Environmental Services Department. Personal communication [email] with Jesse Fahrney, Associate, Raney Planning and Management, Inc. July 26, 2022.

[14] California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details: Monterey Peninsula Landfill (27-AA-0010)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/2642?siteID=1976. Accessed July 2023.

New Mitigation Measures

None Required.

XX. WILDFIRE. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	Pg. 148	No	No	No
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?	Pg. 148	No	No	No
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?	Pg. 148	No	No	No
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?	Pg. 148	No	No	No

Discussion

a-d. As previously discussed in Section IX, Hazards and Hazardous Materials, of this Initial Study, the Lillian Commons Project IS/MND analyzed the project's potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires. As noted therein, the project site is not designated by CAL FIRE as a Very High FHSZ. As such, the Lillian Commons Project IS/MND concluded that the project would not result in wildfire impacts, and no impact would occur. Since the Lillian Commons Project IS/MND was drafted, CAL FIRE has released updated FHSZ maps. According to the most recent CAL FIRE data, the project site is still not located within a FHSZ.[15]

The currently proposed project would be constructed within the footprint of the previously analyzed Lillian Commons Project. As discussed above, according to the most recent CAL FIRE data, the project site is not located within a FHSZ. In addition, the proposed project would be required to adhere to all standards included in the California Building Code and the California Fire Code. Therefore, the proposed project would not result in wildfire impacts.

Based on the above information, the currently proposed project would not result in new significant impacts or substantially more severe significant impacts beyond what were analyzed in the Lillian Commons Project IS/MND. Thus, the proposed project is consistent with the conclusions of the Lillian Commons Project IS/MND.

Prior Mitigation Measures

None Required.

[15] CAL FIRE. *FHSZ Viewer.* Available at: https://egis.fire.ca.gov/FHSZ/. Accessed July 2023.

New Mitigation Measures

None Required.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE.	Where Impact Was Analyzed in Previous CEQA Document(s)?	Do Proposed Changes Involve New or More Severe Impacts?	Any New Circumstances Involving New or More Severe Impacts?	Any New Information Requiring New Analysis or Verification?
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?	Pg. 149	No	No	No
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)?	Pgs. 149 to 154	Yes	Yes	Yes
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	Pg. 155	Yes	Yes	Yes

Discussion

a. As discussed in Section IV, Biological Resources, of this Initial Study, the project site, which has been heavily disturbed, would not include special-status plant species, based on the conclusion of the Lillian Commons Project IS/MND. Through preconstruction surveys and any additional protective measures specified by Mitigation Measures BIO-1.1 and BIO-1.2, all potential adverse effects to such species would be minimized. Additionally, because the project site could contain unidentified historic or prehistoric resources beneath the ground surface, the proposed project would be implemented in accordance with Section 18.60.090 of the Morgan Hill Municipal Code, and impacts related to unidentified historic or prehistoric resources within the project site would be minimized during construction activities, consistent with the requirements of CEQA.

Considering the above, the proposed project would not: 1) degrade the quality of the environment; 2) substantially reduce or impact the habitat of fish or wildlife species; 3) cause fish or wildlife populations to drop below self-sustaining levels; 4) threaten to eliminate a plant or animal community; 5) reduce the number or restrict the range of a rare or endangered plant or animal; or 6) eliminate important examples of the major periods of California history or prehistory. Impacts associated with such resources have been adequately addressed and would not change from what was identified in the Lillian Commons Project IS/MND, and the criteria for requiring further CEQA review are not met.

b. In addition to evaluating the environmental impacts of the Lillian Commons Project, the Lillian Commons Project IS/MND also considered other past, pending, and probable future projects whose impacts could combine to produce cumulative impacts. The Lillian Commons Project IS/MND concluded that the project would have a less than significant cumulative impact for most resource topics, including cultural resources, geology impacts, hydrology, utilities, and hazards and hazardous materials. With respect to cumulative air quality and GHG impacts, the Lillian Commons Project IS/MND concluded that the project would result in a less than cumulatively considerable contribution to a significant cumulative impact, and a less than significant cumulative impact with mitigation incorporated, respectively. Similarly, the Lillian Commons Project IS/MND concluded that the project would result in a less than significant cumulative impact with mitigation incorporated with respect to noise impacts.

For the majority of resource topics assessed in the Lillian Commons Project IS/MND, the additional medical square footage would not significantly contribute to a cumulative impact beyond what was analyzed in the Lillian Commons Project IS/MND. For example, the geographic area for cumulative impacts to biological resources would be Santa Clara County and the project's potential disturbance to biological resources within the cumulative geographic setting would not be incrementally greater than the approved project. Other foreseeable projects subject to environmental review would similarly be required to mitigate their potential impacts to biological resources. With respect to cultural resources, the geographic area for cumulative impacts upon such resources are areas within approximately 1,000 feet of the project site; not only would the currently proposed project not result in incrementally greater impacts to cultural resources beyond what was anticipated in the Lillian Commons Project IS/MND, but any proposed project would be required to implement standard permit conditions to reduce impacts to cultural resources during construction to less-than-significant levels. Therefore, the currently proposed project, in combination with the approved Lillian Commons Project and other projects in the geographic area for cumulative impacts, would not result in a significant cumulative impact upon cultural resources.

However, as discussed throughout this Initial Study, the additional square footage associated with the currently proposed project has the potential to result in significant environmental impacts beyond what was anticipated in the Lillian Commons Project IS/MND for the following environmental resource areas: air quality, GHGs, energy, noise, and transportation. Therefore, potential cumulative impacts associated with each of the foregoing topics will be assessed in their respective chapters of the Rosewood/Morgan Hill Medical Campus Project SEIR.

c. According to the Lillian Commons Project IS/MND, while changes to the environment that could indirectly affect human beings would be represented by all of the designated CEQA issue areas, those that could directly affect human beings include air quality, hazardous materials, and noise. The Lillian Commons Project IS/MND concluded that implementation of the best management practices, standard permit conditions, mitigation measures, and adherence to General Plan, City Code, and state and federal regulations described in these sections of the report, would avoid significant impacts.

As described in this Initial Study, the currently proposed project has the potential to cause substantial effects to human beings, including effects related to exposure to air pollutants, GHGs, excessive noise, and transportation impacts, beyond those effects previously analyzed as part of the Lillian Commons Project IS/MND. Therefore, further analysis is required.

Appendix B

Joey Dinh

From: Aghegnehu, Ben <ben.aghegnehu@rda.sccgov.org>
Sent: Tuesday, September 26, 2023 3:01 PM
To: Joey Dinh
Subject: [EXTERNAL] Rosewood/Morgan Hill Medical Campus Project
Attachments: Response_Letter 2023.docx

Hi, Joey Dinh. Sorry for the delay - we are submitting our comments.

Thanks!

Ben Aghegnehu
Associate Transportation Planner
County of Santa Clara | Roads & Airports
101 Skyport Rd | San Jose, CA, 95110
408-573-2462 (o)

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County of Santa Clara

Roads and Airports Department

101 Skyport Drive
San Jose, CA 95110-1302
(408) 573-2460 FAX 441-0276

September 26, 2023

Joey Dinh,
Associate Planner
Morgan Hill Development Services
17575 Peak Avenue
Morgan Hill, CA 95037
Joey.Dinh@MorganHill.CA.gov

SUBJECT: Public Notice of a Subsequent Environmental Impact Report (SEIR) for the Rosewood/Morgan Hill Medical Campus Project)

The County of Santa Clara Roads and Airports Department (The County) appreciates the opportunity to review the Public Notice of a Subsequent Environmental Impact Report (SEIR) for the Rosewood/Morgan Hill Medical Campus Project). We submit the following comments:

- The Nearest County facility is about ½ mile from the project site at Tennant/Condit. Include the following intersections in Local Transportation Analysis.
  - Tennant/Condit
  - Tennant/Murphy

Thank you again for your continued outreach and coordination with the County. If you have any questions or concerns about these comments, please feel free to contact me at ben.aghegnehu@rda.sccgov.org

Thank you,

Board of Supervisors: Sylvia Arenas, Otto Lee, Susan Ellenberg, S. Joseph Simitian, Cindy Chavez
County Executive: Jeffrey V. Smith

Joey Dinh

From: Mathews, Marley@DOT <Marley.Mathews@dot.ca.gov>
Sent: Monday, September 25, 2023 9:05 AM
To: Joey Dinh
Cc: Luo, Yunsheng@DOT; state.clearinghouse@opr.ca.gov
Subject: [EXTERNAL] Rosewood/Morgan Hill Medical Campus NOP Caltrans Comment
Attachments: Rosewood Morgan Hill Medical Campus NOP.pdf

Hello Joey,

Thank you for the opportunity to review the NOP for Rosewood/Morgan Hill Medical Campus Project. Attached you'll find our comment letter for this project. Please feel free to reach out if you have any questions.

Thank you,
Marley Mathews

Transportation Planner (she/her)
D4 Caltrans 510-960-0841

California Department of Transportation

DISTRICT 4
OFFICE OF REGIONAL AND COMMUNITY PLANNING
P.O. BOX 23660, MS–10D | OAKLAND, CA 94623-0660
www.dot.ca.gov

September 25, 2023

SCH #: 2023080645
GTS #: 04-SCL-2023-01224
GTS ID: 30669
Co/Rt/Pm: SCL/101/R15.186

Joey Dinh, Associate Planner
City of Morgan Hill
17555 Peak Avenue
Morgan Hill, CA 95037

Re: Rosewood/Morgan Hill Medical Campus Project – Notice of Preparation (NOP) for a Draft Subsequent Environmental Impact Report (SEIR)

Dear Joey Dinh:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Rosewood/Morgan Hill Medical Campus Project. We are committed to ensuring that impacts to the State's multimodal transportation system and to our natural environment are identified and mitigated to support a safe, sustainable, integrated, and efficient transportation system.

The Local Development Review (LDR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities. The following comments are based on our review of the August 2023 NOP.

Project Understanding
The proposed project would develop three new medical office buildings, a six-story, 65-foot-tall parking structure with 965 parking spaces, resulting in a net increase of 133,600 square feet relative to the originally approved project. This would require approval of a General Plan Text Amendment and Planned Development Master Plan Amendment. This project site is located directly adjacent to the US-101 off-ramp at Tennant Avenue.

Travel Demand Analysis
With the enactment of Senate Bill (SB) 743, Caltrans is focused on maximizing efficient development patterns, innovative travel demand reduction strategies, and multimodal improvements. For more information on how Caltrans assesses

Transportation Impact Studies, please review Caltrans' Transportation Impact Study Guide (*link*).

If the project meets the screening criteria established in the City's adopted Vehicle Miles Traveled (VMT) policy to be presumed to have a less-than-significant VMT impact and exempt from detailed VMT analysis, please provide justification to support the exempt status in alignment with the City's VMT policy. Projects that do not meet the screening criteria should include a detailed VMT analysis in the DEIR, which should include the following:

- VMT analysis pursuant to the City's guidelines. Projects that result in automobile VMT per capita above the threshold of significance for existing (i.e. baseline) city-wide or regional values for similar land use types may indicate a significant impact. If necessary, mitigation for increasing VMT should be identified. Mitigation should support the use of transit and active transportation modes. Potential mitigation measures that include the requirements of other agencies such as Caltrans are fully enforceable through permit conditions, agreements, or other legally-binding instruments under the control of the City.

- A schematic illustration of walking, biking and auto conditions at the project site and study area roadways. Potential traffic safety issues to the State Transportation Network (STN) may be assessed by Caltrans via the Interim Safety Guidance (*link*).

- The project's primary and secondary effects on pedestrians, bicycles, travelers with disabilities and transit performance should be evaluated, including countermeasures and trade-offs resulting from mitigating VMT increases. Access to pedestrians, bicycle, and transit facilities must be maintained.

Equitable Access
If any Caltrans facilities are impacted by the project, those facilities must meet American Disabilities Act (ADA) Standards after project completion. As well, the project must maintain bicycle and pedestrian access during construction. These access considerations support Caltrans' equity mission to provide a safe, sustainable, and equitable transportation network for all users.

Construction-Related Impacts
Potential impacts to the State Right-of-Way (ROW) from project-related temporary access points should be analyzed. Mitigation for significant impacts due to construction and noise should be identified. Project work that requires movement of oversized or excessive load vehicles on State roadways requires a transportation permit that is issued by Caltrans. To apply, please visit Caltrans Transportation Permits (*link*).

Prior to construction, coordination may be required with Caltrans to develop a Transportation Management Plan (TMP) to reduce construction traffic impacts to the STN.

Encroachment Permit
Please be advised that any permanent work or temporary traffic control that encroaches onto Caltrans' ROW requires a Caltrans-issued encroachment permit. As part of the encroachment permit submittal process, you may be asked by the Office of Encroachment Permits to submit a completed encroachment permit application package, digital set of plans clearly delineating Caltrans' ROW, digital copy of signed, dated and stamped (include stamp expiration date) traffic control plans, this comment letter, your response to the comment letter, and where applicable, the following items: new or amended Maintenance Agreement (MA), approved Design Standard Decision Document (DSDD), approved encroachment exception request, and/or airspace lease agreement. Your application package may be emailed to D4Permits@dot.ca.gov.

To obtain information about the most current encroachment permit process and to download the permit application, please visit Caltrans Encroachment Permits (*link*).

Thank you again for including Caltrans in the environmental review process. Should you have any questions regarding this letter, please contact Marley Mathews, Transportation Planner, via LDR-D4@dot.ca.gov. For future early coordination opportunities or project referrals, please contact LDR-D4@dot.ca.gov.

Sincerely,

YUNSHENG LUO
Branch Chief, Local Development Review
Office of Regional and Community Planning

c: State Clearinghouse

STATE OF CALIFORNIA Gavin Newsom, Governor

NATIVE AMERICAN HERITAGE COMMISSION

DEVELOPMENT SERVICES
AUG 30 2023
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Miwok, Nisenan

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

August 25, 2023

Joey Dinh
City of Morgan Hill, Development Services Department
17575 Peak Avenue
Morgan Hill, CA 95037

Re: 2023080645, Rosewood/Morgan Hill Medical Campus Project, Santa Clara County

Dear Mr. Dinh:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Cody.Campagne@nahc.ca.gov.

Sincerely,

Cody Campagne

Cody Campagne
Cultural Resources Analyst

cc: State Clearinghouse

Joey Dinh

From: Mark Serra <mserra@excitecu.org>
Sent: Wednesday, September 20, 2023 3:10 PM
To: Joey Dinh
Subject: [EXTERNAL] Review meeting from 9/19 on enhanced development for Medical Mixed use

Importance: High

Joey,

Thank you for chairing the meeting last night. First I have to say please do not move forward w/the enhanced development pertaining to the Medical facility. This would negatively impact our community & erode some of the reasons we wanted to make a home here. Prior to moving here we inquired on the parcel that was open alongside Juan Hernandez & it was only zoned for 'light industrial'. Approving it for what it's becoming (beyond what was already approved in 2020) takes away any small town ambiance Morgan Hill maintains.
The added traffic, and noise pollution this will bring, not to mention the monstrosity of a proposed 6 level garage negatively impacts the aesthetics of our city (not to mention our neighborhood). Such a proposed extension is something that should be put to a vote for the community to decide & not just elected officials!
This is a residential area located adjacent to a school that most parents would agree creates more risk to students walking to/from their homes. Let's avoid any additional risk this may bring.
Initially in the agreed upon proposal there was planned landscaping to run the length of Juan Hernandez but that looks to be gone from what I see in the new proposed plan?
Lately, Morgan Hill has experienced too much over development. Please let us know you're listening to your constituents and vote against this amendment to increase the size of the Rosewood Commons medical mixed project plan.

Regards,
Mark Serra
****

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Rosewood/Morgan Hill Medical Campus Project
NOP Scoping Meeting Public Comments Summary

Date: September 19, 2023
Time: 6:00 PM
Location: Virtual

I. Public Comments (arranged in order of "appearance" of commenter):

Commenter 1: Lisa Serra

- The commenter expresses concern about whether the facility will be a full hospital with an emergency room, and whether such a facility would introduce ambulance noise to the surrounding residential community.
- The commenter has concerns about increased parking on Juan Hernandez Drive, given a lack of proposed signage prohibiting parking.
- The commenter has concerns about the presence of traffic control measures such as a stop light or stop sign at potentially impacted streets, such as Juan Hernandez Drive or Saint Lawrence Drive.
- The commenter expresses confusion about the presence of a border wall or fence along Juan Hernandez Drive as part of the proposed project.
- The commenter wanted to ensure environmental issues, such as noise impacts, would be properly addressed during the evaluation of the proposed amendment.
- The commenter expresses confusion about if the current construction on the previously approved residential component would include the medical use area.
- The commenter clarified when construction noise would be present, and whether conditions would prohibit construction before 8:00 AM.

Commenter 2: Sarah Tada

- The commenter expresses opposition to the proposed amendment, specifically the changes to the maximum allowed medical office square footage and maximum building height.
- The commenter has concerns that the proposed project has significantly changed since its original proposal and such changes would be impactful to the surrounding neighborhood.
- The commenter specifically expresses concern about the size of the proposed parking garage as compared to other buildings in the surrounding area, including Barrett Elementary School.
- The commenter has concerns about how the building would obstruct views of scenic vistas such as the nearby hills and night sky, and result in substantial degradation of the visual characteristics of the area.
- The commenter is of the opinion that the proposed amendments change the project's nature from an urgent care medical office to a hospital.
- The commenter requests the City adds a Quiet Zone to limit the noise impacts from ambulance sirens, especially given the proposed project's potential impacts to Barrett Elementary School and the addition of siren noise to existing noise from existing assisted living facilities.

- The commenter has concerns about the proposed project's impacts to air quality and greenhouse gas emissions, and its proximity to sensitive receptors including the single-family residences and the aforementioned elementary school.
- The commenter has concerns about the City's capability to handle the increase in solid waste associated with the proposed project.
- The commenter requests clarification on how the proposed changes impact the housing element, and whether the proposed residences would be affordable housing.
- The commenter has concerns about increased traffic and impacts on parking availability during operation of the proposed project, since residents are accustomed to parking on streets.

Commenter 3: Joanne Pambid

- The commenter expresses agreement with previous comments and expresses disapproval of the proposed six-story parking structure.

Commenter 4: Chris Valenzuela

- The commenter expresses concern that the proposed project would have significant impacts related to traffic in the area, especially given the potential increase in traffic associated with the proposed residences and parking structure in combination with the existing traffic associated with nearby schools.
- The commenter has concerns about the response time from emergency services, such as police and fire departments, and if local facilities are adequately equipped to access a six-story parking garage in the event of an emergency.
- The commenter has concerns regarding traffic increases and noise pollution.
- The commenter expresses confusion about the City Council approval process for development applications, especially the reason for a six-story garage.

Commenter 5: Zoe Valenzuela

- The commenter expresses concerns about traffic, specifically during school drop-off times, and additionally on Highway 101, which already gets backed up on Tennant Avenue to Butterfield Boulevard. The commenter believes traffic effects will be substantially worsened by the project.
- The commenter expresses confusion about why the project site was selected as the location for development of a hospital.

APPENDIX C

Rosewood Commons - Approved Conditions, Construction, Phase 1 Custom Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Rosewood Commons - Approved Conditions, Construction, Phase 1
Construction Start Date	1/6/2025
Lead Agency	Morgan Hill
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	32.8
Location	37.12039380433687, -121.62929846870107
County	Santa Clara
City	Morgan Hill
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1908
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.20

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
Medical Office Building	14.5	1000sqft	4.13	14,500	94,090	—	—	—

High Turnover (Sit Down Restaurant)	10.0	1000sqft	1.78	10,000	0.00	—	—	—
Parking Lot	151	Space	0.00	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

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.	1.39	12.9	10.6	13.5	0.02	0.43	0.10	0.53	0.40	0.02	0.42	—	2,582	2,582	0.10	0.04	0.59	2,596
Mit.	0.48	12.8	9.69	15.3	0.02	0.12	0.10	0.22	0.11	0.02	0.14	—	2,582	2,582	0.10	0.04	0.59	2,596
% Reduced	66%	1%	9%	-13%	—	72%	—	58%	71%	—	67%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.00	12.9	31.7	30.8	0.05	1.37	19.8	21.2	1.26	10.1	11.4	—	5,434	5,434	0.22	0.05	0.02	5,454
Mit.	0.70	12.8	14.8	28.9	0.05	0.20	19.8	19.9	0.19	10.1	10.2	—	5,434	5,434	0.22	0.05	0.02	5,454
% Reduced	83%	1%	53%	6%	—	85%	—	6%	85%	—	10%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	1.16	0.98	8.95	10.5	0.02	0.37	1.01	1.38	0.34	0.48	0.82	—	1,965	1,965	0.08	0.03	0.18	1,975
Mit.	0.34	0.75	7.08	11.4	0.02	0.09	1.01	1.09	0.08	0.48	0.57	—	1,965	1,965	0.08	0.03	0.18	1,975
% Reduced	71%	23%	21%	-8%	—	77%	—	21%	76%	—	31%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.21	0.18	1.63	1.92	< 0.005	0.07	0.18	0.25	0.06	0.09	0.15	—	325	325	0.01	< 0.005	0.03	327
Mit.	0.06	0.14	1.29	2.07	< 0.005	0.02	0.18	0.20	0.01	0.09	0.10	—	325	325	0.01	< 0.005	0.03	327
% Reduced	71%	23%	21%	-8%	—	77%	—	21%	76%	—	31%	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.39	1.16	10.6	13.5	0.02	0.43	0.10	0.53	0.40	0.02	0.42	—	2,582	2,582	0.10	0.04	0.59	2,596
2026	0.15	12.9	0.86	1.20	< 0.005	0.02	0.01	0.04	0.02	< 0.005	0.02	—	148	148	0.01	< 0.005	0.05	149
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.00	3.37	31.7	30.8	0.05	1.37	19.8	21.2	1.26	10.1	11.4	—	5,434	5,434	0.22	0.05	0.02	5,454
2026	1.32	12.9	10.0	13.3	0.02	0.38	0.12	0.48	0.35	0.03	0.37	—	2,573	2,573	0.10	0.04	0.01	2,587
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.16	0.98	8.95	10.5	0.02	0.37	1.01	1.38	0.34	0.48	0.82	—	1,965	1,965	0.08	0.03	0.18	1,975
2026	0.15	0.83	1.14	1.57	< 0.005	0.05	0.01	0.06	0.04	< 0.005	0.05	—	279	279	0.01	< 0.005	0.03	280
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.21	0.18	1.63	1.92	< 0.005	0.07	0.18	0.25	0.06	0.09	0.15	—	325	325	0.01	< 0.005	0.03	327

2026	0.03	0.15	0.21	0.29	< 0.005	0.01	< 0.005	0.01	0.01	< 0.005	0.01	—	46.1	46.1	< 0.005	< 0.005	< 0.005	46.4

2.3. Construction Emissions by Year, Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.48	0.45	9.69	15.3	0.02	0.12	0.10	0.22	0.11	0.02	0.14	—	2,582	2,582	0.10	0.04	0.59	2,596
2026	0.03	12.8	1.07	1.03	< 0.005	0.03	0.01	0.05	0.03	< 0.005	0.03	—	148	148	0.01	< 0.005	0.05	149
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.70	0.70	14.8	28.9	0.05	0.20	19.8	19.9	0.19	10.1	10.2	—	5,434	5,434	0.22	0.05	0.02	5,454
2026	0.47	12.8	9.69	15.2	0.02	0.12	0.12	0.22	0.11	0.03	0.14	—	2,573	2,573	0.10	0.04	0.01	2,587
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.34	0.32	7.08	11.4	0.02	0.09	1.01	1.09	0.08	0.48	0.57	—	1,965	1,965	0.08	0.03	0.18	1,975
2026	0.05	0.75	1.14	1.73	< 0.005	0.01	0.01	0.03	0.01	< 0.005	0.02	—	279	279	0.01	< 0.005	0.03	280
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.06	0.06	1.29	2.07	< 0.005	0.02	0.18	0.20	0.01	0.09	0.10	—	325	325	0.01	< 0.005	0.03	327
2026	0.01	0.14	0.21	0.32	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	46.1	46.1	< 0.005	< 0.005	< 0.005	46.4

3. Construction Emissions Details

3.1. Demolition (2025) - 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	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	0.13	0.13	—	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.16	0.13	1.22	1.09	< 0.005	0.05	—	0.05	0.05	—	0.05	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.03	0.02	0.22	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.05	0.05	0.05	0.53	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	0.01	0.01	121
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	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.02	0.01	113
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	0.01	6.69
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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.89	5.89	< 0.005	< 0.005	0.01	6.18
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	1.02

3.2. Demolition (2025) - Mitigated

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	0.41	0.41	11.9	18.2	0.03	0.20	—	0.20	0.19	—	0.19	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	0.13	0.13	—	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

Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.65	1.00	< 0.005	0.01	—	0.01	0.01	—	0.01	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.12	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	—	< 0.005	< 0.005	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.05	0.05	0.05	0.53	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	0.01	0.01	121
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	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.02	0.01	113
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	0.01	6.69
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	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.89	5.89	< 0.005	< 0.005	0.01	6.18
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11

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	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	0.97	0.97	< 0.005	< 0.005	< 0.005	1.02

3.3. Site Preparation (2025) - 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	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
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	0.11	0.09	0.87	0.83	< 0.005	0.04	—	0.04	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.54	0.54	—	0.28	0.28	—	—	—	—	—	—	—
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	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
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	0.06	0.06	0.05	0.61	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	139	139	< 0.005	0.01	0.02	141
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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.85	3.85	< 0.005	< 0.005	0.01	3.90
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	0.65
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

3.4. Site Preparation (2025) - Mitigated

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	0.64	0.64	14.7	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movemen	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
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	0.02	0.02	0.40	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	146
Dust From Material Movemen	—	—	—	—	—	—	0.54	0.54	—	0.28	0.28	—	—	—	—	—	—	—
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	0.07	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movemen	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
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	0.06	0.06	0.05	0.61	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	139	139	< 0.005	0.01	0.02	141
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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.85	3.85	< 0.005	< 0.005	0.01	3.90
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	0.65
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

3.5. Grading (2025) - 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	2.07	1.74	16.3	17.9	0.03	0.72	—	0.72	0.66	—	0.66	—	2,959	2,959	0.12	0.02	—	2,970

Dust From Material Movemen	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
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	0.11	0.10	0.89	0.98	< 0.005	0.04	—	0.04	0.04	—	0.04	—	162	162	0.01	< 0.005	—	163
Dust From Material Movemen	—	—	—	—	—	—	0.39	0.39	—	0.19	0.19	—	—	—	—	—	—	—
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	0.02	0.16	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.8	26.8	< 0.005	< 0.005	—	26.9
Dust From Material Movemen	—	—	—	—	—	—	0.07	0.07	—	0.03	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.53	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	0.01	0.01	121
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	0.01	6.69
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
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

3.6. Grading (2025) - Mitigated

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	0.39	0.39	10.3	17.8	0.03	0.08	—	0.08	0.08	—	0.08	—	2,959	2,959	0.12	0.02	—	2,970
Dust From Material Movemen	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
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	0.02	0.02	0.56	0.97	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	162	162	0.01	< 0.005	—	163

Dust From Material Movemen	—	—	—	—	—	—	0.39	0.39	—	0.19	0.19	—	—	—	—	—	—	—
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	0.10	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.8	26.8	< 0.005	< 0.005	—	26.9
Dust From Material Movemen	—	—	—	—	—	—	0.07	0.07	—	0.03	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.53	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	0.01	0.01	121
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	0.01	6.69
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
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

3.7. Building Construction (2025) - 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	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
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	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
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	0.76	0.63	5.87	7.32	0.01	0.24	—	0.24	0.22	—	0.22	—	1,347	1,347	0.05	0.01	—	1,351
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	0.14	0.12	1.07	1.34	< 0.005	0.04	—	0.04	0.04	—	0.04	—	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	0.03	0.03	0.02	0.36	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	75.8	75.8	< 0.005	< 0.005	0.30	76.9
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	108	108	0.01	0.02	0.29	113
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	0.03	0.03	0.03	0.31	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	70.2	70.2	< 0.005	< 0.005	0.01	71.1
Vendor	0.01	< 0.005	0.15	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	108	108	0.01	0.02	0.01	113
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	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.8	39.8	< 0.005	< 0.005	0.07	40.4
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	60.9	60.9	< 0.005	0.01	0.07	63.6
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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	0.01	6.69
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.1	10.1	< 0.005	< 0.005	0.01	10.5
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

3.8. Building Construction (2025) - Mitigated

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	0.44	0.42	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,398	2,398	0.10	0.02	—	2,406
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	0.44	0.42	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,398	2,398	0.10	0.02	—	2,406
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	0.24	0.23	5.35	8.33	0.01	0.07	—	0.07	0.06	—	0.06	—	1,347	1,347	0.05	0.01	—	1,351
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	0.04	0.98	1.52	< 0.005	0.01	—	0.01	0.01	—	0.01	—	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	0.03	0.03	0.02	0.36	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	75.8	75.8	< 0.005	< 0.005	0.30	76.9
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	108	108	0.01	0.02	0.29	113
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	0.03	0.03	0.03	0.31	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	70.2	70.2	< 0.005	< 0.005	0.01	71.1

Vendor	0.01	< 0.005	0.15	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	108	108	0.01	0.02	0.01	113
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	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	39.8	39.8	< 0.005	< 0.005	0.07	40.4
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	60.9	60.9	< 0.005	0.01	0.07	63.6
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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	0.01	6.69
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	10.1	10.1	< 0.005	< 0.005	0.01	10.5
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. Building Construction (2026) - 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	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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	0.69	0.91	< 0.005	0.03	—	0.03	0.02	—	0.02	—	169	169	0.01	< 0.005	—	169

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	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.0	28.0	< 0.005	< 0.005	—	28.1
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	0.03	0.02	0.02	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	68.9	68.9	< 0.005	< 0.005	0.01	69.8
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.02	0.01	111
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	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.90	4.90	< 0.005	< 0.005	0.01	4.98
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.50	7.50	< 0.005	< 0.005	0.01	7.85
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.81	0.81	< 0.005	< 0.005	< 0.005	0.82
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.30
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

3.10. Building Construction (2026) - Mitigated

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	0.44	0.41	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
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	0.03	0.67	1.04	< 0.005	0.01	—	0.01	0.01	—	0.01	—	169	169	0.01	< 0.005	—	169
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	0.01	0.01	0.12	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	28.0	28.0	< 0.005	< 0.005	—	28.1
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	0.03	0.02	0.02	0.29	0.00	0.00	0.07	0.07	0.00	0.02	0.02	—	68.9	68.9	< 0.005	< 0.005	0.01	69.8
Vendor	0.01	< 0.005	0.14	0.07	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	107	107	0.01	0.02	0.01	111
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	0.02	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	4.90	4.90	< 0.005	< 0.005	0.01	4.98
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	7.50	7.50	< 0.005	< 0.005	0.01	7.85
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.81	0.81	< 0.005	< 0.005	< 0.005	0.82
Vendor	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	1.24	1.24	< 0.005	< 0.005	< 0.005	1.30
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

3.11. Paving (2026) - 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	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.05	0.04	0.04	0.49	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	117	117	< 0.005	0.01	0.01	118
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.47	6.47	< 0.005	< 0.005	0.01	6.57
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.09
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

3.12. Paving (2026) - Mitigated

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	0.23	0.23	7.21	10.6	0.01	0.09	—	0.09	0.08	—	0.08	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.39	0.58	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	82.8	82.8	< 0.005	< 0.005	—	83.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.07	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.05	0.04	0.04	0.49	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	117	117	< 0.005	0.01	0.01	118
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.47	6.47	< 0.005	< 0.005	0.01	6.57
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.09
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

3.13. Architectural Coating (2026) - 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	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	12.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	12.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	0.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.9	14.9	< 0.005	< 0.005	0.05	15.1
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.8	13.8	< 0.005	< 0.005	< 0.005	14.0
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.76	0.76	< 0.005	< 0.005	< 0.005	0.77
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.13
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

3.14. Architectural Coating (2026) - Mitigated

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	0.02	0.02	1.07	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	12.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.02	1.07	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	12.8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	0.06	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	0.70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	0.07	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	14.9	14.9	< 0.005	< 0.005	0.05	15.1
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	0.01	< 0.005	< 0.005	0.06	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	13.8	13.8	< 0.005	< 0.005	< 0.005	14.0
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.76	0.76	< 0.005	< 0.005	< 0.005	0.77
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.13	0.13	< 0.005	< 0.005	< 0.005	0.13
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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
Demolition	Demolition	1/6/2025	2/3/2025	5.00	20.0	—
Site Preparation	Site Preparation	2/4/2025	2/18/2025	5.00	10.0	—
Grading	Grading	2/19/2025	3/19/2025	5.00	20.0	—
Building Construction	Building Construction	3/20/2025	2/5/2026	5.00	230	—
Paving	Paving	2/6/2026	3/6/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	3/7/2026	4/4/2026	5.00	20.0	—

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
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41

Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
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	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
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	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Interim	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Tier 4 Interim	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Interim	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Interim	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40

Building Construction	Forklifts	Diesel	Tier 4 Interim	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Interim	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Interim	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	1.50	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT

Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	8.84	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	4.02	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.77	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	1.50	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.7	LDA,LDT1,LDT2

Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	8.84	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	4.02	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	1.77	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	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	36,750	12,250	—

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	119	—
Site Preparation	—	—	15.0	0.00	—
Grading	—	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Medical Office Building	0.00	0%
High Turnover (Sit Down Restaurant)	0.00	0%
Parking Lot	0.00	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O

2025	0.00	204	0.03	< 0.005
2026	0.00	204	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

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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

8. User Changes to Default Data

Screen	Justification
Land Use	Lot acreage adjusted to represent total site acreage of Phase 1 area, consistent with assumptions included in Illingworth & Rodkin Modeling conducted for previous IS/MND.
Construction: On-Road Fugitive Dust	—

Rosewood Commons - Approved Conditions, Construction, Phase 3 Custom Report

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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

2.3. Construction Emissions by Year, Mitigated

3. Construction Emissions Details

3.1. Site Preparation (2026) - Unmitigated

3.2. Site Preparation (2026) - Mitigated

3.3. Grading (2026) - Unmitigated

3.4. Grading (2026) - Mitigated

3.5. Building Construction (2026) - Unmitigated

3.6. Building Construction (2026) - Mitigated

3.7. Building Construction (2027) - Unmitigated

3.8. Building Construction (2027) - Mitigated

3.9. Paving (2027) - Unmitigated

3.10. Paving (2027) - Mitigated

3.11. Architectural Coating (2027) - Unmitigated

3.12. Architectural Coating (2027) - Mitigated

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

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

5. Activity Data

5.1. Construction Schedule

5.2. Off-Road Equipment

5.2.1. Unmitigated

5.2.2. Mitigated

5.3. Construction Vehicles

5.3.1. Unmitigated

5.3.2. Mitigated

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

5.18.1.2. Mitigated

5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

5.18.1.2. Mitigated

5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Rosewood Commons - Approved Conditions, Construction, Phase 3
Construction Start Date	3/9/2026
Lead Agency	Morgan Hill
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	32.8
Location	37.12039380433687, -121.62929846870107
County	Santa Clara
City	Morgan Hill
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1908
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.20

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
Hospital	55.0	Bed	4.17	100,000	74,052	—	—	—

Enclosed Parking with Elevator	500	Space	0.00	200,000	0.00	—	—	—
City Park	0.44	Acre	0.44	0.00	19,166	19,166	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

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.	1.78	58.1	11.7	18.2	0.03	0.40	1.31	1.70	0.37	0.32	0.69	—	4,676	4,676	0.19	0.25	6.74	4,761
Mit.	0.93	58.0	11.4	20.0	0.03	0.14	1.31	1.44	0.13	0.32	0.45	—	4,676	4,676	0.19	0.25	6.74	4,761
% Reduced	48%	< 0.5%	3%	-10%	—	65%	—	15%	64%	—	34%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.80	58.1	29.2	29.4	0.05	1.24	19.8	21.0	1.14	10.1	11.3	—	5,434	5,434	0.22	0.25	0.17	5,454
Mit.	0.92	58.0	14.8	28.9	0.05	0.14	19.8	19.9	0.13	10.1	10.2	—	5,434	5,434	0.22	0.25	0.17	5,454
% Reduced	76%	< 0.5%	49%	2%	—	89%	—	5%	89%	—	9%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unmit.	1.06	3.01	7.22	10.4	0.02	0.25	1.13	1.38	0.23	0.39	0.62	—	2,679	2,679	0.11	0.14	1.60	2,725
Mit.	0.52	2.94	6.74	11.4	0.02	0.08	1.13	1.21	0.08	0.39	0.46	—	2,679	2,679	0.11	0.14	1.60	2,725
% Reduced	51%	2%	7%	-10%	—	69%	—	12%	67%	—	25%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.19	0.55	1.32	1.90	< 0.005	0.05	0.21	0.25	0.04	0.07	0.11	—	444	444	0.02	0.02	0.27	451
Mit.	0.10	0.54	1.23	2.09	< 0.005	0.01	0.21	0.22	0.01	0.07	0.08	—	444	444	0.02	0.02	0.27	451
% Reduced	51%	2%	7%	-10%	—	69%	—	12%	67%	—	25%	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.78	1.48	11.7	18.2	0.03	0.40	1.31	1.70	0.37	0.32	0.69	—	4,676	4,676	0.19	0.25	6.74	4,761
2027	0.21	58.1	0.88	1.95	< 0.005	0.02	0.19	0.21	0.02	0.04	0.06	—	325	325	0.01	0.01	0.64	328
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	3.80	3.19	29.2	29.4	0.05	1.24	19.8	21.0	1.14	10.1	11.3	—	5,434	5,434	0.22	0.25	0.17	5,454
2027	1.69	58.1	11.3	17.2	0.03	0.35	1.31	1.66	0.33	0.32	0.65	—	4,562	4,562	0.19	0.25	0.16	4,641
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	1.06	0.87	7.22	10.4	0.02	0.25	1.13	1.38	0.23	0.39	0.62	—	2,679	2,679	0.11	0.14	1.60	2,725
2027	0.19	3.01	1.25	1.94	< 0.005	0.04	0.12	0.16	0.04	0.03	0.07	—	456	456	0.02	0.02	0.23	463
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.19	0.16	1.32	1.90	< 0.005	0.05	0.21	0.25	0.04	0.07	0.11	—	444	444	0.02	0.02	0.27	451

2027	0.03	0.55	0.23	0.35	< 0.005	0.01	0.02	0.03	0.01	0.01	0.01	—	75.6	75.6	< 0.005	< 0.005	0.04	76.7

2.3. Construction Emissions by Year, Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.93	0.82	11.4	20.0	0.03	0.14	1.31	1.44	0.13	0.32	0.45	—	4,676	4,676	0.19	0.25	6.74	4,761
2027	0.09	58.0	1.12	1.79	< 0.005	0.03	0.19	0.22	0.03	0.04	0.07	—	325	325	0.01	0.01	0.64	328
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.92	0.78	14.8	28.9	0.05	0.14	19.8	19.9	0.13	10.1	10.2	—	5,434	5,434	0.22	0.25	0.17	5,454
2027	0.90	58.0	11.4	19.1	0.03	0.14	1.31	1.44	0.13	0.32	0.45	—	4,562	4,562	0.19	0.25	0.16	4,641
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.52	0.44	6.74	11.4	0.02	0.08	1.13	1.21	0.08	0.39	0.46	—	2,679	2,679	0.11	0.14	1.60	2,725
2027	0.10	2.94	1.29	2.10	< 0.005	0.02	0.12	0.14	0.02	0.03	0.05	—	456	456	0.02	0.02	0.23	463
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.10	0.08	1.23	2.09	< 0.005	0.01	0.21	0.22	0.01	0.07	0.08	—	444	444	0.02	0.02	0.27	451
2027	0.02	0.54	0.23	0.38	< 0.005	< 0.005	0.02	0.03	< 0.005	0.01	0.01	—	75.6	75.6	< 0.005	< 0.005	0.04	76.7

3. Construction Emissions Details

3.1. Site Preparation (2026) - 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	3.74	3.14	29.2	28.8	0.05	1.24	—	1.24	1.14	—	1.14	—	5,298	5,298	0.21	0.04	—	5,316
Dust From Material Movemen	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
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	0.05	0.04	0.40	0.39	< 0.005	0.02	—	0.02	0.02	—	0.02	—	72.6	72.6	< 0.005	< 0.005	—	72.8
Dust From Material Movemen	—	—	—	—	—	—	0.27	0.27	—	0.14	0.14	—	—	—	—	—	—	—
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	0.01	0.01	0.07	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Dust From Material Movemen	—	—	—	—	—	—	0.05	0.05	—	0.03	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.57	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	136	136	< 0.005	0.01	0.01	138
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.89	1.89	< 0.005	< 0.005	< 0.005	1.92
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
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

3.2. Site Preparation (2026) - Mitigated

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	0.64	0.64	14.7	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,298	5,298	0.21	0.04	—	5,316

Dust From Material Movemen	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
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	0.01	0.01	0.20	0.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	72.6	72.6	< 0.005	< 0.005	—	72.8
Dust From Material Movemen	—	—	—	—	—	—	0.27	0.27	—	0.14	0.14	—	—	—	—	—	—	—
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	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	12.0	12.0	< 0.005	< 0.005	—	12.1
Dust From Material Movemen	—	—	—	—	—	—	0.05	0.05	—	0.03	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.57	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	136	136	< 0.005	0.01	0.01	138
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.89	1.89	< 0.005	< 0.005	< 0.005	1.92
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.31	0.31	< 0.005	< 0.005	< 0.005	0.32
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

3.3. Grading (2026) - 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	1.96	1.65	15.0	17.4	0.03	0.65	—	0.65	0.59	—	0.59	—	2,960	2,960	0.12	0.02	—	2,970
Dust From Material Movemen	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
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	0.04	0.04	0.33	0.38	< 0.005	0.01	—	0.01	0.01	—	0.01	—	64.9	64.9	< 0.005	< 0.005	—	65.1

Dust From Material Movemen	—	—	—	—	—	—	0.16	0.16	—	0.08	0.08	—	—	—	—	—	—	—
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	0.01	0.01	0.06	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8
Dust From Material Movemen	—	—	—	—	—	—	0.03	0.03	—	0.01	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	0.05	0.04	0.04	0.49	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	117	117	< 0.005	0.01	0.01	118
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.59	2.59	< 0.005	< 0.005	< 0.005	2.63
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.43
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

3.4. Grading (2026) - Mitigated

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	0.39	0.39	10.3	17.8	0.03	0.08	—	0.08	0.08	—	0.08	—	2,960	2,960	0.12	0.02	—	2,970
Dust From Material Movement	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
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	0.01	0.01	0.23	0.39	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	64.9	64.9	< 0.005	< 0.005	—	65.1
Dust From Material Movement	—	—	—	—	—	—	0.16	0.16	—	0.08	0.08	—	—	—	—	—	—	—
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	0.04	0.07	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	10.7	10.7	< 0.005	< 0.005	—	10.8

Dust From Material Movemen	—	—	—	—	—	—	0.03	0.03	—	0.01	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	0.05	0.04	0.04	0.49	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	117	117	< 0.005	0.01	0.01	118
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.59	2.59	< 0.005	< 0.005	< 0.005	2.63
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.43	0.43	< 0.005	< 0.005	< 0.005	0.43
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

3.5. Building Construction (2026) - 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	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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	0.70	0.59	5.42	7.13	0.01	0.21	—	0.21	0.19	—	0.19	—	1,318	1,318	0.05	0.01	—	1,323
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	0.13	0.11	0.99	1.30	< 0.005	0.04	—	0.04	0.03	—	0.03	—	218	218	0.01	< 0.005	—	219
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	0.37	0.37	0.25	4.42	0.00	0.00	0.96	0.96	0.00	0.22	0.22	—	975	975	0.02	0.04	3.56	991
Vendor	0.12	0.04	1.62	0.79	0.01	0.02	0.35	0.36	0.02	0.10	0.11	—	1,304	1,304	0.07	0.19	3.18	1,365
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	0.36	0.32	0.32	3.78	0.00	0.00	0.96	0.96	0.00	0.22	0.22	—	904	904	0.02	0.04	0.09	916
Vendor	0.12	0.04	1.71	0.80	0.01	0.02	0.35	0.36	0.02	0.10	0.11	—	1,304	1,304	0.07	0.19	0.08	1,363
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	0.20	0.18	0.16	2.05	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	502	502	0.01	0.02	0.84	510
Vendor	0.07	0.02	0.92	0.44	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	717	717	0.04	0.10	0.75	750
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	0.04	0.03	0.03	0.37	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	83.2	83.2	< 0.005	< 0.005	0.14	84.4
Vendor	0.01	< 0.005	0.17	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	119	119	0.01	0.02	0.12	124
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

3.6. Building Construction (2026) - Mitigated

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	0.44	0.41	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
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	0.44	0.41	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
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	0.24	0.23	5.24	8.15	0.01	0.07	—	0.07	0.06	—	0.06	—	1,318	1,318	0.05	0.01	—	1,323
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	0.04	0.96	1.49	< 0.005	0.01	—	0.01	0.01	—	0.01	—	218	218	0.01	< 0.005	—	219
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	0.37	0.37	0.25	4.42	0.00	0.00	0.96	0.96	0.00	0.22	0.22	—	975	975	0.02	0.04	3.56	991
Vendor	0.12	0.04	1.62	0.79	0.01	0.02	0.35	0.36	0.02	0.10	0.11	—	1,304	1,304	0.07	0.19	3.18	1,365
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	0.36	0.32	0.32	3.78	0.00	0.00	0.96	0.96	0.00	0.22	0.22	—	904	904	0.02	0.04	0.09	916
Vendor	0.12	0.04	1.71	0.80	0.01	0.02	0.35	0.36	0.02	0.10	0.11	—	1,304	1,304	0.07	0.19	0.08	1,363
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	0.20	0.18	0.16	2.05	0.00	0.00	0.52	0.52	0.00	0.12	0.12	—	502	502	0.01	0.02	0.84	510
Vendor	0.07	0.02	0.92	0.44	0.01	0.01	0.19	0.20	0.01	0.05	0.06	—	717	717	0.04	0.10	0.75	750

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	0.04	0.03	0.03	0.37	0.00	0.00	0.09	0.09	0.00	0.02	0.02	—	83.2	83.2	< 0.005	< 0.005	0.14	84.4
Vendor	0.01	< 0.005	0.17	0.08	< 0.005	< 0.005	0.03	0.04	< 0.005	0.01	0.01	—	119	119	0.01	0.02	0.12	124
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. Building Construction (2027) - 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	1.23	1.03	9.39	12.9	0.02	0.34	—	0.34	0.31	—	0.31	—	2,397	2,397	0.10	0.02	—	2,405
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	0.10	0.08	0.75	1.04	< 0.005	0.03	—	0.03	0.02	—	0.02	—	192	192	0.01	< 0.005	—	193
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	0.02	0.14	0.19	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	32.0
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	0.35	0.31	0.29	3.53	0.00	0.00	0.96	0.96	0.00	0.22	0.22	—	887	887	0.02	0.04	0.08	899
Vendor	0.11	0.04	1.62	0.78	0.01	0.02	0.35	0.36	0.02	0.10	0.11	—	1,278	1,278	0.07	0.19	0.07	1,337
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	0.02	0.28	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	72.0	72.0	< 0.005	< 0.005	0.11	73.0
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	102	102	0.01	0.02	0.10	107
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	0.01	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.9	11.9	< 0.005	< 0.005	0.02	12.1
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	17.0	17.0	< 0.005	< 0.005	0.02	17.8
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

3.8. Building Construction (2027) - Mitigated

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	0.43	0.41	9.53	14.8	0.02	0.12	—	0.12	0.11	—	0.11	—	2,397	2,397	0.10	0.02	—	2,405
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	0.03	0.76	1.19	< 0.005	0.01	—	0.01	0.01	—	0.01	—	192	192	0.01	< 0.005	—	193
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	0.01	0.01	0.14	0.22	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.8	31.8	< 0.005	< 0.005	—	32.0
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	0.35	0.31	0.29	3.53	0.00	0.00	0.96	0.96	0.00	0.22	0.22	—	887	887	0.02	0.04	0.08	899
Vendor	0.11	0.04	1.62	0.78	0.01	0.02	0.35	0.36	0.02	0.10	0.11	—	1,278	1,278	0.07	0.19	0.07	1,337
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	0.02	0.28	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	72.0	72.0	< 0.005	< 0.005	0.11	73.0
Vendor	0.01	< 0.005	0.13	0.06	< 0.005	< 0.005	0.03	0.03	< 0.005	0.01	0.01	—	102	102	0.01	0.02	0.10	107
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	0.01	< 0.005	< 0.005	0.05	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	11.9	11.9	< 0.005	< 0.005	0.02	12.1

Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	—	17.0	17.0	< 0.005	< 0.005	0.02	17.8
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. Paving (2027) - 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	0.79	0.66	6.09	8.83	0.01	0.24	—	0.24	0.22	—	0.22	—	1,350	1,350	0.05	0.01	—	1,355
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.04	0.03	0.30	0.44	< 0.005	0.01	—	0.01	0.01	—	0.01	—	66.6	66.6	< 0.005	< 0.005	—	66.8
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.05	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.0	11.0	< 0.005	< 0.005	—	11.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.06	0.05	0.05	0.61	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	153	153	< 0.005	0.01	0.01	155
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.63	7.63	< 0.005	< 0.005	0.01	7.74
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.28
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

3.10. Paving (2027) - Mitigated

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	0.36	0.33	6.37	9.23	0.01	0.12	—	0.12	0.11	—	0.11	—	1,350	1,350	0.05	0.01	—	1,355
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.02	0.31	0.46	< 0.005	0.01	—	0.01	0.01	—	0.01	—	66.6	66.6	< 0.005	< 0.005	—	66.8
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.06	0.08	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	11.0	11.0	< 0.005	< 0.005	—	11.1
Paving	—	0.00	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.06	0.05	0.05	0.61	0.00	0.00	0.17	0.17	0.00	0.04	0.04	—	153	153	< 0.005	0.01	0.01	155
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	7.63	7.63	< 0.005	< 0.005	0.01	7.74
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.26	1.26	< 0.005	< 0.005	< 0.005	1.28
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

3.11. Architectural Coating (2027) - 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	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	58.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	58.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.58	6.58	< 0.005	< 0.005	—	6.61
Architectural Coatings	—	2.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.07	0.06	0.05	0.83	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	192	192	< 0.005	0.01	0.64	194
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.71	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	177	177	< 0.005	0.01	0.02	180
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.85	8.85	< 0.005	< 0.005	0.01	8.97
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.46	1.46	< 0.005	< 0.005	< 0.005	1.49
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

3.12. Architectural Coating (2027) - Mitigated

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	0.02	0.02	1.07	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	58.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.02	1.07	0.96	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	58.0	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	0.05	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	6.58	6.58	< 0.005	< 0.005	—	6.61
Architectural Coatings	—	2.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.09	1.09	< 0.005	< 0.005	—	1.09
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.07	0.06	0.05	0.83	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	192	192	< 0.005	0.01	0.64	194
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.06	0.71	0.00	0.00	0.19	0.19	0.00	0.04	0.04	—	177	177	< 0.005	0.01	0.02	180
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	8.85	8.85	< 0.005	< 0.005	0.01	8.97
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.46	1.46	< 0.005	< 0.005	< 0.005	1.49
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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	3/9/2026	3/13/2026	5.00	5.00	—
Grading	Grading	3/14/2026	3/25/2026	5.00	8.00	—
Building Construction	Building Construction	3/26/2026	2/10/2027	5.00	230	—
Paving	Paving	2/11/2027	3/8/2027	5.00	18.0	—
Architectural Coating	Architectural Coating	3/9/2027	4/1/2027	5.00	18.0	—

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
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
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	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Average	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37

Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Interim	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Interim	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Interim	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Interim	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Interim	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Interim	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Interim	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Interim	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Interim	1.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Interim	2.00	6.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Interim	2.00	6.00	36.0	0.38
Paving	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Paving	Cement and Mortar Mixers	Diesel	Average	2.00	6.00	10.0	0.56
Architectural Coating	Air Compressors	Diesel	Tier 4 Interim	1.00	6.00	37.0	0.48

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	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	116	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	49.2	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	23.2	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT

Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	116	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	49.2	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	20.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	23.2	11.7	LDA,LDT1,LDT2

Architectural Coating	Vendor	—	8.40	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	150,000	50,000	—

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	—	—	7.50	0.00	—
Grading	—	—	8.00	0.00	—
Paving	0.00	0.00	0.00	0.00	0.00

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Hospital	0.00	0%

Enclosed Parking with Elevator	0.00	100%
City Park	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	204	0.03	< 0.005
2027	0.00	204	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

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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

8. User Changes to Default Data

Screen	Justification
Land Use	Lot acreage adjusted to represent total site acreage of Phase 3 area, consistent with assumptions included in Illingworth & Rodkin Modeling conducted for previous IS/MND.
Construction: On-Road Fugitive Dust	—
Construction: Construction Phases	Demolition not required.

Rosewood Commons - Approved Conditions, Operations Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Rosewood Commons - Approved Conditions, Operations
Operational Year	2027
Lead Agency	Morgan Hill
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	32.8
Location	37.120293239763086, -121.629359661886
County	Santa Clara
City	Morgan Hill
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1908
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.20

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
Medical Office Building	30.4	1000sqft	4.13	30,400	94,090	—	—	—

Parking Lot	151	Space	0.00	0.00	0.00	—	—	—
High Turnover (Sit Down Restaurant)	10.0	1000sqft	1.78	10,000	0.00	—	—	—
Hospital	55.0	Bed	4.17	100,000	74,052	—	—	—
Enclosed Parking with Elevator	500	Space	0.00	200,000	0.00	—	—	—
City Park	0.44	Acre	0.44	0.00	19,166	19,166	—	—

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.	11.8	14.3	7.64	71.1	0.14	0.30	11.8	12.1	0.29	2.99	3.28	350	19,031	19,382	36.5	0.66	57.1	20,547
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	8.79	11.5	8.34	55.1	0.13	0.28	11.8	12.1	0.27	2.99	3.26	350	18,226	18,576	36.6	0.71	17.6	19,720
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	9.96	12.6	8.05	60.2	0.13	0.29	11.6	11.8	0.28	2.93	3.21	350	18,354	18,704	36.5	0.69	34.1	19,857
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.82	2.30	1.47	11.0	0.02	0.05	2.11	2.16	0.05	0.53	0.59	58.0	3,039	3,097	6.05	0.11	5.64	3,288

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	8.83	8.30	4.86	54.1	0.12	0.08	11.8	11.9	0.07	2.99	3.07	—	12,681	12,681	0.60	0.53	40.5	12,896
Area	2.63	5.85	0.12	14.8	< 0.005	0.03	—	0.03	0.02	—	0.02	—	60.9	60.9	< 0.005	< 0.005	—	61.1
Energy	0.28	0.14	2.54	2.13	0.02	0.19	—	0.19	0.19	—	0.19	—	6,226	6,226	0.79	0.07	—	6,266
Water	—	—	—	—	—	—	—	—	—	—	—	22.6	48.9	71.5	2.32	0.06	—	146
Waste	—	—	—	—	—	—	—	—	—	—	—	328	0.00	328	32.7	0.00	—	1,146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.6	16.6
Stationary	0.03	0.03	0.11	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	14.1	14.1	< 0.005	< 0.005	0.00	14.1
Total	11.8	14.3	7.64	71.1	0.14	0.30	11.8	12.1	0.29	2.99	3.28	350	19,031	19,382	36.5	0.66	57.1	20,547
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	8.48	7.91	5.69	52.9	0.12	0.08	11.8	11.9	0.07	2.99	3.07	—	11,937	11,937	0.70	0.59	1.05	12,131
Area	—	3.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.28	0.14	2.54	2.13	0.02	0.19	—	0.19	0.19	—	0.19	—	6,226	6,226	0.79	0.07	—	6,266
Water	—	—	—	—	—	—	—	—	—	—	—	22.6	48.9	71.5	2.32	0.06	—	146
Waste	—	—	—	—	—	—	—	—	—	—	—	328	0.00	328	32.7	0.00	—	1,146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.6	16.6
Stationary	0.03	0.03	0.11	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	14.1	14.1	< 0.005	< 0.005	0.00	14.1
Total	8.79	11.5	8.34	55.1	0.13	0.28	11.8	12.1	0.27	2.99	3.26	350	18,226	18,576	36.6	0.71	17.6	19,720
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Mobile	8.36	7.82	5.35	50.7	0.12	0.08	11.6	11.6	0.07	2.93	3.00	—	12,037	12,037	0.65	0.57	17.5	12,240
Area	1.30	4.62	0.06	7.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	30.0	30.0	< 0.005	< 0.005	—	30.1
Energy	0.28	0.14	2.54	2.13	0.02	0.19	—	0.19	0.19	—	0.19	—	6,226	6,226	0.79	0.07	—	6,266
Water	—	—	—	—	—	—	—	—	—	—	—	22.6	48.9	71.5	2.32	0.06	—	146
Waste	—	—	—	—	—	—	—	—	—	—	—	328	0.00	328	32.7	0.00	—	1,146
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.6	16.6
Stationary	0.02	0.02	0.09	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.6	11.6	< 0.005	< 0.005	0.00	11.6
Total	9.96	12.6	8.05	60.2	0.13	0.29	11.6	11.8	0.28	2.93	3.21	350	18,354	18,704	36.5	0.69	34.1	19,857
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	1.53	1.43	0.98	9.26	0.02	0.01	2.11	2.12	0.01	0.53	0.55	—	1,993	1,993	0.11	0.09	2.90	2,026
Area	0.24	0.84	0.01	1.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.97	4.97	< 0.005	< 0.005	—	4.99
Energy	0.05	0.03	0.46	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	1,031	1,031	0.13	0.01	—	1,037
Water	—	—	—	—	—	—	—	—	—	—	—	3.74	8.09	11.8	0.38	0.01	—	24.2
Waste	—	—	—	—	—	—	—	—	—	—	—	54.2	0.00	54.2	5.42	0.00	—	190
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.74	2.74
Stationary	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	1.91	1.91	< 0.005	< 0.005	0.00	1.92
Total	1.82	2.30	1.47	11.0	0.02	0.05	2.11	2.16	0.05	0.53	0.59	58.0	3,039	3,097	6.05	0.11	5.64	3,288

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	2.14	2.01	1.18	13.1	0.03	0.02	2.86	2.88	0.02	0.73	0.74	—	3,077	3,077	0.15	0.13	9.83	3,129
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
High Turnover (Sit Down Restaurant)	2.90	2.73	1.60	17.8	0.04	0.03	3.88	3.91	0.02	0.98	1.01	—	4,170	4,170	0.20	0.18	13.3	4,241
Hospital	3.78	3.56	2.08	23.2	0.05	0.03	5.06	5.09	0.03	1.28	1.31	—	5,435	5,435	0.26	0.23	17.4	5,527
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	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	8.83	8.30	4.86	54.1	0.12	0.08	11.8	11.9	0.07	2.99	3.07	—	12,681	12,681	0.60	0.53	40.5	12,896
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	2.06	1.92	1.38	12.8	0.03	0.02	2.86	2.88	0.02	0.73	0.74	—	2,896	2,896	0.17	0.14	0.25	2,943
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
High Turnover (Sit Down Restaurant)	2.79	2.60	1.87	17.4	0.04	0.03	3.88	3.91	0.02	0.98	1.01	—	3,925	3,925	0.23	0.19	0.35	3,989
Hospital	3.63	3.39	2.44	22.7	0.05	0.03	5.06	5.09	0.03	1.28	1.31	—	5,115	5,115	0.30	0.25	0.45	5,199
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00

City Park	0.00	0.00	0.00	0.00	0.00	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	8.48	7.91	5.69	52.9	0.12	0.08	11.8	11.9	0.07	2.99	3.07	—	11,937	11,937	0.70	0.59	1.05	12,131
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.37	0.35	0.24	2.25	0.01	< 0.005	0.51	0.52	< 0.005	0.13	0.13	—	483	483	0.03	0.02	0.70	492
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
High Turnover (Sit Down Restaurant)	0.50	0.47	0.32	3.04	0.01	< 0.005	0.69	0.70	< 0.005	0.18	0.18	—	655	655	0.04	0.03	0.95	666
Hospital	0.65	0.61	0.42	3.97	0.01	0.01	0.90	0.91	0.01	0.23	0.23	—	854	854	0.05	0.04	1.24	868
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	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	1.53	1.43	0.98	9.26	0.02	0.01	2.11	2.12	0.01	0.53	0.55	—	1,993	1,993	0.11	0.09	2.90	2,026

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	360	360	0.06	0.01	—	363

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	254	254	0.04	< 0.005	—	256
Hospital	—	—	—	—	—	—	—	—	—	—	—	—	2,173	2,173	0.35	0.04	—	2,195
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	413	413	0.07	0.01	—	417
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,199	3,199	0.52	0.06	—	3,231
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	360	360	0.06	0.01	—	363
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	254	254	0.04	< 0.005	—	256
Hospital	—	—	—	—	—	—	—	—	—	—	—	—	2,173	2,173	0.35	0.04	—	2,195
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	413	413	0.07	0.01	—	417
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,199	3,199	0.52	0.06	—	3,231
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	59.5	59.5	0.01	< 0.005	—	60.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	42.0	42.0	0.01	< 0.005	—	42.4
Hospital	—	—	—	—	—	—	—	—	—	—	—	—	360	360	0.06	0.01	—	363
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	68.3	68.3	0.01	< 0.005	—	69.0
City Park	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	530	530	0.09	0.01	—	535

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	231	231	0.02	< 0.005	—	232
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
High Turnover (Sit Down Restaurant)	0.04	0.02	0.36	0.30	< 0.005	0.03	—	0.03	0.03	—	0.03	—	432	432	0.04	< 0.005	—	434
Hospital	0.22	0.11	1.98	1.66	0.01	0.15	—	0.15	0.15	—	0.15	—	2,363	2,363	0.21	< 0.005	—	2,370

Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	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	2.54	2.13	0.02	0.19	—	0.19	0.19	—	0.19	—	3,027	3,027	0.27	0.01	—	3,035
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.02	0.01	0.19	0.16	< 0.005	0.01	—	0.01	0.01	—	0.01	—	231	231	0.02	< 0.005	—	232
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
High Turnover (Sit Down Restaurant)	0.04	0.02	0.36	0.30	< 0.005	0.03	—	0.03	0.03	—	0.03	—	432	432	0.04	< 0.005	—	434
Hospital	0.22	0.11	1.98	1.66	0.01	0.15	—	0.15	0.15	—	0.15	—	2,363	2,363	0.21	< 0.005	—	2,370
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	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	2.54	2.13	0.02	0.19	—	0.19	0.19	—	0.19	—	3,027	3,027	0.27	0.01	—	3,035
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	< 0.005	< 0.005	0.04	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	38.3	38.3	< 0.005	< 0.005	—	38.4
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
High Turnover (Sit Down Restaurant)	0.01	< 0.005	0.07	0.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	71.6	71.6	0.01	< 0.005	—	71.8

Hospital	0.04	0.02	0.36	0.30	< 0.005	0.03	—	0.03	0.03	—	0.03	—	391	391	0.03	< 0.005	—	392
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.00	0.00	0.00	0.00	—	0.00
City Park	0.00	0.00	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	0.46	0.39	< 0.005	0.04	—	0.04	0.04	—	0.04	—	501	501	0.04	< 0.005	—	503

4.3. Area Emissions by Source

4.3.1. 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	—	3.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.63	2.43	0.12	14.8	< 0.005	0.03	—	0.03	0.02	—	0.02	—	60.9	60.9	< 0.005	< 0.005	—	61.1
Total	2.63	5.85	0.12	14.8	< 0.005	0.03	—	0.03	0.02	—	0.02	—	60.9	60.9	< 0.005	< 0.005	—	61.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	3.02	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Architect Coatings	—	0.40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	3.42	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	0.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.07	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.24	0.22	0.01	1.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.97	4.97	< 0.005	< 0.005	—	4.99
Total	0.24	0.84	0.01	1.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.97	4.97	< 0.005	< 0.005	—	4.99

4.4. Water Emissions by Land Use

4.4.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	7.31	16.6	23.9	0.75	0.02	—	48.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	5.82	11.0	16.8	0.60	0.01	—	36.0

Hospital	—	—	—	—	—	—	—	—	—	—	—	9.47	20.1	29.5	0.97	0.02	—	60.9
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	1.26	1.26	< 0.005	< 0.005	—	1.27
Total	—	—	—	—	—	—	—	—	—	—	—	22.6	48.9	71.5	2.32	0.06	—	146
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	7.31	16.6	23.9	0.75	0.02	—	48.1
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	5.82	11.0	16.8	0.60	0.01	—	36.0
Hospital	—	—	—	—	—	—	—	—	—	—	—	9.47	20.1	29.5	0.97	0.02	—	60.9
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	1.26	1.26	< 0.005	< 0.005	—	1.27
Total	—	—	—	—	—	—	—	—	—	—	—	22.6	48.9	71.5	2.32	0.06	—	146
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	1.21	2.74	3.96	0.12	< 0.005	—	7.96
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	0.96	1.82	2.78	0.10	< 0.005	—	5.97
Hospital	—	—	—	—	—	—	—	—	—	—	—	1.57	3.32	4.89	0.16	< 0.005	—	10.1
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.00	0.21	0.21	< 0.005	< 0.005	—	0.21
Total	—	—	—	—	—	—	—	—	—	—	—	3.74	8.09	11.8	0.38	0.01	—	24.2

4.5. Waste Emissions by Land Use

4.5.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	177	0.00	177	17.7	0.00	—	619
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	64.1	0.00	64.1	6.41	0.00	—	224
Hospital	—	—	—	—	—	—	—	—	—	—	—	86.6	0.00	86.6	8.65	0.00	—	303

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.02	0.00	0.02	< 0.005	0.00	—	0.07
Total	—	—	—	—	—	—	—	—	—	—	—	328	0.00	328	32.7	0.00	—	1,146
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	177	0.00	177	17.7	0.00	—	619
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	64.1	0.00	64.1	6.41	0.00	—	224
Hospital	—	—	—	—	—	—	—	—	—	—	—	86.6	0.00	86.6	8.65	0.00	—	303
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	0.02	0.00	0.02	< 0.005	0.00	—	0.07
Total	—	—	—	—	—	—	—	—	—	—	—	328	0.00	328	32.7	0.00	—	1,146
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	29.3	0.00	29.3	2.93	0.00	—	102
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	10.6	0.00	10.6	1.06	0.00	—	37.1

Hospital	—	—	—	—	—	—	—	—	—	—	—	14.3	0.00	14.3	1.43	0.00	—	50.1
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
City Park	—	—	—	—	—	—	—	—	—	—	—	< 0.005	0.00	< 0.005	< 0.005	0.00	—	0.01
Total	—	—	—	—	—	—	—	—	—	—	—	54.2	0.00	54.2	5.42	0.00	—	190

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.78	0.78
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.6	15.6
Hospital	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.6	16.6
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.78	0.78

High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	15.6	15.6
Hospital	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.16	0.16
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	16.6	16.6
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.13	0.13
High Turnover (Sit Down Restaurant)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.59	2.59
Hospital	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.03	0.03
City Park	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2.74	2.74

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.03	0.03	0.11	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	14.1	14.1	< 0.005	< 0.005	0.00	14.1
Total	0.03	0.03	0.11	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	14.1	14.1	< 0.005	< 0.005	0.00	14.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.03	0.03	0.11	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	14.1	14.1	< 0.005	< 0.005	0.00	14.1
Total	0.03	0.03	0.11	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	14.1	14.1	< 0.005	< 0.005	0.00	14.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	1.91	1.91	< 0.005	< 0.005	0.00	1.92
Total	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	1.91	1.91	< 0.005	< 0.005	0.00	1.92

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Medical Office Building	695	695	695	253,655	4,061	4,061	4,061	1,482,220
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
High Turnover (Sit Down Restaurant)	942	942	942	343,830	5,505	5,505	5,505	2,009,157
Hospital	1,228	1,228	1,228	448,074	7,173	7,173	7,173	2,618,303
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
City Park	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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	210,600	70,200	—

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)
Medical Office Building	643,526	204	0.0330	0.0040	722,009
Parking Lot	0.00	204	0.0330	0.0040	0.00
High Turnover (Sit Down Restaurant)	453,788	204	0.0330	0.0040	1,349,209
Hospital	3,888,952	204	0.0330	0.0040	7,373,474
Enclosed Parking with Elevator	738,286	204	0.0330	0.0040	0.00
City Park	0.00	204	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)
Medical Office Building	3,814,608	1,005,858
Parking Lot	0.00	0.00
High Turnover (Sit Down Restaurant)	3,035,337	0.00
Hospital	4,939,750	791,648
Enclosed Parking with Elevator	0.00	0.00
City Park	0.00	455,327

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Medical Office Building	328	—
Parking Lot	0.00	—
High Turnover (Sit Down Restaurant)	119	—
Hospital	161	—
Enclosed Parking with Elevator	0.00	—
City Park	0.04	—

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
Medical Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Medical Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Household refrigerators and/or freezers	R-134a	1,430	0.00	0.60	0.00	1.00
High Turnover (Sit Down Restaurant)	Other commercial A/C and heat pumps	R-410A	2,088	1.80	4.00	4.00	18.0
High Turnover (Sit Down Restaurant)	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0
Hospital	Chillers	R-134a	1,430	< 0.005	2.00	2.00	23.0
Hospital	Household refrigerators and/or freezers	R-134a	1,430	< 0.005	0.60	0.00	1.00
Hospital	Stand-alone retail refrigerators and freezers	R-134a	1,430	< 0.005	1.00	0.00	1.00
Hospital	Walk-in refrigerators and freezers	R-404A	3,922	< 0.005	7.50	7.50	20.0

City Park	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0
City Park	Stand-alone retail refrigerators and freezers	R-134a	1,430	0.04	1.00	0.00	1.00

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
Emergency Generator	Diesel	1.00	0.01	3.00	134	0.73
Emergency Generator	Diesel	1.00	0.01	3.00	201	0.73
Emergency Generator	Diesel	1.00	0.01	3.00	1,341	0.73

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)

8. User Changes to Default Data

Screen	Justification
Land Use	All land use assumptions consistent with Illingworth & Rodkin Modeling conducted for previous IS/MND. Landscaped area consistent with proposed project conditions, as landscaped area was not an input in previous CalEEMod version used by Illingworth & Rodkin.
Operations: Vehicle Data	Trip generation rates adjusted to be consistent with traffic data provided by Hexagon.

Rosewood Commons - Proposed Project, Phase 1 Construction Custom Report

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5.18.2.1. Unmitigated

5.18.2.2. Mitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Rosewood Commons - Proposed Project, Phase 1 Construction
Construction Start Date	1/6/2025
Lead Agency	Morgan Hill
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	32.8
Location	37.12045830468672, -121.6294425907166
County	Santa Clara
City	Morgan Hill
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1908
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.21

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
Medical Office Building	75.0	1000sqft	0.57	75,000	0.00	—	—	—

Parking Lot	269	Space	2.81	0.00	0.00	—	—	—
Enclosed Parking with Elevator	965	Space	1.22	54,000	0.00	—	—	—
Other Non-Asphalt Surfaces	5.01	Acre	5.01	0.00	148,104	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

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.	1.57	1.30	11.3	15.3	0.03	0.44	0.53	0.97	0.41	0.13	0.54	—	3,368	3,368	0.14	0.12	3.09	3,409
Mit.	0.58	0.51	3.67	17.1	0.03	0.08	0.53	0.62	0.08	0.13	0.21	—	3,368	3,368	0.14	0.12	3.09	3,409
% Reduced	63%	61%	67%	-12%	—	81%	—	37%	80%	—	60%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	4.00	45.4	31.7	30.8	0.05	1.37	19.8	21.2	1.26	10.1	11.4	—	5,434	5,434	0.26	0.26	0.10	5,454
Mit.	0.56	45.3	6.47	28.9	0.05	0.10	19.8	19.9	0.10	10.1	10.2	—	5,434	5,434	0.26	0.26	0.10	5,454
% Reduced	86%	< 0.5%	80%	6%	—	93%	—	6%	92%	—	10%	—	—	—	—	—	—	—

Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.27	2.63	9.51	11.5	0.02	0.38	1.36	1.73	0.35	0.56	0.91	—	2,489	2,489	0.10	0.08	0.86	2,517
Mit.	0.38	2.55	2.64	12.4	0.02	0.06	1.36	1.41	0.06	0.56	0.62	—	2,489	2,489	0.10	0.08	0.86	2,517
% Reduced	70%	3%	72%	-7%	—	85%	—	18%	84%	—	32%	—	—	—	—	—	—	—
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.23	0.48	1.74	2.11	< 0.005	0.07	0.25	0.32	0.06	0.10	0.17	—	412	412	0.02	0.01	0.14	417
Mit.	0.07	0.47	0.48	2.26	< 0.005	0.01	0.25	0.26	0.01	0.10	0.11	—	412	412	0.02	0.01	0.14	417
% Reduced	70%	3%	72%	-7%	—	85%	—	18%	84%	—	32%	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.57	1.30	11.3	15.3	0.03	0.44	0.53	0.97	0.41	0.13	0.54	—	3,368	3,368	0.14	0.12	3.09	3,409
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	4.00	3.37	31.7	30.8	0.05	1.37	19.8	21.2	1.26	10.1	11.4	—	5,434	5,434	0.26	0.26	0.10	5,454
2026	1.48	45.4	10.7	14.8	0.03	0.39	0.53	0.92	0.36	0.13	0.49	—	3,322	3,322	0.14	0.12	0.07	3,360
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	1.27	1.06	9.51	11.5	0.02	0.38	1.36	1.73	0.35	0.56	0.91	—	2,489	2,489	0.10	0.08	0.86	2,517
2026	0.15	2.63	1.07	1.52	< 0.005	0.04	0.04	0.08	0.04	0.01	0.05	—	296	296	0.01	0.01	0.09	299
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

2025	0.23	0.19	1.74	2.11	< 0.005	0.07	0.25	0.32	0.06	0.10	0.17	—	412	412	0.02	0.01	0.14	417
2026	0.03	0.48	0.19	0.28	< 0.005	0.01	0.01	0.02	0.01	< 0.005	0.01	—	49.0	49.0	< 0.005	< 0.005	0.01	49.4

2.3. Construction Emissions by Year, Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.58	0.51	3.67	17.1	0.03	0.08	0.53	0.62	0.08	0.13	0.21	—	3,368	3,368	0.14	0.12	3.09	3,409
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.56	0.55	6.47	28.9	0.05	0.10	19.8	19.9	0.10	10.1	10.2	—	5,434	5,434	0.26	0.26	0.10	5,454
2026	0.55	45.3	3.69	16.7	0.03	0.08	0.53	0.62	0.08	0.13	0.21	—	3,322	3,322	0.14	0.12	0.07	3,360
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.38	0.34	2.64	12.4	0.02	0.06	1.36	1.41	0.06	0.56	0.62	—	2,489	2,489	0.10	0.08	0.86	2,517
2026	0.05	2.55	0.36	1.66	< 0.005	0.01	0.04	0.05	0.01	0.01	0.02	—	296	296	0.01	0.01	0.09	299
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2025	0.07	0.06	0.48	2.26	< 0.005	0.01	0.25	0.26	0.01	0.10	0.11	—	412	412	0.02	0.01	0.14	417
2026	0.01	0.47	0.07	0.30	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	49.0	49.0	< 0.005	< 0.005	0.01	49.4

3. Construction Emissions Details

3.1. Demolition (2025) - 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	2.86	2.40	22.2	19.9	0.03	0.92	—	0.92	0.84	—	0.84	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.72	1.72	—	0.26	0.26	—	—	—	—	—	—	—
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	0.16	0.13	1.22	1.09	< 0.005	0.05	—	0.05	0.05	—	0.05	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.09	0.09	—	0.01	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.22	0.20	< 0.005	0.01	—	0.01	0.01	—	0.01	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.05	0.05	0.05	0.53	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	0.01	0.01	121
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	0.15	0.03	1.92	0.90	0.01	0.03	0.38	0.40	0.02	0.10	0.12	—	1,458	1,458	0.12	0.23	0.08	1,530
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	0.01	6.69
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	0.01	< 0.005	0.10	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	79.9	79.9	0.01	0.01	0.08	83.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
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	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.2	13.2	< 0.005	< 0.005	0.01	13.9

3.2. Demolition (2025) - Mitigated

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	0.36	0.36	4.51	18.2	0.03	0.06	—	0.06	0.06	—	0.06	—	3,425	3,425	0.14	0.03	—	3,437
Demolition	—	—	—	—	—	—	1.72	1.72	—	0.26	0.26	—	—	—	—	—	—	—
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	0.02	0.02	0.25	1.00	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	188	188	0.01	< 0.005	—	188
Demolition	—	—	—	—	—	—	0.09	0.09	—	0.01	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	< 0.005	0.05	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	31.1	31.1	< 0.005	< 0.005	—	31.2
Demolition	—	—	—	—	—	—	0.02	0.02	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.05	0.05	0.05	0.53	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	0.01	0.01	121
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	0.15	0.03	1.92	0.90	0.01	0.03	0.38	0.40	0.02	0.10	0.12	—	1,458	1,458	0.12	0.23	0.08	1,530
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	0.01	6.69
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	0.01	< 0.005	0.10	0.05	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	79.9	79.9	0.01	0.01	0.08	83.9
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11

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	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	13.2	13.2	< 0.005	< 0.005	0.01	13.9

3.3. Site Preparation (2025) - 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	3.94	3.31	31.6	30.2	0.05	1.37	—	1.37	1.26	—	1.26	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
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	0.11	0.09	0.87	0.83	< 0.005	0.04	—	0.04	0.03	—	0.03	—	145	145	0.01	< 0.005	—	146
Dust From Material Movement	—	—	—	—	—	—	0.54	0.54	—	0.28	0.28	—	—	—	—	—	—	—
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	0.02	0.16	0.15	< 0.005	0.01	—	0.01	0.01	—	0.01	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movement	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
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	0.06	0.06	0.05	0.61	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	139	139	< 0.005	0.01	0.02	141
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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.85	3.85	< 0.005	< 0.005	0.01	3.90
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	0.65
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

3.4. Site Preparation (2025) - Mitigated

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	0.50	0.50	2.59	28.3	0.05	0.10	—	0.10	0.10	—	0.10	—	5,295	5,295	0.21	0.04	—	5,314
Dust From Material Movemen	—	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
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	0.01	0.01	0.07	0.78	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	145	145	0.01	< 0.005	—	146
Dust From Material Movemen	—	—	—	—	—	—	0.54	0.54	—	0.28	0.28	—	—	—	—	—	—	—
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	0.01	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	24.0	24.0	< 0.005	< 0.005	—	24.1
Dust From Material Movemen	—	—	—	—	—	—	0.10	0.10	—	0.05	0.05	—	—	—	—	—	—	—
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	0.06	0.06	0.05	0.61	0.00	0.00	0.14	0.14	0.00	0.03	0.03	—	139	139	< 0.005	0.01	0.02	141
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	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.85	3.85	< 0.005	< 0.005	0.01	3.90
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.64	0.64	< 0.005	< 0.005	< 0.005	0.65
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

3.5. Grading (2025) - 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	2.07	1.74	16.3	17.9	0.03	0.72	—	0.72	0.66	—	0.66	—	2,959	2,959	0.12	0.02	—	2,970

Dust From Material Movemen	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
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	0.11	0.10	0.89	0.98	< 0.005	0.04	—	0.04	0.04	—	0.04	—	162	162	0.01	< 0.005	—	163
Dust From Material Movemen	—	—	—	—	—	—	0.39	0.39	—	0.19	0.19	—	—	—	—	—	—	—
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	0.02	0.16	0.18	< 0.005	0.01	—	0.01	0.01	—	0.01	—	26.8	26.8	< 0.005	< 0.005	—	26.9
Dust From Material Movemen	—	—	—	—	—	—	0.07	0.07	—	0.03	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.53	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	0.01	0.01	121
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	0.01	6.69
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
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

3.6. Grading (2025) - Mitigated

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	0.29	0.29	2.04	17.8	0.03	0.06	—	0.06	0.06	—	0.06	—	2,959	2,959	0.12	0.02	—	2,970
Dust From Material Movemen	—	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
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	0.02	0.02	0.11	0.97	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	162	162	0.01	< 0.005	—	163

Dust From Material Movemen	—	—	—	—	—	—	0.39	0.39	—	0.19	0.19	—	—	—	—	—	—	—
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	0.18	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	26.8	26.8	< 0.005	< 0.005	—	26.9
Dust From Material Movemen	—	—	—	—	—	—	0.07	0.07	—	0.03	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.05	0.05	0.05	0.53	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	119	119	< 0.005	0.01	0.01	121
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.60	6.60	< 0.005	< 0.005	0.01	6.69
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	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.09	1.09	< 0.005	< 0.005	< 0.005	1.11
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

3.7. Building Construction (2025) - 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	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
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	1.35	1.13	10.4	13.0	0.02	0.43	—	0.43	0.40	—	0.40	—	2,398	2,398	0.10	0.02	—	2,406
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	0.76	0.64	5.93	7.40	0.01	0.25	—	0.25	0.23	—	0.23	—	1,361	1,361	0.06	0.01	—	1,365
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	0.14	0.12	1.08	1.35	< 0.005	0.04	—	0.04	0.04	—	0.04	—	225	225	0.01	< 0.005	—	226
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	0.17	0.15	0.11	1.91	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	400	400	0.01	0.02	1.58	406
Vendor	0.05	0.02	0.73	0.35	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	570	570	0.03	0.08	1.51	597
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	0.15	0.15	0.14	1.64	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	371	371	0.01	0.02	0.04	376
Vendor	0.05	0.02	0.77	0.36	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	571	571	0.03	0.08	0.04	596
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	0.09	0.08	0.07	0.91	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	213	213	< 0.005	0.01	0.39	216
Vendor	0.03	0.01	0.43	0.20	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	324	324	0.02	0.05	0.37	338
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	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	35.2	35.2	< 0.005	< 0.005	0.06	35.7
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	53.6	53.6	< 0.005	0.01	0.06	56.0
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

3.8. Building Construction (2025) - Mitigated

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	0.35	0.33	2.82	14.8	0.02	0.08	—	0.08	0.07	—	0.07	—	2,398	2,398	0.10	0.02	—	2,406
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	0.35	0.33	2.82	14.8	0.02	0.08	—	0.08	0.07	—	0.07	—	2,398	2,398	0.10	0.02	—	2,406
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	0.20	0.19	1.60	8.41	0.01	0.04	—	0.04	0.04	—	0.04	—	1,361	1,361	0.06	0.01	—	1,365
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	0.29	1.54	< 0.005	0.01	—	0.01	0.01	—	0.01	—	225	225	0.01	< 0.005	—	226
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	0.17	0.15	0.11	1.91	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	400	400	0.01	0.02	1.58	406
Vendor	0.05	0.02	0.73	0.35	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	570	570	0.03	0.08	1.51	597
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	0.15	0.15	0.14	1.64	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	371	371	0.01	0.02	0.04	376

Vendor	0.05	0.02	0.77	0.36	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	571	571	0.03	0.08	0.04	596
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	0.09	0.08	0.07	0.91	0.00	0.00	0.21	0.21	0.00	0.05	0.05	—	213	213	< 0.005	0.01	0.39	216
Vendor	0.03	0.01	0.43	0.20	< 0.005	< 0.005	0.08	0.09	< 0.005	0.02	0.03	—	324	324	0.02	0.05	0.37	338
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	0.02	0.02	0.01	0.17	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	35.2	35.2	< 0.005	< 0.005	0.06	35.7
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	53.6	53.6	< 0.005	0.01	0.06	56.0
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. Building Construction (2026) - 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	1.28	1.07	9.85	13.0	0.02	0.38	—	0.38	0.35	—	0.35	—	2,397	2,397	0.10	0.02	—	2,405
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	0.08	0.06	0.58	0.76	< 0.005	0.02	—	0.02	0.02	—	0.02	—	141	141	0.01	< 0.005	—	141

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	0.01	0.01	0.11	0.14	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	23.3	23.3	< 0.005	< 0.005	—	23.4
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	0.15	0.13	0.13	1.52	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	364	364	0.01	0.02	0.04	369
Vendor	0.05	0.02	0.74	0.35	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	561	561	0.03	0.08	0.04	586
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	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.6	21.6	< 0.005	< 0.005	0.04	21.9
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.9	32.9	< 0.005	< 0.005	0.03	34.4
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	< 0.005	< 0.005	—	3.57	3.57	< 0.005	< 0.005	0.01	3.62
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.45	5.45	< 0.005	< 0.005	0.01	5.70
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

3.10. Building Construction (2026) - Mitigated

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	0.35	0.33	2.82	14.8	0.02	0.07	—	0.07	0.07	—	0.07	—	2,397	2,397	0.10	0.02	—	2,405
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	0.02	0.02	0.17	0.87	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	141	141	0.01	< 0.005	—	141
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	0.03	0.16	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	23.3	23.3	< 0.005	< 0.005	—	23.4
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	0.15	0.13	0.13	1.52	0.00	0.00	0.39	0.39	0.00	0.09	0.09	—	364	364	0.01	0.02	0.04	369
Vendor	0.05	0.02	0.74	0.35	< 0.005	0.01	0.15	0.16	0.01	0.04	0.05	—	561	561	0.03	0.08	0.04	586
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	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	21.6	21.6	< 0.005	< 0.005	0.04	21.9
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.9	32.9	< 0.005	< 0.005	0.03	34.4
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	< 0.005	< 0.005	—	3.57	3.57	< 0.005	< 0.005	0.01	3.62
Vendor	< 0.005	< 0.005	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	5.45	5.45	< 0.005	< 0.005	0.01	5.70
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

3.11. Paving (2026) - 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	0.91	0.76	7.12	9.94	0.01	0.32	—	0.32	0.29	—	0.29	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.05	0.04	0.39	0.54	< 0.005	0.02	—	0.02	0.02	—	0.02	—	82.8	82.8	< 0.005	< 0.005	—	83.1
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	0.01	0.01	0.07	0.10	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
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	0.05	0.04	0.04	0.49	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	117	117	< 0.005	0.01	0.01	118
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.47	6.47	< 0.005	< 0.005	0.01	6.57
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.09
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

3.12. Paving (2026) - Mitigated

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	0.16	0.16	1.93	10.6	0.01	0.03	—	0.03	0.03	—	0.03	—	1,511	1,511	0.06	0.01	—	1,516
Paving	—	0.53	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.11	0.58	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	82.8	82.8	< 0.005	< 0.005	—	83.1
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	< 0.005	< 0.005	0.02	0.11	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	13.7	13.7	< 0.005	< 0.005	—	13.8
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	0.05	0.04	0.04	0.49	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	117	117	< 0.005	0.01	0.01	118
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	< 0.005	< 0.005	< 0.005	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.47	6.47	< 0.005	< 0.005	0.01	6.57
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	1.07	1.07	< 0.005	< 0.005	< 0.005	1.09
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

3.13. Architectural Coating (2026) - 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	0.15	0.12	0.86	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	45.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	2.48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.03	0.03	0.03	0.30	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	72.7	72.7	< 0.005	< 0.005	0.01	73.7
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.03	4.03	< 0.005	< 0.005	0.01	4.09
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.67	0.67	< 0.005	< 0.005	< 0.005	0.68
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

3.14. Architectural Coating (2026) - Mitigated

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	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	45.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	2.48	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.45	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.03	0.03	0.03	0.30	0.00	0.00	0.08	0.08	0.00	0.02	0.02	—	72.7	72.7	< 0.005	< 0.005	0.01	73.7
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.03	4.03	< 0.005	< 0.005	0.01	4.09
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.67	0.67	< 0.005	< 0.005	< 0.005	0.68
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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
Demolition	Demolition	1/6/2025	1/31/2025	5.00	20.0	—
Site Preparation	Site Preparation	2/3/2025	2/14/2025	5.00	10.0	—
Grading	Grading	2/17/2025	3/14/2025	5.00	20.0	—
Building Construction	Building Construction	3/17/2025	1/30/2026	5.00	230	—
Paving	Paving	2/2/2026	2/27/2026	5.00	20.0	—
Architectural Coating	Architectural Coating	3/2/2026	3/27/2026	5.00	20.0	—

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
Demolition	Rubber Tired Dozers	Diesel	Average	2.00	8.00	367	0.40
Demolition	Excavators	Diesel	Average	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Average	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
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	Cranes	Diesel	Average	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Average	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	3.00	7.00	84.0	0.37
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	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Demolition	Rubber Tired Dozers	Diesel	Tier 4 Final	2.00	8.00	367	0.40

Demolition	Excavators	Diesel	Tier 4 Final	3.00	8.00	36.0	0.38
Demolition	Concrete/Industrial Saws	Diesel	Tier 4 Final	1.00	8.00	33.0	0.73
Site Preparation	Rubber Tired Dozers	Diesel	Tier 4 Final	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Tier 4 Final	1.00	8.00	148	0.41
Grading	Excavators	Diesel	Tier 4 Final	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Tier 4 Final	1.00	8.00	367	0.40
Building Construction	Forklifts	Diesel	Tier 4 Final	3.00	8.00	82.0	0.20
Building Construction	Generator Sets	Diesel	Average	1.00	8.00	14.0	0.74
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	7.00	367	0.29
Building Construction	Welders	Diesel	Tier 4 Final	1.00	8.00	46.0	0.45
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	3.00	7.00	84.0	0.37
Paving	Pavers	Diesel	Tier 4 Final	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Tier 4 Final	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Tier 4 Final	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT

Demolition	Hauling	20.4	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	46.7	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	21.1	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	9.34	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Demolition	—	—	—	—
Demolition	Worker	15.0	11.7	LDA,LDT1,LDT2
Demolition	Vendor	—	8.40	HHDT,MHDT
Demolition	Hauling	20.4	20.0	HHDT
Demolition	Onsite truck	—	—	HHDT
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	11.7	LDA,LDT1,LDT2
Grading	Vendor	—	8.40	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	46.7	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	21.1	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	11.7	LDA,LDT1,LDT2
Paving	Vendor	—	8.40	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

Architectural Coating	—	—	—	—
Architectural Coating	Worker	9.34	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	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	114,891	37,766	23,627

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (Ton of Debris)	Acres Paved (acres)
Demolition	0.00	0.00	0.00	1,627	—
Site Preparation	—	—	15.0	0.00	—
Grading	—	—	20.0	0.00	—
Paving	0.00	0.00	0.00	0.00	9.04

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Medical Office Building	0.00	0%
Parking Lot	2.81	100%
Enclosed Parking with Elevator	1.22	100%
Other Non-Asphalt Surfaces	5.01	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2025	0.00	204	0.03	< 0.005
2026	0.00	204	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

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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

8. User Changes to Default Data

Screen	Justification
Land Use	Lot acreages adjusted to represent total acreage of project site. "Other Non-Asphalt Surfaces" included to represent grading + paving of total remainder of site including footprints of Phase 2 & 3 buildings
Construction: Construction Phases	Construction phase timing based on phasing estimate provided by project applicant.

Rosewood Commons - Proposed Project, Phase 2 Construction Custom Report

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5.18.2. Sequestration

5.18.2.1. Unmitigated

5.18.2.2. Mitigated

8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Rosewood Commons - Proposed Project, Phase 2 Construction
Construction Start Date	3/30/2026
Lead Agency	Morgan Hill
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	32.8
Location	37.12045830468672, -121.6294425907166
County	Santa Clara
City	Morgan Hill
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1908
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.20

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
Medical Office Building	100	1000sqft	0.57	100,000	10,019	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

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.	0.73	52.3	5.41	8.39	0.02	0.19	0.57	0.76	0.18	0.09	0.27	—	2,008	2,008	0.08	0.08	2.04	2,037
Mit.	0.44	52.2	2.86	9.59	0.02	0.16	0.57	0.73	0.14	0.09	0.21	—	2,008	2,008	0.08	0.08	2.04	2,037
% Reduced	40%	< 0.5%	47%	-14%	—	20%	—	4%	20%	—	23%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.73	52.3	5.46	8.22	0.02	0.19	0.57	0.76	0.18	0.09	0.27	—	1,989	1,989	0.08	0.09	0.05	2,016
Mit.	0.44	52.2	2.86	9.41	0.02	0.16	0.57	0.73	0.14	0.09	0.21	—	1,989	1,989	0.08	0.09	0.05	2,016
% Reduced	39%	< 0.5%	48%	-15%	—	20%	—	4%	20%	—	23%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.38	2.94	2.86	4.31	0.01	0.11	0.21	0.32	0.10	0.05	0.15	—	1,019	1,019	0.04	0.04	0.43	1,033
Mit.	0.15	2.89	0.78	4.90	0.01	0.02	0.21	0.24	0.02	0.05	0.07	—	1,019	1,019	0.04	0.04	0.43	1,033
% Reduced	60%	2%	73%	-14%	—	78%	—	26%	76%	—	51%	—	—	—	—	—	—	—

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.07	0.54	0.52	0.79	< 0.005	0.02	0.04	0.06	0.02	0.01	0.03	—	169	169	0.01	0.01	0.07	171
Mit.	0.03	0.53	0.14	0.89	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	169	169	0.01	0.01	0.07	171
% Reduced	60%	2%	73%	-14%	—	78%	—	26%	76%	—	51%	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.73	0.61	5.41	8.39	0.02	0.19	0.57	0.76	0.18	0.09	0.27	—	2,008	2,008	0.08	0.08	2.04	2,037
2027	0.16	52.3	0.84	1.35	< 0.005	0.02	0.05	0.07	0.02	0.01	0.03	—	186	186	0.01	< 0.005	0.18	188
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.73	0.60	5.46	8.22	0.02	0.19	0.57	0.76	0.18	0.09	0.27	—	1,989	1,989	0.08	0.09	0.05	2,016
2027	0.70	52.3	5.18	8.13	0.02	0.17	0.38	0.55	0.16	0.09	0.25	—	1,975	1,975	0.08	0.08	0.05	2,002
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.38	0.31	2.86	4.31	0.01	0.11	0.21	0.32	0.10	0.05	0.15	—	1,019	1,019	0.04	0.04	0.43	1,033
2027	0.11	2.94	0.76	1.20	< 0.005	0.03	0.05	0.08	0.02	0.01	0.04	—	285	285	0.01	0.01	0.11	289
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.07	0.06	0.52	0.79	< 0.005	0.02	0.04	0.06	0.02	0.01	0.03	—	169	169	0.01	0.01	0.07	171
2027	0.02	0.54	0.14	0.22	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	0.01	—	47.2	47.2	< 0.005	< 0.005	0.02	47.8

2.3. Construction Emissions by Year, Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.44	0.38	2.86	9.59	0.02	0.16	0.57	0.73	0.14	0.09	0.21	—	2,008	2,008	0.08	0.08	2.04	2,037
2027	0.04	52.2	0.66	1.19	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.01	—	186	186	0.01	< 0.005	0.18	188
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.44	0.38	2.86	9.41	0.02	0.16	0.57	0.73	0.14	0.09	0.21	—	1,989	1,989	0.08	0.09	0.05	2,016
2027	0.26	52.2	1.26	9.34	0.02	0.03	0.38	0.41	0.03	0.09	0.12	—	1,975	1,975	0.08	0.08	0.05	2,002
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.15	0.13	0.78	4.90	0.01	0.02	0.21	0.24	0.02	0.05	0.07	—	1,019	1,019	0.04	0.04	0.43	1,033
2027	0.04	2.89	0.21	1.36	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	285	285	0.01	0.01	0.11	289
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2026	0.03	0.02	0.14	0.89	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	169	169	0.01	0.01	0.07	171
2027	0.01	0.53	0.04	0.25	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	47.2	47.2	< 0.005	< 0.005	0.02	47.8

3. Construction Emissions Details

3.1. Site Preparation (2026) - 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	0.52	0.44	3.74	5.54	0.01	0.19	—	0.19	0.17	—	0.17	—	858	858	0.03	0.01	—	861
Dust From Material Movemen	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
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	0.52	0.44	3.74	5.54	0.01	0.19	—	0.19	0.17	—	0.17	—	858	858	0.03	0.01	—	861
Dust From Material Movemen	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
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	0.20	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	47.0	47.0	< 0.005	< 0.005	—	47.2
Dust From Material Movemen	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.01	< 0.005	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.79	7.79	< 0.005	< 0.005	—	7.81
Dust From Material Movemen	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—

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	0.02	0.02	0.01	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	42.0	42.0	< 0.005	< 0.005	0.15	42.7
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	38.9	38.9	< 0.005	< 0.005	< 0.005	39.5
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.19
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.36
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

3.2. Site Preparation (2026) - Mitigated

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	0.43	0.36	2.85	5.66	0.01	0.16	—	0.16	0.14	—	0.14	—	858	858	0.03	0.01	—	861
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
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	0.43	0.36	2.85	5.66	0.01	0.16	—	0.16	0.14	—	0.14	—	858	858	0.03	0.01	—	861
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
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	0.02	0.02	0.16	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	47.0	47.0	< 0.005	< 0.005	—	47.2
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.03	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.79	7.79	< 0.005	< 0.005	—	7.81

Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.02	0.02	0.01	0.19	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	42.0	42.0	< 0.005	< 0.005	0.15	42.7
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.01	0.01	0.16	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	38.9	38.9	< 0.005	< 0.005	< 0.005	39.5
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	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.16	2.16	< 0.005	< 0.005	< 0.005	2.19
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.36	0.36	< 0.005	< 0.005	< 0.005	0.36
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

3.3. Building Construction (2026) - 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	0.59	0.49	4.81	6.91	0.01	0.19	—	0.19	0.17	—	0.17	—	1,304	1,304	0.05	0.01	—	1,309
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	0.59	0.49	4.81	6.91	0.01	0.19	—	0.19	0.17	—	0.17	—	1,304	1,304	0.05	0.01	—	1,309
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	0.29	0.24	2.34	3.36	0.01	0.09	—	0.09	0.08	—	0.08	—	636	636	0.03	0.01	—	638
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	0.05	0.04	0.43	0.61	< 0.005	0.02	—	0.02	0.02	—	0.02	—	105	105	< 0.005	< 0.005	—	106
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	0.10	0.10	0.07	1.22	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	269	269	< 0.005	0.01	0.98	273

Vendor	0.04	0.01	0.54	0.26	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	435	435	0.02	0.06	1.06	455
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	0.10	0.09	0.09	1.04	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	249	249	0.01	0.01	0.03	253
Vendor	0.04	0.01	0.57	0.27	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	435	435	0.02	0.06	0.03	454
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	0.05	0.04	0.04	0.50	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	123	123	< 0.005	0.01	0.21	125
Vendor	0.02	0.01	0.27	0.13	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	212	212	0.01	0.03	0.22	222
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	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.3	20.3	< 0.005	< 0.005	0.03	20.6
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.1	35.1	< 0.005	0.01	0.04	36.7
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

3.4. Building Construction (2026) - Mitigated

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	0.12	0.12	0.64	8.10	0.01	0.02	—	0.02	0.02	—	0.02	—	1,304	1,304	0.05	0.01	—	1,309
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	0.12	0.12	0.64	8.10	0.01	0.02	—	0.02	0.02	—	0.02	—	1,304	1,304	0.05	0.01	—	1,309
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	0.06	0.06	0.31	3.95	0.01	0.01	—	0.01	0.01	—	0.01	—	636	636	0.03	0.01	—	638
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	0.01	0.01	0.06	0.72	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	105	105	< 0.005	< 0.005	—	106
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	0.10	0.10	0.07	1.22	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	269	269	< 0.005	0.01	0.98	273
Vendor	0.04	0.01	0.54	0.26	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	435	435	0.02	0.06	1.06	455
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	0.10	0.09	0.09	1.04	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	249	249	0.01	0.01	0.03	253
Vendor	0.04	0.01	0.57	0.27	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	435	435	0.02	0.06	0.03	454
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	0.05	0.04	0.04	0.50	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	123	123	< 0.005	0.01	0.21	125
Vendor	0.02	0.01	0.27	0.13	< 0.005	< 0.005	0.06	0.06	< 0.005	0.02	0.02	—	212	212	0.01	0.03	0.22	222
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	0.01	0.01	0.01	0.09	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	20.3	20.3	< 0.005	< 0.005	0.03	20.6
Vendor	< 0.005	< 0.005	0.05	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	35.1	35.1	< 0.005	0.01	0.04	36.7
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

3.5. Building Construction (2027) - 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	0.57	0.48	4.56	6.90	0.01	0.17	—	0.17	0.15	—	0.15	—	1,304	1,304	0.05	0.01	—	1,309
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	0.08	0.07	0.63	0.96	< 0.005	0.02	—	0.02	0.02	—	0.02	—	181	181	0.01	< 0.005	—	182
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	0.01	0.01	0.12	0.17	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.0	30.0	< 0.005	< 0.005	—	30.1

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	0.08	0.97	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	245	245	0.01	0.01	0.02	248
Vendor	0.04	0.01	0.54	0.26	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	426	426	0.02	0.06	0.02	446
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	0.13	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	34.4	34.4	< 0.005	< 0.005	0.05	34.9
Vendor	0.01	< 0.005	0.07	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	59.2	59.2	< 0.005	0.01	0.06	61.9
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	0.01	0.01	0.00	< 0.005	< 0.005	—	5.69	5.69	< 0.005	< 0.005	0.01	5.77
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.79	9.79	< 0.005	< 0.005	0.01	10.3
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

3.6. Building Construction (2027) - Mitigated

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	0.12	0.12	0.64	8.10	0.01	0.02	—	0.02	0.02	—	0.02	—	1,304	1,304	0.05	0.01	—	1,309
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	0.02	0.02	0.09	1.13	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	181	181	0.01	< 0.005	—	182
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	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	30.0	30.0	< 0.005	< 0.005	—	30.1
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	0.08	0.97	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	245	245	0.01	0.01	0.02	248
Vendor	0.04	0.01	0.54	0.26	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	426	426	0.02	0.06	0.02	446
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	0.13	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	34.4	34.4	< 0.005	< 0.005	0.05	34.9
Vendor	0.01	< 0.005	0.07	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	< 0.005	0.01	—	59.2	59.2	< 0.005	0.01	0.06	61.9
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	0.01	0.01	0.00	< 0.005	< 0.005	—	5.69	5.69	< 0.005	< 0.005	0.01	5.77
Vendor	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	9.79	9.79	< 0.005	< 0.005	0.01	10.3
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. Architectural Coating (2027) - 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	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	52.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.14	0.11	0.83	1.13	< 0.005	0.02	—	0.02	0.02	—	0.02	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	52.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.05	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	2.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.02	0.01	0.23	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	52.8	52.8	< 0.005	< 0.005	0.18	53.6
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	48.9	48.9	< 0.005	< 0.005	< 0.005	49.6
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.71	2.71	< 0.005	< 0.005	< 0.005	2.75
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.45	0.45	< 0.005	< 0.005	< 0.005	0.46
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

3.8. Architectural Coating (2027) - Mitigated

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	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	52.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	52.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	2.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.02	0.01	0.23	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	52.8	52.8	< 0.005	< 0.005	0.18	53.6
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.19	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	48.9	48.9	< 0.005	< 0.005	< 0.005	49.6
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.71	2.71	< 0.005	< 0.005	< 0.005	2.75
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.45	0.45	< 0.005	< 0.005	< 0.005	0.46
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequest ered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Remove d	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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	3/30/2026	4/24/2026	5.00	20.0	—
Building Construction	Building Construction	4/27/2026	3/12/2027	5.00	230	—
Architectural Coating	Architectural Coating	3/15/2027	4/9/2027	5.00	20.0	—

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	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Building Construction	Forklifts	Diesel	Tier 4 Final	2.00	6.00	82.0	0.20
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	4.00	367	0.29
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

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	5.00	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	32.0	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	16.4	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.40	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT

Building Construction	—	—	—	—
Building Construction	Worker	32.0	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	16.4	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.40	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	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	150,000	50,000	—

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	—	—	10.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Medical Office Building	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2026	0.00	204	0.03	< 0.005
2027	0.00	204	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

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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

8. User Changes to Default Data

Screen	Justification
Land Use	Lot acreage adjusted to represent acreage of building footprint.
Construction: Construction Phases	Construction phase timing based on phasing estimate provided by project applicant. Demolition, grading, and paving of entire site done during Phase 1 and not required for Phase 2 or 3.

Rosewood Commons - Proposed Project, Phase 3 Construction Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Rosewood Commons - Proposed Project, Phase 3 Construction
Construction Start Date	4/12/2027
Lead Agency	Morgan Hill
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	32.8
Location	37.12045830468672, -121.6294425907166
County	Santa Clara
City	Morgan Hill
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1908
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.20

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
Medical Office Building	100	1000sqft	0.57	100,000	10,019	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

Sector	#	Measure Title
Construction	C-5	Use Advanced Engine Tiers

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.	0.70	52.3	5.14	8.29	0.02	0.17	0.57	0.74	0.16	0.09	0.25	—	1,994	1,994	0.08	0.08	1.82	2,023
Mit.	0.42	52.2	2.60	9.50	0.02	0.14	0.57	0.71	0.13	0.09	0.20	—	1,994	1,994	0.08	0.08	1.82	2,023
% Reduced	40%	< 0.5%	49%	-14%	—	18%	—	3%	18%	—	22%	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.70	52.3	5.18	8.13	0.02	0.17	0.38	0.55	0.16	0.09	0.25	—	1,975	1,975	0.08	0.08	0.05	2,002
Mit.	0.26	52.2	1.26	9.34	0.02	0.03	0.38	0.41	0.03	0.09	0.12	—	1,975	1,975	0.08	0.08	0.05	2,002
% Reduced	63%	< 0.5%	76%	-15%	—	82%	—	26%	81%	—	51%	—	—	—	—	—	—	—
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.35	2.96	2.57	4.06	0.01	0.09	0.20	0.29	0.08	0.05	0.13	—	962	962	0.04	0.04	0.37	976
Mit.	0.14	2.90	0.72	4.62	0.01	0.02	0.20	0.23	0.02	0.05	0.07	—	962	962	0.04	0.04	0.37	976
% Reduced	60%	2%	72%	-14%	—	75%	—	23%	74%	—	47%	—	—	—	—	—	—	—

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.06	0.54	0.47	0.74	< 0.005	0.02	0.04	0.05	0.01	0.01	0.02	—	159	159	0.01	0.01	0.06	162
Mit.	0.03	0.53	0.13	0.84	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	159	159	0.01	0.01	0.06	162
% Reduced	60%	2%	72%	-14%	—	75%	—	23%	74%	—	47%	—	—	—	—	—	—	—

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.70	0.58	5.14	8.29	0.02	0.17	0.57	0.74	0.16	0.09	0.25	—	1,994	1,994	0.08	0.08	1.82	2,023
2028	0.15	52.3	0.82	1.33	< 0.005	0.02	0.05	0.07	0.01	0.01	0.03	—	185	185	0.01	< 0.005	0.16	186
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.70	0.57	5.18	8.13	0.02	0.17	0.38	0.55	0.16	0.09	0.25	—	1,975	1,975	0.08	0.08	0.05	2,002
2028	0.67	52.3	4.90	8.07	0.02	0.15	0.38	0.53	0.14	0.09	0.23	—	1,961	1,961	0.08	0.08	0.04	1,987
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.35	0.29	2.57	4.06	0.01	0.09	0.20	0.29	0.08	0.05	0.13	—	962	962	0.04	0.04	0.37	976
2028	0.12	2.96	0.85	1.40	< 0.005	0.03	0.06	0.09	0.02	0.02	0.04	—	333	333	0.01	0.01	0.12	337
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.06	0.05	0.47	0.74	< 0.005	0.02	0.04	0.05	0.01	0.01	0.02	—	159	159	0.01	0.01	0.06	162
2028	0.02	0.54	0.15	0.25	< 0.005	< 0.005	0.01	0.02	< 0.005	< 0.005	0.01	—	55.1	55.1	< 0.005	< 0.005	0.02	55.8

2.3. Construction Emissions by Year, Mitigated

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.42	0.36	2.60	9.50	0.02	0.14	0.57	0.71	0.13	0.09	0.20	—	1,994	1,994	0.08	0.08	1.82	2,023
2028	0.04	52.2	0.66	1.18	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.01	—	185	185	0.01	< 0.005	0.16	186
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.26	0.22	1.26	9.34	0.02	0.03	0.38	0.41	0.03	0.09	0.12	—	1,975	1,975	0.08	0.08	0.05	2,002
2028	0.25	52.2	1.24	9.27	0.02	0.03	0.38	0.41	0.03	0.09	0.12	—	1,961	1,961	0.08	0.08	0.04	1,987
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.14	0.12	0.72	4.62	0.01	0.02	0.20	0.23	0.02	0.05	0.07	—	962	962	0.04	0.04	0.37	976
2028	0.04	2.90	0.24	1.58	< 0.005	0.01	0.06	0.07	< 0.005	0.02	0.02	—	333	333	0.01	0.01	0.12	337
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2027	0.03	0.02	0.13	0.84	< 0.005	< 0.005	0.04	0.04	< 0.005	0.01	0.01	—	159	159	0.01	0.01	0.06	162
2028	0.01	0.53	0.04	0.29	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	55.1	55.1	< 0.005	< 0.005	0.02	55.8

3. Construction Emissions Details

3.1. Site Preparation (2027) - 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	0.49	0.41	3.44	5.56	0.01	0.17	—	0.17	0.15	—	0.15	—	859	859	0.03	0.01	—	862
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.02	0.19	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	47.1	47.1	< 0.005	< 0.005	—	47.2
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.03	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.79	7.79	< 0.005	< 0.005	—	7.82
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.02	0.01	0.01	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.3	41.3	< 0.005	< 0.005	0.14	41.9

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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.12	2.12	< 0.005	< 0.005	< 0.005	2.15
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.35	0.35	< 0.005	< 0.005	< 0.005	0.36
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

3.2. Site Preparation (2027) - Mitigated

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	0.40	0.34	2.59	5.67	0.01	0.14	—	0.14	0.13	—	0.13	—	859	859	0.03	0.01	—	862
Dust From Material Movement	—	—	—	—	—	—	0.53	0.53	—	0.06	0.06	—	—	—	—	—	—	—
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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.02	0.02	0.14	0.31	< 0.005	0.01	—	0.01	0.01	—	0.01	—	47.1	47.1	< 0.005	< 0.005	—	47.2
Dust From Material Movement	—	—	—	—	—	—	0.03	0.03	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.03	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.79	7.79	< 0.005	< 0.005	—	7.82
Dust From Material Movement	—	—	—	—	—	—	0.01	0.01	—	< 0.005	< 0.005	—	—	—	—	—	—	—
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	0.02	0.01	0.01	0.18	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	41.3	41.3	< 0.005	< 0.005	0.14	41.9
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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.12	2.12	< 0.005	< 0.005	< 0.005	2.15
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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.35	0.35	< 0.005	< 0.005	< 0.005	0.36
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

3.3. Building Construction (2027) - 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	0.57	0.48	4.56	6.90	0.01	0.17	—	0.17	0.15	—	0.15	—	1,304	1,304	0.05	0.01	—	1,309
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	0.57	0.48	4.56	6.90	0.01	0.17	—	0.17	0.15	—	0.15	—	1,304	1,304	0.05	0.01	—	1,309
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	0.26	0.22	2.10	3.19	0.01	0.08	—	0.08	0.07	—	0.07	—	602	602	0.02	< 0.005	—	604

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	0.05	0.04	0.38	0.58	< 0.005	0.01	—	0.01	0.01	—	0.01	—	99.7	99.7	< 0.005	< 0.005	—	100
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	0.10	0.09	0.07	1.14	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	264	264	< 0.005	0.01	0.89	268
Vendor	0.04	0.01	0.52	0.25	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	426	426	0.02	0.06	0.94	446
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	0.10	0.09	0.08	0.97	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	245	245	0.01	0.01	0.02	248
Vendor	0.04	0.01	0.54	0.26	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	426	426	0.02	0.06	0.02	446
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	0.04	0.04	0.04	0.45	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	114	114	< 0.005	< 0.005	0.18	116
Vendor	0.02	0.01	0.24	0.12	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	197	197	0.01	0.03	0.19	206
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	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	18.9	18.9	< 0.005	< 0.005	0.03	19.2
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.6	32.6	< 0.005	< 0.005	0.03	34.1
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

3.4. Building Construction (2027) - Mitigated

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	0.12	0.12	0.64	8.10	0.01	0.02	—	0.02	0.02	—	0.02	—	1,304	1,304	0.05	0.01	—	1,309
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	0.12	0.12	0.64	8.10	0.01	0.02	—	0.02	0.02	—	0.02	—	1,304	1,304	0.05	0.01	—	1,309
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	0.06	0.06	0.30	3.74	0.01	0.01	—	0.01	0.01	—	0.01	—	602	602	0.02	< 0.005	—	604
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	0.01	0.01	0.05	0.68	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	99.7	99.7	< 0.005	< 0.005	—	100
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	0.10	0.09	0.07	1.14	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	264	264	< 0.005	0.01	0.89	268
Vendor	0.04	0.01	0.52	0.25	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	426	426	0.02	0.06	0.94	446
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	0.10	0.09	0.08	0.97	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	245	245	0.01	0.01	0.02	248
Vendor	0.04	0.01	0.54	0.26	< 0.005	0.01	0.12	0.12	0.01	0.03	0.04	—	426	426	0.02	0.06	0.02	446
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	0.04	0.04	0.04	0.45	0.00	0.00	0.12	0.12	0.00	0.03	0.03	—	114	114	< 0.005	< 0.005	0.18	116
Vendor	0.02	0.01	0.24	0.12	< 0.005	< 0.005	0.05	0.06	< 0.005	0.01	0.02	—	197	197	0.01	0.03	0.19	206
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	0.01	0.01	0.01	0.08	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	18.9	18.9	< 0.005	< 0.005	0.03	19.2
Vendor	< 0.005	< 0.005	0.04	0.02	< 0.005	< 0.005	0.01	0.01	< 0.005	< 0.005	< 0.005	—	32.6	32.6	< 0.005	< 0.005	0.03	34.1
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

3.5. Building Construction (2028) - 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	0.55	0.46	4.30	6.91	0.01	0.15	—	0.15	0.14	—	0.14	—	1,305	1,305	0.05	0.01	—	1,309
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	0.71	1.14	< 0.005	0.02	—	0.02	0.02	—	0.02	—	214	214	0.01	< 0.005	—	215
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	0.21	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.5	35.5	< 0.005	< 0.005	—	35.6
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.91	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	240	240	0.01	0.01	0.02	244
Vendor	0.03	0.01	0.52	0.25	< 0.005	0.01	0.12	0.12	< 0.005	0.03	0.03	—	416	416	0.02	0.06	0.02	434
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	0.02	0.01	0.01	0.15	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.0	40.0	< 0.005	< 0.005	0.06	40.5
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	68.3	68.3	< 0.005	0.01	0.06	71.4
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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.62	6.62	< 0.005	< 0.005	0.01	6.71
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.01	11.8
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

3.6. Building Construction (2028) - Mitigated

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	0.12	0.12	0.64	8.10	0.01	0.02	—	0.02	0.02	—	0.02	—	1,305	1,305	0.05	0.01	—	1,309
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	0.02	0.02	0.11	1.33	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	214	214	0.01	< 0.005	—	215
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	0.24	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	35.5	35.5	< 0.005	< 0.005	—	35.6
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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.09	0.08	0.08	0.91	0.00	0.00	0.26	0.26	0.00	0.06	0.06	—	240	240	0.01	0.01	0.02	244
Vendor	0.03	0.01	0.52	0.25	< 0.005	0.01	0.12	0.12	< 0.005	0.03	0.03	—	416	416	0.02	0.06	0.02	434
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	0.02	0.01	0.01	0.15	0.00	0.00	0.04	0.04	0.00	0.01	0.01	—	40.0	40.0	< 0.005	< 0.005	0.06	40.5
Vendor	0.01	< 0.005	0.08	0.04	< 0.005	< 0.005	0.02	0.02	< 0.005	0.01	0.01	—	68.3	68.3	< 0.005	0.01	0.06	71.4
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	0.03	0.00	0.00	0.01	0.01	0.00	< 0.005	< 0.005	—	6.62	6.62	< 0.005	< 0.005	0.01	6.71
Vendor	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	11.3	11.3	< 0.005	< 0.005	0.01	11.8
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. Architectural Coating (2028) - 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	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	52.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	0.13	0.11	0.81	1.12	< 0.005	0.02	—	0.02	0.01	—	0.01	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	52.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	0.04	0.06	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	2.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.02	0.01	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.9	51.9	< 0.005	< 0.005	0.16	52.2

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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	48.1	48.1	< 0.005	< 0.005	< 0.005	48.7
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.66	2.66	< 0.005	< 0.005	< 0.005	2.70
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.44	0.44	< 0.005	< 0.005	< 0.005	0.45
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

3.8. Architectural Coating (2028) - Mitigated

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	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	52.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

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	0.02	0.02	0.65	0.96	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	134	134	0.01	< 0.005	—	134
Architectural Coatings	—	52.2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	< 0.005	< 0.005	0.04	0.05	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	7.32	7.32	< 0.005	< 0.005	—	7.34
Architectural Coatings	—	2.86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.01	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	1.21	1.21	< 0.005	< 0.005	—	1.22
Architectural Coatings	—	0.52	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	0.02	0.02	0.01	0.21	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	51.9	51.9	< 0.005	< 0.005	0.16	52.2

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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.02	0.02	0.02	0.18	0.00	0.00	0.05	0.05	0.00	0.01	0.01	—	48.1	48.1	< 0.005	< 0.005	< 0.005	48.7
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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	< 0.005	0.01	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	2.66	2.66	< 0.005	< 0.005	< 0.005	2.70
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	< 0.005	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	0.44	0.44	< 0.005	< 0.005	< 0.005	0.45
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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Sequest	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.6. Avoided and Sequestered Emissions by Species - Mitigated

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Remove	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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	4/12/2027	5/7/2027	5.00	20.0	—
Building Construction	Building Construction	5/10/2027	3/24/2028	5.00	230	—
Architectural Coating	Architectural Coating	3/27/2028	4/21/2028	5.00	20.0	—

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	Tractors/Loaders/Backhoes	Diesel	Average	1.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Building Construction	Forklifts	Diesel	Average	2.00	6.00	82.0	0.20
Building Construction	Cranes	Diesel	Average	1.00	4.00	367	0.29
Building Construction	Tractors/Loaders/Backhoes	Diesel	Average	2.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.2.2. Mitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor

Site Preparation	Tractors/Loaders/Backh	Diesel	Tier 4 Final	1.00	8.00	84.0	0.37
Site Preparation	Graders	Diesel	Average	1.00	8.00	148	0.41
Building Construction	Forklifts	Diesel	Tier 4 Final	2.00	6.00	82.0	0.20
Building Construction	Cranes	Diesel	Tier 4 Final	1.00	4.00	367	0.29
Building Construction	Tractors/Loaders/Backhoes	Diesel	Tier 4 Final	2.00	8.00	84.0	0.37
Architectural Coating	Air Compressors	Diesel	Tier 4 Final	1.00	6.00	37.0	0.48

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	5.00	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	32.0	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	16.4	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.40	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.3.2. Mitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	5.00	11.7	LDA,LDT1,LDT2
Site Preparation	Vendor	—	8.40	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Building Construction	—	—	—	—
Building Construction	Worker	32.0	11.7	LDA,LDT1,LDT2
Building Construction	Vendor	16.4	8.40	HHDT,MHDT
Building Construction	Hauling	0.00	20.0	HHDT
Building Construction	Onsite truck	—	—	HHDT
Architectural Coating	—	—	—	—
Architectural Coating	Worker	6.40	11.7	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	8.40	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	150,000	50,000	—

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	—	—	10.0	0.00	—

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Medical Office Building	0.00	0%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2027	0.00	204	0.03	< 0.005
2028	0.00	204	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

5.18.1.2. Mitigated

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

5.18.1.2. Mitigated

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)

5.18.2.2. Mitigated

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

8. User Changes to Default Data

Screen	Justification
Land Use	Lot acreage adjusted to represent acreage of building footprint.
Construction: Construction Phases	Construction phase timing based on phasing estimate provided by project applicant. Demolition, grading, and paving of entire site done during Phase 1 and not required for Phase 2 or 3.

Rosewood Commons - Proposed Project, Operations Custom Report

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8. User Changes to Default Data

1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	Rosewood Commons - Proposed Project, Operations
Operational Year	2028
Lead Agency	Morgan Hill
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	1.80
Precipitation (days)	32.8
Location	37.120293239763086, -121.629359661886
County	Santa Clara
City	Morgan Hill
Air District	Bay Area AQMD
Air Basin	San Francisco Bay Area
TAZ	1908
EDFZ	1
Electric Utility	Pacific Gas & Electric Company
Gas Utility	Pacific Gas & Electric
App Version	2022.1.1.20

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
Medical Office Building	275	1000sqft	1.71	275,000	0.00	—	—	—

Parking Lot	269	Space	2.81	0.00	0.00	—	—	—
Enclosed Parking with Elevator	965	Space	1.22	54,000	0.00	—	—	—
Other Non-Asphalt Surfaces	3.87	Acre	3.87	0.00	168,142	—	—	—

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.	32.1	37.7	10.5	90.7	0.09	0.24	5.70	5.94	0.23	1.45	1.67	1,667	13,400	15,067	169	1.12	24.3	19,649
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	28.3	33.9	11.8	98.7	0.08	0.21	5.70	5.91	0.21	1.45	1.65	1,667	13,034	14,701	169	1.22	7.48	19,308
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	29.1	34.7	11.2	94.4	0.08	0.22	5.58	5.80	0.22	1.41	1.63	1,667	13,088	14,754	169	1.18	14.5	19,350
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	5.31	6.34	2.05	17.2	0.02	0.04	1.02	1.06	0.04	0.26	0.30	276	2,167	2,443	28.0	0.19	2.40	3,204

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	29.4	28.5	8.51	74.8	0.08	0.08	5.70	5.78	0.07	1.45	1.52	—	7,680	7,680	1.48	0.88	17.3	7,996
Area	2.55	9.08	0.12	14.3	< 0.005	0.03	—	0.03	0.02	—	0.02	—	58.8	58.8	< 0.005	< 0.005	—	59.1
Energy	0.19	0.10	1.75	1.47	0.01	0.13	—	0.13	0.13	—	0.13	—	5,518	5,518	0.74	0.07	—	5,558
Water	—	—	—	—	—	—	—	—	—	—	—	66.1	130	196	6.80	0.16	—	415
Waste	—	—	—	—	—	—	—	—	—	—	—	1,601	0.00	1,601	160	0.00	—	5,600
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.03	7.03
Stationary	0.03	0.03	0.11	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	14.1	14.1	< 0.005	< 0.005	0.00	14.1
Total	32.1	37.7	10.5	90.7	0.09	0.24	5.70	5.94	0.23	1.45	1.67	1,667	13,400	15,067	169	1.12	24.3	19,649
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	28.1	27.1	9.94	97.1	0.07	0.08	5.70	5.78	0.07	1.45	1.52	—	7,372	7,372	1.88	0.99	0.45	7,714
Area	—	6.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.19	0.10	1.75	1.47	0.01	0.13	—	0.13	0.13	—	0.13	—	5,518	5,518	0.74	0.07	—	5,558
Water	—	—	—	—	—	—	—	—	—	—	—	66.1	130	196	6.80	0.16	—	415
Waste	—	—	—	—	—	—	—	—	—	—	—	1,601	0.00	1,601	160	0.00	—	5,600
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.03	7.03
Stationary	0.03	0.03	0.11	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	14.1	14.1	< 0.005	< 0.005	0.00	14.1
Total	28.3	33.9	11.8	98.7	0.08	0.21	5.70	5.91	0.21	1.45	1.65	1,667	13,034	14,701	169	1.22	7.48	19,308
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	27.6	26.7	9.32	85.8	0.07	0.08	5.58	5.66	0.07	1.41	1.49	—	7,399	7,399	1.71	0.94	7.47	7,730
Area	1.26	7.89	0.06	7.06	< 0.005	0.01	—	0.01	0.01	—	0.01	—	29.0	29.0	< 0.005	< 0.005	—	29.1

Energy	0.19	0.10	1.75	1.47	0.01	0.13	—	0.13	0.13	—	0.13	—	5,518	5,518	0.74	0.07	—	5,558
Water	—	—	—	—	—	—	—	—	—	—	—	66.1	130	196	6.80	0.16	—	415
Waste	—	—	—	—	—	—	—	—	—	—	—	1,601	0.00	1,601	160	0.00	—	5,600
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.03	7.03
Stationary	0.02	0.02	0.09	0.06	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	11.6	11.6	< 0.005	< 0.005	0.00	11.6
Total	29.1	34.7	11.2	94.4	0.08	0.22	5.58	5.80	0.22	1.41	1.63	1,667	13,088	14,754	169	1.18	14.5	19,350
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	5.05	4.88	1.70	15.7	0.01	0.01	1.02	1.03	0.01	0.26	0.27	—	1,225	1,225	0.28	0.16	1.24	1,280
Area	0.23	1.44	0.01	1.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.80	4.80	< 0.005	< 0.005	—	4.82
Energy	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	914	914	0.12	0.01	—	920
Water	—	—	—	—	—	—	—	—	—	—	—	10.9	21.5	32.4	1.13	0.03	—	68.7
Waste	—	—	—	—	—	—	—	—	—	—	—	265	0.00	265	26.5	0.00	—	927
Refrig.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.16	1.16
Stationary	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	1.91	1.91	< 0.005	< 0.005	0.00	1.92
Total	5.31	6.34	2.05	17.2	0.02	0.04	1.02	1.06	0.04	0.26	0.30	276	2,167	2,443	28.0	0.19	2.40	3,204

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	29.4	28.5	8.51	74.8	0.08	0.08	5.70	5.78	0.07	1.45	1.52	—	7,680	7,680	1.48	0.88	17.3	7,996
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
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	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
Total	29.4	28.5	8.51	74.8	0.08	0.08	5.70	5.78	0.07	1.45	1.52	—	7,680	7,680	1.48	0.88	17.3	7,996
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	28.1	27.1	9.94	97.1	0.07	0.08	5.70	5.78	0.07	1.45	1.52	—	7,372	7,372	1.88	0.99	0.45	7,714
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
Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	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
Total	28.1	27.1	9.94	97.1	0.07	0.08	5.70	5.78	0.07	1.45	1.52	—	7,372	7,372	1.88	0.99	0.45	7,714
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	5.05	4.88	1.70	15.7	0.01	0.01	1.02	1.03	0.01	0.26	0.27	—	1,225	1,225	0.28	0.16	1.24	1,280
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

Enclosed Parking with Elevator	0.00	0.00	0.00	0.00	0.00	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
Total	5.05	4.88	1.70	15.7	0.01	0.01	1.02	1.03	0.01	0.26	0.27	—	1,225	1,225	0.28	0.16	1.24	1,280

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	3,253	3,253	0.53	0.06	—	3,285
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	59.9	59.9	0.01	< 0.005	—	60.5
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	111	111	0.02	< 0.005	—	113
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,425	3,425	0.55	0.07	—	3,459
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	3,253	3,253	0.53	0.06	—	3,285
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	59.9	59.9	0.01	< 0.005	—	60.5
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	111	111	0.02	< 0.005	—	113
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	3,425	3,425	0.55	0.07	—	3,459
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	539	539	0.09	0.01	—	544
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	—	9.92	9.92	< 0.005	< 0.005	—	10.0
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	—	18.4	18.4	< 0.005	< 0.005	—	18.6
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	—	567	567	0.09	0.01	—	573

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.19	0.10	1.75	1.47	0.01	0.13	—	0.13	0.13	—	0.13	—	2,093	2,093	0.19	< 0.005	—	2,099
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
Enclosed Parking with Elevator	0.00	0.00	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
Total	0.19	0.10	1.75	1.47	0.01	0.13	—	0.13	0.13	—	0.13	—	2,093	2,093	0.19	< 0.005	—	2,099
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.19	0.10	1.75	1.47	0.01	0.13	—	0.13	0.13	—	0.13	—	2,093	2,093	0.19	< 0.005	—	2,099
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
Enclosed Parking with Elevator	0.00	0.00	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
Total	0.19	0.10	1.75	1.47	0.01	0.13	—	0.13	0.13	—	0.13	—	2,093	2,093	0.19	< 0.005	—	2,099
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	347	347	0.03	< 0.005	—	348

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
Enclosed Parking with Elevator	0.00	0.00	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
Total	0.04	0.02	0.32	0.27	< 0.005	0.02	—	0.02	0.02	—	0.02	—	347	347	0.03	< 0.005	—	348

4.3. Area Emissions by Source

4.3.1. 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	—	5.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	2.55	2.35	0.12	14.3	< 0.005	0.03	—	0.03	0.02	—	0.02	—	58.8	58.8	< 0.005	< 0.005	—	59.1
Total	2.55	9.08	0.12	14.3	< 0.005	0.03	—	0.03	0.02	—	0.02	—	58.8	58.8	< 0.005	< 0.005	—	59.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Consumer	—	5.91	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.82	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	6.73	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	—	1.08	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	—	0.15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	0.23	0.21	0.01	1.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.80	4.80	< 0.005	< 0.005	—	4.82
Total	0.23	1.44	0.01	1.29	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	4.80	4.80	< 0.005	< 0.005	—	4.82

4.4. Water Emissions by Land Use

4.4.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	66.1	125	191	6.80	0.16	—	410
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	4.96	4.96	< 0.005	< 0.005	—	5.01
Total	—	—	—	—	—	—	—	—	—	—	—	66.1	130	196	6.80	0.16	—	415
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	66.1	125	191	6.80	0.16	—	410
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	4.96	4.96	< 0.005	< 0.005	—	5.01
Total	—	—	—	—	—	—	—	—	—	—	—	66.1	130	196	6.80	0.16	—	415
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	10.9	20.7	31.6	1.13	0.03	—	67.8
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00

Other Non-Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.82	0.82	< 0.005	< 0.005	—	0.83
Total	—	—	—	—	—	—	—	—	—	—	—	10.9	21.5	32.4	1.13	0.03	—	68.7

4.5. Waste Emissions by Land Use

4.5.1. 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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	1,601	0.00	1,601	160	0.00	—	5,600
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	1,601	0.00	1,601	160	0.00	—	5,600
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	1,601	0.00	1,601	160	0.00	—	5,600

Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	1,601	0.00	1,601	160	0.00	—	5,600
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	265	0.00	265	26.5	0.00	—	927
Parking Lot	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Enclosed Parking with Elevator	—	—	—	—	—	—	—	—	—	—	—	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
Total	—	—	—	—	—	—	—	—	—	—	—	265	0.00	265	26.5	0.00	—	927

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.03	7.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.03	7.03
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.03	7.03
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7.03	7.03
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Medical Office Building	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.16	1.16
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1.16	1.16

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)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.03	0.03	0.11	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	14.1	14.1	< 0.005	< 0.005	0.00	14.1
Total	0.03	0.03	0.11	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	14.1	14.1	< 0.005	< 0.005	0.00	14.1
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	0.03	0.03	0.11	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	14.1	14.1	< 0.005	< 0.005	0.00	14.1
Total	0.03	0.03	0.11	0.07	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	14.1	14.1	< 0.005	< 0.005	0.00	14.1
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Emergency Generator	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	1.91	1.91	< 0.005	< 0.005	0.00	1.92
Total	< 0.005	< 0.005	0.02	0.01	< 0.005	< 0.005	0.00	< 0.005	< 0.005	0.00	< 0.005	0.00	1.91	1.91	< 0.005	< 0.005	0.00	1.92

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	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
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
Medical Office Building	11,709	11,709	11,709	4,273,666	8,082	8,082	8,082	2,949,826
Parking Lot	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Enclosed Parking with Elevator	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

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	414,891	137,766	20,647

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)
Medical Office Building	5,821,374	204	0.0330	0.0040	6,531,330
Parking Lot	107,226	204	0.0330	0.0040	0.00
Enclosed Parking with Elevator	199,337	204	0.0330	0.0040	0.00
Other Non-Asphalt Surfaces	0.00	204	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)
Medical Office Building	34,507,148	0.00
Parking Lot	0.00	0.00
Enclosed Parking with Elevator	0.00	0.00
Other Non-Asphalt Surfaces	0.00	1,797,506

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Medical Office Building	2,970	—
Parking Lot	0.00	—
Enclosed Parking with Elevator	0.00	—
Other Non-Asphalt Surfaces	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
Medical Office Building	Household refrigerators and/or freezers	R-134a	1,430	0.45	0.60	0.00	1.00
Medical Office Building	Other commercial A/C and heat pumps	R-410A	2,088	< 0.005	4.00	4.00	18.0

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
Emergency Generator	Diesel	1.00	0.01	3.00	134	0.73
Emergency Generator	Diesel	1.00	0.01	3.00	201	0.73
Emergency Generator	Diesel	1.00	0.01	3.00	1,341	0.73

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)

8. User Changes to Default Data

Screen	Justification
Land Use	All land use assumptions consistent with project-specific site plan and air quality questionnaire provided by the project applicant.
Operations: Vehicle Data	Trip generation rates and VMT adjusted to be consistent with traffic data provided by Hexagon.

APPENDIX D

ROSEWOOD/MORGAN HILL MEDICAL CAMPUS PROJECT NOISE AND VIBRATION ASSESSMENT

Morgan Hill, California

January 24, 2024

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INTRODUCTION

On November 4, 2020, the Morgan Hill City Council reviewed and approved the Lillian Commons Medical Campus Project located on a 19.67-acre site southeast of the Juan Hernandez Drive/Barrett Avenue intersection in the City of Morgan Hill, California. The Lillian Commons Medical Campus Project included a residential component on the northern portion of the project site (Parcel C) and medical buildings and a parking structure on the remaining parcels (A, B, and D). The applicant is currently constructing the residential component proposed on Parcel C.

Parcels A, B, and D comprise approximately 9.61 acres of the 19.67-acre site, to which the applicant is proposing an Amendment to the Planned Development Master Plan. This 9.61-acre site is the subject of the Subsequent Environmental Impact Report (SEIR) and shall be considered the "project site" for the purposes of this assessment. The proposed modifications to the project site consist of increasing the allowable medical office to a maximum of 275,000 square feet and to a maximum building height of 65 feet, as well as a General Plan text amendment to increase the allowable floor area ratio (FAR) within the MU-F[1] land use designation from 0.5 to 0.66. Additionally, the project would include an increase from three to six floors for the parking structure, with a maximum height of 65 feet. Details for the proposed buildings include the following:

- Building 1 – a 75,000-square-foot, three-story medical office building immediately east of Juan Hernandez Drive;

- Building 2 – a 100,000-square-foot, four-story medical office/hospital/urgent care/pharmacy/ retail/restaurant building south of Rosewood Lane, generally within the center of the project site;

- Building 3 – a 100,000-square-foot, four-story medical office building immediately west of U.S. Highway 101 (Highway101); and

- A 54,000-square-foot, six-story parking structure, comprised of 965 parking spaces located to the south of the proposed medical buildings.

This report evaluates the project's potential to result in significant noise and vibration impacts with respect to applicable California Environmental Quality Act (CEQA) guidelines. The report is divided into two sections: 1) the Setting Section provides a brief description of the fundamentals of environmental noise and groundborne vibration, summarizes applicable regulatory background, and describes the existing ambient noise environment at the project site; and 2) the Impacts and Mitigation Measures Section describes the significance criteria used to evaluate project impacts, provides a discussion of each project impact, and presents measures, where necessary, to mitigate the impacts of the project on sensitive receptors in the vicinity.

[1] MU-F designation allows for a mix of residential, commercial, and office uses applied either vertically (i.e., one structure with multiple uses) or horizontally (i.e., structures with different land uses located adjacent to one another), a density of seven to 24 dwelling units per acre (du/ac), and a maximum FAR of 0.5.

SETTING

Fundamentals of Environmental Noise

Noise may be defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its *loudness*. *Pitch* is the height or depth of a tone or sound, depending on the relative rapidity (frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. *Loudness* is the intensity of sound waves combined with the reception characteristics of the ear. Intensity may be compared with the height of an ocean wave in that it is a measure of the amplitude of the sound wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A *decibel (dB)* is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its intensity. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in Table 1.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level (dBA).* This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in Table 2. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This *energy-equivalent sound/noise descriptor* is called L_{eq}. The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within about plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends upon the distance the receptor is from the noise source. Close to the noise source, the models are accurate to within about plus or minus 1 to 2 dBA.

Since the sensitivity to noise increases during the evening and at night -- because excessive noise interferes with the ability to sleep -- 24-hour descriptors have been developed that incorporate artificial noise penalties added to quiet-time noise events. The *Community Noise Equivalent Level* (*CNEL*) is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (7:00 pm - 10:00 pm) and a 10 dB addition to nocturnal (10:00 pm - 7:00 am) noise levels. The *Day/Night Average Sound Level* (L_{dn} or *DNL*) is essentially the same as CNEL, with

the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

Effects of Noise

Sleep and Speech Interference

The thresholds for speech interference indoors are about 45 dBA if the noise is steady and above 55 dBA if the noise is fluctuating. Outdoors the thresholds are about 15 dBA higher. Steady noises of sufficient intensity (above 35 dBA) and fluctuating noise levels above about 45 dBA have been shown to affect sleep. Interior residential standards for multi-family dwellings are set by the State of California at 45 dBA L_{dn}. Typically, the highest steady traffic noise level during the daytime is about equal to the L_{dn} and nighttime levels are 10 dBA lower. The standard is designed for sleep and speech protection and most jurisdictions apply the same criterion for all residential uses. Typical structural attenuation is 12-17 dBA with open windows. With closed windows in good condition, the noise attenuation factor is around 20 dBA for an older structure and 25 dBA for a newer dwelling. Sleep and speech interference is therefore possible when exterior noise levels are about 57-62 dBA L_{dn} with open windows and 65-70 dBA L_{dn} if the windows are closed. Levels of 55-60 dBA are common along collector streets and secondary arterials, while 65-70 dBA is a typical value for a primary/major arterial. Levels of 75-80 dBA are normal noise levels at the first row of development outside a freeway right-of-way. In order to achieve an acceptable interior noise environment, bedrooms facing secondary roadways need to be able to have their windows closed; those facing major roadways and freeways typically need special glass windows.

Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that the causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. The L_{dn} as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources. When measuring the percentage of the population highly annoyed, the threshold for ground vehicle noise is about 50 dBA L_{dn}. At a L_{dn} of about 60 dBA, approximately 12 percent of the population is highly annoyed. When the L_{dn} increases to 70 dBA, the percentage of the population highly annoyed increases to about 25-30 percent of the population. There is, therefore, an increase of about 2 percent per dBA between a L_{dn} of 60-70 dBA. Between a L_{dn} of 70-80 dBA, each decibel increase increases by about 3 percent the percentage of the population highly annoyed. People appear to respond more adversely to aircraft noise. When the L_{dn} is 60 dBA, approximately 30-35 percent of the population is believed to be highly annoyed. Each decibel increase to 70 dBA adds about 3 percentage points to the number of people highly annoyed. Above 70 dBA, each decibel increase results in about a 4 percent increase in the percentage of the population highly annoyed.

TABLE 1 Definition of Acoustical Terms Used in this Report

Term	Definition
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (or 20 micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e. g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period.
L_{max}, L_{min}	The maximum and minimum A-weighted noise level during the measurement period.
L_{01}, L_{10}, L_{50}, L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Day/Night Noise Level, L_{dn} or DNL	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 p.m. and 7:00 a.m.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 p.m.to 10:00 p.m. and after addition of 10 decibels to sound levels measured in the night between 10:00 p.m. and 7:00 a.m.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Handbook of Acoustical Measurements and Noise Control, Harris, 1998.

TABLE 2 Typical Noise Levels in the Environment

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110 dBA	Rock band
Jet fly-over at 1,000 feet		
	100 dBA	
Gas lawn mower at 3 feet		
	90 dBA	
Diesel truck at 50 feet at 50 mph		Food blender at 3 feet
	80 dBA	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower, 100 feet	70 dBA	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60 dBA	
		Large business office
Quiet urban daytime	50 dBA	Dishwasher in next room
Quiet urban nighttime	40 dBA	Theater, large conference room
Quiet suburban nighttime		
	30 dBA	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20 dBA	
		Broadcast/recording studio
	10 dBA	
	0 dBA	

Source: Technical Noise Supplement (TeNS), California Department of Transportation, September 2013.

Fundamentals of Groundborne Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One method is the Peak Particle Velocity (PPV). The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. In this report, a PPV descriptor with units of mm/sec or in/sec is used to evaluate construction generated vibration for building damage and human complaints. Table 3 displays the reactions of people and the effects on buildings that continuous or frequent intermittent vibration levels produce. The guidelines in Table 3 represent syntheses of vibration criteria for human response and potential damage to buildings resulting from construction vibration.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generates the highest construction related groundborne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess groundborne vibration and almost exclusively to assess the potential of vibration to cause damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life, are evaluated against different vibration limits. Human perception of vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels, such as people in an urban environment, may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as paint flaking or minimal extension of cracks in building surfaces; minor, including limited surface cracking; or major, that may threaten the structural integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher. The damage criteria presented in Table 3 include several categories for ancient, fragile, and historic structures, the types of structures most at risk to damage. Most buildings are included within the categories ranging from “Historic and some old buildings” to “Modern industrial/commercial buildings”. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

The annoyance levels shown in Table 3 should be interpreted with care since vibration may be found to be annoying at lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage.

TABLE 3 Reaction of People and Damage to Buildings from Continuous or Frequent Intermittent Vibration Levels

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Threshold at which there is a risk of damage to fragile buildings with no risk of damage to most buildings
0.25	Strongly perceptible to severe	Threshold at which there is a risk of damage to historic and some old buildings.
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential structures
0.5	Severe – Vibrations considered unpleasant	Threshold at which there is a risk of damage to new residential and modern commercial/industrial structures

Source: Transportation and Construction Vibration Guidance Manual, California Department of Transportation, April 2020.

Regulatory Background – Noise

The State of California Environmental Quality Act (CEQA) Guidelines, Appendix G, are used to assess the potential significance of impacts pursuant to local General Plan policies, Municipal Code standards, or the applicable standards of other agencies. A summary of the applicable regulatory criteria is provided below.

State of California

State CEQA Guidelines. CEQA contains guidelines to evaluate the significance of effects of environmental noise attributable to a proposed project. Under CEQA, noise impacts would be considered significant if the project would 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; or

(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, if the project would expose people residing or working in the project area to excessive noise levels.

City of Morgan Hill

City of Morgan Hill General Plan. The Safety, Services and Infrastructure Chapter in the Morgan Hill 2035 General Plan sets forth policies with the goal of minimizing the impact of noise on people through noise reduction and suppression techniques, and through appropriate land use policies in the City of Morgan Hill. The following policies are applicable to the proposed project:

Policy SSI-8.2- *Impact Evaluation:* The impact of proposed development project on existing land uses should be evaluated in terms of the potential for adverse community response based on significant increase in existing noise levels, regardless of compatibility guidelines.

Policy SSI-8.3- *Commercial and Industrial Noise Level Standards:* Evaluate interior noise levels in commercial and industrial structures on a case-by-case basis based on the use of the space.

Policy SSI-8.5- *Traffic Noise Level Standards:* Consider noise level increases resulting from traffic associated with new projects significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn}, or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.

Policy SSI-8.6- *Stationary Noise Level Standards:* Consider noise levels produced by stationary noise sources associated with new projects significant if they substantially exceed existing ambient noise levels.

Policy SSI-8.7- *Other Noise Sources:* Consider noise levels produced by other noise sources (such as ballfields) significant if an acoustical study demonstrates they would substantially exceed ambient noise levels.

Policy SSI-8.9- *Site Planning and Design:* Require attention to site planning and design techniques other than sound walls to reduce noise impacts, including: a) installing earth berms, b) increasing the distance between the noise source and the receiver; c) using non-sensitive structures such as parking lots, utility areas, and garages to shield noise-sensitive areas; d) orienting buildings to shield outdoor spaces from the noise source; and e) minimizing the noise at its source.

Policy SSI-9.1- *Techniques to Reduce Traffic Noise:* Use roadway design, traffic signalization, and other traffic planning techniques (such as limiting truck traffic in residential areas) to reduce noise caused by speed or acceleration of vehicles.

Policy SSI-9.2 - *Noise Barrier Dimensions:* If noise barriers are deemed the only effective mitigation for development along major transportation corridors, require an acoustical analysis to determine necessary dimensions.

Policy SSI-9.3- *Sound Wall Design:* The maximum height of sound walls shall be eight feet. Residential projects adjacent to the freeway shall be designed to minimize sound wall height through location of a frontage road, use of two sound walls or other applicable measures. Sound wall design and location shall be coordinated for an entire project area and shall meet Caltrans

noise attenuation criteria for a projected eight-lane freeway condition. If two sound walls are used, the first shall be located immediately adjacent to the freeway right-of-way and the second shall be located as necessary to meet Caltrans noise requirements for primary outdoor areas. The minimum rear yard setback to the second wall shall be 20 feet.

Policy SSI-9.5- *Noise Studies for Private Development:* In order to prevent significant noise impacts on neighborhood residents which are related to roadway extensions or construction of new roadways, require completion of a detailed noise study during project-level design to quantify noise levels generated by projects such as the Murphy Avenue extension to Mission View Drive and the Walnut Grove Extension to Diana Avenue. The study limits should include noise sensitive land uses adjacent to the project alignment as well as those along existing segments that would be connected to new segments. A significant impact would be identified where traffic noise levels would exceed the "normally acceptable" noise level standard for residential land uses and/or where ambient noise levels would be substantially increased with the project. Project specific mitigation measures could include, but not be limited to, considering the location of the planned roadway alignment relative to existing receivers in the vicinity, evaluating the use of noise barriers to attenuate project-generated traffic noise, and/or evaluating the use of "quiet pavement" to minimize traffic noise levels at the source. Mitigation should be designed to reduce noise levels into compliance with "normally acceptable" levels for residential noise and land use compatibility.

Policy SSI-9.6- *Earth Berms:* Allow and encourage earth berms in new development projects as an alternative to sound walls if adequate space is available.

Policy SSI-9.7- *Sound Barrier Design:* Require non-earthen sound barriers to be landscaped, vegetated, or otherwise designed and/or obscured to improve aesthetics and discourage graffiti and other vandalism.

City of Morgan Hill Municipal Code. The City of Morgan Hill's Municipal Code Chapter 8.28 states that "It is unlawful and a misdemeanor for any person to make or continue, or cause to be made or continued, any loud, disturbing, unnecessary or unusual noise or any noise which annoys, disturbs, injures or endangers the comfort, health, repose, peace or safety of other persons within the city." The following sections of the code would be applicable to the project:

Chapter 8.28.030 Policies and fire sirens exempted from chapter provisions. Nothing in this chapter shall be construed to prevent the proper use of a siren or other alarm by a police, fire or authorized emergency vehicle as defined by the California Vehicle Code. Likewise, any stationary fire alarm operated by the fire department of the City is exempt from the provisions of this chapter.

Chapter 8.28.040 Enumeration of unlawful noises. Unlawful noise include:

C. Blowers, Fans, and Combustion Engines. The operation of any noise-creating blower, power fan or internal combustion engine, the operation of which causes noise due to the explosion of operating gases or fluids, unless the noise from such blower or fan is muffled and such engine is equipped with a muffler device to deaden such noise;

D. 1. Construction activities as limited below. "Construction activities" are defined as including but not limited to excavation, grading, paving, demolition, construction, alteration or repair of any building, site, street or highway, delivery or removal of construction material to a site, or movement of construction materials on a site. Construction activities are prohibited other than between the hours of seven a.m. and eight p.m., Monday through Friday and between the hours of nine a.m. to six p.m. on Saturday. Construction activities may not occur on Sundays or federal holidays. No third person, including but not limited to landowners, construction company owners, contractors, subcontractors, or employers, shall permit or allow any person working on construction activities which are under their ownership, control or direction to violate this provision. Construction activities may occur in the following cases without violation of this provision:

a. In the event of urgent necessity in the interests of the public health and safety, and then only with a permit from the chief building official, which permit may be granted for a period of not to exceed three days or less while the emergency continues and which permit may be renewed for periods of three days or less while the emergency continues.

b. If the chief building official determines that the public health and safety will not be impaired by the construction activities between the hours of eight p.m. and seven a.m., and that loss or inconvenience would result to any party in interest, the chief building official may grant permission for such work to be done between the hours of eight p.m. and seven a.m. upon an application being made at the time the permit for the work is issued or during the progress of the work.

c. The city council finds that construction by the resident of a single residence does not have the same magnitude or frequency of noise impacts as a larger construction project. Therefore, the resident of a single residence may perform construction activities on that home during the hours in this subsection, as well as on Sundays and federal holidays from nine a.m. to six p.m., provided that such activities are limited to the improvement or maintenance undertaken by the resident on a personal basis.

d. Public work projects are exempt from this section and the public works director shall determine the hours of construction for public works projects.

e. Until November 30, 1998, construction activities shall be permitted between the hours of ten a.m. to six p.m. on Sundays, subject to the following conditions. No power-driven vehicles, equipment or tools may be used during construction activities, except on the interior of a building or other structure which is enclosed by exterior siding (including windows and doors) and roofing, and which windows and doors are closed during construction activities. Construction activities must be situated at least one hundred fifty feet from the nearest occupied dwelling. No delivery or removal of construction material to a site, or movement of construction materials on a site, is permitted. No activity,

including but not limited to the playing of radios, tape players, compact disc players or other devices, which creates a loud or unusual noise which offends, disturbs or harasses the peace and quiet of the persons of ordinary sensibilities beyond the confines of the property from which the sound emanates is allowed.

2. If it is determined necessary in order to ensure compliance with this section, the chief building official may require fences, gates or other barriers prohibiting access to a construction site by construction crews during hours in which construction is prohibited by this subsection. The project manager of each project shall be responsible for ensuring the fences, gates or barriers are locked and/or in place during hours in which no construction is allowed. This subsection shall apply to construction sites other than public works projects or single dwelling units which are not a part of larger projects.

G. Loading or Unloading Vehicles and Opening Boxes. The creation of loud and excessive noise in connection with loading or unloading any vehicle or the opening and destruction of bales, boxes, crates and containers;

J. Pile Drivers, Hammers and Similar Equipment. The operation, between the hours of eight p.m. and seven a.m. of any pile driver, steam shovel, pneumatic hammer, derrick, steam or electric hoist or other appliance, the use of which is attended by loud or unusual noise.

(Ord. 1405 N.S. § 1, 1998; Ord. 1196 N.S. § 4 Exh. A, 1994; Ord. 328 N.S. § A (part), 1972)

(Ord. No. 2276 N.S., § 29, 5-2-2018)

Chapter 18.76 establishes quantitative noise performance standards:

18.76.090 - Noise.

A. No land use or activity may produce a noise level in excess of the standards in Table 18.76-1.

Table 18.76-1: Maximum Noise Levels

Receiving Land Use	Maximum Noise Level at Lot Line of Receiving Use [1]
Industrial and Wholesale	70 dBA
Commercial	65 dBA
Residential or Public/Quasi Public	60 dBA

Notes:
[1] The planning commission may allow an additional 5 dBA noise level at the lot line if the maximum noise level shown in Table 18.76-1 cannot be achieved with reasonable and feasible mitigation.

B. Noise standards in Table 18.76-1do not apply to noise generated by vehicle traffic in the public right-of-way or from temporary construction, demolition, and vehicles that enter and leave the site of the noise-generating use (e.g., construction equipment, trains, trucks).

C. All uses and activities shall comply with Municipal Code Chapter 8.28 (Noise).

(Ord. No. 2277 N.S., § 5(Exh. A), 6-6-2018)

Regulatory Background – Vibration

State of California

California Department of Transportation. To avoid damage to buildings, Caltrans recommends that construction vibration levels are limited to 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, to 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and to 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened (see Table 3).

City of Morgan Hill

City of Morgan Hill Municipal Code. Chapter 18.76 of the Morgan Hill Municipal Code states the following: vibration transmitted through the ground that is discernable without instruments at the lot line of the establishment or use is prohibited. Vibrations from temporary construction, demolition, and vehicles that enter and leave the lot (e.g., construction equipment, trains, trucks, etc.) are exempt from this standard.

Existing Noise Environment

The noise environment at the site and in the surrounding area results primarily from vehicular traffic along U.S. Highway 101. Secondary noise sources include traffic along Tennant Avenue. Local traffic along Barrett Avenue and Juan Hernandez Drive would also affect the noise environment at the site and surrounding area. Occasional overhead aircraft associated with the San Martin Airport are also audible at times at the project site.

A noise monitoring survey was performed at the site beginning on Tuesday, September 24, 2019, and concluding on Thursday, September 26, 2019. The monitoring survey included two long-term noise measurements (LT-1 and LT-2) and three short-term noise measurements (ST-1 through ST-3), which are shown in Figure 1. According to the Caltrans annual average daily traffic (AADT) and peak hour volumes along U.S. Highway 101 at Tennant Avenue in Morgan Hill,[2] the traffic volumes along U.S. Highway 101 decreased between 2019 and 2021, likely due to changes in traffic patterns resulting from the COVID-19 pandemic. Since 2021, traffic volumes along roadways have likely returned to pre-pandemic conditions. Therefore, the noise measurements completed in 2019 would adequately represent the existing noise environment in 2023.

Long-term noise measurement LT-1 was installed on a utility pole, approximately 30 feet west of the centerline of Juan Hernandez Drive. This measurement would represent the ambient noise environment of the nearest residential receptors to the west of the project site. Hourly average noise levels at LT-1 ranged from 60 to 67 dBA L_{eq} during daytime hours (7:00 a.m. and 10:00 p.m.) and from 56 to 63 dBA L_{eq} during nighttime hours (10:00 p.m. and 7:00 a.m.). The day-night

[2] https://dot.ca.gov/programs/traffic-operations/census

average noise level measured on Wednesday, September 25, 2019 was 67 dBA L_{dn}. The daily trend in noise levels at LT-1 is shown in Figures A1 through A3 of the Appendix.

LT-2 was made at the end of Barrett Avenue, approximately 65 feet west of the centerline of the nearest through lane along southbound U.S. Highway 101. Currently, only a chain-link fence is located between LT-2 and U.S. Highway 101, so this measurement location had direct line-of-sight to the traffic along the highway. LT-2 was chosen to represent the ambient noise environment at the nearest residences and the Barrett Elementary School to the north of the site. Hourly average noise levels at this location typically ranged from 77 to 81 dBA L_{eq} during the day and from 73 to 79 dBA L_{eq} at night. The day-night average noise level measured on Wednesday, September 25, 2019 was 83 dBA L_{dn}. The daily trend in noise levels at LT-2 is shown in Figures A4 through A6 of the Appendix.

Short-term noise measurements were made on Tuesday, September 24, 2019 between 7:40 a.m., and 8:40 a.m. The results of these short-term measurements are summarized in Table 4. The primary noise source at ST-1 and ST-2 was U.S. Highway 101, while the primary noise source at ST-3 was Tennant Avenue.

ST-1 was made in front of 945 Barrett Avenue, approximately 20 feet north of the centerline of the roadway. This measurement was made over a 10-minute period. Typical noise levels due to U.S. Highway 101, which was the dominant noise source, ranged from 62 to 65 dBA. Local vehicular traffic along Barrett Avenue, which consisted of about 10 cars in this time period, generated noise levels of 63 to 68 dBA. Other noise sources observed included a car horn (69 dBA) and car door slam (66 dBA). The 10-minute average noise level measured at ST-1 was 64 dBA L_{eq}.

ST-2 was made from the center of the project site, approximately 490 feet west of the centerline of the nearest through lane along southbound U.S. Highway 101, approximately 425 feet east of the centerline of Juan Hernandez Drive, and approximately 390 feet south of the centerline of Barrett Avenue. The dominant noise source at ST-2 was also U.S. Highway 101, which generated noise levels ranging from 54 to 57 dBA. Local traffic along Juan Hernandez Drive generated noise levels of 54 to 57 dBA. The 10-minute average noise level at ST-2 was 56 dBA L_{eq}.

ST-3 was made approximately 40 feet south of the centerline of Tennant Avenue in front of the single-family residence located at 800 Tennant Avenue. The dominant noise source at ST-3 was Tennant Avenue, and this measurement represents the ambient noise environment of the residence and nearby Bethel Baptist Church. Eastbound traffic along Tennant Avenue generated noise levels ranging from 75 to 80 dBA at ST-3, while westbound traffic ranged from 62 to 66 dBA. The maximum instantaneous noise level of 93 dBA was generated by an eastbound-traveling motorcycle. The 10-minute average noise level at ST-3 was 76 dBA L_{eq}.

TABLE 4 Summary of Short-Term Noise Measurements (dBA)

Noise Measurement Location	Date, Time	Measured Noise Level, dBA					
		L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	L_{eq}
ST-1: ~20 feet north of the centerline of Barrett Avenue	9/24/2019, 7:40-7:50	69	68	66	63	61	64
ST-2: Center of project site	9/24/2019, 8:00-8:10	59	59	58	56	55	56
ST-3: ~40 feet south of the centerline of Tennant Avenue	9/24/2019, 8:30-8:40	93	83	79	73	62	76

FIGURE 1 Aerial Image of the Project Site and Surrounding Area with Long- and Short-Term Measurement Locations Identified



Source: Google Earth, 2023.

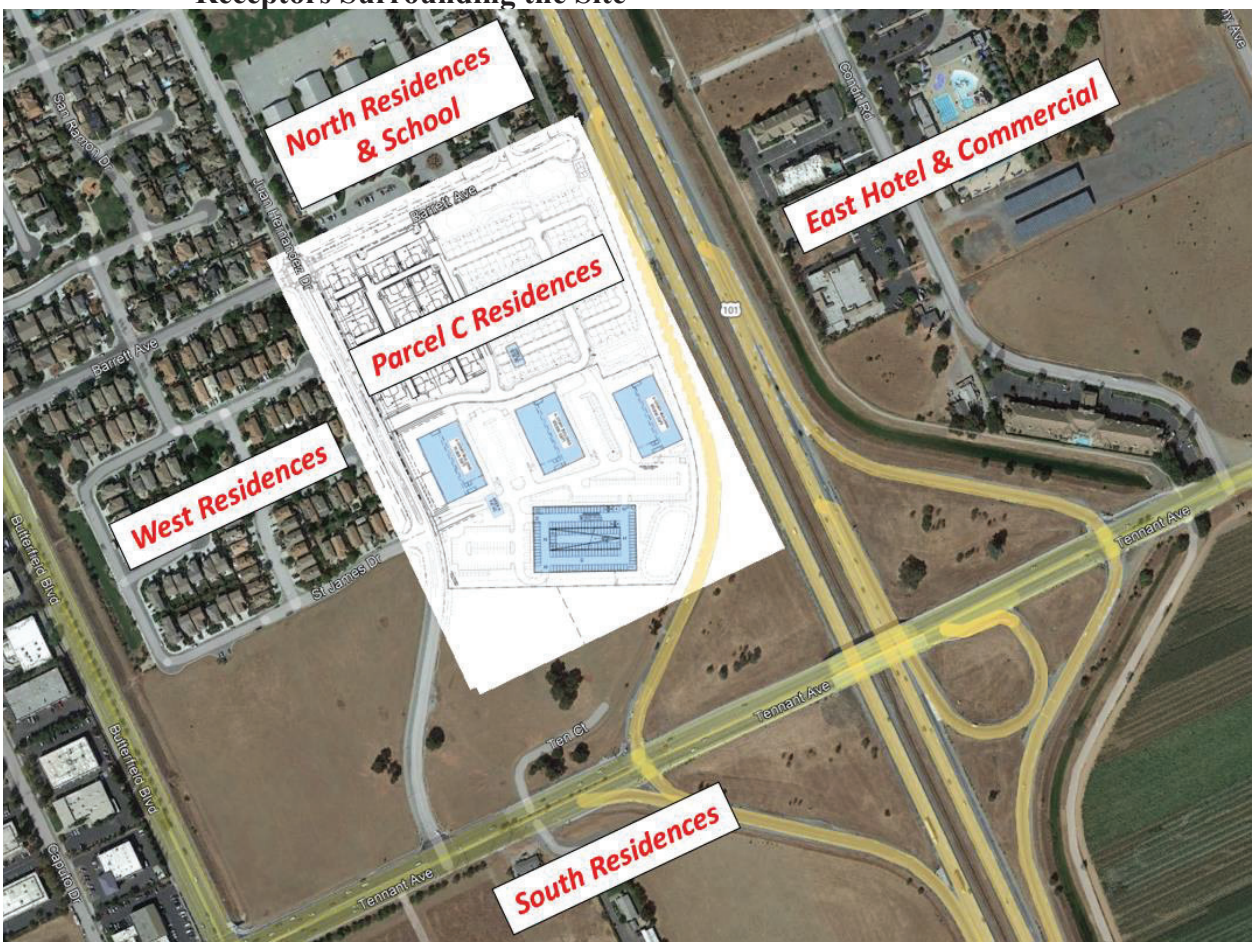
NOISE IMPACTS AND MITIGATION MEASURES

Project Information

The proposed project would include a total of 275,000 square feet of new medical office space, which exceeds the previously approved area of new medical office space proposed by the Lillian Commons Medical Campus project (124,500 square feet). This section analyzes the potential impacts related to the additional 134,600 square feet of medical office space.

Figure 2 shows the project site and identifies the existing and future (i.e., Parcel C residences) receptors surrounding the project site. The Parcel C residences, which are currently under construction, were approved as part of the Lillian Commons Medical Campus project. These residences would be considered on-site receptors and not subject to the CEQA thresholds established for off-site receptors outside of the 19.67-acre site. While discussed in the following section, any exceedances of thresholds would not result in a significant impact at Parcel C residences. However, the City's thresholds would need to be met at Parcel C receptors through measures incorporated into the project as conditions of approval.

FIGURE 2 Aerial Image of the Project Site and Identified Existing and Future Receptors Surrounding the Site



Significance Criteria

The following criteria were used to evaluate the significance of environmental noise and vibration resulting from the project:

(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, if the project would expose people residing or working in the project area to excessive noise levels.

Impact 1a: **Temporary Construction Noise.** Existing noise-sensitive land uses would be exposed to a temporary increase in ambient noise levels due to project construction activities for a total period of approximately 40 months. With the incorporation of construction best management practices as project conditions of approval, the construction associated with the increase in square footage of the medical office buildings and parking garage would result in a **less-than-significant** temporary noise impact.

Construction of the proposed project would be completed in three phases: Phase 1 would include demolition, grading, and paving for the entire site, as well as construction of the 75,000 square foot Building 1 and the parking structure (total duration of about 15 months); Phase 2 would include the construction of the 100,000 square foot Building 2 (total duration of about 12 months); and Phase 3 would include the construction of the 100,000 square foot Building 3 (total duration of about 13 months). Total project construction is expected to last about 40 months (three years and four months). The original, approved project consisted of three phases, with Phase 2 being the residential portion of the project, which is currently under construction. The total construction duration of the Lillian Commons Medical Campus project was estimated to be three years and six months with the non-residential portion lasting approximately two years and four months.

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (e.g., early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

Chapter 8.28 of the City of Morgan Hill's Municipal Code establishes allowable hours of construction between 7:00 a.m. and 8:00 p.m., Monday through Friday, and between the hours of 9:00 a.m. to 6:00 p.m. on Saturday. Construction activities may not occur on Sundays or federal holidays.

While quantitative noise thresholds for temporary construction are not provided in the City's General Plan or Municipal Code, the temporary construction noise impacts would be considered significant if project construction activities exceed 60 dBA L_{eq} at nearby residences or 70 dBA L_{eq} at nearby industrial/commercial land uses and exceed the ambient noise environment by 5 dBA L_{eq} or more for a period longer than one year, according to the original noise study completed for this project.[3] According to the Federal Transit Administration's (FTA) *Transit Noise and Vibration Impact Assessment Manual*,[4] "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." Therefore, maximum noise levels are not practical for assessing the impact of a construction project. The FTA recommends hourly average noise levels (L_{eq}) for assessing the impact of a construction project.

Construction activities for individual projects are typically carried out in phases. During each phase of construction, there would be a different mix of equipment operating, and noise levels would vary by phase and vary within phases, based on the amount of equipment in operation and the location at which the equipment is operating. The typical range of maximum instantaneous noise levels for the proposed project would be 70 to 90 dBA L_{max} at a distance of 50 feet (see Table 5) from the equipment. Table 6 shows the hourly average noise level ranges, by construction phase, typical for various types of projects. Hourly average noise levels generated by construction are about 75 to 89 dBA L_{eq} for medical office buildings and about 72 to 89 dBA L_{eq} for parking structures, measured at a distance of 50 feet from the center of a busy construction site. Construction-generated noise levels drop off at a rate of about 6 dBA per doubling of the distance between the source and receptor. Shielding by buildings or terrain often result in lower construction noise levels at distant receptors.

Depending on the construction phase, on-site project buildings could potentially provide shielding for the surrounding off-site receptors. The existing north residences and school would be well-shielded from all project construction activities by the Parcel C residences. These existing receptors would not be considered a receptor with direct line-of-sight to the project site. Additionally, Building 1 and the parking structure would be completed in Phase 1; therefore, the west residences and south residences would be shielded from Phase 2 and 3 construction activities.

[3] Illingworth & Rodkin, Inc., *Lillian Commons/Morgan Hill Medical Campus Noise and Vibration Assessment*, April 8, 2020.
[4] Federal Transit Administration, "*Transit Noise and Vibration Impact Assessment Manual*, September 2018.

TABLE 5 Construction Equipment, 50-foot Noise Emission Limits

Equipment Category	L_{max} Level (dBA)[1,2]	Impact/Continuous
Arc Welder	73	Continuous
Auger Drill Rig	85	Continuous
Backhoe	80	Continuous
Bar Bender	80	Continuous
Boring Jack Power Unit	80	Continuous
Chain Saw	85	Continuous
Compressor[3]	70	Continuous
Compressor (other)	80	Continuous
Concrete Mixer	85	Continuous
Concrete Pump	82	Continuous
Concrete Saw	90	Continuous
Concrete Vibrator	80	Continuous
Crane	85	Continuous
Dozer	85	Continuous
Excavator	85	Continuous
Front End Loader	80	Continuous
Generator	82	Continuous
Generator (25 KVA or less)	70	Continuous
Gradall	85	Continuous
Grader	85	Continuous
Grinder Saw	85	Continuous
Horizontal Boring Hydro Jack	80	Continuous
Hydra Break Ram	90	Impact
Impact Pile Driver	105	Impact
Insitu Soil Sampling Rig	84	Continuous
Jackhammer	85	Impact
Mounted Impact Hammer (hoe ram)	90	Impact
Paver	85	Continuous
Pneumatic Tools	85	Continuous
Pumps	77	Continuous
Rock Drill	85	Continuous
Scraper	85	Continuous
Slurry Trenching Machine	82	Continuous
Soil Mix Drill Rig	80	Continuous
Street Sweeper	80	Continuous
Tractor	84	Continuous
Truck (dump, delivery)	84	Continuous
Vacuum Excavator Truck (vac-truck)	85	Continuous
Vibratory Compactor	80	Continuous
Vibratory Pile Driver	95	Continuous
All other equipment with engines larger than 5 HP	85	Continuous

Notes: [1] Measured at 50 feet from the construction equipment, with a "slow" (1 sec.) time constant.

[2] Noise limits apply to total noise emitted from equipment and associated components operating at full power while engaged in its intended operation.

[3]Portable Air Compressor rated at 75 cfm or greater and that operates at greater than 50 psi.

TABLE 6 Typical Ranges of Construction Noise Levels at 50 Feet, L_{eq} (dBA)

	Domestic Housing		Office Building, Hotel, Hospital, School, Public Works		Industrial Parking Garage, Religious Amusement & Recreations, Store, Service Station		Public Works Roads & Highways, Sewers, and Trenches	
	I	II	I	II	I	II	I	II
Ground Clearing	83	83	84	84	84	83	84	84
Excavation	88	75	89	79	89	71	88	78
Foundations	81	81	78	78	77	77	88	88
Erection	81	65	87	75	84	72	79	78
Finishing	88	72	89	75	89	74	84	84

I – All pertinent equipment present at site.
II – Minimum required equipment present at site.

Source: U.S.E.P.A., Legal Compilation on Noise, Vol. 1, p. 2-104, 1973.

Table 7 summarizes the noise levels for each phase of construction during Phase 1 using the source levels in Table 6 propagated to the receiving property lines of all receptors with direct exposure to the construction activities (see Figure 2). Since demolition, grading, and paving would be completed for the entire site in Phase 1, distances for the ground clearing and excavation phases were estimated from the center of the nearest project building to the receiving property lines of the receptors, while distances for the foundation, erection, and finishing phases during Phase 1 were estimated from the center of Building 1 or the parking structure to the receiving property line, depending on which building is closer to the receptor.

TABLE 7 Estimated Construction Noise Levels at Property Lines of Surrounding Land Uses During Phase 1

Proposed Project Construction	Estimated Noise Levels at Nearby Land Uses, dBA L_{eq}			
	Parcel C Residences (165ft[a] & 170ft[b])	West Residences (180ft[b])	South Residences (845ft[c])	East Hotel & Commercial (530ft[d] & 855ft[c])
Ground Clearing	74[a]	73[b]	59[c]	64[d]
Excavation	69 to 79[a]	68 to 78[b]	54 to 64[c]	59 to 69[d]
Foundations	67[b]	67[b]	52[c]	52[c]
Erection	64 to 76[b]	64 to 76[b]	47 to 59[c]	47 to 59[c]
Finishing	64 to 78[b]	64 to 78[b]	49 to 64[c]	49 to 64[c]

[a] Noise levels were calculated at a distance measured from the center of Building 2.
[b] Noise levels were calculated at a distance measured from the center of Building 1.
[c] Noise levels were calculated at a distance measured from the center of the parking garage.
[d] Noise levels were calculated at a distance measured from the center of Building 3.

Tables 8 and 9 summarize the noise levels for the foundation, erection, and finishing phases during Phase 2 and Phase 3, respectively, as measured from the center of the respective building to the receiving property lines. Since Building 1 and the parking garage would provide shielding for the west residences and the south residences, a conservative 20 dBA attenuation is applied to all noise levels in Tables 8 and 9 for these receptors.

TABLE 8 Estimated Construction Noise Levels at Property Lines of Surrounding Land Uses During Phase 2

Proposed Project Construction	Estimated Noise Levels at Nearby Land Uses, dBA L_{eq}			
	Parcel C Residences (165ft[a])	West Residences (460ft[a])	South Residences (1,135ft[a])	East Hotel & Commercial (800ft[a])
Foundations	68[a]	39[a,b]	31[a,b]	54[a]
Erection	65 to 77[a]	36 to 48[a,b]	28 to 40[a,b]	51 to 63[a]
Finishing	65 to 79[a]	36 to 50[a,b]	28 to 42[a,b]	51 to 65[a]

[a] Noise levels were calculated at a distance measured from the center of Building 2.
[b] Conservative 20 dBA attenuation applied to noise levels due to shielding provided by Building 1 and the parking garage.

TABLE 9 Estimated Construction Noise Levels at Property Lines of Surrounding Land Uses During Phase 3

Proposed Project Construction	Estimated Noise Levels at Nearby Land Uses, dBA L_{eq}			
	Parcel C Residences (210ft[a])	West Residences (720ft[a])	South Residences (1,220ft[a])	East Hotel & Commercial (530ft[a])
Foundations	66[a]	35[a,b]	30[a,b]	58[a]
Erection	63 to 75[a]	32 to 44[a,b]	27 to 39[a,b]	55 to 67[a]
Finishing	63 to 77[a]	32 to 46[a,b]	27 to 41[a,b]	55 to 69[a]

[a] Noise levels were calculated at a distance measured from the center of Building 3.
[b] Conservative 20 dBA attenuation applied to noise levels due to shielding provided by Building 1 and the parking garage.

As shown in Tables 7 through 9, construction noise levels would range from 53 to 79 dBA L_{eq} at the Parcel C residences, from 32 to 78 dBA L_{eq} at the west residences, from 27 to 64 dBA L_{eq} at the south residences, and from 47 to 69 dBA L_{eq} at the east hotel and commercial uses when activities occur near the center of the site. The proposed project would not result in construction noise levels that would be higher than calculated as part of the Lillian Commons Medical Campus project. While the total length of time would increase by an estimated 12 months, the existing off-site sensitive receptors (i.e., west and south residences) would only be exposed to construction noise levels exceeding the 60 dBA L_{eq} threshold and exceeding the ambient noise environment by 5 dBA L_{eq} or more during Phase 1, which would last for a period of up to 15 months. Therefore, the established thresholds would be exceeded for a period of more than one year and would be considered a significant impact. However, construction noise levels generated by the current project would exceed established thresholds for a shorter period of time than the original project. The original project was expected to exceed the noise level thresholds for a total of 28 months, and the current project would exceed the noise level thresholds for a total of 15 months.

While the Parcel C residences would be exposed to construction noise levels of 53 to 79 dBA L_{eq}, these receptors would be considered on-site receptors and not subject to the construction noise thresholds established for the CEQA assessment.

Policy NOI-1.8 requires all phases of construction activity to utilize reasonable noise reduction measures to minimize the exposure of neighboring properties to excessive noise levels and comply with the City's noise ordinance. The Municipal Code limits temporary construction work to between 8:00 a.m. and 6:00 p.m. on weekdays and between 9:00 a.m. and 5:00 p.m. on weekends. Construction activity is not permitted on the following holidays: New Year's Day, Martin Luther King Jr. Day, President's Day, Memorial Day, 4th of July, Labor Day, Veteran's Day, Thanksgiving Day and Christmas Day. Further, all gasoline-powered construction equipment shall be equipped with an operating muffler or baffling system as originally provided by the manufacturer, and no modification to these systems is permitted.

In accordance with Policy NOI-1.8 of the City's General Plan and the initial study completed for the proposed project in 2020, the following mitigation measure shall be incorporated into the proposed project as a project condition of approval:

MM NOI-1.1: Develop a noise construction control plan including but not limited to the following construction best management control:

- Equipment and trucks used for construction shall use the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds);

- Impact tools (e.g., jackhammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools; and

- Stationary noise sources shall be located as far from noise-sensitive receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or include other measures.

- Construct temporary noise barriers, where feasible, to screen stationary noise-generating equipment. A temporary noise barrier with a height of 8 feet would provide a minimum 6 dBA noise reduction for the residences to the north and to the west when construction activities occur at the ground level if the barrier is constructed in a manner that eliminates any cracks or gaps.

- Unnecessary idling of internal combustion engines should be strictly prohibited.

- Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction. Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.

- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.

- Where feasible, temporary power service from local utility companies should be used instead of portable generators.

- Locate cranes as far from noise-sensitive receptors as possible.

- During final grading, substitute graders for bulldozers, where feasible. Wheeled heavy equipment are quieter than track equipment and should be used where feasible.
- Substitute nail guns for manual hammering, where feasible.

- Avoid the use of circular saws, miter/chop saws, and radial arm saws near the adjoining noise-sensitive receptors. Where feasible, shield saws with a solid screen with material having a minimum surface density of 2 lbs/ft^2 (e.g., such as ¾" plywood).

- Maintain smooth vehicle pathways for trucks and equipment accessing the site and avoid local residential neighborhoods as much as possible.

- During interior construction, the exterior windows facing noise-sensitive receptors should be closed.

- During interior construction, locate noise-generating equipment within the building to break the line-of-sight to the adjoining receptors.
- The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.

- Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.

With the implementation of these measures to control noise during construction activities, in accordance with Policy NOI-1.8 of the General Plan and Municipal Code allowable construction hours, the temporary construction noise impact would be reduced to a less-than-significant level.

Mitigation Measure 1a: No further mitigation required.

Impact 1b: **Permanent Noise Level Increase/Exceed Applicable Standards.** The proposed project would not result in a substantial permanent noise level increase. Further, the proposed project would not generate noise levels exceeding the City's established thresholds at noise-sensitive receptors in the project vicinity. **This is a less-than-significant impact.**

A significant permanent noise increase would occur if the project would substantially increase noise levels at existing sensitive receptors in the project vicinity. According to Policy SSI-8.5 of the City's General Plan, a substantial increase would occur if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn} at residences and the school; or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater at residences and the school. Based on the measurements made at LT-1 and LT-2, all existing noise-sensitive receptors along roadways serving the project site are currently exposed to noise levels exceeding 60 dBA L_{dn}. Therefore, a significant impact would occur if traffic due to the proposed project would permanently increase ambient levels by 3 dBA L_{dn}. Since other project-generated noise sources, such as stationary noise sources, would contribute to the future noise environment, this same noise level increase threshold is applied to all project-generated noise level increases.

Policy SSI-8.6 of the City of Morgan Hill General Plan states that noise levels produced by stationary noise sources associated with new projects, such as mechanical equipment, would result in a significant impact if the noise levels substantially exceed existing ambient noise levels. For receptors located along Highway 101 (i.e., north existing residences and school, Parcel C residences, and east hotel and commercial uses), ambient noise levels would be represented by LT-2, which had hourly average noise levels ranging from 77 to 81 dBA L_{eq} (average of 80 dBA L_{eq}) during daytime hours and from 73 to 79 dBA L_{eq} (average of 76 dBA L_{eq}) during nighttime hours. The existing day-night average noise level at LT-2 is 83 dBA L_{dn}. For receptors set back from Highway 101 (i.e., west residences and south residences), ambient noise levels would be represented by LT-1, which had hourly average noise levels ranging from 60 to 67 dBA L_{eq} (average of 62 dBA L_{eq}) during daytime hours and from 56 to 63 dBA L_{eq} (average of 59 dBA L_{eq}) during nighttime hours. The existing day-night average noise level at LT-1 is 67 dBA L_{dn}.

Further, Table 18.76-1 of the City's Municipal Code provide maximum noise level thresholds enforced at the property lines of the receiving land uses. At residential land uses (i.e., north existing residences and school, Parcel C residences, west residences, and south residences), the noise level limit is 60 dBA. At the hotel and commercial uses east of Highway 101, the noise level threshold would be 65 dBA.

Project Traffic Increase

The traffic study included peak hour turning movements for 19 intersections in the project vicinity. For each intersection, peak hour volumes were included for the existing baseline (no project) scenario and the existing baseline plus project scenario. Both of these scenarios included the approved project trips, while only the existing baseline plus project scenario included the additional trips generated by the additional square footage proposed for the project. By comparing the existing baseline plus project volumes to the existing baseline (no project) volumes, the

project's additional contribution to the overall noise increase was calculated. Table 10 summarizes the estimated noise level increase attributed to the proposed project. As shown in Table 10, the project's traffic would result in a 1 dBA L_{dn} or less increase along all roadway segments in the project vicinity. This would be a less-than-significant impact.

TABLE 10 Estimated Noise Level Increases of Existing Baseline Plus Project Traffic Volumes Compared to Existing Baseline (No Project) Volumes

Roadway	Segment	Estimated Noise Level Increase, dBA L_{dn}
Tennant Avenue/ Edmunson Avenue	West of Monterey Road	0
	Monterey Road to Vineyard Avenue	0
	Vineyard Avenue to Butterfield Boulevard	0
	Butterfield Boulevard to Juan Hernandez Drive	0
	Juan Hernandez Drive to U.S. 101 southbound ramps	1
	U.S. 101 southbound ramps to U.S. 101 northbound ramps	1
	U.S. 101 northbound ramps to Condit Road	0
	East of Condit Road	0
St. James Drive	West of Juan Hernandez Drive	0
Barrett Avenue	West of Butterfield Boulevard	0
	Butterfield Boulevard to San Ramon Drive	0
	San Ramon Drive to Juan Hernandez Drive	0
	East of Juan Hernandez Drive	0
San Pedro Avenue	West of Butterfield Boulevard	0
	Butterfield Boulevard to Juan Hernandez Drive	0
	East of Juan Hernandez Drive	0
Dunne Avenue	West of Butterfield Boulevard	0
	Butterfield Boulevard to Walnut Grove Drive	0
	Walnut Grove Drive to U.S. 101 southbound ramps	0
	U.S. 101 southbound ramps to U.S. 101 northbound ramps	0
	East of U.S. 101 northbound ramps	0
Main Avenue	West of Butterfield Boulevard	0
	East of Butterfield Boulevard	0
Juan Hernandez Drive	Tennant Avenue to St. James Drive	1
	St. James Drive to Barrett Avenue	1

Roadway	Segment	Estimated Noise Level Increase, dBA L_{dn}
	North of Barrett Avenue	0
Monterey Road	South of Watsonville Road/Butterfield Boulevard	0
	Watsonville Road/Butterfield Boulevard to Tennant/Edmunson Avenue	0
	North of Tennant Avenue/Edmunson Avenue	0
Watsonville Road/ Butterfield Boulevard	West of Monterey Road	0
	Monterey Road to Tennant Avenue	0
	Tennant Avenue to Barrett Avenue	0
	Barrett Avenue to San Pedro Avenue	1
	San Pedro Avenue to Dunne Avenue	1
	Dunne Avenue to Main Avenue	0
	North of Main Avenue	0
Vineyard Avenue	South of Tennant Avenue	0
	North of Tennant Avenue	0
San Ramon Drive	South of Barrett Avenue	0
	North of Barrett Avenue	1
Walnut Grove Drive	South of Dunne Avenue	0
	North of Dunne Avenue	0
Condit Road	North of Tennant Avenue	1
U.S. northbound on-ramp	At Tennant Avenue	0
U.S. northbound off-ramp	At Tennant Avenue	1
U.S. northbound ramps	At Dunne Avenue	0
U.S. southbound on-ramp	At Tennant Avenue	1
	At Dunne Avenue	0
U.S. southbound off-ramp	At Tennant Avenue	0
	At Dunne Avenue	0

Mechanical Equipment

Each of the proposed medical buildings would have rooftop heating, ventilation, and air conditioning (HVAC) equipment. Additionally, a ground-level transformer is assumed to be located on the interior of the project site, likely along the southern façade of the center medical building (Building 2), and one emergency generator is assumed to be located on the ground-level of the hospital, which would be either the center building (Building 2) or the east building (Building 3). Assuming worst-case conditions, the emergency generator would be located at the center building along the eastern façade.

Typically, transformers up to 1,000 kVA generate noise levels up to 64 dB, as measured at 1 meter (3.28 feet). Assuming the transformer runs continuously during daytime and nighttime hours, the

hourly average noise levels would be 64 dBA at 1 meter (3.28 feet), and the day-night average noise level would be 70 dBA L_{dn} at a distance of 1 meter (3.28 feet). Assuming the transformer to be located along the southern façade of Building 2 near the southeastern corner, all receptors to the north, to the south, and to the east would be shielded by intervening buildings on the project site. The west residences would be partially shielded, and for the purposes of this study, a conservative 5 dBA attenuation is assumed.

Assuming an emergency generator with a capacity of 450 kW, noise levels would be up to 88 dBA with a standard weather enclosure, up to 85 dBA with a Level 1 sound enclosure, and up to 74 dBA with a Level 2 sound enclosure, as measured at a distance of 7 meters (23 feet). While generators operating under emergency conditions would be exempt from City noise limits, monthly testing of emergency generators, which typically occur for a period of one hour between 7:00 a.m. and 10:00 p.m., would be subject to the City's maximum noise limits. Assuming the emergency generator to be located along the eastern façade of the Building 2 near the southeastern corner, the north existing residences and school, west residences, south residences, and east hotel and commercial receptors would be shielded by intervening buildings on the project site. The Parcel C residences would have direct exposure to the emergency generator.

Table 11 summarizes the hourly average noise levels resulting from the project's mechanical equipment at the property lines of the surrounding receptors with direct exposure, and Table 12 summarizes the day-night average noise levels resulting from the operation of the project's mechanical equipment and the noise level increases above existing conditions estimated at the property lines of the surrounding receptors with direct exposure.

Operational L_{eq} due to transformer noise would not exceed the City's thresholds at the property lines of the surrounding land uses. However, the emergency generator would potentially exceed 60 dBA at the property lines of the Parcel C residences if a standard weather enclosure or Level 1 enclosure is used. Note, ambient noise levels would not be exceeded at the Parcel C residences with the standard weather enclosure, Level 1 sound enclosure, or Level 2 sound enclosure.

For all existing receptors, the noise level increase from existing conditions due to transformer and emergency generator noise would not be measurable or detectable (0 dBA L_{dn} increase).

TABLE 11 Estimated Operational L_{eq} for Ground-Level Mechanical Equipment Sources

Receptor	Municipal Code L_{eq} Threshold, dBA[a]	Project Estimated Hourly Average Noise Levels, L_{eq}					
		Transformer			Emergency Generator		
		Distance, feet	L_{eq}, dBA	Threshold Exceeded?	Distance, feet	L_{eq}, dBA	Threshold Exceeded?
Parcel C Residences	60	--	--	No	250	67[b] 64[c] 53[d]	Yes[b] Yes[c] No[d]
West Residences	60	510	< 20[e]	No	--	--	No

[a] L_{eq} thresholds established by Table 18.76-1 of the City's Municipal Code.
[b] With a standard weather enclosure.
[c] With a Level 1 sound enclosure.
[d] With a Level 2 sound enclosure.
[e] Conservative 5 dBA attenuation assumed for partial shielding from intervening project buildings.

TABLE 12 Estimated Operational L_{dn} for Ground-Level Mechanical Equipment Sources

Receptor	General Plan Increase Threshold, dBA L_{dn}[a]	Project-Generated L_{dn} for the Transformer + Emergency Generator, dBA	Existing Plus Project, dBA L_{dn}[b]		
			L_{dn}, dBA	Noise Level Increase, dBA L_{dn}	Threshold Exceeded?
Parcel C Residences	N/A[c]	54[d] 51[e] 40[f]	83[d,e,f]	N/A[c]	No
West Residences	3	22[g]	67	0	No

[a] Permanent noise level increase established by Policy SSI-8.5 of the City's General Plan.
[b] Existing Plus Project L_{dn} includes project-generated noise levels added to existing ambient L_{dn} to estimate noise level increase.
[c] Future receptors are not subject to existing ambient conditions, and therefore, are not subject to a noise level increase.
[d] With a standard weather enclosure.
[e] With a Level 1 sound enclosure.
[f] With a Level 2 sound enclosure.
[g] Conservative 5 dBA attenuation assumed for partial shielding from intervening project buildings.

Each of the medical office buildings would have HVAC units on the rooftop. If Building 2 were to be a hospital, it is likely a chiller would also be located on the rooftop. Typical heat pumps for medical office buildings of this size would generate noise levels ranging from 56 to 66 dBA at a distance of 3 feet. A typical chiller for a hospital would be up to 71 dBA at 50 feet. Assuming up to 10 units operating continuously each hour in a 24-hour period, hourly average noise levels would be up to 52 dBA L_{eq} at 50 feet, and the day-night average noise level would be 58 dBA L_{dn} at 50 feet. With the inclusion of the chiller operating continuously each hour in a 24-hour period, hourly average noise levels would be up to 71 dBA L_{eq} at 50 feet, and the day-night average noise level would be 78 dBA L_{dn} at 50 feet.

The elevation of the rooftop equipment being 64 feet above the ground would provide some shielding of the equipment. Assuming a minimum setback of 10 feet from the nearest edge, the estimated attenuation for receptors would be a minimum of 13 dBA for all Parcel C residences and west residences located within 140 feet. The Parcel C residences would be exposed to rooftop equipment noise from all three medical buildings, while the north existing residences would be well shielded from equipment noise from all buildings. The west and south residences would be exposed to equipment noise from the rooftop of Building 1 only and would be well shielded from noise generated at the other medical buildings. The east hotel and commercial buildings would be exposed to equipment noise from the rooftop of Building 3 and would be well shielded from noise generated at the other medical buildings.

Table 13 summarizes the rooftop mechanical equipment L_{eq} noise levels for all medical buildings propagated to the property lines of the surrounding land uses, and Table 14 summarizes the estimated L_{dn} and noise level increases for rooftop equipment at all medical buildings. The conservative 13 dBA attenuation is assumed for applicable receptors, as shown in both tables.

Operational L_{eq} due to rooftop equipment at all proposed medical buildings would not exceed the City's daytime thresholds of 60 dBA at residential land uses or 65 dBA at commercial land uses.

For all existing receptors, the noise level increase due to rooftop noise sources would not be measurable or detectable (0 dBA L_{dn} increase).

TABLE 13 Estimated Operational L_{eq} for Rooftop Mechanical Equipment Sources

Project Building	Receptors	Project Estimated Hourly Average Noise Levels, L_{eq}			
		Municipal Code L_{eq} Threshold, dBA[a]	Distance from Equipment, feet	L_{eq}, dBA	Threshold Exceeded?
Building 1	Parcel C Residences	60	80	35[b]	No
	West Residences	60	125	31[b]	No
	South Residences	60	965	26	No
Building 2	Parcel C Residences	60	65	56[b]	No
Building 3	Parcel C Residences	60	135	30[b]	No
	East Hotel & Commercial	65	465	32	No
Combined	**Parcel C Residences**	**60**	**--**	**56**	**No**
	West Residences	**60**	**--**	**31**	**No**
	South Residences	**60**	**--**	**26**	**No**
	East Hotel & Commercial	**65**	**--**	**32**	**No**

[a] L_{eq} thresholds established by Table 18.76-1 of the City's Municipal Code.
[b] Conservative 13 dBA attenuation assumed for rooftop mechanical equipment due to elevation of the rooftop above the ground.

TABLE 14 Estimated Operational L_{dn} for Rooftop Mechanical Equipment Sources

Project Building	Receptors	General Plan Increase Threshold, dBA L_{dn}[a]	Project-Generated L_{dn} for the Rooftop Equipment, dBA	Existing Plus Project, dBA L_{dn}[b]		
				L_{dn}, dBA	Noise Level Increase, dBA L_{dn}	Threshold Exceeded?
Building 1	Parcel C Residences	N/A[c]	41[d]	83	N/A[c]	No
	West Residences	3	37[d]	67	0	No
	South Residences	3	32	67	0	No
Building 2	Parcel C Residences	N/A[c]	63[d]	83	N/A[c]	No
Building 3	Parcel C Residences	N/A[c]	36[d]	83	N/A[c]	No
	East Hotel & Commercial	3	39	83	0	No
Combined	**Parcel C Residences**	**N/A[c]**	**63**	**83**	**N/A[c]**	**No**
	West Residences	**3**	**37**	**67**	**0**	**No**
	South Residences	**3**	**32**	**67**	**0**	**No**
	East Hotel & Commercial	**3**	**39**	**83**	**0**	**No**

[a] Permanent noise level increase established by Policy SSI-8.5 of the City's General Plan.
[b] Existing Plus Project L_{dn} includes project-generated noise levels added to existing ambient L_{dn} to estimate noise level increase.
[c] Future receptors are not subject to existing ambient conditions, and therefore, are not subject to a noise level increase.
[d] Conservative 13 dBA attenuation assumed for rooftop mechanical equipment due to elevation of the rooftop above the ground.

Parking/Circulation

In addition to the parking structure, the site plan shows medium-sized parking lots located between Buildings 1 and 2, between Buildings 2 and 3, and to the west and north of the parking structure.

Noise sources generated at parking lots would include vehicle circulation, engine starts, doors slams, human voices, and occasional car alarms. The sound of slow-moving vehicles, engines starting, doors closing, and people talking in the parking lot would be expected to reach maximum levels of 50 to 60 dBA at a distance of 50 feet. Additionally, Illingworth & Rodkin, Inc. has previously made measurements outside a parking garage of similar size to the proposed project, and at a distance of 50 feet from the parking garage façade, noise levels ranged from 57 to 62 dBA.

The north existing residences and school would be well shielded from all parking lot noise generated at the project site. The Parcel C residences would be exposed to parking lot noise generated between the medical buildings, and the west residences and south residences would be exposed to noise from the parking garage and from the parking lot to west of the parking garage. The east hotel and commercial uses would be mostly shielded from parking lot noise. Additionally, Highway 101, which lies between the project site and the receptors would dominate the noise environment such that parking lot and parking garage noise sources would not be audible. These receptors and the north existing residences and school would not be considered noise-sensitive receptors for parking lot noise associated with the proposed project because of the shielding provided by the future residential development.

Table 15 summarizes the L_{eq} due to parking activities at the project site propagated to the property lines of the surrounding land uses, and Table 16 summarizes the L_{dn} and noise level increases due to parking activities at the project site, assuming maximum parking lot activities during each hour in a 24-hour period. While maximum parking lot activity during nighttime hours is unlikely at the project site, this would represent the worst-case conditions. Conservatively, no attenuation is assumed in Tables 15 and 16.

Operational L_{eq} due to parking activities at the project site would not exceed the City's 60 dBA threshold at residential land uses. Further, the City's 65 dBA at commercial land uses would not be exceeded, considering the east land uses are farther from the project site and would be exposed to lower noise levels.

For all existing receptors, the noise level increase due to rooftop noise sources would not be measurable or detectable (0 dBA L_{dn} increase).

TABLE 15 Estimated Parking Noise Sources, L_{eq}

Receptor	Municipal Code L_{eq} Threshold, dBA[a]	Project Estimated Hourly Average Noise Levels, L_{eq}					
		Parking Lot			Parking Garage		
		Distance, feet	L_{eq}, dBA	Threshold Exceeded?	Distance, feet	L_{eq}, dBA	Threshold Exceeded?
Parcel C Residences	60	175	49	No	--	--	No
West Residences	60	240	46	No	370	44	No
South Residences	60	800	36	No	730	38	No

[a] L_{eq} thresholds established by Table 18.76-1 of the City's Municipal Code.

TABLE 16 Estimated Parking Noise Sources, L_{dn}

Receptor	General Plan Increase Threshold, dBA L_{dn}[a]	Project-Generated L_{dn} for Parking Lot & Parking Garage, dBA	Existing Plus Project, dBA L_{dn}[b]		
			L_{dn}, dBA	Noise Level Increase, dBA L_{dn}	Threshold Exceeded?
Parcel C Residences	N/A[c]	56	83	N/A[c]	No
West Residences	3	55	67	0	No
South Residences	3	47	67	0	No

[a] Permanent noise level increase established by Policy SSI-8.5 of the City's General Plan.
[b] Existing Plus Project L_{dn} includes project-generated noise levels added to existing ambient L_{dn} to estimate noise level increase.
[c] Future receptors are not subject to existing ambient conditions, and therefore, are not subject to a noise level increase.

Truck Loading and Unloading

While medical office buildings would not have regular truck deliveries, Building 2 has been identified to potentially have a retail/restaurant/pharmacy component, which would have regular truck deliveries. A pharmacy would have one to two deliveries daily, while a retail/restaurant would likely have one delivery a week. For buildings of this size, medium trucks are expected for the deliveries. These trucks typically generate noise levels ranging from 60 to 65 dBA at a distance of 50 feet. Low speed truck noise results from a combination of engine, exhaust, and tire noise, as well as the intermittent sounds of back-up alarms and releases of compressed air associated with truck/trailer air brakes. The noise levels produced by backup alarms can vary depending on the type and directivity of the sound, but maximum noise levels are typically between 65 to 75 dBA at a distance of 50 feet. Assuming one to two deliveries in a given hour, hourly average noise levels would range from 59 to 62 dBA L_{eq} at 50 feet, and assuming three deliveries in a 24-hour period occurring during daytime hours only, the day-night average noise level would be 50 dBA L_{dn} at 50 feet.

While the site plan does not show a designated loading zone, it is assumed that loading and unloading activities would occur along the western façade of Building 2 in the southwestern corner. Therefore, the north existing residences and school, west residences, and the east hotel and commercial uses would be shielded from truck loading and loading activities.

Table 17 summarizes the truck loading and unloading L_{eq} propagated to the property line of the Parcel C residences and the south residences, and Table 18 summarizes the L_{dn} and noise level increases due to truck loading and unloading activities, assuming three daytime deliveries occurring in one 24-hour period. Conservatively, no attenuation from intervening structures is assumed.

TABLE 17 Estimated Operational L_{eq} for Truck Loading and Unloading Activities at Building 2

Receptor	Municipal Code L_{eq} Threshold, dBA[a]	Distance from Center of the Loading Zone, feet	L_{eq}, dBA	Threshold Exceeded?
Parcel C Residences	60	220	46 to 49	No
South Residences	60	1,025	33 to 36	No

[a] L_{eq} thresholds established by Table 18.76-1 of the City's Municipal Code .

TABLE 18 Estimated Operational L_{dn} for Truck Loading and Unloading Activities at Building 2

Receptor	General Plan Increase Threshold, dBA L_{dn}[a]	Project-Generated L_{dn} for Truck Loading & Unloading, dBA	Existing Plus Project, dBA L_{dn}[b]		
			L_{dn}, dBA	Noise Level Increase, dBA L_{dn}	Threshold Exceeded?
Parcel C Residences	N/A[c]	37	83	N/A[c]	No
South Residences	3	24	67	0	No

[a] Permanent noise level increase established by Policy SSI-8.5 of the City's General Plan.
[b] Existing Plus Project L_{dn} includes project-generated noise levels added to existing ambient L_{dn} to estimate noise level increase.
[c] Future receptors are not subject to existing ambient conditions, and therefore, are not subject to a noise level increase.

Operational L_{eq} due to truck loading and unloading noise would not exceed the City's 60 dBA threshold at residential land uses.

For all existing receptors, the noise level increase due to truck loading and unloading noise sources would not be measurable or detectable (0 dBA L_{dn} increase).

Siren Noise from Ambulances

While the specific medical uses are not confirmed at this time, a hospital could potentially be included at the project site at Buildings 2 or 3. If Buildings 2 or 3 are used as a hospital accepting emergencies, ambulances with emergency sirens could access the site. However, sirens would be infrequent and intermittent and would be exempt from all noise level standards, per Chapter 8.28.030 of the City's Municipal Code. Further, sirens are typically only used near intersections or where needed in congested traffic situations, and ambulances typically arrive at hospitals with lights on and no sirens. Therefore, the potential hospital would not result in a substantial increase to the ambient noise environment at the surrounding neighbors due to the use of emergency sirens.

Total Combined Project-Generated Noise

Operational noise levels produced by the proposed project combined (i.e., traffic, mechanical equipment, parking, truck loading and unloading) would result in an increase of less than 3 dBA L_{dn} at all existing noise-sensitive receptors (i.e., residences only) in the project vicinity.

Operational noise levels due to the emergency generator would potentially exceed the City's 60 dBA threshold at the Parcel C residences with the inclusion of a standard weather enclosure or a Level 1 sound enclosure. However, existing ambient noise levels would not be exceeded. This would be a less-than-significant impact under CEQA.

In accordance with the initial study completed for the proposed project in 2020, the following mitigation measure shall be incorporated into the proposed project as a standard condition of approval:

MM NOI-1.2: A qualified acoustical consultant shall be retained to review mechanical equipment systems during final design of the proposed project. The consultant shall review selected equipment and determine specific noise reduction measures necessary to reduce noise to comply with the City's noise level requirements. Prior to issuance of building permits for the project, the emergency generator must be selected and approved by the City planning department. The generator shall include adequate noise suppressing features to reduce impacts on surrounding land uses to meet the City's exterior and interior noise level requirements of 60 dBA.

With the inclusion of this measure as a standard condition of approval, the impact would be reduced to as less-than-significant level.

Mitigation Measure 1b: No further mitigation required.

Impact 2: Exposure to Excessive Groundborne Vibration due to Construction. Construction-related vibration levels resulting from activities at the project site would not exceed 0.3 in/sec PPV at the existing structures surrounding the project site. **This is a less-than-significant impact.**

The construction of the project may generate vibration when heavy equipment or impact tools (e.g., jackhammers, hoe rams) are used. Construction activities would include grading, foundation work, paving, and new building framing and finishing. According to the equipment list provided at the time of this study, impact or vibratory pile driving activities, which can cause excessive vibration, are not expected for the proposed project.

The California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards in order to reduce the potential for cosmetic damage to structures. Cosmetic damage is defined as hairline cracking in plaster, the opening of old cracks, the loosening of paint or the dislodging of loose objects. A vibration limit of 0.3 in/sec PPV has been used for buildings that are found to be structurally sound but where structural damage is a major concern (see Table 3 above for further explanation). For historical buildings or buildings that are documented to be structurally weakened, a conservative limit of 0.08 in/sec PPV is often used to provide the highest level of protection.

No historical buildings or buildings that are documented to be structurally weakened adjoin the project site. Groundborne vibration levels exceeding 0.3 in/sec PPV at nearby buildings would have the potential to result in a significant vibration impact because such levels would be capable of cosmetically damaging adjacent buildings. Cosmetic damage (also known as threshold damage) is defined as hairline cracking in plaster, the opening of old cracks, the loosening of paint or the dislodging of loose objects. Minor damage is defined as hairline cracking in masonry or the loosening of plaster. Major structural damage is defined as wide cracking or the shifting of foundation or bearing walls.

Table 19 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate substantial vibration in the immediate vicinity. Jackhammers

typically generate vibration levels of 0.035 in/sec PPV, and drilling typically generates vibration levels of 0.09 in/sec PPV at a distance of 25 feet.

Vibration levels would vary depending on soil conditions, construction methods, and equipment used. Table 19 also summarizes the distances to the 0.3 in/sec PPV threshold for all conventional buildings.

TABLE 19 Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft. (in/sec)	Minimum Distance to Meet 0.3 in/sec PPV (feet)
Clam shovel drop		0.202	18
Hydromill (slurry wall)	in soil	0.008	1
	in rock	0.017	2
Vibratory Roller		0.210	19
Hoe Ram		0.089	9
Large bulldozer		0.089	9
Caisson drilling		0.089	9
Loaded trucks		0.076	8
Jackhammer		0.035	4
Small bulldozer		0.003	<1

Source: Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, Office of Planning and Environment, U.S. Department of Transportation, September 2018, as modified by Illingworth & Rodkin, Inc., September 2023.

Table 20 summarizes the vibration levels at each of the surrounding buildings in the project vicinity. Vibration levels are highest close to the source and then attenuate with increasing distance at the rate $\left({}^{D_{ref}}/_{D}\right)^{1.1}$, where D is the distance from the source in feet and D_{ref} is the reference distance of 25 feet. While construction noise levels increase based on the cumulative equipment in use simultaneously, construction vibration levels would be dependent on the location of individual pieces of equipment. That is, equipment scattered throughout the site would not generate a collective vibration level, but a vibratory roller, for instance, operating near the project site boundary would generate the worst-case vibration levels for the receptor sharing that property line. Further, construction vibration impacts are assessed based on damage to buildings on receiving land uses, not receptors at the nearest property lines. Therefore, the distances used to propagate construction vibration levels (as shown in Table 20), which are different than the distances used to propagate construction noise levels (as shown in Tables 7 through 9), were estimated under the assumption that each piece of equipment from Table 19 was operating along the nearest boundary of the busy construction site, which would represent the worst-case scenario.

As shown in Table 20, the nearest structure surrounding the project site would be the Parcel C residences (about 50 feet from the project site). These structures would be exposed to construction vibration levels up to 0.1 in/sec PPV, which would be well below the 0.3 in/sec PPV threshold for conventional buildings. No cosmetic, minor, or major damage would be expected at the buildings immediately adjoining the project site.

Neither cosmetic, minor, or major damage would occur at historical or conventional buildings located 20 feet or more from the project site. At these locations, and in other surrounding areas

where vibration would not be expected to cause cosmetic damage, vibration levels may still be perceptible. However, as with any type of construction, this would be anticipated and would not be considered significant, given the intermittent and short duration of the phases that have the highest potential of producing vibration (use of jackhammers and other high-power tools). By use of administrative controls, such as notifying neighbors of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration during hours with the least potential to affect nearby businesses, perceptible vibration can be kept to a minimum.

In summary, the construction of the project would not generate vibration levels exceeding the 0.3 in/sec PPV threshold at conventional buildings surrounding the project site. This would be a less-than-significant impact.

Mitigation Measure 2: **None required.**

TABLE 20 Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft. (in/sec)	Estimated Vibration Levels at Structures Surrounding the Project Site, in/sec PPV				
			Existing North Residences & School (635 feet)	Parcel C Residences (50 feet)	West Residences (85 feet)	South Residences (745 feet)	East Hotels & Commercial Uses (450 feet)
Clam shovel drop		0.202	0.006	0.094	0.053	0.005	0.006
Hydromill (slurry wall)	in soil	0.008	0.000	0.004	0.002	0.000	0.000
	in rock	0.017	0.000	0.008	0.004	0.000	0.001
Vibratory Roller		0.210	0.006	0.098	0.055	0.005	0.009
Hoe Ram		0.089	0.003	0.042	0.023	0.002	0.004
Large bulldozer		0.089	0. 003	0.042	0.023	0.002	0. 004
Caisson drilling		0.089	0.003	0.042	0.023	0.002	0.004
Loaded trucks		0.076	0.002	0.035	0.020	0.002	0.003
Jackhammer		0.035	0.001	0.016	0.009	0.001	0.001
Small bulldozer		0.003	0.000	0.001	0.001	0.000	0.000

Source: Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, Office of Planning and Environment, U.S. Department of Transportation, September 2018, as modified by Illingworth & Rodkin, Inc., September 2023.

Impact 3: **Excessive Aircraft Noise.** The project site is located 2.8 miles or more from the nearest airport and would lie well outside the 60 dBA CNEL noise contours for all nearby airports. The noise environment attributable to aircraft is considered normally acceptable. **This is a less-than-significant impact.**

Reid-Hillview Airport and Mineta San José International Airport are public airports located approximately 18 and 23 miles northwest of the project site, respectively. The San Martin Airport is located approximately 2.8 miles southeast of the site. The project site is located well outside of each airport's planning boundary and 60 dBA CNEL noise contour. Noise levels resulting from aircraft are insignificant at the site and would be clearly compatible with the proposed land uses. This is a less-than-significant impact.

Mitigation Measure 3: **None required.**

Cumulative Impacts

Cumulative noise impacts would include either cumulative traffic noise increases under future conditions or temporary construction noise from cumulative construction projects.

A significant cumulative traffic noise increase would occur if two criteria are met: 1) if the cumulative traffic noise level increase was 3 dBA L_{dn} or greater for future levels exceeding 60 dBA L_{dn} or was 5 dBA L_{dn} or greater for future levels at or below 60 dBA L_{dn}; and 2) if the project would make a "cumulatively considerable" contribution to the overall traffic noise increase. A "cumulatively considerable" contribution would be defined as an increase of 1 dBA L_{dn} or more attributable solely to the proposed project.

The traffic study included 2035 General Plan No Project and 2035 General Plan Plus Project volumes. Both traffic scenarios were compared to the Existing Baseline No Project traffic volumes to determine the noise level increase with and without the additional trips generated by the updated project information. Table 21summarizes the estimated increases with and without the project by the year 2035, as well as the project's contribution to the overall traffic noise increase. As shown in Table 21, three roadway segments resulted in an increase of 3 dBA L_{dn} or more: along Tennant Avenue, east and west of Condit Road; and Juan Hernandez Drive, north of Barrett Avenue. However, these increases were calculated for both the 2035 General Plan No Project and 2035 General Plan Plus Project traffic scenarios. Since the same increase was calculated for both 2035 General Plan No Project and 2035 General Plan Plus Project scenarios, the project would not result in a cumulatively considerable contribution to the overall noise increase. This would be a less-than-significant impact.

From the City's website,[5] the following planned or approved projects are located within 500 feet of the proposed project:

- **Rosewood Residential (Lillian Commons)** – this project adjoins the project site and is under the envelope of the original PD Master Plan. The original project studied both the proposed project and the Rosewood Residential project as one project with multiple phases. It is expected that the residential component would be completed prior to construction of the proposed project, and the residential receptors on the Rosewood Residential project site would be receptors during the construction of the proposed project. With implementation of the mitigation measures proposed in the original PD Master Plan and the additional measures recommended in Mitigation Measure 1a above, this would not be considered a significant cumulative construction impact.

No other projects are located within 500 feet of the proposed project site. Therefore, potential cumulative construction impacts would be less-than-significant.

[5] https://mydashgis.com/SanCarlosProjects/map

TABLE 21 Estimated Noise Level Increases of 2035 General Plan Plus Project Traffic Volumes and 2035 General Plan No Project Traffic Volumes Compared to Existing Baseline No Project Volumes at Receptors in the Project Vicinity

Roadway	Segment	Estimated Noise Level Increase, dBA L_{dn}		Project's Contribution to the Overall Noise Level Increase, dBA L_{dn}
		2035 General Plan No Project	2035 General Plan Plus Project	
Tennant Avenue/ Edmunson Avenue	West of Monterey Road	1	1	0
	Monterey Road to Vineyard Avenue	0	1	1
	Vineyard Avenue to Butterfield Boulevard	1	1	0
	Butterfield Boulevard to Juan Hernandez Drive	2	2	0
	Juan Hernandez Drive to U.S. 101 southbound ramps	2	2	0
	U.S. 101 southbound ramps to U.S. 101 northbound ramps	2	2	0
	U.S. 101 northbound ramps to Condit Road	**3**	**3**	0
	East of Condit Road	**3**	**3**	0
St. James Drive	West of Juan Hernandez Drive	0	0	0
Barrett Avenue	West of Butterfield Boulevard	0	0	0
	Butterfield Boulevard to San Ramon Drive	0	0	0
	San Ramon Drive to Juan Hernandez Drive	0	0	0
	East of Juan Hernandez Drive	0	0	0
San Pedro Avenue	West of Butterfield Boulevard	1	1	0
	Butterfield Boulevard to Juan Hernandez Drive	0	1	1
	East of Juan Hernandez Drive	1	2	1
Dunne Avenue	West of Butterfield Boulevard	1	1	0

Roadway	Segment	Estimated Noise Level Increase, dBA L_{dn}		Project's Contribution to the Overall Noise Level Increase, dBA L_{dn}
		2035 General Plan No Project	2035 General Plan Plus Project	
	Butterfield Boulevard to Walnut Grove Drive	0	0	0
	Walnut Grove Drive to U.S. 101 southbound ramps	0	0	0
	U.S. 101 southbound ramps to U.S. 101 northbound ramps	1	1	0
	East of U.S. 101 northbound ramps	1	1	0
Main Avenue	West of Butterfield Boulevard	1	1	0
	East of Butterfield Boulevard	1	1	0
Juan Hernandez Drive	Tennant Avenue to St. James Drive	0	1	1
	St. James Drive to Barrett Avenue	0	2	2
	North of Barrett Avenue	**3**	**3**	0
Monterey Road	South of Watsonville Road/Butterfield Boulevard	1	1	0
	Watsonville Road/Butterfield Boulevard to Tennant/Edmunson Avenue	1	1	0
	North of Tennant Avenue/Edmunson Avenue	0	1	1
Watsonville Road/ Butterfield Boulevard	West of Monterey Road	1	1	0
	Monterey Road to Tennant Avenue	2	2	0
	Tennant Avenue to Barrett Avenue	1	1	0
	Barrett Avenue to San Pedro Avenue	1	1	0
	San Pedro Avenue to Dunne Avenue	1	1	0
	Dunne Avenue to Main Avenue	0	1	1
	North of Main Avenue	0	0	0
Vineyard Avenue	South of Tennant Avenue	0	0	0
	North of Tennant Avenue	1	1	0
San Ramon Drive	South of Barrett Avenue	2	2	0

Roadway	Segment	Estimated Noise Level Increase, dBA L_{dn}		Project's Contribution to the Overall Noise Level Increase, dBA L_{dn}
		2035 General Plan No Project	2035 General Plan Plus Project	
	North of Barrett Avenue	0	0	0
Walnut Grove Drive	South of Dunne Avenue	0	0	0
	North of Dunne Avenue	0	0	0
Condit Road	North of Tennant Avenue	0	1	1
U.S. northbound on-ramp	At Tennant Avenue	0	0	0
U.S. northbound off-ramp	At Tennant Avenue	0	0	0
U.S. northbound ramps	At Dunne Avenue	0	0	0
U.S. southbound on-ramp	At Tennant Avenue	0	0	0
	At Dunne Avenue	0	0	0
U.S. southbound off-ramp	At Tennant Avenue	0	0	0
	At Dunne Avenue	0	0	0

APPENDIX

FIGURE A1 Daily Trend in Noise Levels at LT-1, Tuesday, September 24, 2019

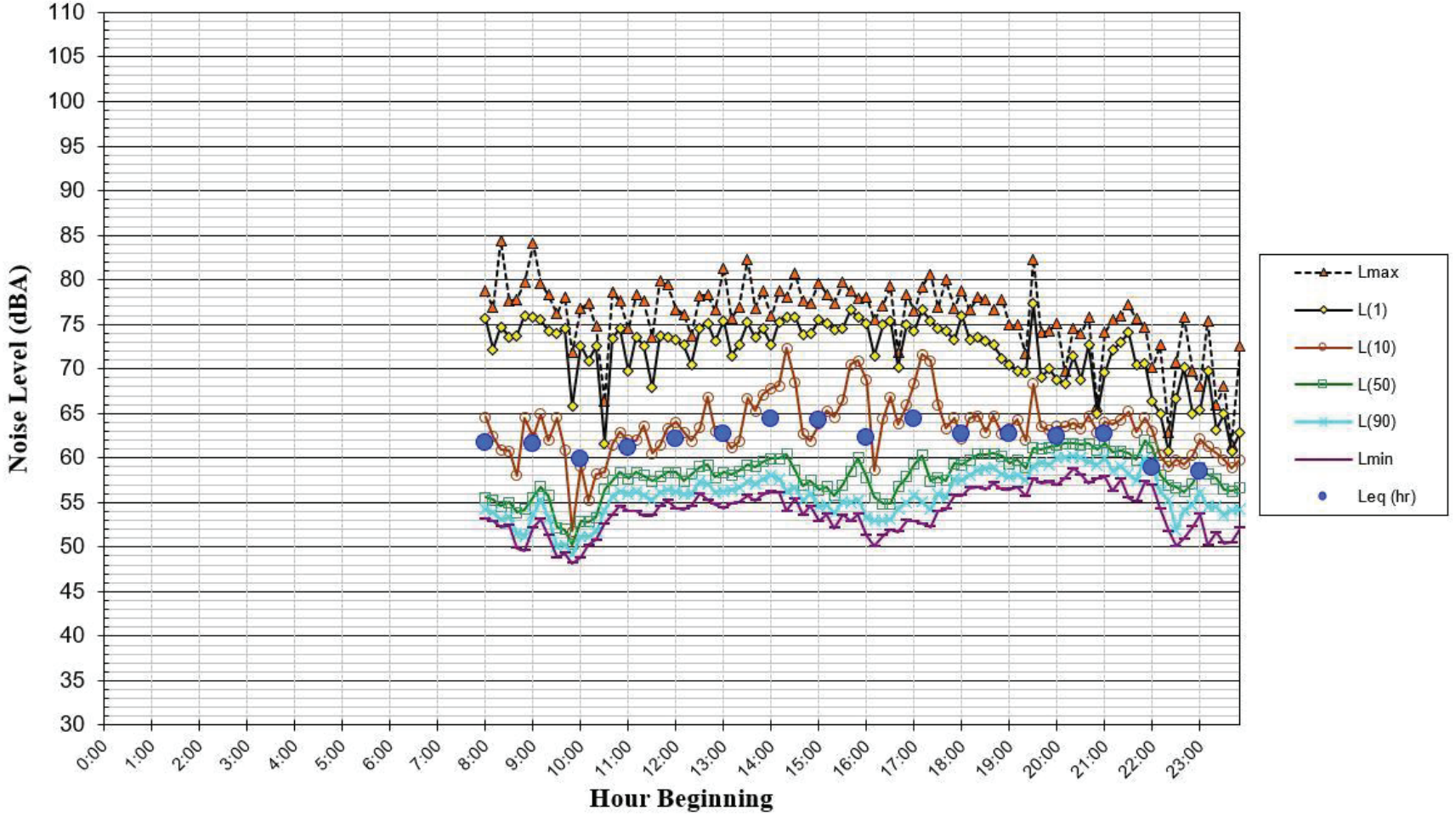


FIGURE A2 Daily Trend in Noise Levels at LT-1, Wednesday, September 25, 2019

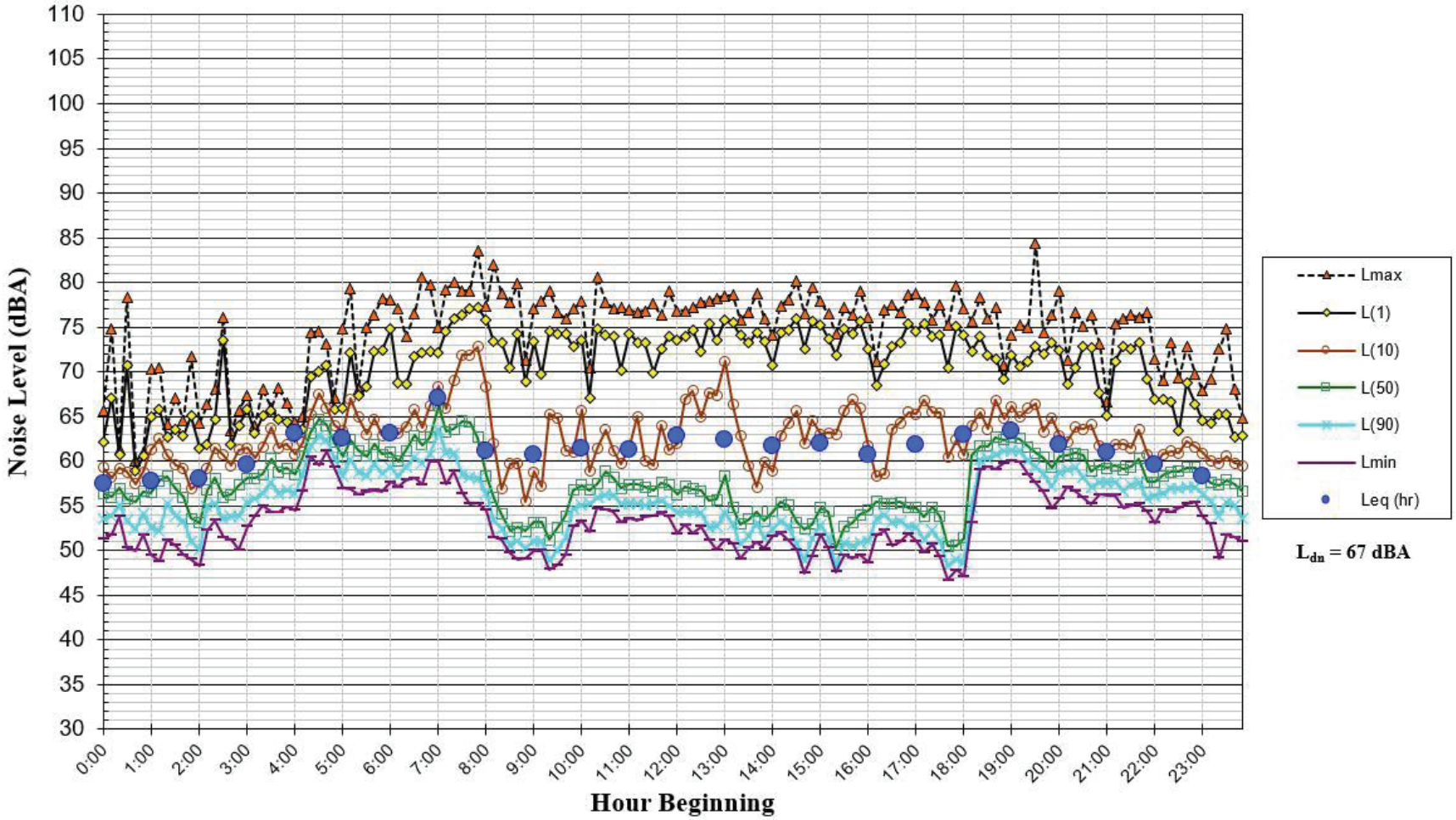


FIGURE A3 Daily Trend in Noise Levels at LT-1, Thursday, September 26, 2019

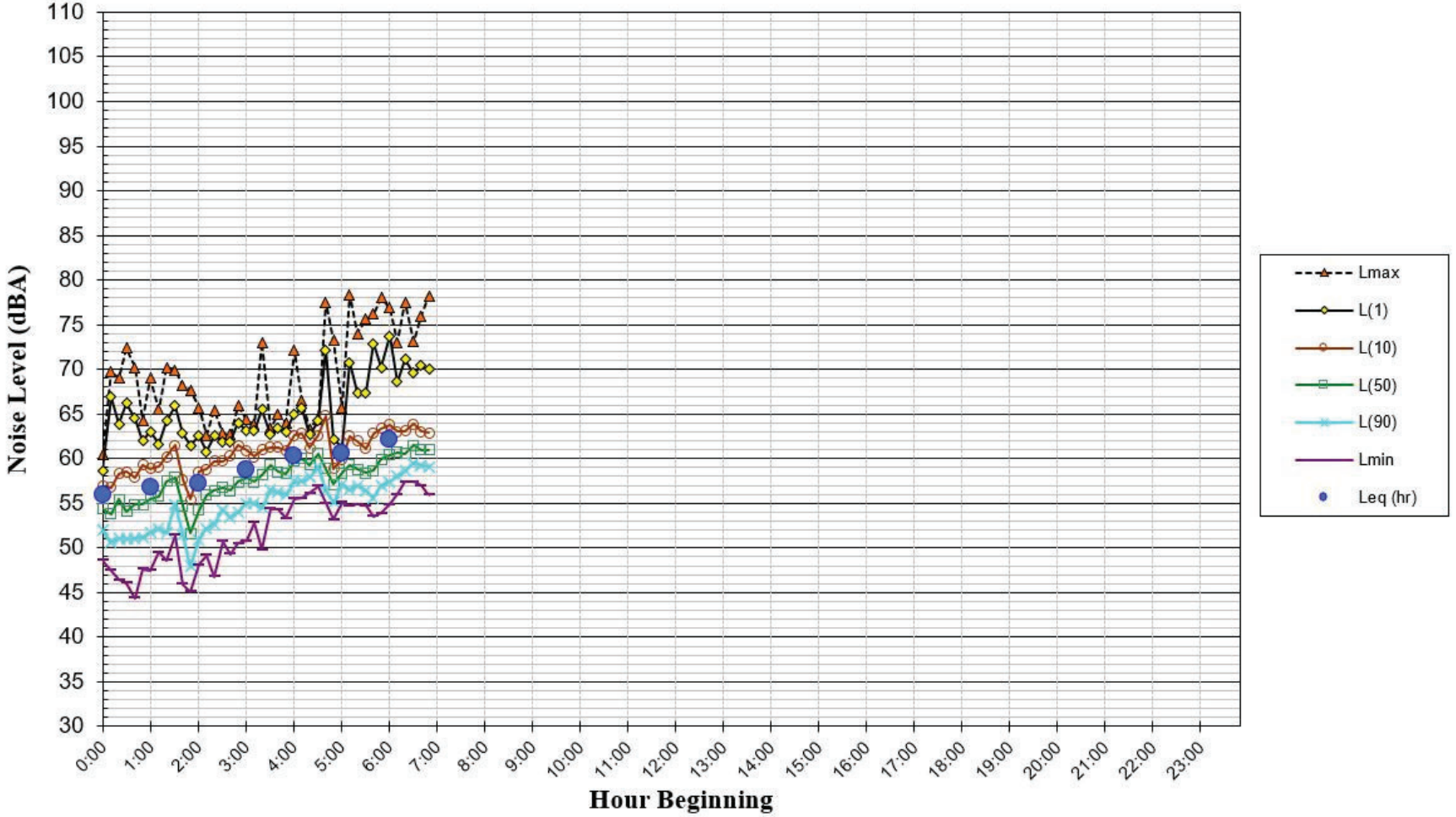


FIGURE A4 Daily Trend in Noise Levels at LT-2, Tuesday, September 24, 2019

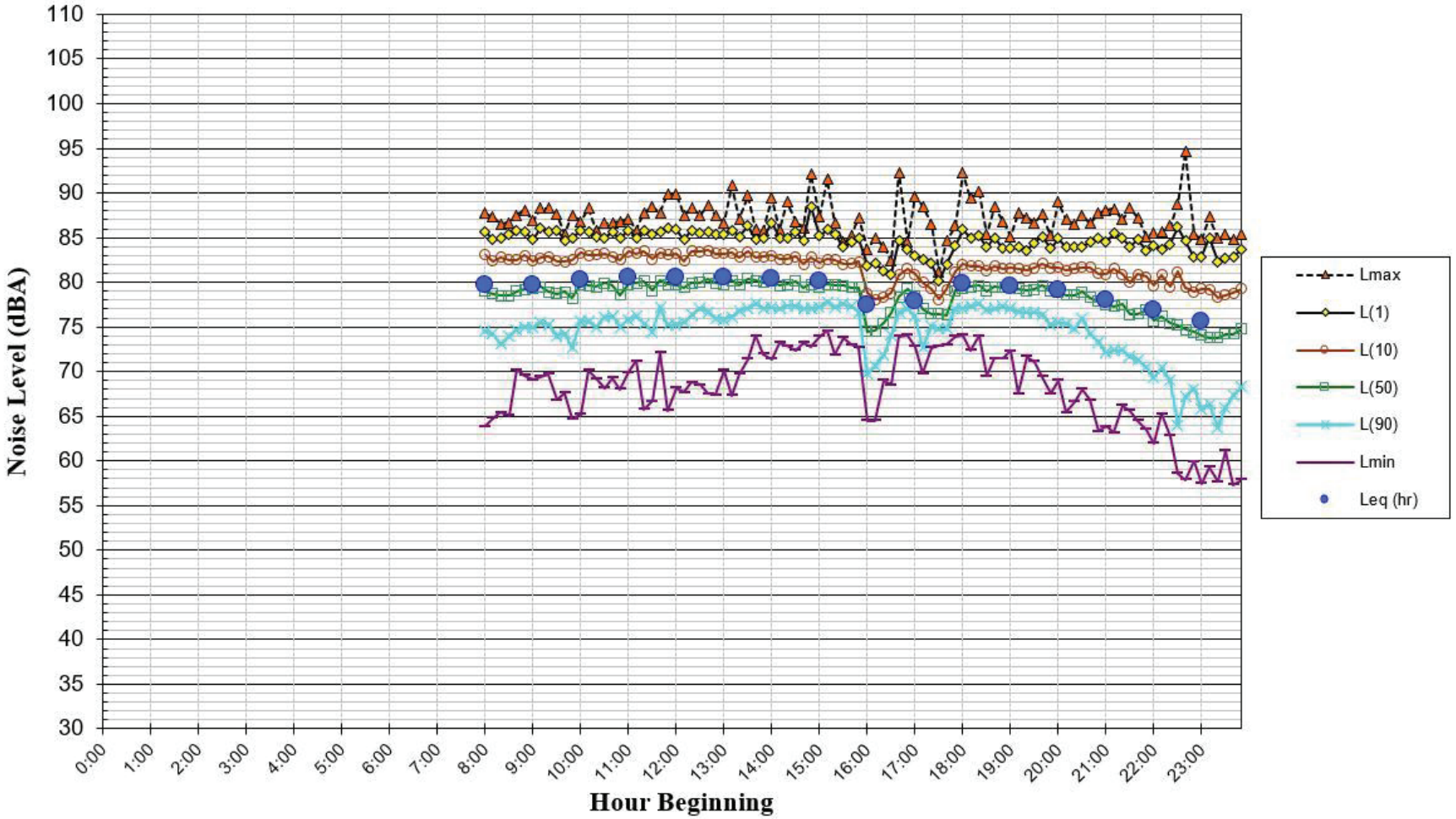


FIGURE A5 Daily Trend in Noise Levels at LT-2, Wednesday, September 25, 2019

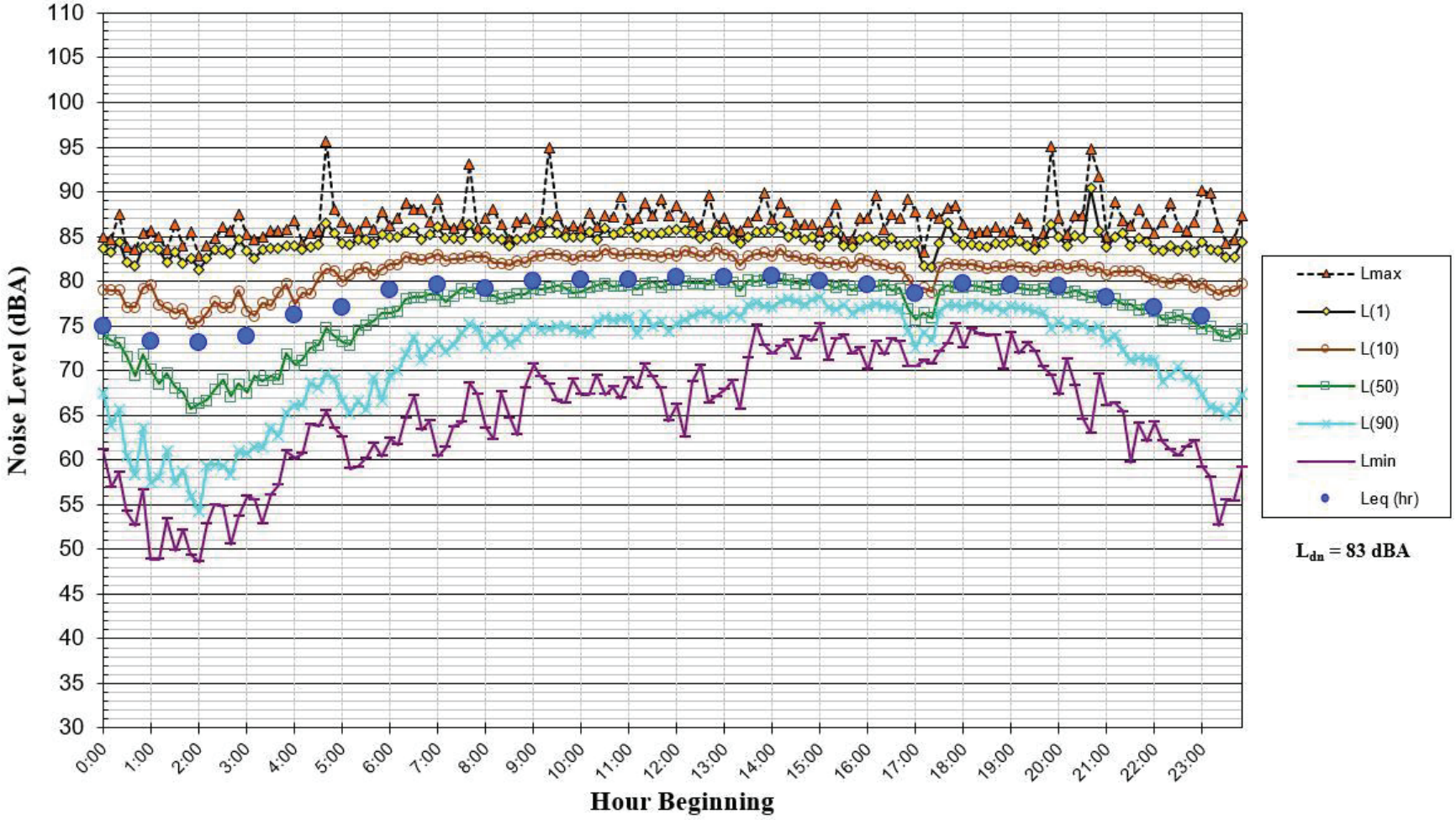
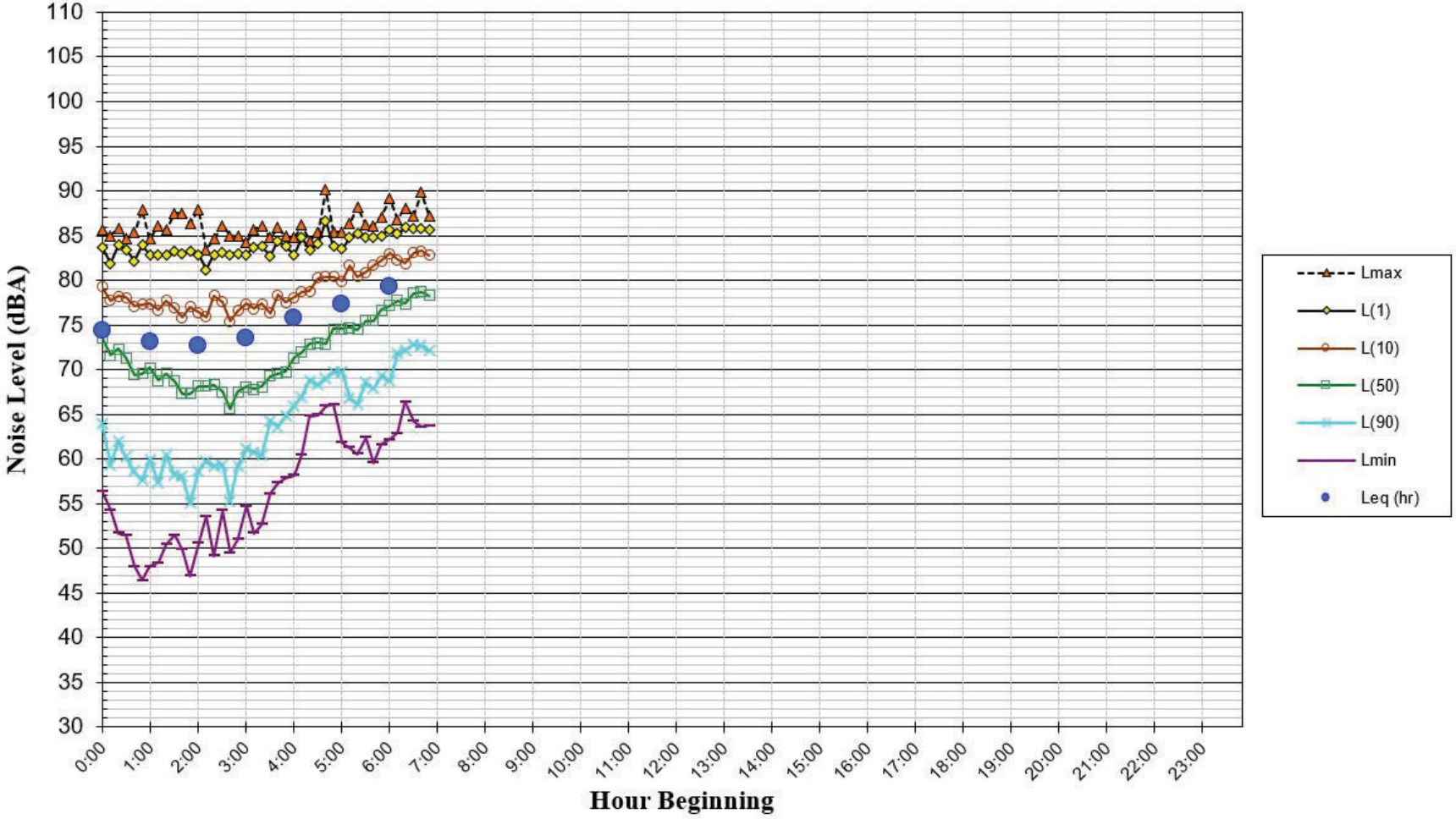


FIGURE A6 Daily Trend in Noise Levels at LT-2, Thursday, September 26, 2019



APPENDIX E

HEXAGON TRANSPORTATION CONSULTANTS, INC.

Rosewood Medical Office Development

Transportation Analysis

Prepared for:

City of Morgan Hill

November 10, 2023

Hexagon Transportation Consultants, Inc.
Hexagon Office: 8070 Santa Teresa Boulevard, Suite 230
Gilroy, CA 95020
Hexagon Job Number: 23RD09
Phone: 408.846.7410

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Executive Summary

This report presents the results of the transportation analysis conducted for the proposed Rosewood Medical Campus Development project in Morgan Hill, California.

Project Description

The project site is situated on three parcels (APNs 817-09-039, -040, and -041) totaling 9.61 acres and located to the north of Tennant Avenue between Juan Hernandez Drive and US 101 in the City of Morgan Hill. The project consists of the replacement of the 15,900 s.f. of existing medical office space on site with up to 275,000 s.f. of medical office space. Access to the project site would be provided via a new east approach at the Juan Hernandez Drive/St. James Drive intersection and a connection to the future Rosewood Lane to the north of the project site.

Scope of Study

The TA consists of a California Environmental Quality Act (CEQA) required vehicle-miles-traveled (VMT) analysis. The CEQA VMT impact analysis was completed using the Valley Transportation Authority's (VTA) VMT Evaluation Tool. The City of Morgan Hill is currently developing the framework for new transportation policies based on VMT as the primary measure of transportation impacts for CEQA. However, since the City has not formally adopted its own city-specific VMT policies, this study utilizes VMT analysis methodology and impact thresholds recommended in the Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018. The other additional analyses also include an evaluation of the effects of the project on other transportation issues relating to pedestrian, bicycle, and transit facilities.

A supplemental traffic operations analysis, provided in a separate report, also was completed to demonstrate the project's consistency with the *Morgan Hill 2035 General Plan* goals and policies. The traffic operations analysis supplements the CEQA-required VMT analysis. However, the determination of project impacts per CEQA requirements is based solely on the VMT analysis.

CEQA VMT Analysis

The results also indicate that the project is projected to generate 19.69 VMT per employee, which would exceed OPR's VMT impact threshold of 13.03 VMT per employee. Therefore, the project would result in a significant impact on the transportation system based on OPR's impact criteria.

VMT Impacts and Mitigation

Using OPR's impact thresholds, the project would need to implement VMT reduction measures to achieve an approximately 34% reduction (19.69 to 13.03) in its VMT per employee for the proposed medical office uses to reduce its impact to less than significant levels. However, per the VTA's VMT evaluation tool, the maximum reduction possible is 17.50. Further reductions in VMT are not likely feasible for employment projects due to the limited alternative modes of transportation, primarily public transit options, within the City.

The project's VMT per employee could be reduced to 17.50 with the implementation of the following two Travel Demand Management (TDM) strategies, however, the reduced VMT per employee would still be greater than the OPR's recommended impact threshold of 13.03 VMT per employee.

- TP04 – Commute Trip Reduction Marketing/Education: Implement marketing/educational campaigns that promote the use of transit, shared rides, and travel through active modes for 50% of the project employees. Strategies may include the incorporation of alternative commute options into new employee orientations, event promotions, and publications.
- TP17 – Subsidize Vanpool: Provide subsidies to employees who are forming new vanpools for their commute, or to patients and visitors who choose to use a shuttle service. This encourages the use of vanpools, reducing drive-alone trips, and thereby reducing VMT. The project would be required to subsidize 100% of the cost of the vanpool cost with at least 20% employee participation.

OPR's recommended 15% below existing regional average VMT impact threshold encourages developments in transit-rich, highly mixed-use areas to implement design features and trip reduction measures to take advantage of existing multi-model infrastructure and land use mixes in reducing trip making and/or trip lengths. However, many communities such as Morgan Hill have very limited multi-modal transportation infrastructure. The lack of transit options results in a greater number and longer commute trips. Therefore, it is highly unlikely that developments like the proposed project in these cities can achieve OPR's recommended 15% reduction in VMT. Therefore, absent of the City adopting its own City-specific VMT policies and impact thresholds, the proposed project's VMT impact must be deemed significant and unavoidable.

Other Transportation Issues

Transit, Pedestrian, and Bicycle Analysis

Project's Effect on Pedestrian Facilities

It can be expected that new pedestrian traffic would be generated by the proposed project. The project site is located within what would be considered a walking distance (0.5-1 mile) from various commercial uses along the Tennant Avenue corridor, various employment opportunities along Butterfield Boulevard, and Barrett Elementary School is located just north of the project site.

Even with the proposed on-site pedestrian network, the lack of a continuous pedestrian network off-site would affect pedestrian access to/from the project site. The lack of connectivity between the project site and nearby pedestrian destinations could potentially discourage pedestrian activity or force pedestrians to walk along undeveloped roadway shoulders and/or within the street.

Recommendation: It is recommended that all existing and proposed curb ramps along the project site frontage and at the Juan Hernandez Drive/St. James Drive intersection providing direct access to the project site be upgraded to comply with ADA standards.

Project's Effect on Bicycle Facilities

The proposed project may increase the demand for bicycle facilities in the vicinity of the project site. The Bikeways Master Plan map contained within the City of Morgan Hill General Plan shows planned bike lanes along both sides of Juan Hernandez Drive, between Tennant Avenue and San Pedro Avenue. The proposed project would not inhibit the implementation of future bicycle facilities in the study area. Therefore, the proposed project would not have an adverse effect on the existing or future bicycle facilities in the study area.

Project's Effect on Transit Services

Given the absence of existing bus routes directly serving the project site, the potential use of public transportation by employees and visitors of the proposed project could be limited. However, the available bus routes with stops located approximately one mile west of the project site in proximity to the Monterey Road/Tennant Avenue intersection should be sufficient to accommodate the minimal project transit demand for those who opt to use public transit as their mode of transportation.

Recommendation: With the development of the project, as well as other ongoing developments along Tennant Avenue in the vicinity of the project site, there will be an opportunity for VTA to expand the existing service area to this part of the City, which is currently underserved. A bus stop could be provided along the project site frontage along Juan Hernandez Drive to serve the project site and adjacent residential neighborhoods. The project applicant along with the City of Morgan Hill should explore the opportunities to expand bus service to the project site and accommodation of a bus stop along the project frontage.

1. Introduction

This report presents the results of the transportation analysis conducted for the proposed Rosewood Medical Campus Development project in Morgan Hill, California.

Project Description

The project site is situated on three parcels (APNs 817-09-039, -040, and -041) totaling 9.61 acres and located to the north of Tennant Avenue between Juan Hernandez Drive and US 101 in the City of Morgan Hill. The project consists of the replacement of the 15,900 s.f. of existing medical office space on site with up to 275,000 s.f. of medical office space. Access to the project site would be provided via a new east approach at the Juan Hernandez Drive/St. James Drive intersection and a connection to the future Rosewood Lane to the north of the project site. The project site location and the surrounding study area are shown on Figure 1. The project site plan is shown on Figure 2.

CEQA Transportation Analysis Scope

The TA consists of a California Environmental Quality Act (CEQA) required vehicle-miles-traveled (VMT) analysis. The TA also includes an evaluation of the effects of the project on other transportation issues relating to pedestrian, bicycle, and transit facilities. Historically, traffic impact analysis has utilized vehicular delay to identify traffic impacts and potential roadway improvements to relieve traffic congestion that may result due to proposed/planned growth. However, with the adoption of Senate Bill (SB) 743 legislation, public agencies are required (effective July 2020) to base transportation impacts on VMT rather than level of service that typically uses delay as its metric. The change in measurement is intended to better evaluate the effects on the state's goals for climate change and multi-modal transportation. Therefore, to adhere to the state's legislation, all new development projects are required to analyze transportation impacts using the VMT metric.

The CEQA VMT impact analysis was completed using the VTA's VMT Evaluation Tool. The City of Morgan Hill is currently developing the framework for new transportation policies based on VMT as the primary measure of transportation impacts for CEQA. However, since the City has not formally adopted its own city-specific VMT policies, this study

Figure 1
Site Location

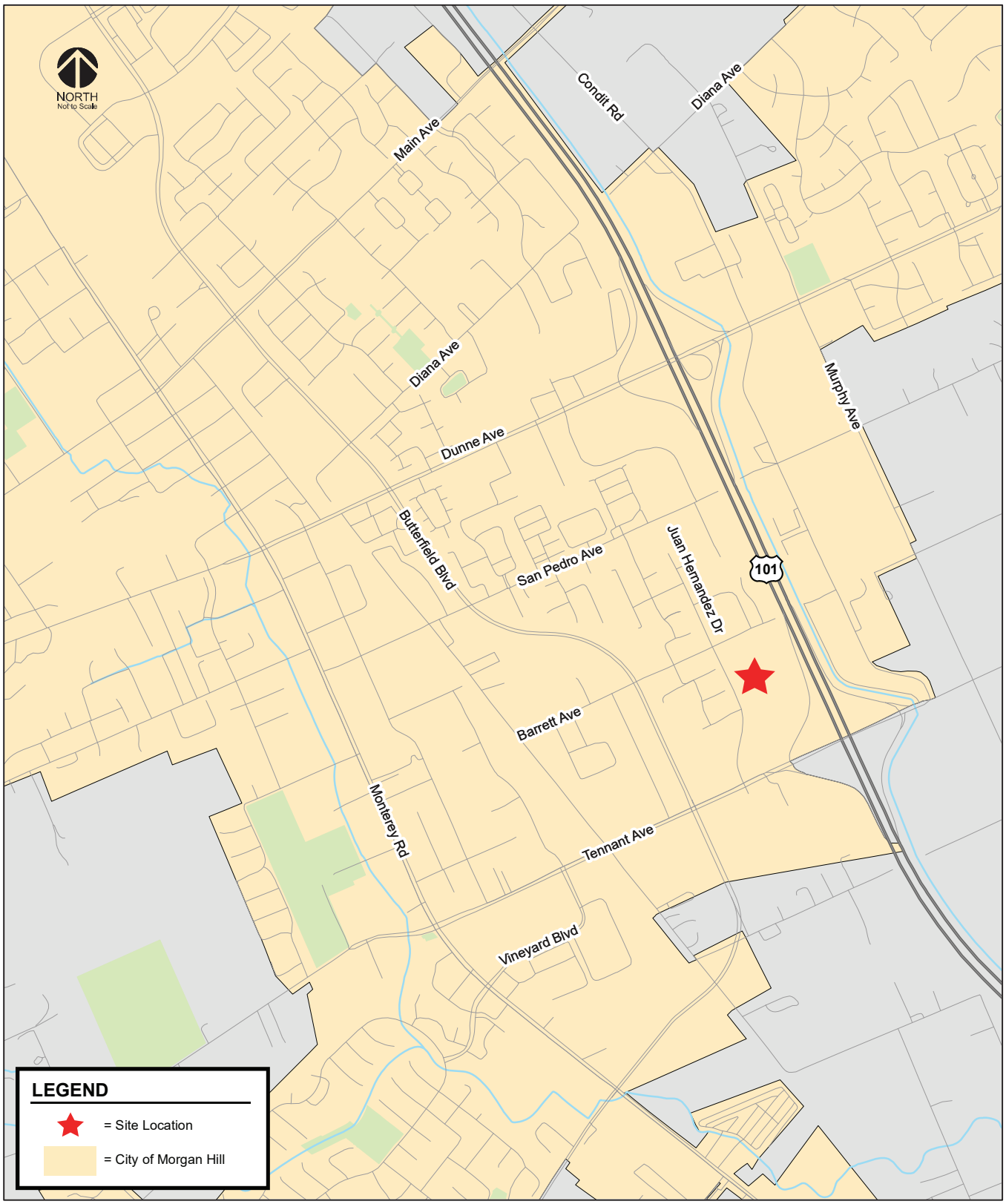
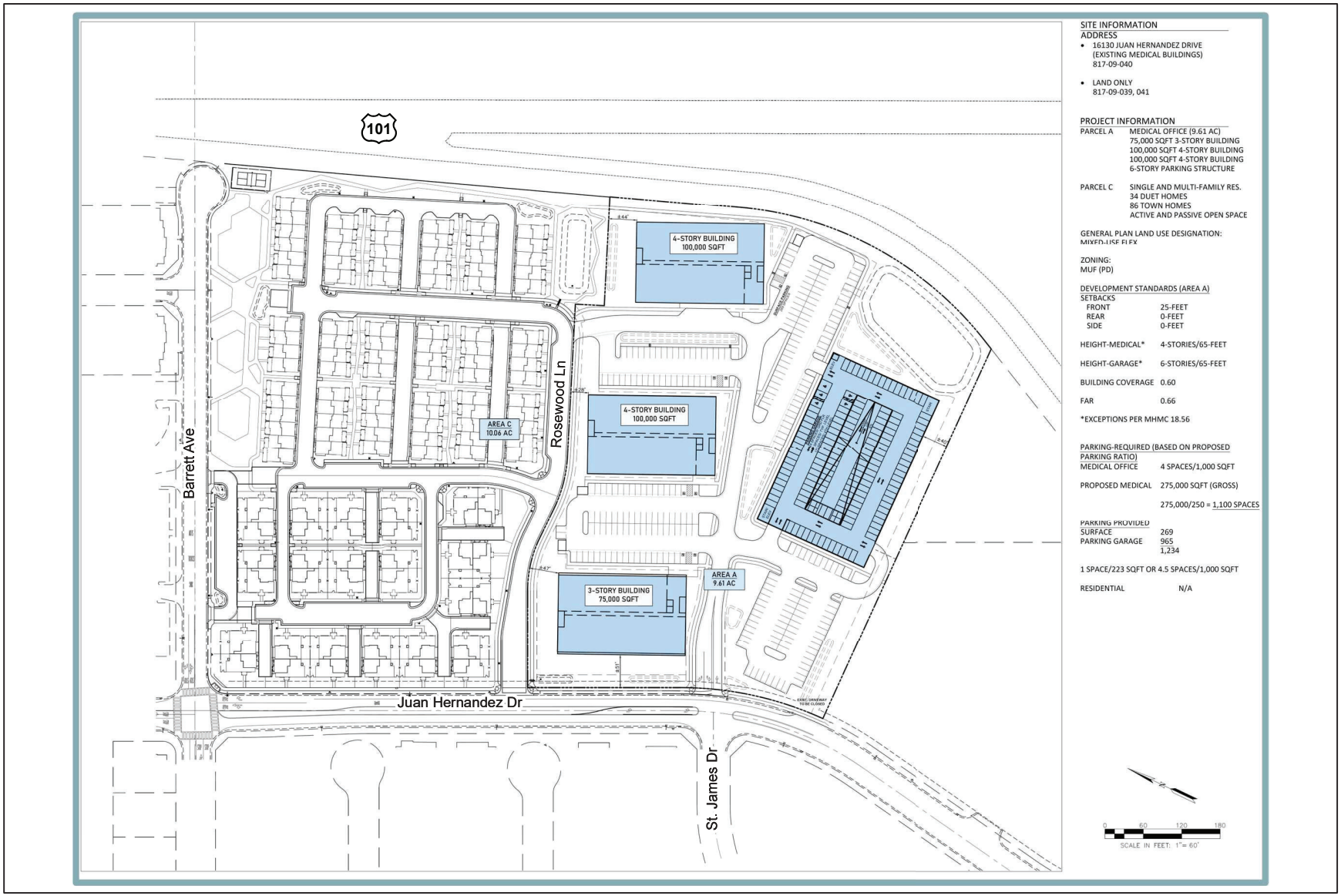


Figure 2
Project Site Plan



utilizes VMT analysis methodology and impact thresholds recommended in the Governor's Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA, December 2018.

Report Organization

The remainder of this report is divided into four chapters. Chapter 2 describes existing conditions in terms of the existing roadway network, pedestrian, bicycle, and transit facilities. Chapter 3 presents the CEQA VMT analysis. Chapter 4 presents the analysis of other transportation-related issues including pedestrian, bicycle, and transit facilities. Chapter 5 presents the conclusions of the transportation analysis.

2. Existing Transportation System

This chapter describes the existing transportation system within the project area. It describes transportation facilities for all of the major transportation facilities in the vicinity of the site, including the roadway network, pedestrian, bicycle, and transit facilities.

Existing Roadway Network

Regional access to the project site is provided via US 101 while local access to the project site is provided by Tennant Avenue, Barrett Avenue, San Pedro Avenue, Dunne Avenue, Monterey Road, Butterfield Boulevard, Juan Hernandez Drive, Condit Road, and St. James Drive. These facilities are described below.

US 101 is a north-south freeway extending northward to San Francisco and southward through Gilroy. US 101 is an eight-lane freeway (three mixed-flow lanes and one high-occupancy vehicle (HOV) lane in each direction) north of Cochrane Road. South of Cochrane Road, it is a six-lane freeway with no HOV lanes. Access to and from the project area is provided via a full interchange at Tennant Avenue.

Tennant Avenue is classified in the City of Morgan Hill General Plan as a 4- to 6-lane major arterial. Tennant Avenue extends from Monterey Road eastward to the east foothills, terminating at a T-intersection with Carey Avenue. West of Monterey Road, Tennant Avenue changes designation to Edmundson Avenue. Tennant Avenue provides regional access to the project site via its full interchange with US 101.

Barrett Avenue is an east-west two-lane undivided roadway that extends from Railroad Avenue eastward to just west of US 101. East of US 101, Barrett Avenue continues eastward from west of Murphy Avenue to Trail Drive, in the east foothills, where it terminates. The posted speed limit on Barrett Avenue is 30 miles per hour (mph) and reduces to 25 mph in the vicinity of the Barrett Elementary School when children are present. Sidewalks on both sides of the street are found along Barrett Avenue, west of US 101, with the exception of two short segments along two undeveloped parcels located just east of Railroad Avenue. No sidewalks are found along Barrett Avenue, east of US 101. Barrett Avenue would provide access to the project site via its intersection with Juan Hernandez Drive.

San Pedro Avenue is an east-west two-lane undivided roadway that extends from Monterey Road eastward to just west of US 101, then it continues again on the east side of US 101 to its terminus point at Hill Road. West of US 101, San Pedro Avenue has a posted speed limit of 35 mph. San Pedro

Avenue would provide access to the project site via its intersections with Butterfield Boulevard and the future Juan Hernandez Drive extension.

Dunne Avenue is classified in the City of Morgan Hill General Plan as a four-lane major arterial, with the exception of the two-lane arterial segment between Del Monte Avenue and Peak Avenue. Dunne Avenue transverses the City extending from the east part of town to the west with a posted speed limit of 35 to 40 mph and sidewalks along both sides of the street. Bike lanes are found along both sides of Dunne Avenue between Peak Avenue and east of US 101. Dunne Avenue would provide access to the project site via its intersections with Butterfield Boulevard and Walnut Grove Avenue.

Monterey Road is classified in the City of Morgan Hill General Plan as a four-lane major arterial that runs directly through Morgan Hill. Monterey Road extends from Market Street, in downtown San Jose, to US 101 south of the City of Gilroy. Monterey Road has posted speed limits ranging from 25 to 50 mph. Within the downtown area (between Main Avenue and Dunne Avenue), sidewalks are present along both sides of the street. However, north and south of the downtown area, segments of sidewalks are missing along one or both sides of Monterey Road. The segment of Monterey Road between Main Avenue and Dunne Avenue is designated as a bike route (Class III facility), while the segments of Monterey Road north of Main Avenue and south of Dunne Avenue currently provide bike lanes (Class II) along both sides of the street. Monterey Road would provide access to the project site via its intersections with Tennant Avenue and Butterfield Boulevard.

Butterfield Boulevard is a north-south four-lane divided arterial roadway that begins in the northern part of town at its intersection with Cochrane Road and extends southward to its intersection with Monterey Road where it changes designation to Watsonville Road. Butterfield Boulevard has a posted speed limit of 45 mph. Along with Monterey Road, Butterfield Boulevard serves as a primary north-south route within the City of Morgan Hill. Butterfield Boulevard is planned to be extended north of Cochrane Road as a two-lane arterial to connect to Madrone Parkway. Bike lanes are currently provided along the entire length of Butterfield Boulevard. Butterfield Boulevard would provide access to the project site via its intersections with Barrett Avenue and Tennant Avenue.

Juan Hernandez is a two-lane north-south undivided roadway that begins at Tennant Avenue and extends northward to the north of San Vicente Drive, where it currently terminates. Juan Hernandez Drive is planned to be extended northward from its current terminus point to connect to San Pedro Avenue. The posted speed limit on Juan Hernandez Drive is 35 mph and reduces to 25 mph in the vicinity of the Barrett Elementary School when children are present. Juan Hernandez Drive has sidewalks on both sides of the street, with the exception of the west side of the street between Tennant Avenue and St. James Drive. Being the western project site boundary, Juan Hernandez Drive would provide direct access to the project site via a new east approach at its intersections with St. James Drive.

Condit Road is a two-lane north-south undivided roadway that extends from Tennant Avenue northward to Half Road (north of Main Street) where it currently terminates. Condit Road runs parallel to and east of US 101, with a posted speed limit of 45 mph. Condit Road would provide access to the project site via its intersection with Tennant Avenue.

St. James Drive functions as a two-lane east-west local roadway, serving as an access route for the residential community located to the west of the project site. The proposed project includes the construction of a new east approach at the Juan Hernandez Drive/St. James Drive intersection, which would provide direct access to the project site.

Existing Pedestrian Facilities

Pedestrian facilities in the study areas consist primarily of sidewalks, crosswalks, and pedestrian signals at signalized intersections. All of the signalized intersections in the vicinity of the project site have marked crosswalks with pedestrian push buttons and signal heads along at least two of the legs of the intersection. However, the project site is located within an undeveloped area. Residential neighborhoods are located both north and west of the project site, while parcels south of the project site are mainly undeveloped. Tennant Avenue, east of Butterfield Boulevard, is lined with predominantly undeveloped parcels. As such, continuous sidewalks along some roadway segments in the vicinity of the project site are not available, in particular along undeveloped areas. Additionally, curb ramps at intersections surrounding the project site are non-Americans with Disabilities Act (ADA)-compatible wheelchair ramps. Sidewalks are provided along most residential and commercial areas in the vicinity of the project site. However, the following roadway segments in the immediate project area have missing sidewalks along one or both sides of the street:

Juan Hernandez Drive – Sidewalks are missing along the west side of the street between Tennant Avenue and St. James Drive (undeveloped parcel).

Tennant Avenue – Sidewalks are missing along both sides of the street between Butterfield Boulevard and Juan Hernandez Drive, along two undeveloped parcels east of Railroad Avenue (including along the at-grade railroad crossing), and along both sides of the street east of US 101.

Existing Bicycle Facilities

The roadways adjacent to the project site, including Juan Hernandez Drive and Barrett Avenue do not provide bicycle facilities. However, there are bike lanes and bike paths in the vicinity of the project site. The existing bicycle facilities within the study area are described below and shown on Figure 3.

Class I Trail or Path is an off-street path with exclusive right-of-way for non-motorized transportation used for commuting as well as recreation. Class I bikeways are currently provided at the following locations:

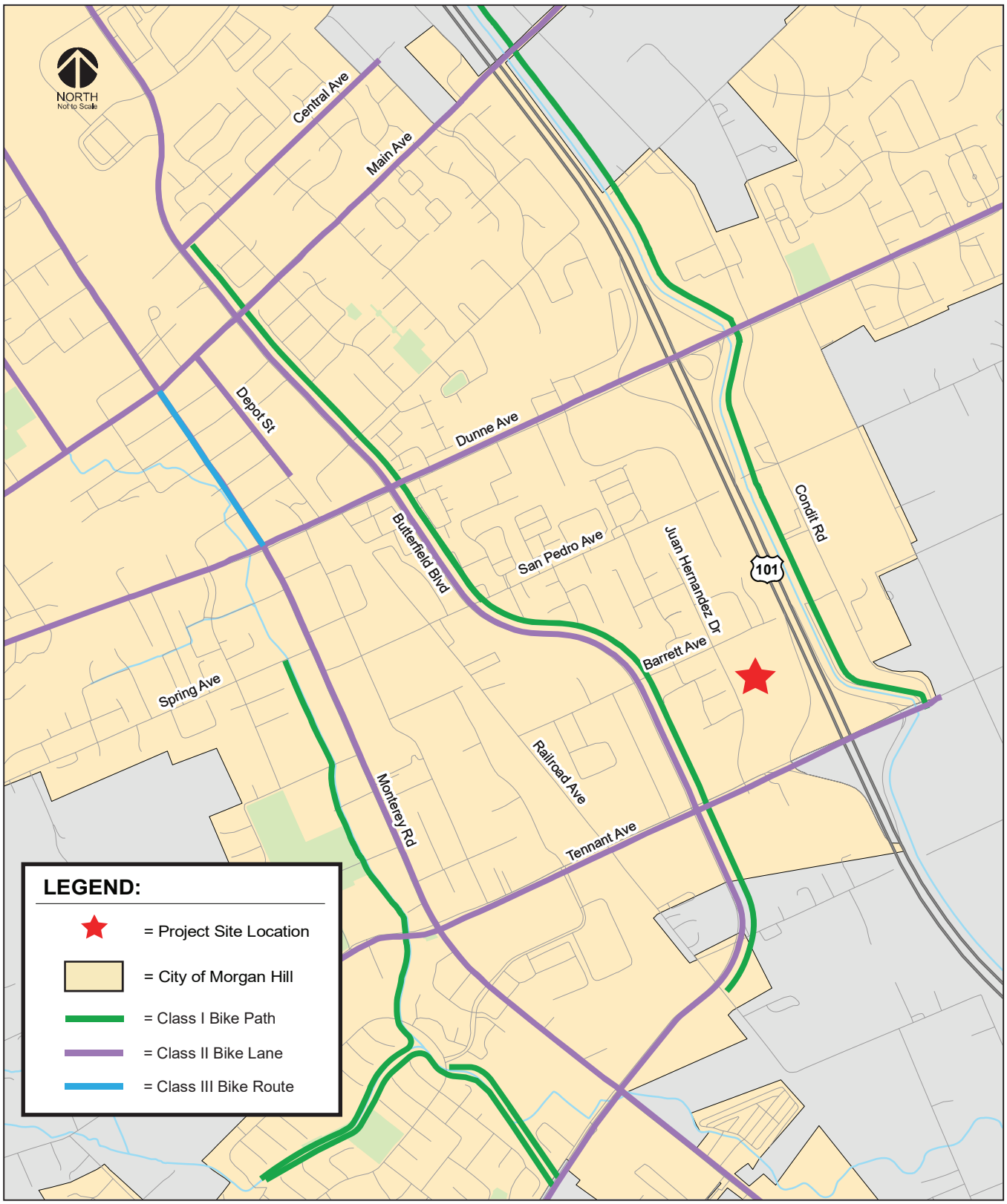
- Along the west bank of Little Llagas Creek, extending from Watsonville Road and La Crosse Drive north to Spring Avenue.
- Along the east side of Butterfield Boulevard, between Central Avenue and Railroad Avenue.
- An unpaved bike path, the Madrone Channel Trail, running along the east side of US 101, between Tennant Avenue and Cochrane Road.

Class II Bike Lanes are on street-striped bike lanes. Within the project vicinity, Class II bikeways are present along the following roadways:

- Tennant Avenue, between Olympic Drive and Condit Road
- Butterfield Boulevard, along its entire length
- Monterey Road, nearly its entire length within City of Morgan Hill limits, with the exception of the segment that runs through downtown between Dunne Avenue and Main Avenue
- Dunne Avenue, between Peak Avenue and east of Hill Road
- Main Avenue, between Peak Avenue and east of US 101

Class III Bike Routes are signed bike routes that provide a connection through residential, downtown, and rural/hillside areas to Class I and Class II facilities. Bike routes serve as transportation routes within neighborhoods to parks, schools, and other community amenities. The segment of Monterey Road between Main Avenue and Dunne Avenue is designated as a bike route.

Figure 3
Existing Bicycle Facilities



Existing Transit Services

The existing transit services in Morgan Hill are primarily provided by VTA buses. Although the City of Morgan Hill is served by various bus routes, none of the existing bus routes currently serve the project site area directly. The nearest bus stops to the project site are located approximately one mile walking distance west of the project site near the Monterey Road/Tennant Avenue intersection. Additionally, the Morgan Hill Caltrain Station is located approximately 1.5 miles northwest of the project site on the east side of Depot Street and provides a connection to most transit lines serving Morgan Hill. The existing transit services in the project area are shown in Figure 4.

VTA Bus Services

The City of Morgan Hill is served by VTA bus routes 121, 568, 68, 87, and 287. The routes are described below.

Express Route 121 operates on Butterfield Boulevard and Monterey Road in the project vicinity on its route between the Gilroy/Morgan Hill Transit Center and the Lockheed Martin Transit Center. It operates northbound only with 70- to 120-minute headways during the AM commute period and southbound only with 60- to 90-minute headways during the PM commute period. The nearest Route 121 bus stop to the project site is located approximately one mile west of the project site at the intersection of Monterey Road and Tennant Avenue.

Rapid Bus Route 568 operates on Monterey Road in the project vicinity on its route between the Gilroy Transit Center and the San Jose Diridon Transit Center with 30-minute headways on weekdays in the AM and PM commute periods. Route 68 operates between 5:00 AM and 9:00 AM. The nearest Route 568 bus stop to the project site is located approximately one mile west of the project site at the intersection of Monterey Road and Tennant Avenue.

Frequent Bus Route 68 operates on Monterey Road in the project vicinity on its route between the Gilroy Transit Center and the San Jose Diridon Transit Center with 15-minute headways on weekdays in the AM and PM commute periods. Route 68 operates between 4:00 AM and 1:00 AM. The nearest Route 68 bus stop to the project site is located approximately one mile west of the project site at the intersection of Monterey Road and Tennant Avenue.

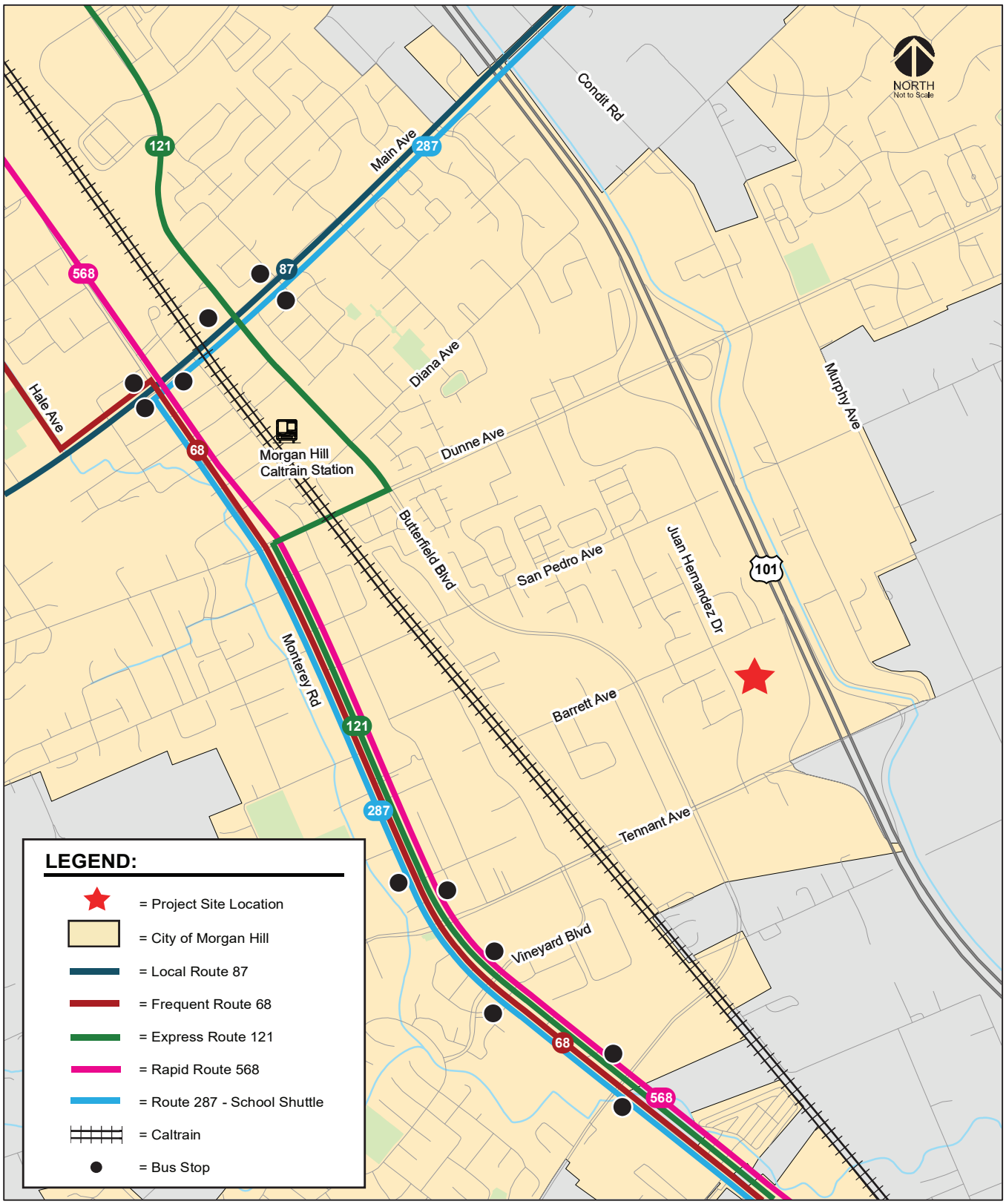
Local Bus Route 87 operates on Main Avenue in the project vicinity on its route between Burnett Avenue and the Morgan Hill Civic Center (Main and Dewitt) with approximately 60-minute headways in the AM and PM commute periods. Route 87 operates between 7:00 AM and 6:00 PM. The nearest Route 87 bus stop to the project site is located approximately two miles northwest of the project site near the intersection of Monterey Road and Main Avenue.

School Shuttle Route 287 operates on Main Avenue and Monterey Road in the project vicinity on its route between Live Oak High School and San Martin. It operates a single southbound trip at 3:44 PM from Live Oak High School to the intersection of Monterey Road and San Martin Avenue.

Caltrain

Commuter rail service between San Francisco and Gilroy is provided by Caltrain. The Morgan Hill Caltrain Station is located along Depot Street, with main access and parking off Butterfield Boulevard, approximately 1.5 miles northwest of the project site. At the Morgan Hill Station, Caltrain provides service in the northbound direction only during the AM commute period and in the southbound direction only during the PM commute period with approximately 20- to 80-minute headways during each of the commute hours.

Figure 4
Existing Bicycle Facilities



3. CEQA VMT Evaluation

This chapter provides an evaluation of the proposed project's effect on VMT. Pursuant to Senate Bill (SB) 743, the California Environmental Quality Act (CEQA) 2019 Update Guidelines Section 15064.3, subdivision (b) states that VMT will be the metric in analyzing transportation impacts for land use projects for CEQA purposes.

VMT Evaluation Methodology

VMT is the total miles of travel by personal motorized vehicles a project is expected to generate in a day. VMT measures the full distance of personal motorized vehicle trips with one end within the project. Typically, development projects that are farther from other, complementary land uses (such as a business park far from housing) and in areas without transit or active transportation infrastructure (bike lanes, sidewalks, etc.) generate more driving than development near complementary land uses with more robust transportation options. Therefore, developments located in a central business district with high density and diversity of complementary land uses and frequent transit services are expected to internalize trips and generate shorter and fewer vehicle trips than developments located in a suburban area with low density of residential developments and no transit service in the project vicinity.

VMT Evaluation Tool

The evaluation of the project's effects on VMT was completed using *VTA's VMT Evaluation Tool.* The VMT tool provides a streamlined method to determine whether residential and office/industrial uses of a proposed development would result in CEQA transportation impacts related to VMT. The VMT tool identifies the existing average VMT per capita and VMT per employee for the project area based on the assessor's parcel number (APN) of a project. Based on the project location, type of development, project description, and proposed trip reduction measures, the evaluation tool calculates the project VMT. Projects located in areas where the existing VMT is above the established threshold are referred to as being in "high-VMT areas". Projects in high-VMT areas are required to include a set of VMT reduction measures that would reduce the project VMT to the greatest extent possible.

Office Equivalency Calculation

Given the limitations of VTA's VMT Evaluation Tool, which is designed to assess general office employment uses or industrial uses, the proposed medical office space were converted into an equivalent amount of office space for the purpose of tool input and VMT evaluation. This approach was

taken because both medical office and office uses share similar trip-making characteristics in regard to the origin and destination of employee and visitor trips.

The proposed medical office space was converted into an equivalent amount of office space based on trip generation estimates derived from daily trip rates published in the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition (2021). Based on the daily trip rate for ITE Land Use #720 (Dental-Medical Office Building), the proposed 275,000 s.f. of medical office space is estimated to generate 11,709 daily trips, which are equivalent to the trips estimated to be generated by approximately 1,081,000 s.f. of office space using ITE Land Use #710 (General Office Building). Table 1 presents the equivalency calculation.

Table 1
Medical Office to Office Equivalency Calculation

ITE Land Use		Size		Daily Rate	Daily Trips
Medical Office Building (#720)		275,000	Square Feet	42.577	11,709
General Office Building (#710)	**Equivalent Office Space =**	**1,081,000**	**Square Feet**	10.840	11,709

Source: ITE Trip Generation Manual, 11th Edition 2021.

Evaluation of Screening Criteria

According to OPR's guidelines, employment projects located in areas with low VMT and incorporating similar features generally exhibit similarly low VMT. However, the project site is not located within an area with low VMT since the project area's existing VMT of 21.88 per employee exceed the impact threshold of 15% below the regional average of 15.33 VMT per employee or 13.03 VMT per employee. Therefore, the project is required to complete a VMT analysis.

VMT Impact Criteria

A project's VMT is compared to established thresholds of significance based on the project location and type of development. When assessing a residential project, the project's VMT is divided by the number of residents expected to occupy the project to determine the VMT per capita. When assessing an office or industrial project, the project's VMT is divided by the number of employees to determine the VMT per employee/job.

To adhere to the state's legislation, the City of Morgan Hill is currently developing the framework for new transportation policies based on the implementation of VMT as the primary measure of transportation impacts for CEQA purposes. However, since the City has not formally adopted its own City-specific VMT policies, this study utilizes VMT analysis methodology and impact thresholds recommended in the Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018.

As stated in the technical advisory, OPR recommends an impact threshold of 15% below the existing regional VMT per employee. The VTA's VMT Evaluation Tool indicates that the current regional average VMT per employee is 15.33. Therefore, the OPR recommended impact threshold of 15% below the regional average VMT per employee equates to **13.03 VMT per employee**.

VMT Evaluation

The results of the VMT analysis using the VTA VMT Evaluation Tool indicate that the existing VMT for employment uses in the project vicinity is 21.88 VMT per employee.

The results also indicate that the project is projected to generate 19.69 VMT per employee, which would exceed OPR's VMT impact threshold of 13.03 VMT per employee. Therefore, the project would result in a significant impact on the transportation system based on OPR's impact criteria. The VTA's VMT Evaluation Tool output sheets are shown in Figure 5 and also included in Appendix A.

VMT Impacts and Mitigation

Using OPR's impact thresholds, the project would need to implement VMT reduction measures to achieve an approximately 34% reduction (19.69 to 13.03) in its VMT per employee for the proposed medical office uses to reduce its impact to less than significant levels. However, per the VTA's VMT Evaluation Tool, the maximum reduction possible is 17.50. Further reductions in VMT are not likely feasible for employment projects due to the limited alternative modes of transportation, primarily public transit options, within the City.

The project's VMT per employee could be reduced to 17.50 with the implementation of the following two Travel Demand Management (TDM) strategies, however, the reduced VMT per employee would still be greater than the OPR's recommended impact threshold of 13.03 VMT per employee.

- TP04 – Commute Trip Reduction Marketing/Education: Implement marketing/educational campaigns that promote the use of transit, shared rides, and travel through active modes for 50% of the project employees. Strategies may include the incorporation of alternative commute options into new employee orientations, event promotions, and publications.
- TP17 – Subsidize Vanpool: Provide subsidies to employees who are forming new vanpools for their commute, or to patients and visitors who choose to use a shuttle service. This encourages the use of vanpools, reducing drive-alone trips, and thereby reducing VMT. The project would be required to subsidize 100% of the cost of the vanpool cost with at least 20% employee participation.

OPR's recommended 15% below existing regional average VMT impact threshold encourages developments in transit-rich, highly mixed-use areas to implement design features and trip reduction measures to take advantage of existing multi-model infrastructure and land use mixes in reducing trip making and/or trip lengths. However, many communities such as Morgan Hill have very limited multi-modal transportation infrastructure. The lack of transit options results in a greater number and longer commute trips. Therefore, it is highly unlikely that developments like the proposed project in these cities can achieve OPR's recommended 15% reduction in VMT. Therefore, absent of the City adopting its own City-specific VMT policies and impact thresholds, the proposed project's VMT impact must be deemed significant and unavoidable.

Figure 5
VMT Analysis

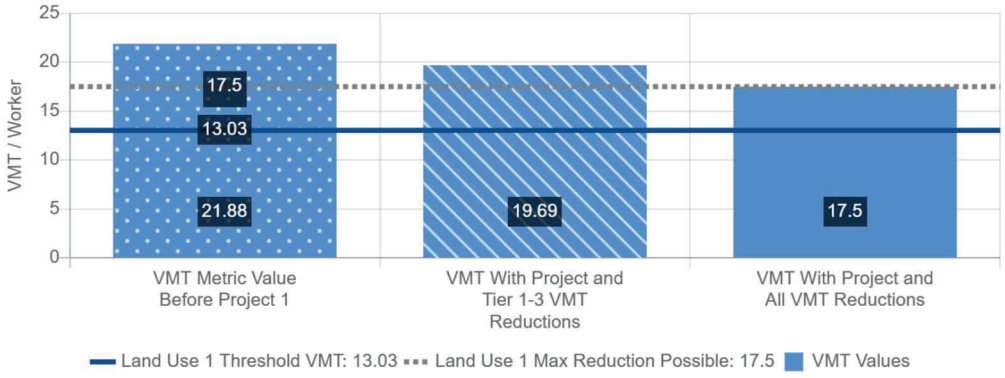
Santa Clara Countywide VMT Evaluation Tool - Version 2 - Report

Valley Transportation Authority

Office Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:	Office
VMT Metric 1:	Home-based Work VMT per Worker
VMT Baseline Description 1:	Bay Area Regional Average
VMT Baseline Value 1:	15.33
VMT Threshold Description 1 / Threshold Value 1:	-15% / 13.03
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	N/A

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	21.88	19.69	17.5
Low VMT Screening Analysis	No (Fail)	No (Fail)	No (Fail)



4. Other Transportation Issues

This chapter presents an analysis of other transportation issues associated with potential impacts to pedestrian, bicycle, and transit facilities.

Transit, Pedestrian, and Bicycle Evaluation

Pedestrian Access

As discussed previously, pedestrian facilities in the study area consist primarily of sidewalks, crosswalks, and pedestrian signals at signalized intersections. The adjacent intersection of Juan Hernandez Drive/Barrett Avenue has high-visibility crosswalks along all four legs of the intersection, and the Juan Hernandez Drive/Tennant Avenue intersection has marked crosswalks and pedestrian signal heads along the north and west legs of the intersection. However, the project site is located within an undeveloped area. Tennant Avenue, east of Butterfield Boulevard, is lined with undeveloped parcels. As such, continuous sidewalks along some roadway segments in the vicinity of the project site are not available. Sidewalks are currently missing along both sides of Tennant Avenue near the project site, along the west side of Juan Hernandez Drive south of St. James Drive, and along the east side of Butterfield Boulevard between Tennant Avenue and San Pedro Avenue. Although sidewalks are available along the entire project site frontage, the missing sidewalks along some of the streets near the project site would result in a discontinuous pedestrian network in the project area. Additionally, curb ramps at intersections surrounding the project site are non-Americans with Disabilities Act (ADA)-compatible wheelchair ramps.

Project's Effect on Pedestrian Facilities

It can be expected that new pedestrian traffic would be generated by the proposed project. The project site is located within what would be considered a walking distance (0.5-1 mile) from various commercial uses along the Tennant Avenue corridor, various employment opportunities along Butterfield Boulevard, and Barrett Elementary School is located just north of the project site.

The existing sidewalks along both sides of Barrett Avenue and high-visibility crosswalks at the Juan Hernandez Drive/Barrett Avenue intersection, in conjunction with sidewalks on the project site frontage along Juan Hernandez Drive and the sidewalks on Barrett Avenue, would provide continuous and safety-enhanced access between the project site and Barrett Elementary School.

Pedestrian destinations along Butterfield Boulevard could be accessed via the continuous sidewalks on Barrett Avenue. Pedestrian access to the commercial areas along Tennant Avenue, however, would be challenging due to the discontinuous pedestrian network, forcing pedestrians to walk along the edge of undeveloped parcels. At the railroad tracks along Tennant Avenue, east of the Tennant Avenue/Vineyard Boulevard intersection, there is not a defined pedestrian crossing of the railroad tracks or sidewalks on either side of the tracks along Tennant Avenue. Sidewalks begin along the north side of Tennant Avenue approximately 100 feet west of the railroad tracks and at its intersection with Vineyard Boulevard along the south side of Tennant Avenue.

Even with the proposed on-site pedestrian network, the lack of a continuous pedestrian network off-site would affect pedestrian access to/from the project site. The lack of connectivity between the project site and nearby pedestrian destinations could potentially discourage pedestrian activity or force pedestrians to walk along undeveloped roadway shoulders and/or within the street.

Recommendation: It is recommended that all existing and proposed curb ramps along the project site frontage and at the Juan Hernandez Drive/St. James Drive intersection providing direct access to the project site be upgraded to comply with ADA standards.

Bicycle Facilities

Bike lanes are currently provided along Tennant Avenue and Butterfield Boulevard near the project site. These bike lanes provide a connection to other bicycle facilities throughout Morgan Hill. No bike lanes currently serve the project site directly.

Project's Effect on Bicycle Facilities

The proposed project may increase the demand for bicycle facilities in the vicinity of the project site. The Bikeways Master Plan map contained within the City of Morgan Hill General Plan shows planned bike lanes along both sides of Juan Hernandez Drive, between Tennant Avenue and San Pedro Avenue. The proposed project would not inhibit the implementation of future bicycle facilities in the study area. Therefore, the proposed project would not have an adverse effect on the existing or future bicycle facilities in the study area.

Transit Services

Although the City of Morgan Hill is served by various bus routes (121, 568, 68, 87, and 287), none of the existing bus routes currently serve the project site directly. The nearest bus stops to the project site are located north of the Monterey Road/Tennant Avenue intersection, approximately one mile walking distance west of the project site. Additionally, the Morgan Hill Caltrain Station, located on the east side of Depot Street, is approximately 1.5 miles northwest of the project site and provides a connection to most transit lines serving Morgan Hill.

Project's Effect on Transit Services

Given the absence of existing bus routes directly serving the project site, the potential use of public transportation by employees and visitors of the proposed project could be limited. However, the available bus routes with stops located approximately one mile west of the project site in proximity to the Monterey Road/Tennant Avenue intersection should be sufficient to accommodate the minimal project transit demand for those who opt to use public transit as their mode of transportation.

Recommendation: With the development of the project, as well as other ongoing developments along Tennant Avenue in the vicinity of the project site, there will be an opportunity for VTA to expand the

existing service area to this part of the City, which is currently underserved. A bus stop could be provided along the project site frontage along Juan Hernandez Drive to serve the project site and adjacent residential neighborhoods. The project applicant along with the City of Morgan Hill should explore the opportunities to expand bus service to the project site and accommodation of a bus stop along the project frontage.

5. Conclusions

The potential impacts of the project were evaluated in accordance with the California Environmental Quality Act (CEQA) guidelines and the Governor's Office of Planning and Research (OPR) *Technical Advisory on Evaluating Transportation Impacts in CEQA*, December 2018.

A supplemental traffic operations analysis, provided in a separate report, also was completed to demonstrate the project's consistency with the *Morgan Hill 2035 General Plan* goals and policies. The traffic operations analysis supplements the CEQA-required VMT analysis. However, the determination of project impacts per CEQA requirements is based solely on the VMT analysis.

CEQA VMT Analysis

The results also indicate that the project is projected to generate 19.69 VMT per employee, which would exceed OPR's VMT impact threshold of 13.03 VMT per employee. Therefore, the project would result in a significant impact on the transportation system based on OPR's impact criteria.

VMT Impacts and Mitigation

Using OPR's impact thresholds, the project would need to implement VMT reduction measures to achieve an approximately 34% reduction (19.69 to 13.03) in its VMT per employee for the proposed medical office uses to reduce its impact to less than significant levels. However, per the VTA's VMT Evaluation Tool, the maximum reduction possible is 17.50. Further reductions in VMT are not likely feasible for employment projects due to the limited alternative modes of transportation, primarily public transit options, within the City.

The project's VMT per employee could be reduced to 17.50 with the implementation of the following two Travel Demand Management (TDM) strategies, however, the reduced VMT per employee would still be greater than the OPR's recommended impact threshold of 13.03 VMT per employee.

- TP04 – Commute Trip Reduction Marketing/Education: Implement marketing/educational campaigns that promote the use of transit, shared rides, and travel through active modes for 50% of the project employees. Strategies may include the incorporation of alternative commute options into new employee orientations, event promotions, and publications.

- TP17 – Subsidize Vanpool: Provide subsidies to employees who are forming new vanpools for their commute, or to patients and visitors who choose to use a shuttle service. This encourages the use of vanpools, reducing drive-alone trips, and thereby reducing VMT. The project would be required to subsidize 100% of the cost of the vanpool cost with at least 20% employee participation.

OPR's recommended 15% below existing regional average VMT impact threshold encourages developments in transit-rich, highly mixed-use areas to implement design features and trip reduction measures to take advantage of existing multi-model infrastructure and land use mixes in reducing trip making and/or trip lengths. However, many communities such as Morgan Hill have very limited multi-modal transportation infrastructure. The lack of transit options results in a greater number and longer commute trips. Therefore, it is highly unlikely that developments like the proposed project in these cities can achieve OPR's recommended 15% reduction in VMT. Therefore, absent of the City adopting its own City-specific VMT policies and impact thresholds, the proposed project's VMT impact must be deemed significant and unavoidable.

Other Transportation Issues

Transit, Pedestrian, and Bicycle Analysis

Project's Effect on Pedestrian Facilities

It can be expected that new pedestrian traffic would be generated by the proposed project. The project site is located within what would be considered a walking distance (0.5-1 mile) from various commercial uses along the Tennant Avenue corridor, various employment opportunities along Butterfield Boulevard, and Barrett Elementary School is located just north of the project site.

Even with the proposed on-site pedestrian network, the lack of a continuous pedestrian network off-site would affect pedestrian access to/from the project site. The lack of connectivity between the project site and nearby pedestrian destinations could potentially discourage pedestrian activity or force pedestrians to walk along undeveloped roadway shoulders and/or within the street.

Recommendation: It is recommended that all existing and proposed curb ramps along the project site frontage and at the Juan Hernandez Drive/St. James Drive intersection providing direct access to the project site be upgraded to comply with ADA standards.

Project's Effect on Bicycle Facilities

The proposed project may increase the demand for bicycle facilities in the vicinity of the project site. The Bikeways Master Plan map contained within the City of Morgan Hill General Plan shows planned bike lanes along both sides of Juan Hernandez Drive, between Tennant Avenue and San Pedro Avenue. The proposed project would not inhibit the implementation of future bicycle facilities in the study area. Therefore, the proposed project would not have an adverse effect on the existing or future bicycle facilities in the study area.

Project's Effect on Transit Services

Given the absence of existing bus routes directly serving the project site, the potential use of public transportation by employees and visitors of the proposed project could be limited. However, the available bus routes with stops located approximately one mile west of the project site in proximity to the Monterey Road/Tennant Avenue intersection should be sufficient to accommodate the minimal project transit demand for those who opt to use public transit as their mode of transportation.

Recommendation: With the development of the project, as well as other ongoing developments along Tennant Avenue in the vicinity of the project site, there will be an opportunity for VTA to expand the existing service area to this part of the City, which is currently underserved. A bus stop could be provided along the project site frontage along Juan Hernandez Drive to serve the project site and adjacent residential neighborhoods. The project applicant along with the City of Morgan Hill should explore the opportunities to expand bus service to the project site and accommodation of a bus stop along the project frontage.

Rosewood Medical Office Development
Technical Appendices

November 10, 2023

Appendix A

VTA's VMT Evaluation Tool Output Sheets

Santa Clara Countywide VMT Evaluation Tool - Version 2 - Report

Project Details

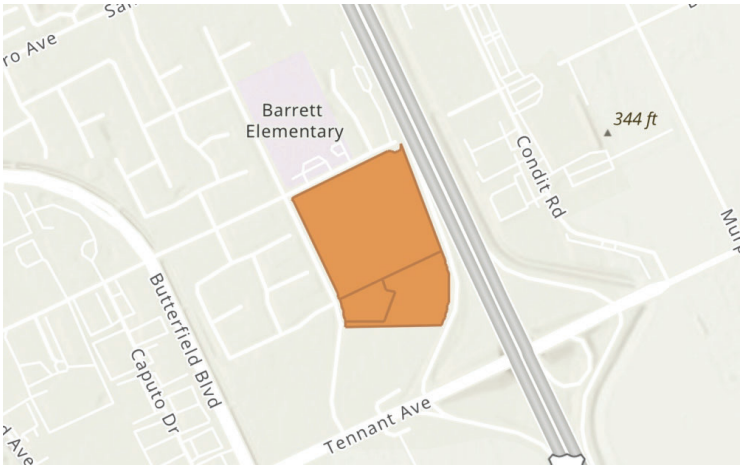
Timestamp of Analysis	October 09, 2023, 10:46:00 AM
Project Name	Rosewood Medical Office Development
Project Description	275,000 s.f. medical office space

Project Location Map

Jurisdiction:

Morgan Hill

APN	TAZ
81709041	348
81709040	348
81709039	348



Analysis Details

Data Version	VTA Countywide Model December 2019
Analysis Methodology	Parcel Buffer Method
Baseline Year	2023

Project Land Use

Residential:

Single Family DU:

Multifamily DU:

Total DUs: 0

Non-Residential:

Office KSF: 1081

Local Serving Retail KSF:

Industrial KSF:

Residential Affordability (percent of all units):

Extremely Low Income: 0 %

Very Low Income: 0 %

Low Income: 0 %

Parking:

Motor Vehicle Parking:

Bicycle Parking:

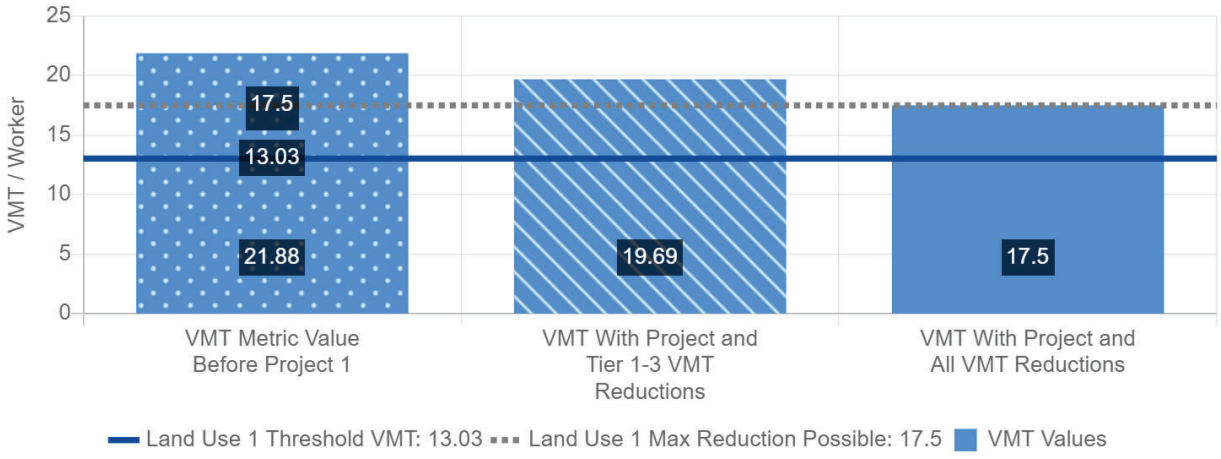
Proximity to Transit Screening

Inside a transit priority area? No (Fail)

Office Vehicle Miles Traveled (VMT) Screening Results

Land Use Type 1:	Office
VMT Metric 1:	Home-based Work VMT per Worker
VMT Baseline Description 1:	Bay Area Regional Average
VMT Baseline Value 1:	15.33
VMT Threshold Description 1 / Threshold Value 1:	-15% / 13.03
Land Use 1 has been Pre-Screened by the Local Jurisdiction:	N/A

	Without Project	With Project & Tier 1-3 VMT Reductions	With Project & All VMT Reductions
Project Generated Vehicle Miles Traveled (VMT) Rate	21.88	19.69	17.5
Low VMT Screening Analysis	No (Fail)	No (Fail)	No (Fail)



Tier 1 Project Characteristics

PC01 Increase Residential Density

Existing Residential Density:	3.79
With Project Residential Density:	3.79

PC02 Increase Residential Diversity

Existing Residential Diversity Index:	0.62
With Project Residential Diversity Index:	0.57

PC03 Affordable Housing

PC04 Increase Employment Density

Existing Employment Density:	11.68
With Project Employment Density:	72.98

Tier 4 TDM Programs

TP04 CTR Marketing and Education

CTR Marketing/Education Percent Expected Participants:	50 %

TP17 Vanpool Incentives

Percent of Vanpool Cost that is Subsidized:	100 %
Percent of Vanpool Participants:	20 %