City of Morgan Hill
Development Services Department

CITY OF MORGAN HILL

Peak Avenue Assisted Living Project

Initial Study

May 2022

Prepared by

RANEY PLANNING & MANAGEMENT, INC. 20 years
1501 Sports Drive, Suite A, Sacramento, CA 95834

TABLE OF CONTENTS

FIGURES

TABLES

APPENDICES

INITIAL STUDY

June 2022

A. BACKGROUND

1. Project Title: Peak Avenue Assisted Living 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: Tiffany Brown
Associate Planner
(408) 778-6480

4. Project Location: 17090 Peak Avenue
Morgan Hill, CA 95037
Assessor's Parcel Number 767-03-017

5. Project Sponsor's Name and Address: Villa Monte RCFE
PO Box Z
San Jose, California 95151
(408) 993-9268

6. Existing General Plan Designation: Residential Attached Medium

7. Existing Zoning Designation: Residential Attached Medium (RAM)

8. Required Approvals from Other Public Agencies: Regional Water Quality Control Board
Santa Clara Valley Water District
Bay Area Air Quality Management District

9. Surrounding Land Uses and Setting:

The 1.94-acre project site is located at 17090 Peak Avenue, north of the intersection of Peak Avenue and West Dunne Avenue, in the City of Morgan Hill, California. The site is identified by Assessor's Parcel Number (APN) 767-03-017, and currently contains a 28-bed single-story residential care facility, two sheds, a private driveway, parking lot, and trees. The southern boundaries of the project site include a cut-out area that borders an existing residence located along West Dunne Avenue on three sides. Surrounding existing uses include Pacific Hills Manor, a 99-bed residential care facility, to the north; undeveloped land to the east; the Morgan Hill Masonic Center, an office building, and associated parking areas to the south, across from West Dunne Avenue; and single-family homes to the west, across from Peak Avenue. The City of Morgan Hill 2035 General Plan designates the site as Residential Attached Medium and the site is zoned Residential Attached Medium (RAM).

10. Project Description Summary:

    The Peak Avenue Assisted Living Project (proposed project) would consist of the construction of a new three-story, 18,201-square-foot building along West Dunne Avenue, which would be comprised of 48 new bedrooms and 96 new beds. Overall, the proposed project would increase the number of on-site beds from 28 to 128. Additionally, the existing driveway and parking lot would be removed and replaced to meet current requirements. The facility would provide 24-hour care to adults who are dual diagnosed as seriously mentally ill in combination with some medical conditions that preclude them from being placed in a standard residential care facility.

    The necessary entitlements include a Conditional Use Permit and Design Review Permit. The Conditional Use Permit would address the existing 28-bed facility's inconsistency with the RAM zone, as well as the expansion.

B. SOURCES

The following documents are referenced information sources used within this analysis:

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4. California Air Resources Board. *The 2017 Climate Change Scoping Plan Update.* January 20, 2017.
5. California Building Standards Commission. *California Green Building Standards Code*. 2019.
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7. California Department of Conservation. *Santa Clara County Important Farmland Map 2016.* September 2018.
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9. California Department of Forestry and Fire Protection. *Morgan Hill, Very High Fire Hazard Severity Zones in LRA.* October 9, 2008.
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23. City of Morgan Hill. *City Council Staff Report 2163, Accept Report Regarding Wastewater System Needs and Rate Study Schedule.* February 6, 2019.
24. City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map.* March 2009.
25. City of Morgan Hill. *Emergency Operations Plan.* January 11, 2018.
26. City of Morgan Hill. *Stormwater and Urban Runoff Management*. Available at: https://www.morgan-hill.ca.gov/737/Phase-II-General-Stormwater-Permit. Accessed March 2022.
27. Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS &status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTES E%29. Accessed March 2022.
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32. Hexagon Transportation Consultants, Inc. *Subject: Trip Generation and Operations Analysis for the Proposed 16685 Church Street Senior Housing Project in Morgan Hill, California.* July 2, 2020.
33. Historic Resource Associates. *Re: Historic Resource Analysis Study of the Morgan Hill Senior Housing Project, 16685 Church Street and 94 San Pedro Avenue, Morgan Hill, Santa Clara County, CA.* June 25, 2020.
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35. Native American Heritage Commission. *Re: Peak Avenue Assisted Living Project, Santa Clara County.* March 24, 2022.
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C. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

As indicated by the checklist on the following pages, the proposed project would not result in significant impacts to any of the environmental factors listed below, and mitigation would not be required.

☐ **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**

D. DETERMINATION

On the basis of this initial study:

☒ I find that this environmental checklist provides substantial evidence that the proposed project can be considered exempt from the California Environmental Quality Act on the basis that it meets the criteria for the Infill Development Project Exemption (Guidelines Section 15332) and does not meet any of the exceptions for exemptions (Guidelines Section 15300.2).

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

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

☐ I find that the Proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

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

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

Signature	Date
Tiffany Brown, Associate Planner	City of Morgan Hill
Printed Name	For

E. BACKGROUND AND INTRODUCTION

In July 2016, the City of Morgan Hill adopted the 2035 General Plan,[1] as well as an associated Environmental Impact Report (EIR) for the updated General Plan.[2] The General Plan EIR is a program EIR, prepared pursuant to Section 15168 of the California Environmental Quality Act (CEQA) Guidelines (Title 14, California Code of Regulations [CCR], Sections 15000 *et seq*.). The General Plan EIR analyzed full implementation of the General Plan and identified measures to mitigate the significant adverse impacts associated with the General Plan.

The City of Morgan Hill 2035 General Plan designates the project site as Residential Attached Medium, which allows for attached housing types including townhomes, garden apartments, and stacked flats. The Residential Attached Medium designation allows for a density of 16 to 24 dwelling units per acre (du/ac). The site is zoned RAM. The existing 5,770-square foot, 28-bed care facility was constructed in 1958 under a previous Zoning Ordinance that allowed the use by right. The current Zoning Ordinance requires a Conditional Use Permit for residential care facilities in the RAM zoning district. The existing facility is considered legal non-conforming. In 2016, a Conditional Use Permit was approved for the site that would have allowed an expansion of the use with two new buildings to allow a total of 84 beds on site. The 2016 expansion project was deemed categorically exempt from CEQA under Section 15332, Infill. The facility was not expanded, and the 2016 Conditional Use Permit expired.

The purpose of this Initial Study is to evaluate whether the proposed project is exempt from review pursuant to CEQA. Secondly, this Initial Study evaluates whether the proposed project meets any of the exceptions or exemptions listed in Section 15300.2 of the CEQA Guidelines. The summary of the analysis contained in this Initial Study and the relevant findings related to the above key inquiries is presented in the following sections.

A further point is noteworthy before proceeding with the analysis. The relevant questions a lead agency must consider when determining if a particular project is exempt from CEQA are focused on the specific criteria for exemptions and the list of exceptions to an exemption within the CEQA Guidelines. Thus, for this project, the City of Morgan Hill could have focused this analysis on the criteria for the Infill Exemption in CEQA Guidelines Section 15332 and the list of exceptions in Section 15300.2. For this particular project, the City elected to prepare a full Initial Study checklist to provide the substantial evidence supporting its determination as to whether the project can be considered exempt from CEQA. For an overview of the focused list of criteria pursuant to Sections 15332 and 15300.2, see Section G of this Initial Study.

F. PROJECT DESCRIPTION

The following provides a description of the project site's location and setting, as well as the proposed project components and required discretionary actions.

Project Location and Setting

The irregularly-shaped project site consists of approximately 1.94 acres, and is located at 17090 Peak Avenue in the City of Morgan Hill, California (see Figure 1 and Figure 2). The site is identified by APN 767-03-017. The City of Morgan Hill 2035 General Plan designates the site as Residential Attached Medium and the site is zoned RAM.

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1 City of Morgan Hill. *2035 General Plan, City of Morgan Hill.* Adopted July 2016.
2 City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report.* Adopted July 2016.

Figure 1
Regional Project Location

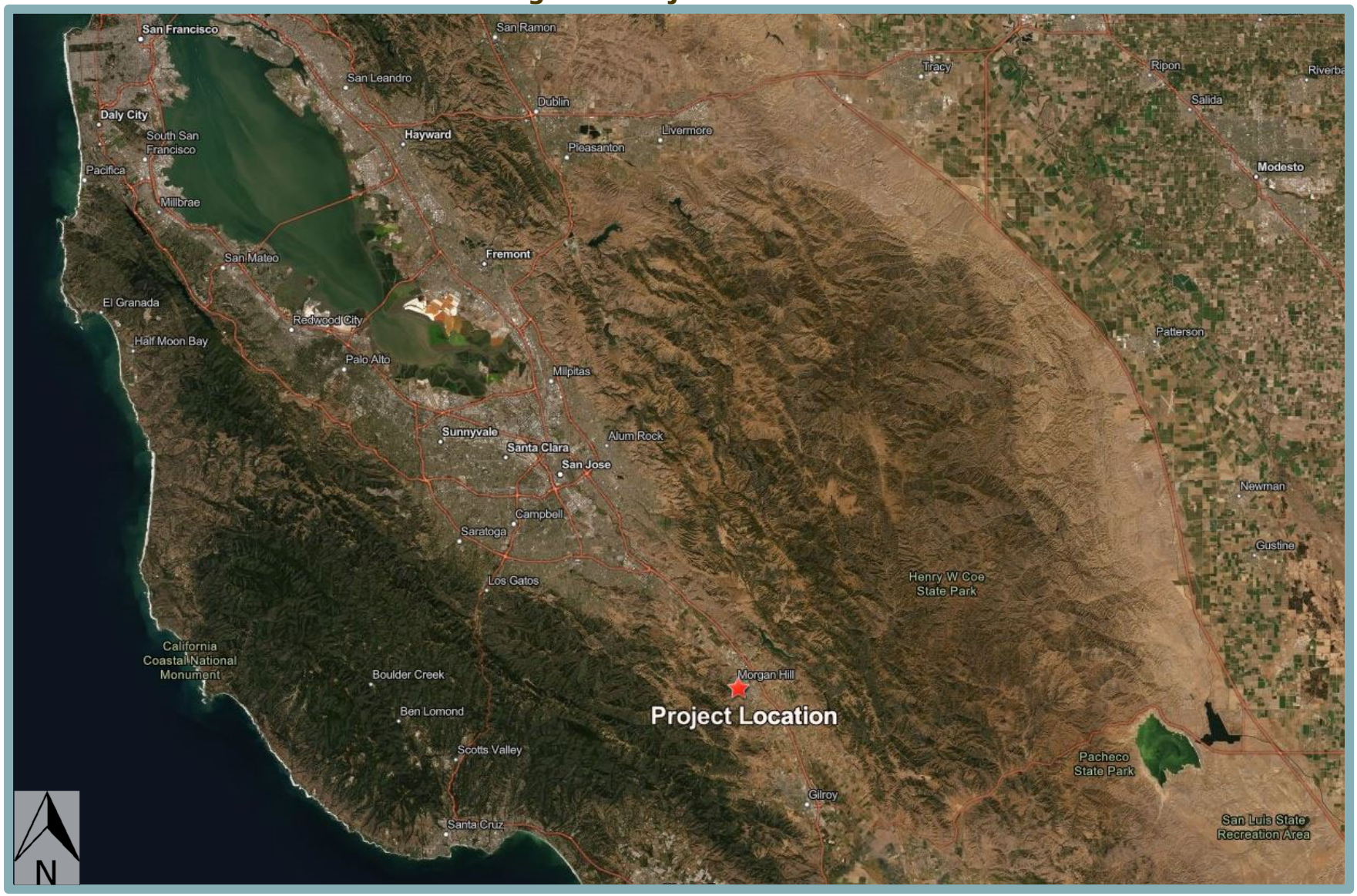


Figure 2
Project Vicinity Map

The site is currently developed with one 5,770 square foot, 28-bed, residential care building, two sheds, and a parking area with a driveway into the site. The residential care building and associated sheds were constructed in the 1950s. There are 74 trees within the project site. The site is bound by Peak Avenue to the west, and West Dunne Avenue to the south. Surrounding existing uses include Pacific Hills Manor, a 99-bed residential care facility, to the north; undeveloped land to the east; the Morgan Hill Masonic Center, an office building, and associated parking areas to the south, across from West Dunne Avenue; and single-family homes to the west, across from Peak Avenue.

Project Components

The proposed project would expand the operations of the existing residential care facility from the current 28-beds to 32-beds and add a new building compromising of 96-beds to serve the increasing need for affordable residential care facilities in the City of Morgan Hill. The proposed project would involve demolition of the two on-site sheds, removal of 22 trees, and the construction of a new, three-story, 96-bed residential care facility located south of the existing 28-bed building. Finally, the proposed project would require City approval of a Design Review Permit and a Conditional Use Permit. The following sections present additional details related to the proposed facility, proposed expansion, project operations, site access and circulation, landscaping, utilities, the Design Review Permit, and Conditional Use Permit.

Existing and Proposed Facility

The existing facility will add two new bedrooms within the current building footprint at 2-beds per room. A new three-story building of approximately 18,201 square feet would be constructed in the southeastern portion of the site. The new facility would have 48 bedrooms with two beds in each, allowing for a maximum capacity of 96 residents. The southern wing of the new building would be one story (see Figure 4). The northern wing would include three stories, generally consisting of bedrooms and the associated amenities (see Figure 5 and Figure 6). The maximum height of the structure would be 40 feet.

The southern wing of the proposed three-story facility would generally consist of offices, recreation areas, and the kitchen. The single-story area would also serve as the main entrance and reception area. As shown in Figure 4, the first floor of the building's northern wing would consist of 16 bedrooms along with the associated bathrooms. A dining area would be centrally located, and an elevator that extends to the floors above would be located in the center of the building; staircases would be located at the western and eastern ends, as well as in the center of the building. In addition, a patio and two landscaped areas would be located outside, adjacent to the building. As shown in Figure 5, the second story of the proposed facility would consist of 16 bedrooms and a centrally located activity area, laundry room, and nurse station. Finally, as shown in Figure 6, the third story of the proposed building would mirror the second, with the exception of a smoking area in place of the laundry room, located east of the centrally located elevator.

Project Operations

The facility would provide 24-hour care to adults who are dual diagnosed as seriously mentally ill in combination with a medical condition that precludes them from being placed in a standard residential care facility. The facility would provide services to the residents, including meal service, on-site laundry, cleaning services, on-site nursing and medical services, planned activities, as well as other personal services as needed.

Site Access and Circulation

Access to the project site would be provided by an improved driveway, replacing the existing driveway off of Peak Avenue. The driveway would be approximately 20 feet wide.

Figure 3
Proposed Site Plan

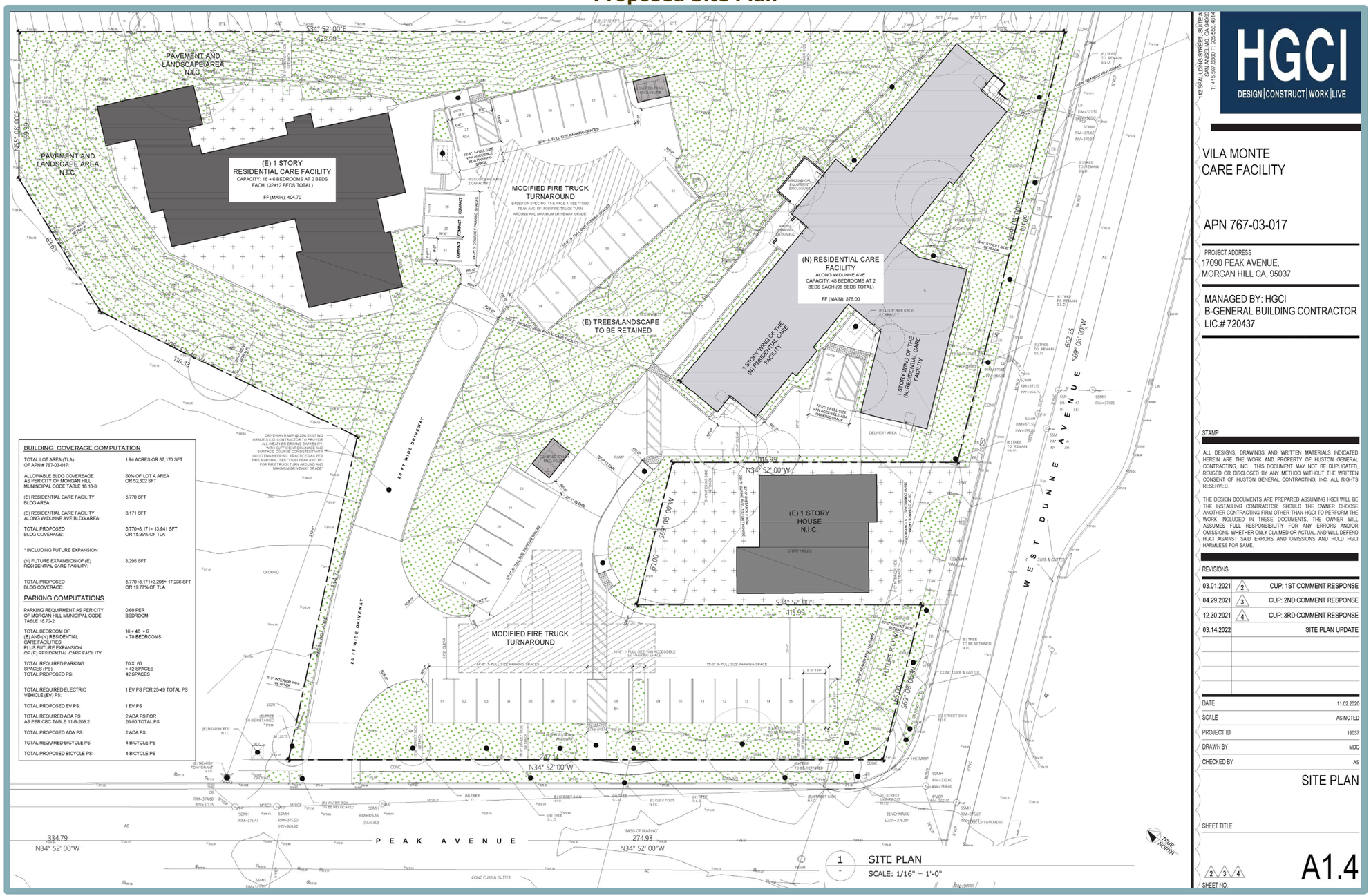


Figure 4
Eastern Facility Ground Floor – Site Plan

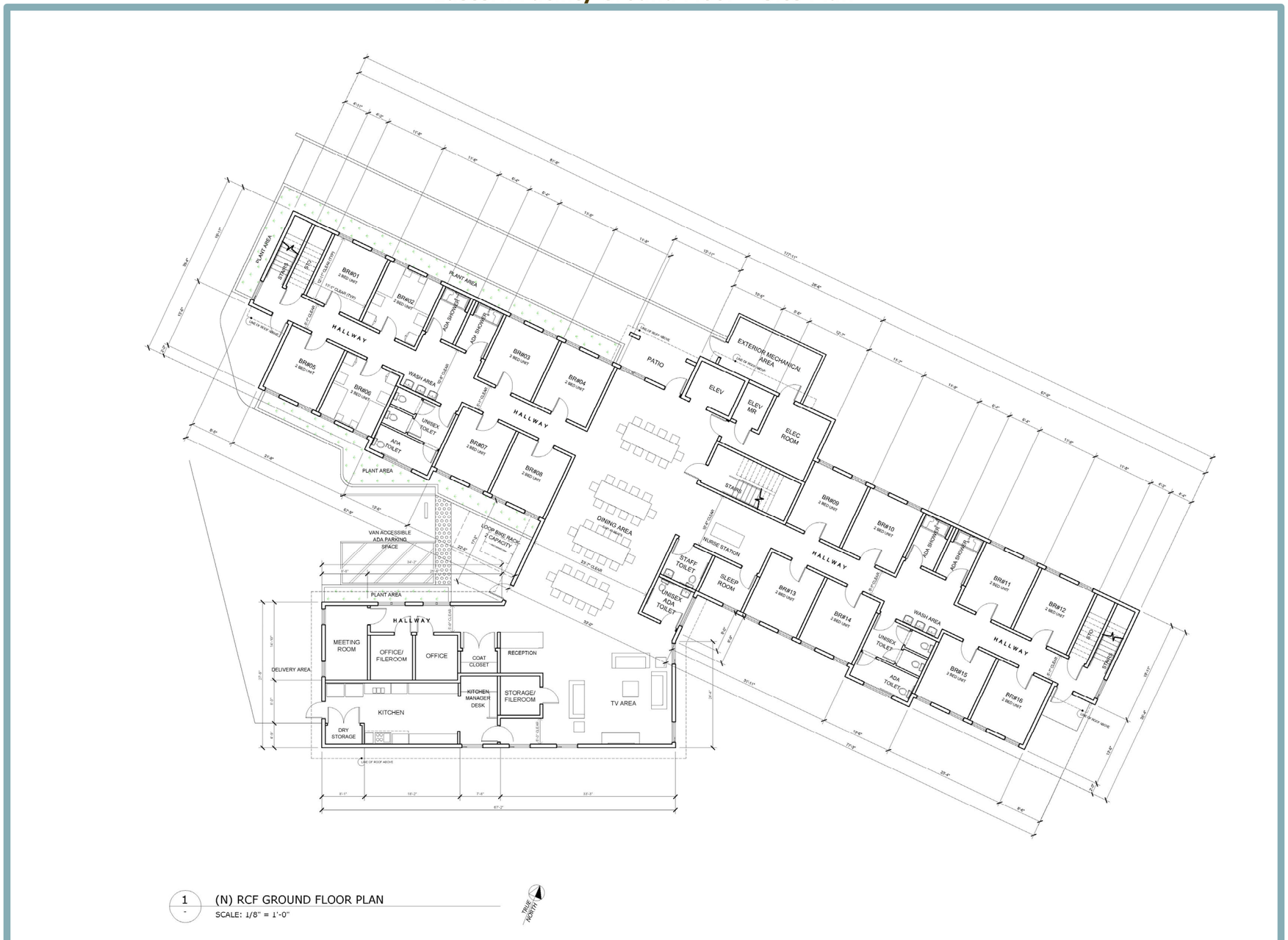


Figure 5
Eastern Facility Second Floor – Site Plan

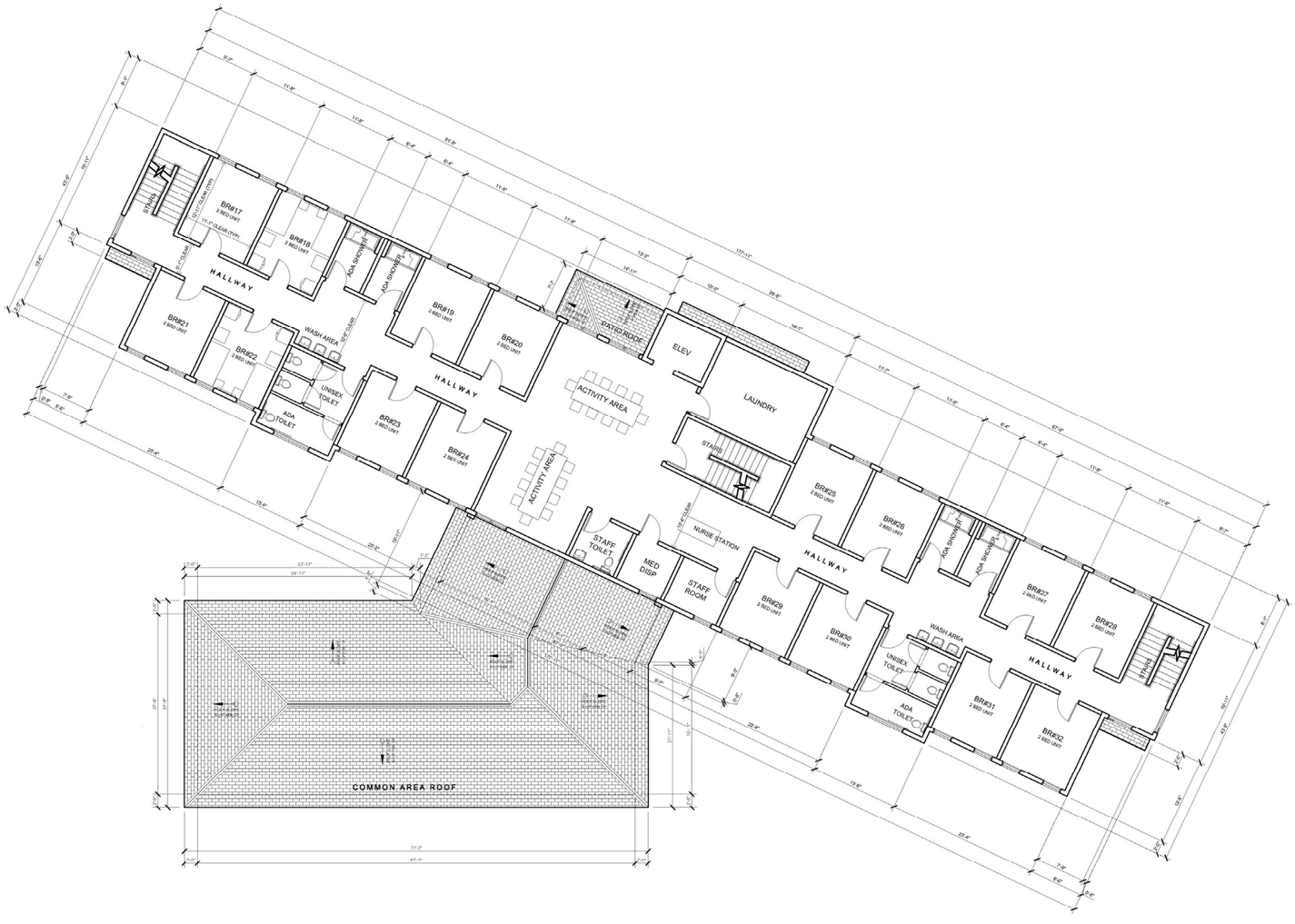


Figure 6
Eastern Facility Third Floor – Site Plan

The proposed project would also include two modified fire truck turnarounds, one located in the northern parking lot adjacent to the existing building, and another in the planned parking lot located southwest of the single-family unit that is partially surrounded by the project site.

In addition, the proposed project would include 42 on-site surface parking spaces and four bicycle parking spaces. Of the 42 parking spaces, two parking spaces would be Americans with Disabilities Act (ADA) compliant, one would be an electrical vehicle (EV) charging space, and 39 would be standard parking spaces.

Landscaping

As noted above, 22 of the 74 on-site trees would be removed as part of the project. However, pursuant to Section 18.64.050 of the City's Municipal Code, landscaping would be provided throughout the site in accordance with the City's Standard Details for Construction. The proposed project would include the planting of various trees, shrubs, and ground cover along the site perimeter, and near the proposed parking areas.

Utilities

Water and sewer service for the proposed development would be provided through connections to existing City infrastructure located in the site vicinity. The proposed project would include new water connections from the proposed building to an existing water main within West Dunne Avenue (see Figure 7). A new sanitary sewer line would be routed from the proposed building, eventually connecting to existing sanitary sewer lines within West Dunne Avenue to the south and Peak Avenue to the west.

A Preliminary Stormwater Control Plan has been prepared for the proposed project, and is included as Figure 8. As shown therein, the project site is divided into 18 Drainage Management Areas (DMAs). DMAs 7, 17, and 18, would be self-treating, landscaped areas. Similarly, DMAs 12, 15, and 16 would be self-retaining pervious areas. All other DMAs on the project site would direct runoff towards flow-through planters or to one of three bioretention areas prior to discharge into the City's existing storm drain system in West Dunne Avenue or Peak Avenue. All proposed stormwater treatment measures have been designed in accordance with the Santa Clara County Clean Water Program Technical Guidance Handbook.

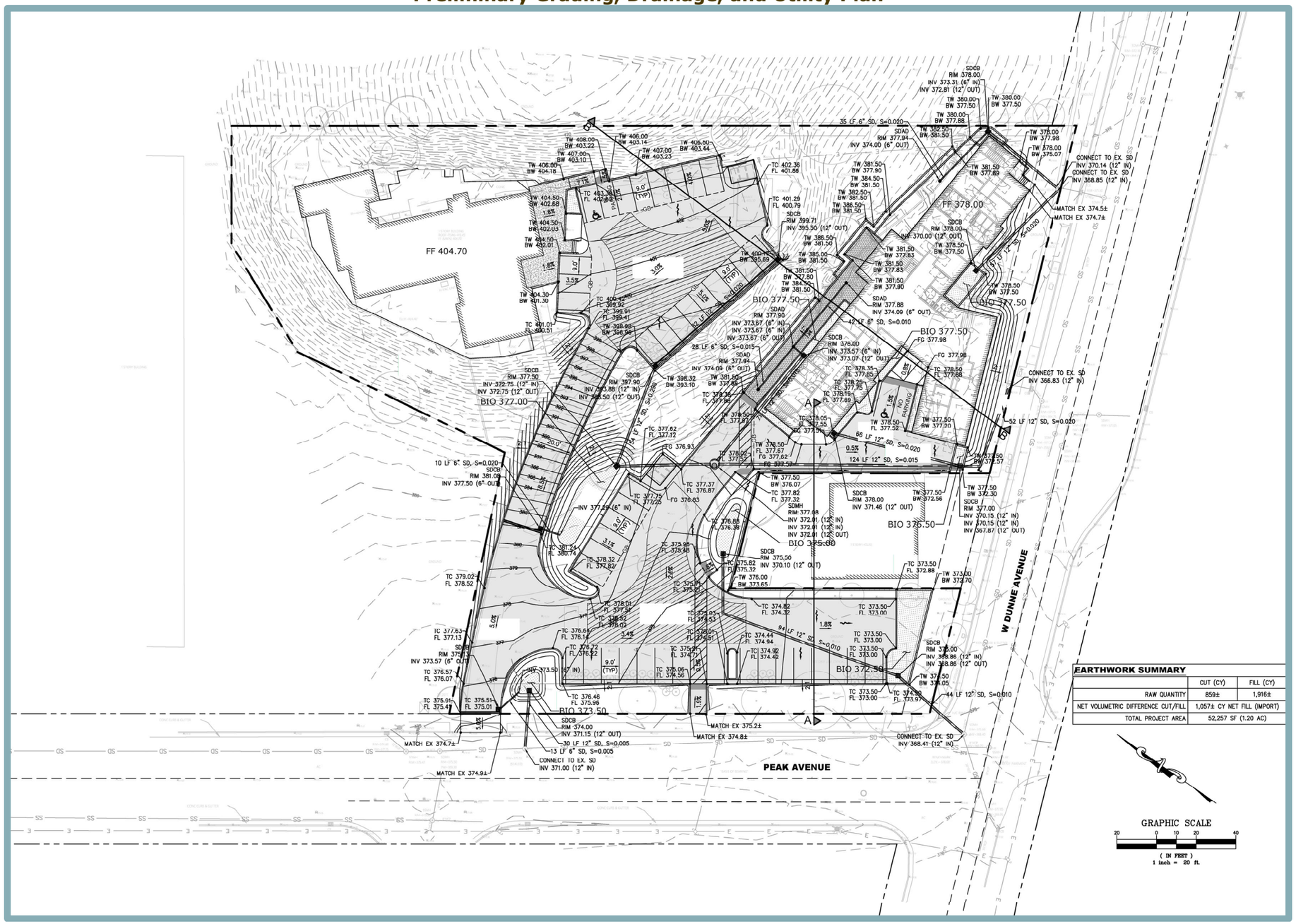
Design Review Permit

Pursuant to Section 18.108.040 of the City's Municipal Code, the proposed project would be subject to a Design Review Permit. Specifically, the site plan would be analyzed based on elements of design, development location, arrangement of all structures, and design in harmony with surrounding facilities. The purpose of the Design Review is to allow the City to review all development, signs, buildings, structures, and other facilities in order to further enhance the City's appearance, and the livability and usefulness of properties.

Conditional Use Permit

As stated above, the existing 28-bed care facility was constructed under a previous Zoning Ordinance that allowed the use by right. However, the current Zoning Ordinance requires a Conditional Use Permit for residential care facilities in the RAM zoning district. Therefore, approval of a Conditional Use Permit would be required to add two bedrooms to the existing facility and development of the proposed 96-bed building. The Conditional Use Permit for the proposed project will address the existing legal non-conforming 28-bed facility as well.

Figure 7
Preliminary Grading, Drainage, and Utility Plan

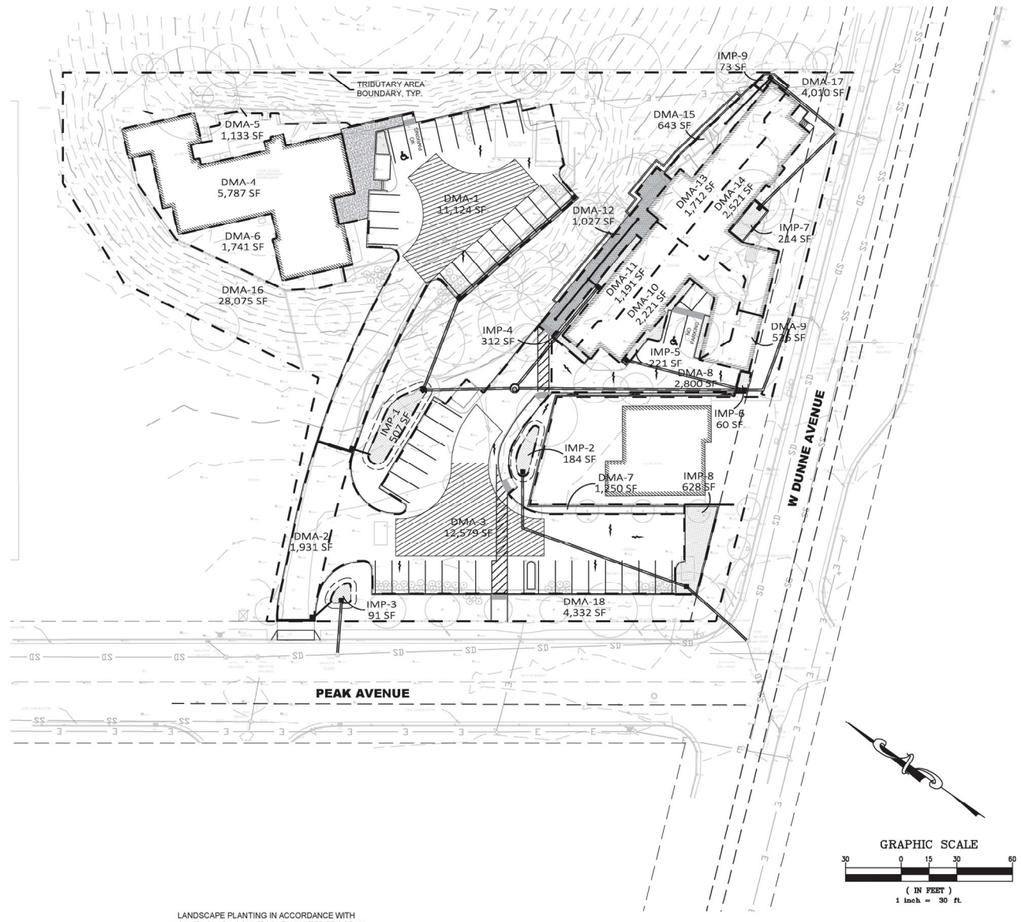


EARTHWORK SUMMARY

	CUT (CY)	FILL (CY)
RAW QUANTITY	859±	1,916±
NET VOLUMETRIC DIFFERENCE CUT/FILL	1,057± CY NET FILL (IMPORT)	
TOTAL PROJECT AREA	52,257 SF (1.20 AC)	

GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

Figure 8
Preliminary Stormwater Control Plan



LEGEND

- FLOW-THROUGH PLANTER (IMP)
- AREA DRAIN
- OVERFLOW DRAIN
- STORM DRAIN LINE
- DMA-2 — DENOTES AREA (DMA) DRAINAGE MANAGEMENT AREA
- IMP-2 — INTEGRATED MANAGEMENT PRACTICE

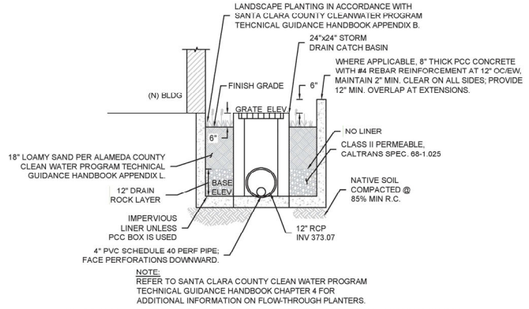
GRAPHIC SCALE
30 0 15 30 60
(IN FEET)
1 inch = 30 ft.

IMPERVIOUS DMAs			
DMA	AREA	SURFACE	DRAINS TO IMP #
1	11,124± SF	PAVEMENT	1
2	1,931± SF	PAVEMENT	3
3	12,579± SF	PAVEMENT	8
4	5,787± SF	ROOF	DMA-16
5	1,133± SF	PAVEMENT	DMA-16
6	1,741± SF	PAVEMENT	DMA-16
8	2,800± SF	PAVEMENT	2
9	525± SF	ROOF	6
10	2,221± SF	ROOF	5
11	1,191± SF	ROOF	4
13	1,712± SF	ROOF	9
14	2,621± SF	ROOF	7
TOTAL	**47,115± SF**		

SELF-TREATING DMAs		
DMA	AREA	SURFACE
7	1,250± SF	LANDSCAPE
17	4,010± SF	LANDSCAPE
18	4,332± SF	LANDSCAPE
TOTAL	**9,592± SF**	

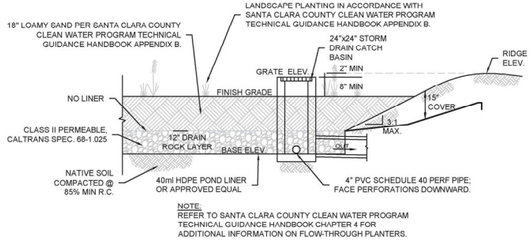
SELF-RETAINING DMAs		
DMA	AREA	SURFACE
12	1,207±	PERVIOUS
15	643±	LANDSCAPE
16	28,075± SF	LANDSCAPE
TOTAL	**29,925± SF**	

IMP	AREA DRAINING TO IMP (SF)	4% OF AREA (SF)	SIZE (SF)
1	11,124	445	507± SF
2	2,800	112	184± SF
3	1,931	77	91± SF
4	1,191	48	312± SF
5	2,221	89	221± SF
6	525	21	60± SF
7	2,621	101	214± SF
8	12,702	508	628± SF
9	1,712	68	73± SF



FLOW THROUGH PLANTER - TYPICAL (IMP 4-9)

N.T.S.



BIORETENTION AREA (IMP 1-3)

N.T.S.

Required Approvals

The proposed project would require the City's approval of the following:

- Design Review Permit; and
- Conditional Use Permit.

G. SUMMARY

The following section contains a summary showing that the proposed project can be considered exempt from CEQA and is not subject to any of the exceptions set forth in Section 15300.2 of the CEQA Guidelines. As demonstrated throughout this Initial Study, the proposed project qualifies for exemption under CEQA Guidelines Section 15332, Class 32.

In-Fill Development Project Exemption

Article 19 of the CEQA Guidelines, Sections 15300 through 15333, includes a list of classes of projects that have been determined to not have a significant effect on the environment, and are therefore exempt from CEQA. Section 15332 of the CEQA Guidelines provides a categorical exemption for infill development projects that meet the following criteria:

(a) The project is consistent with the applicable general plan designation and all applicable general plan polices as well as with applicable zoning designation and regulations.
(b) The proposed development occurs within the city limits on a project site of no more than five acres substantially surrounded by urban uses.
(c) The project site has no value as habitat for endangered, rare or threatened species.
(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.
(e) The site can be adequately served by all required utilities and public services.

The applicability of the above criteria to the proposed project is summarized in the following sections.

Criterion 15332(a): General Plan and Zoning Consistency

The below discussion demonstrates the project's consistency with the General Plan designation and applicable General Plan policies, as well as the zoning designation and regulations.

The City's General Plan designates the site Residential Attached Medium and the site is zoned RAM. The Residential Attached Medium land use designation is intended for attached housing types including townhomes, garden apartments, and stacked flats. The proposed residential project is consistent with the site's Residential Attached Medium General Plan land use designation. With respect to zoning regulations, the proposed use is conditionally permitted within the RAM zone. Pursuant to Section 18.18.030 of the City's Municipal Code, a building within the RAM zone may not exceed a height of 40 feet, and must have a 15-foot setback. The proposed project would comply with such requirements, and all other applicable policies and regulations established within the General Plan and zoning code. For instance, General Plan Policy TR-3.4 sets forth the level of service (LOS) standards for the City of Morgan Hill intersections. While Section 15064.3 of the CEQA Guidelines provides that analysis of vehicle miles travelled (VMT) attributable to a project is the most appropriate measure of transportation impacts (see Section XVII of the following checklist for analysis of VMT), the project must still comply with applicable General Plan policies such as the LOS standards set forth by Policy TR-3.4. In the General Plan EIR, an evaluation of the Peak Avenue/Dunne Avenue intersection was conducted. As presented in Table 4.14-9 of the General Plan EIR, following buildout of the General Plan, the intersection would operate at LOS B during both AM and PM peak hours, which is considered acceptable

under General Plan Policy TR-3.4. Because the proposed project is consistent with the land use designation for the project site, implementation of the proposed project was generally considered in the General Plan EIR and included in the intersection analysis. Thus, following implementation of the proposed project, the Peak Avenue/Dunne Avenue intersection would continue to operate acceptably and would comply with General Plan Policy TR-3.4.

Based on the above, the project would be consistent with applicable General Plan policies and City zoning designation and regulations, and the proposed project meets Criterion 15332(a).

Criterion 15332(b): Project Location, Size, and Context

The project site consists of 1.94 acres, located within the Morgan Hill city limits. The site is located near existing residential and commercial development to the north, east, and south, and is surrounded by existing development. Thus, the proposed project meets Criterion 15332(b).

Criterion 15332(c): Endangered, Rare, or Threatened Species

Currently, the site is developed with an existing residential care facility and an associated parking lot, with the remaining (western) portion being comprised of dirt and ruderal grasses. The project site contains a total of 74 trees. As discussed in Section IV, Biological Resources, of this Initial Study, the project site is located within the boundaries of the Santa Clara Valley Habitat Plan (SCVHP) permit area. The SCVHP designates the project site as an Urban-Suburban developed land cover type. Typically, species covered by the SCVHP are unlikely to occur within Urban-Suburban areas. Pursuant to the Santa Clara Valley Habitat Agency Geobrowser program, the project site is not located within a designated Plant or Wildlife Survey Area for any covered species. The project applicant would be subject to payment of all applicable development fees according to the SCVHP. Due to the highly disturbed nature of the area surrounding the project site, as well as the existing development that has occurred within the project site, the project site does not provide habitat value for endangered, rare, or threatened species. Thus, the proposed project meets Criterion 15332(c).

Criterion 15332(d): Traffic, Noise, Air Quality, and Water Quality

The following sections present a summary of the Initial Study analysis regarding potential effects related to traffic, noise, air quality, and water quality resulting from implementation of the proposed project. As demonstrated below, the proposed project meets Criterion 15332(d).

Traffic

As discussed in Section XVII, Transportation, of this Initial Study, the *Technical Advisory on Evaluating Transportation Impacts in CEQA* published by the Governor's Office of Planning and Research (OPR) in December 2018 provides recommendations regarding VMT evaluation methodology, significance thresholds, and screening thresholds for land use projects. Because the proposed project would result in a VMT that is over 15 percent below the City's average, development of the project is presumed to result in a less-than-significant increase in VMT.

In addition, the proposed project is consistent with the project site's existing General Plan land use and zoning designations. Therefore, vehicle trip generation associated with the project site and associated effects on local transportation facilities have been anticipated by the City and accounted for in regional planning efforts.

Noise

As discussed in Section XIII, Noise, of this Initial Study, operations associated with the proposed project would generate noise associated with vehicle traffic on local roadways and non-

transportation sources, such as landscaping, maintenance, and heating ventilation and air conditioning (HVAC) equipment.

During construction, the project would result in short-term noise level increases in the project vicinity. However, the Morgan Hill Municipal Code does not specify any short-term construction noise level limits. Construction activities would occur during normal daytime hours, as Chapter 8.28 of the Morgan Hill Municipal Code prohibits construction activities between 8:00 PM and 7:00 AM, Monday through Friday, and between 6:00 PM and 9:00 AM on Saturdays. Given the restrictions on construction hours and the City's standard conditions of approval requiring the use of best available technology by construction contractors to minimize excessive noise from construction equipment, the project would not result in a substantial temporary increase in noise generation during construction activities.

The increase in traffic, and associated increase in noise, was generally evaluated in the General Plan EIR. As determined therein, the anticipated increase in transportation noise on adjacent roadways would not exceed the City's standards set forth in Policy SSI-8.5 and, thus, traffic noise increases attributable to the proposed project would be less than significant.

Non-transportation noise-generating operations associated with the proposed project would be typical of residential developments and consistent with the residential land uses in the project vicinity. Assuming the project HVAC systems and maintenance equipment would be in normal working order, stationary noise sources associated with the proposed project would not substantially increase noise levels from what currently exists in the project area.

Based on the above, noise generation associated with the proposed project has been anticipated by the City and accounted for in regional planning efforts.

Air Quality

A detailed discussion of applicable thresholds of significance and estimated construction and operational emissions is present in Section III, Air Quality, of this Initial Study. As discussed therein, the proposed project would result in maximum construction and operational criteria air pollutant emissions that are below the applicable thresholds. Because the proposed project would result in emissions below the applicable thresholds of significance, the proposed project would not be expected to result in a significant contribution to the region's existing air quality conditions. Therefore, the proposed project is not anticipated to result in short-term construction-related or long-term operational emissions of air quality pollutants that would be considered to have the potential to result in significant effects on the environment.

Water Quality

Issues related to stormwater infrastructure are discussed in Section X, Hydrology and Water Quality, of this Initial Study. As noted therein, the proposed project would not significantly increase stormwater flows into the City's existing system. A preliminary Stormwater Control Plan (SWCP) has been prepared for the proposed project (see Figure 8). Pursuant to the SWCP, the project site would be divided into 18 DMAs. DMAs 7, 17, and 18, would be self-treating, landscaped areas. Similarly, DMAs 12, 15, and 16 would be self-retaining pervious areas. All other DMAs on the project site would direct runoff towards flow-through planters or to one of three bioretention areas prior to discharge into the City's existing storm drain system in West Dunne Avenue or Peak Avenue. All proposed stormwater treatment measures have been designed in accordance with the Santa Clara County Clean Water Program Technical Guidance Handbook. In addition, a

Preliminary Hydrology and Detention Report was prepared for the proposed project by Talus, Inc.[3] The study concluded that construction of the project would be adequately designed to accommodate a 10-year storm event without increasing flows to the existing storm drain system.

The final drainage system design for the project will be subject to review and approval by the City of Morgan Hill City Engineer to confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval. Therefore, the proposed project would not result in any significant effects related to water quality.

Criterion 15332(e): Utilities and Public Services

Water and sewer service for the proposed development would be provided by the City through new connections to existing infrastructure within Peak Avenue and West Dunne Avenue, respectively. Given the presence of existing utilities in the immediate project vicinity, the proposed project would not require substantial off-site utility improvements. In addition, as discussed in Section XV, Public Services, and Section XIX, Utilities and Service Systems, of this Initial Study, the project would not exceed the capacity of public service or utility infrastructure. Thus, the site would be adequately served by all required utilities and public services.

Exceptions to Categorical Exemptions Analysis

Even if a project is ordinarily exempt under any of the potential categorical exemptions, CEQA Guidelines Section 15300.2 provides specific instances where exceptions to otherwise applicable exemptions apply. Exceptions to a categorical exemption apply in the following circumstances:

> (a) Location. Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located – a project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.
> (b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.
> (c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.
> (d) Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.
> (e) Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.
> (f) Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

The following analysis addresses whether any of the exceptions to the CEQA exemption apply to the proposed project.

[3] Talus, Inc. *Preliminary Hydrology and Detention Report for Monte Villa Care Facility.* October 29, 2020.

Criterion 15300.2(a): Location

CEQA exemptions 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located. The project site is located within an urbanized area and is not located within a sensitive environment. Furthermore, as discussed under Criterion 15300.2(e), the project site is not located near environmental resources of hazardous or critical concern. Therefore, an exception to the exemption under CEQA Guidelines Section 15300.2(a) does not apply to the proposed project.

Criterion 15300.2(b): Cumulative Impact

Pursuant to CEQA Section 15300.2(b), in applying this exception, the cumulative impact must result from "successive projects of the same type in the same place." Both the "same type" and "same place" limitations restrict the scope of this exception.[4] Given that the proposed project involves the development of a residential care facility on a site that already includes a residential care facility, the project qualifies as both the "same type" and "same place." Therefore, the cumulative impacts of the project must be evaluated. Typical cumulative impact concerns are related to increased traffic and noise, as discussed below.

Significant transportation impacts under CEQA, as of July 1, 2020, are determined based on VMT. The OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* states 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. Accordingly, a finding of a less-than-significant project impact would imply a less-than-significant cumulative impact, and vice versa." As explained in further detail in Section XVII of this Initial Study, the proposed project would generate VMT per capita that is below the applicable threshold. In addition, because the project is consistent with the General Plan land use and zoning designation for the site, the proposed project is considered to align with City-wide long-term goals and plans. Therefore, per the OPR's guidance, the project would result in a less-than-significant contribution to cumulative VMT impacts. In addition, it is noted that the project is not anticipated to generate substantial VMT beyond employee commutes and visitors.

With regard to ambient noise, the project's relatively small increase in traffic, combined with traffic from General Plan buildout, would not be anticipated to generate a significant traffic noise increase triggering the City's applicable thresholds. In addition, operational noise is not expected to be significant, and construction noise is intermittent and temporary and, thus, would not contribute to the cumulative noise environment. Therefore, noise impacts would not be cumulatively considerable.

Thus, the proposed project would not result in a cumulative impact, and an exception to the exemption under CEQA Guidelines Section 15300.2(b) does not apply to the proposed project.

Criterion 15300.2(c): Significant Effect

In listing a class of projects as exempt, the Secretary has determined that the environmental changes typically associated with projects in that class are not significant effects within the meaning of CEQA, even though an argument might be made that they are potentially significant. The plain language of Guidelines Section 15300.2, subdivision (c), requires that a potentially significant effect must be "due to unusual circumstances" for the exception to apply.

The determination as to whether there are "unusual circumstances" (Guidelines, Section 15300.2, subd. [c]) is reviewed under Public Resources Code (PRC) Section 21168.5's substantial

[4] Stephen L. Kostka and Michael H. Zischke. *Practice Under the California Environmental Quality Act, Second Edition* [pg. 5-68]. March 2019 Update.

evidence prong. Whether a particular project presents circumstances that are unusual for projects in an exempt class is an essential factual inquiry. As to this question, the lead agency serves as "the finder of fact".

Unusual circumstances are not defined by the Guidelines, but potential site characteristics could include sensitive habitats or contamination. The project site does not include any aquatic features or otherwise sensitive habitat, and is not included on any lists of hazardous waste sites. In addition, the project site is located within a FEMA Zone X, which is not considered a significant flood hazard area.

Thus, an exception to the exemption under CEQA Guidelines Section 15300.2(c) does not apply to the proposed project.

Criterion 15300.2(d): Scenic Highway

According to the California Department of Transportation (Caltrans) Scenic Highway Mapping System, officially designated State or County scenic highways do not occur in the project vicinity.[5] Thus, an exception to the exemption under CEQA Guidelines Section 15300.2(d) does not apply to the proposed project.

Criterion 15300.2(e): Hazardous Waste Sites

The California Environmental Protection Agency (CalEPA) provides a list of data resources that provide information regarding the facilities or sites identified as meeting the "Cortese List" requirements, pursuant to Government Code 65962.5. Per a search of the State Water Resources Control Board's (SWRCB) GeoTracker data management system, hazardous materials sites, including leaking underground storage tank (LUST) sites and Department of Toxic Substances Control (DTSC) cleanup sites, have not been identified on or within a 1,000-foot radius of the project area.[6] In addition, the project site is not located on or near any hazardous waste sites identified on the Envirostor's Hazardous Waste and Substance Site List.[7] Thus, an exception to the exemption under CEQA Guidelines Section 15300.2(e) does not apply to the proposed project.

Criterion 15300.2(f): Historical Resources

The project site contains two sheds, a private driveway, parking lot, trees, and an existing residential care facility that was built in 1958. The facility is still operating to this day. The proposed project would include demolition of the existing driveway and parking area associated with the existing facility, as well as the removal of some trees.

After reviewing historic documents, maps, and census data, the California Historical Resources Information System (CHRIS) and Native American Heritage Commission (NAHC) searches prepared for the project do not identify that the properties do not appear to have been associated with an event or events of significance in the history of Morgan Hill or Santa Clara County. Furthermore, neither of the two sheds proposed for demolition have important information or scientific value. Therefore, the existing structures are not considered eligible for listing under the

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5 California Department of Transportation. *Scenic Highways.* Available at: https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways. Accessed March 2022.

6 State Water Resources Control Board. *GeoTracker*. Available at: https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=morgan+hill. Accessed March 2022.

7 Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29. Accessed March 2022.

National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR). The proposed project would not result in a substantial adverse change in the significance of a historical resource, and an exception to the exemption under CEQA Guidelines Section 15300.2(f) does not apply to the proposed project.

H. ENVIRONMENTAL CHECKLIST

The following checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. For this checklist, the following designations are used:

Potentially Significant Impact: An impact that could be significant, and for which no mitigation has been identified. If any potentially significant impacts are identified, an EIR must be prepared.

Less Than Significant with Mitigation Incorporated: An impact that requires mitigation to reduce the impact to a less-than-significant level.

Less-Than-Significant Impact: Any impact that would not be considered significant under CEQA relative to existing standards.

No Impact: The project would not have any impact.

I. AESTHETICS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?	☐	☐	☐	✖
b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?	☐	☐	☐	✖
c. 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?	☐	☐	☐	✖
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	✖

Discussion

a,c. Examples of typical scenic vistas include mountain ranges, ridgelines, or bodies of water as viewed from a highway, public space, or other area designated for the express purpose of viewing and sightseeing. In general, a project's impact to a scenic vista would occur if development of the project would substantially change or remove a scenic vista. The City's General Plan does not designate official scenic view corridors or vistas. However, according to the General Plan, the hillsides that surround the City to the east and west are considered scenic. The project site is surrounded by existing development and is not located on a hillside or in the vicinity of a hillside. While distant views of the hills to the west of the City are visible to motorists, bicyclists, and pedestrians travelling along East Dunne Avenue and Peak Avenue, neither street is considered a scenic vista route. In addition, such views are partially obscured through the site by existing on-site trees.

Because the project site is located in an urbanized area, this discussion focuses on project consistency with applicable zoning and other regulations governing scenic quality.

The project site is zoned RAM. Pursuant to Section 18.18.030 of the City's Municipal Code, a building within the RAM zone may not exceed a height of 40 feet. The proposed height of the residential building would be a maximum of approximately 40 feet. The project would also comply with the required 15-foot setback. Thus, the project would comply with the applicable zoning regulations regarding scenic quality.

In addition, the proposed project is subject to Design Review in accordance with Morgan Hill Municipal Code Section 18.108.040, which would ensure that the project is consistent with the Residential Development Design and Development Standards (adopted December 2019). The standards augment the standards in the City's Municipal Code and provide qualitative direction to meet the City's goal for high quality design of residential projects.

Based on the above, the proposed project would not have a substantial adverse effect on a scenic vista or conflict with applicable zoning and other regulations governing scenic quality. Thus, ***no impact*** would occur.

b. According to the Caltrans map of Santa Clara County prepared for the Scenic Highway Mapping System, officially designated State or County scenic highways do not occur in the project vicinity.[8] Because the project site is not located in the vicinity of any State scenic highway, the proposed project would not damage any scenic resources within a State scenic highway. Therefore, ***no impact*** related to damaging scenic resources within a State scenic highway would occur.

d. As noted previously, the project site is currently developed with one existing structure and two associated sheds. The project site is surrounded by existing development, and streetlights are provided along Peak Avenue, West Dunne Avenue, and Noble Court. Thus, the project site and vicinity already contain existing sources of light and glare, including, but not limited to, headlights on cars traveling along the adjacent roadways, exterior light fixtures, light reflecting off windows, and interior light spilling through windows.

New sources of lighting included in the proposed project would be required to comply with Section 18.76.060 (Glare) of the Morgan Hill Municipal Code, which include such requirements as cut-off lenses to direct light downward and minimum lighting standards for walkways to ensure safe nighttime conditions. Compliance with these requirements would help to ensure that the light and glare created by the proposed project would be consistent with the levels of light and glare currently emitted in the surrounding developed environment. Therefore, the proposed project would not introduce new sources of substantial light or glare to the site which would adversely affect day or nighttime views in the area, and ***no impact*** would occur.

[8] Caltrans. *California State Scenic Highway System Map.* Available at: https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed March 2022.

II. AGRICULTURE AND FOREST RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	✖
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	✖
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined 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))?	☐	☐	☐	✖
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	✖
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	✖

Discussion

a,e. The project site is designated as "Urban and Built-Up Land" on the Santa Clara County Important Farmland map.[9] Given the designation of the site as Urban and Built-Up Land, development of the proposed project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to a non-agricultural use, or otherwise result in the loss of Farmland to non-agricultural use or forest land to non-forest use. Therefore, ***no impact*** would occur as a result of the proposed project.

b. The project site is not zoned or designated for agricultural purposes and is not under a Williamson Act contract.[10] Therefore, buildout of the proposed project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and ***no impact*** would occur.

c,d. The project site is not considered forest land (as defined in PRC Section 12220[g]), timberland (as defined by PRC Section 4526), and is not zoned Timberland Production (as defined by Government Code Section 51104[g]). Therefore, the proposed project would have ***no impact*** with regard to conversion of forest land or any potential conflict with forest land, timberland, or Timberland Production zoning.

[9] California Department of Conservation. *Santa Clara County Important Farmland Map 2016.* September 2018.
[10] City of Morgan Hill. *2035 General Plan, City of Morgan Hill* [pg. 3.2-11]. Adopted July 2016.

III. AIR QUALITY. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	✖
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☐	✖
c. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	✖
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☐	✖

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 SFBAAB area is currently designated as a nonattainment area for State and federal ozone, State and federal fine particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State respirable particulate matter 10 microns in diameter (PM_{10}) ambient air quality standards (AAQS). The SFBAAB is designated attainment or unclassified for all other AAQS. It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (USEPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation. The USEPA has not yet approved a request for redesignation of the SFBAAB; therefore, the SFBAAB remains in nonattainment for 24-hour $PM_{2.5}$.

In compliance with regulations, due to the nonattainment designations of the area, 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 are 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 was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the USEPA on November 30, 2001 for review and approval. 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, toxic air contaminants (TACs), and greenhouse gases (GHGs). 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 strategy for the 2017 Clean Air Plan. The control strategy serves as the backbone of the BAAQMD's current PM control program.

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 AAQS within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure

continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. For development projects, BAAQMD establishes significance thresholds for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_X), as well as for PM_{10}, and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr). The thresholds are listed in Table 1. Thus, by exceeding the BAAQMD's mass emission thresholds for construction and operational emissions of ROG, NO_X, or PM_{10}, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 1
BAAQMD Thresholds of Significance

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

Source: BAAQMD, CEQA Guidelines, May 2017.

Particulate matter can be split into two categories: fugitive and exhaust. The BAAQMD thresholds of significance for exhaust are presented in Table 1. It should be noted that 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 Basic Construction Mitigation Measures (BCMMs) related to dust suppression.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2020.4.0 – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, vehicle mix, trip length, average speed, compliance with the 2019 California Building Standards Code (CBSC), etc. Where project-specific information is available, such information should be applied in the model. Accordingly, the proposed project's modeling assumes the following project and/or site-specific information:

- Construction would begin in June 2022 and occur over approximately one year;
- During the grading phase, approximately 1,057 cubic yards of material would be imported to the project site;
- The project site is located within 0.15-mile of the nearest transit stop; and
- The project would comply with the Model Water Efficient Landscape Ordinance (MWELO) and the 2019 CALGreen Code; and
- The project would comply with all applicable provisions of the 2019 California CBSC.

The proposed project's estimated emissions associated with construction and operations and the project's contribution to cumulative air quality conditions are provided below. All CalEEMod results are included as Appendix A to this IS/MND.

Construction Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated construction criteria air pollutant emissions as shown in Table 2. As shown in the table, the proposed project's maximum unmitigated construction emissions would be below the applicable thresholds of significance.

Table 2
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	3.27	54	**NO**
NO_X	22.79	54	**NO**
PM_{10}*	0.84	82	**NO**
$PM_{2.5}$*	0.78	54	**NO**

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

Source: CalEEMod, March 2022 (see Appendix A).

All projects within the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's BCMMs, which would be required by the City as conditions of approval:

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. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and 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 phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project's required implementation of the BAAQMD's BCMMs listed above for the project's construction activities would help to minimize construction-related emissions.

Because the proposed project would be below the applicable thresholds of significance for construction emissions, project construction would not result in a significant air quality impact.

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum unmitigated operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project's operational emissions would be below the applicable thresholds of significance. As such, the proposed project would not result in a significant air quality impact during operations.

Table 3
Maximum Unmitigated Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	20.73	0.26	54	10	**NO**
NO_X	1.00	0.09	54	10	**NO**
PM_{10}*	3.74	0.03	82	15	**NO**
$PM_{2.5}$*	3.74	0.03	54	10	**NO**

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

Source: CalEEMod, March 2022 (see Appendix A).

Cumulative Emissions

Past, present and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By nature, air pollution is largely a cumulative impact. A single project is not sufficient in size to, by itself, result in nonattainment of AAQS. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's contribution to the cumulative impact is considerable, then the project's impact on air quality would be considered significant. In developing thresholds of significance for air pollutants, BAAQMD considered the emission levels for which a project's individual emissions would be cumulatively considerable. The thresholds of significance presented in Table 1 represent the levels at which a project's individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the SFBAAB's existing air quality conditions. If a project exceeds the significance thresholds presented in Table 1, the proposed project's emissions would be cumulatively considerable, resulting in significant adverse cumulative air quality impacts to the region's existing air quality conditions. Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be expected to result in a cumulatively considerable contribution to the region's existing air quality conditions.

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2017 Clean Air Plan. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans. Because the proposed project would result in emissions below the applicable thresholds

of significance, the proposed project would not be considered to conflict with or obstruct implementation of regional air quality plans.

Because the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant, ***no impact*** would occur.

c. 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. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The nearest existing sensitive receptor to the project site is the single-family residence that is surrounded by the project site to the west, north, and east. At the closest point, the residence is located approximately five feet outside of the project site boundaries.

The major pollutant concentrations of concern are localized carbon monoxide (CO) emissions and TACs, as well as regional effects of emissions of criteria pollutants, which are addressed in further detail below.

Localized CO Emissions

Localized concentrations of CO are related to the levels of traffic and congestion along streets and at intersections. High levels of localized CO concentrations are only expected where background levels are high, and traffic volumes and congestion levels are high. Emissions of CO are of potential concern, as the pollutant is a toxic gas that results from the incomplete combustion of carbon-containing fuels such as gasoline or wood. CO emissions are particularly related to traffic levels.

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 proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

- 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.).

Given that the proposed project is consistent with the site's current land use and zoning designations, the proposed project would not conflict with the Santa Clara Valley

Transportation Authority (VTA) Congestion Management Program (CMP).[11] Based on the Institute of Transportation Engineer's Trip Generation Handbook 9th Edition, the proposed project would generate approximately 263 daily trips (96 beds X 2.74 trips/bed). Based on 2018 data provided by Hexagon Transportation Consultants, peak hour traffic volumes at the nearest major intersection near the project site (Dunne Avenue and Monterey Road) are between 2,964 and 2,353.[12]Considering the proposed project is expected to generate up to 263 daily trips, traffic associated with the proposed development would not increase traffic volumes at any affected intersection to more than 44,000 vehicles per hour. Furthermore, areas where vertical and/or horizontal mixing is limited due to tunnels, underpasses, or similar features do not exist in the project area. Therefore, based on the BAAQMD's screening criteria for localized CO emissions, 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 or cause health hazards.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, gas dispensing facilities, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. As noted above, the nearest existing sensitive receptor to the project site is the single-family residence that is surrounded by the project site to the west, north, and east.

The proposed project does not include any operations that would be considered a substantial source of TACs. Accordingly, operations of the proposed project would not expose sensitive receptors to excess concentrations of TACs.

Short-term, construction-related activities would result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. Construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project. Health risks are typically associated with exposure to high concentrations of TACs over extended periods of time (e.g., 30 years or greater), whereas the construction period associated with the proposed project is estimated to be approximately one year.

All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. In addition, only portions of the site

[11] Santa Clara Valley Transportation Authority. *2021 Congestion Management Program Document.* December 2021.
[12] Robert Del Rio, T.E., Vice President & Principal Associate, Hexagon Transportation Consultants, Inc. Personal Communication [email] with Nick Pappani, Vice President, Raney Planning and Management, Inc. May 24, 2022.

would be disturbed at a time throughout the construction period, with operation of construction equipment occurring intermittently throughout the course of a day rather than continuously at any one location on the project site. Operation of construction equipment within portions of the development area would allow for the dispersal of emissions, and would ensure that construction-activity is not continuously occurring in the portions of the project site closest to existing receptors. Because construction equipment on-site would not operate for long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, the potential for any one sensitive receptor in the area to be exposed to concentrations of pollutants for a substantially extended period of time would be low.

Furthermore, the project applicant would be required to prepare, and include on all site development and grading plans, a management plan detailing strategies for control of noise, dust and vibration, and storage of hazardous materials during construction of the project. Pursuant to Section 18.76.040 (Air Contaminants) of the City's Municipal Code, the management plan must include all applicable BAAQMD rules and regulations, as well as the City's standard conditions for construction activity. The City of Morgan Hill Development Services Department would ensure that the BAAQMD's BCMMs, listed under section "a,b" above, would be noted on project construction drawings prior to issuance of a building permit or approval of improvement plans.

Criteria Pollutant Emissions

Criteria pollutant emissions have the ability to cause negative health effects. As discussed under section 'a' above, the AAQS presented 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. Thus, if a project's criteria pollutant emissions exceed the BAAQMD's 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 AAQSs 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 standards.

However, as discussed above, the proposed project would not result in exceedance of the BAAQMD's thresholds of significance. Consequently, implementation of the proposed project would not conflict with the BAAQMD's adopted attainment plans nor would the proposed project 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 expose any sensitive receptors to substantial concentrations of localized CO, TACs, or criteria air pollutants associated with construction or operation. Therefore, the proposed project would not result in the exposure of sensitive receptors to substantial pollutant concentrations, and ***no impact*** would occur.

d. Emissions such as those leading to odors have the potential to adversely affect sensitive receptors within the project area. Pollutants of principal concern include emissions leading to odors, emission of dust, or emissions considered to constitute air pollutants. Air pollutants have been discussed in sections 'a' through 'c' above. Therefore, the following discussion focuses on emissions of odors and dust.

Pursuant to the BAAQMD CEQA Guidelines, odors are generally regarded as an annoyance rather than a health hazard.[13] 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 presence of an odor impact is dependent on several variables including: the nature of the odor source; the frequency of odor generation; the intensity of odor; the distance of odor source to sensitive receptors; wind direction; and sensitivity of the receptor.

Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantification of significant odor impacts is relatively difficult. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses.

Construction activities often include diesel-fueled equipment and heavy-duty diesel trucks, which can create odors associated with diesel fumes, which could be found to be objectionable. However, as discussed above, construction activities 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.

For the aforementioned reasons, construction and operation of the proposed project would not result in emissions (such as those leading to odors) adversely affecting a substantial number of people, and ***no impact*** would result.

[13] Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines* [pg. 7-1]. May 2017.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☐	✖
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?	☐	☐	☐	✖
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	✖
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	☐	✖
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	✖
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	✖

Discussion

a,f. The project site is located within the boundaries of the SCVHP. The SCVHP was developed through a partnership between Santa Clara County, the cities of San José, Morgan Hill, and Gilroy, the Santa Clara Valley Water District (SCVWD), the Santa Clara VTA, the U.S. Fish and Wildlife Service (USFWS), and the California Department of Fish and Wildlife (CDFW). The SCVHP is intended to promote the recovery of endangered species and enhance ecological diversity and function, while accommodating planned growth in approximately 500,000 acres of southern Santa Clara County. The SCVHP provides take authorization for 18 covered species. In addition, the SCVHP includes conservation measures to protect the species covered by the SCVHP, as well as a conservation strategy designed to mitigate impacts on covered species and contribute to the recovery of the species in the study area.

Currently, the project site includes an operational assisted living facility and an associated parking lot. Several trees exist throughout the project site. The observed site conditions are consistent with the SCVHP, which designates the site as an Urban-Suburban developed land cover type. The Urban-Suburban land cover type is described in the SCVHP as developed areas "where the native vegetation has been cleared for residential, commercial, industrial, transportation, or recreational structures, and is defined as one or more structures per 2.5 acres."[14] Typically, species covered by the SCVHP are unlikely to occur within Urban-Suburban areas. Therefore, areas designated as Urban-Suburban are

[14] Santa Clara Valley Habitat Agency. *Final Santa Clara Valley Habitat Plan* [pg. 3-100]. August 2012.

not subject to a Land Cover Fee.[15] Pursuant to the SCVHP Geobrowser program, the project site is not located within a designated Plant or Wildlife Survey Area for any covered species.[16] In addition, the SCVHP Geobrowser program indicates that the project site is located outside of the SCVHP Burrowing Owl Fee Area, and is not identified in the SCVHP as Occupied Nesting Burrowing Owl Habitat, Potential Burrowing Owl Nesting/Overwintering Habitat Depending on Site Conditions, or Overwintering Only Habitat.

Due to the disturbed nature of the project site and the existing development in the project vicinity, the project site does not provide habitat for endangered, rare, or threatened species. Thus, the project site meets the infill exemption criteria (c) established by CEQA Guidelines Section 15332. It should be noted that while not considered special-status species, various migratory birds could potentially nest in the existing on-site trees and other vegetation. However, as part of the City's standard conditions of approval, a preconstruction survey for migratory birds would be required prior to removal of on-site trees.

Therefore, development of the proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status in local or regional plans, policies, or regulations, or by the CDFW or USFWS; nor would the proposed project conflict with the provisions of the SCVHP. Thus, ***no impact*** would occur.

b,c. The project site is primarily characterized by an operating assisted living facility and an associated parking lot, while the remainder of the site generally consists of ruderal grasses and trees. The project site is surrounded by existing development and roadways. The site does not contain any existing wetlands or riparian habitat. Accordingly, the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community, or on federally-protected wetlands, and ***no impact*** would occur.

d. Movement corridors or landscape linkages are usually linear habitats that connect two or more habitat patches, providing assumed benefits to the species by reducing inbreeding depression and increasing the potential for recolonization of habitat patches. The project site does not fall within any regional corridor defined by the SCVHP. Furthermore, the project site does not support wildlife movement, as the site is currently developed and substantially surrounded by other urban development.

Given that the project site and the properties within the project vicinity are already developed and do not support any major wildlife movement corridors, buildout of the project site would not constrain native wildlife movement. As such, the proposed project would not 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. Thus, ***no impact*** would occur.

e. Section 12.32.030 (Permit-Required) of the City of Morgan Hill's Municipal Code requires the approval of a tree removal permit before the removal of any Ordinance Sized Trees,

[15] Santa Clara Valley Habitat Agency. *Geobrowser*. Available at: http://www.hcpmaps.com/habitat/. Accessed February 2022.
[16] *Ibid*.

defined as a non-indigenous tree with a circumference greater than 40 inches (approximately 12.7-inch diameter) or any indigenous tree with circumference greater than 18 inches (approximately 5.7 inches diameter). Indigenous tree means any tree native to the Morgan Hill region, such as oaks (all types), Sycamore, California Bay, Madrone, or Alder.

A Tree Inventory Report (TIR) was prepared for the proposed project by Horticultural Associates (see Appendix B).[17] Based on the TIR, a total of 74 trees are located on the project site. The TIR determined that 52 of the on-site trees could be preserved, 21 trees would need to be removed due to expected construction impacts, and one tree would need to be removed due to poor existing condition and expected construction impacts. All trees that would require removal are ornamental or fruit trees, and none are native species. Pursuant to Municipal Code Section 12.32.020(G), "All commercial tree farms, nonindigenous tree species in residential zones and orchards (including individual fruit trees) are exempted from the definition of tree for purposes of this chapter." The project is zoned Residential Attached Medium, and thus, removal of the nonindigenous trees on the project site is exempt from Chapter 12.32 and a tree removal permit is not required. It is important to note, however, the proposed project would include the planting of various trees, shrubs, and ground cover along the site perimeter, and near the proposed parking areas. In addition, the TIR includes recommended tree preservation guidelines to ensure the survival of all on-site trees that are not planned for removal. Compliance with the recommended guidelines would be ensured as a project condition of approval.

Based on the above, the proposed project would not conflict with local policies or ordinances protecting biological resources, and ***no impact*** would occur.

[17] Horticultural Associates. *Tree Inventory Report.* March 9, 2022.

V. CULTURAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	✖
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	☐	☐	☐	✖
c. Disturb any human remains, including those interred outside of dedicated cemeteries.	☐	☐	☐	✖

Discussion

a,b,c. The project site is currently developed with an operating residential care facility, two sheds, and a parking area with a driveway into the site. As such, the site has been subject to significant disturbance.

A records search of the CHRIS was performed by the North Central Information Center (NWIC) for cultural resource site records and survey reports within the proposed project area. Based on the results of the CHRIS search, the State Office of Historic Preservation Directory (which includes listings of the California Register of Historical Resources, California State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places) indicates that listed recorded archaeological resources are not located in or adjacent to the project site.[18] Furthermore, a records search of the NAHC Sacred Lands File conducted for the proposed project returned negative results, indicating that known cultural resources are not present on the project site.[19]

The proposed project would involve the demolition of the two sheds associated with the existing residential care facility. The sheds are not considered historic resources. Although the residential care facility itself was built in 1958, and therefore meets the age for being considered historic, the project would not involve any alterations to the existing facility. Thus, historical resources would not be affected by implementation of the proposed project.

However, as noted in the General Plan EIR, archaeological surveys conducted in Morgan Hill have identified numerous prehistoric sites with shell midden components, including human burials. Based on such findings, the potential exists for subsurface historical resources and previously unknown archaeological resources to be found on-site during grading and excavation associated with development of the proposed project. In the event that such resources are unearthed, the following City standard conditions of approval related to the protection of historical and archaeological resources would be implemented, consistent with Section 18.60.090 of the City's Municipal Code:

1. Prior to start of grading or earthmoving activity 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.

[18] California Historical Resources Information System. *Record search results for the proposed Peak Avenue Assisted Living Project.* April 14, 2022.

[19] Native American Heritage Commission. *Peak Avenue Assisted Living Project, Santa Clara County.* March 24, 2022.

2. An archaeologist and a Tamien Nation Tribal Monitor shall be present on-site to monitor all ground disturbing activities. The project applicant shall enter into written contracts with the archaeologist and Tribal Monitor for monitoring and shall pay all fees associated with the activities required by this condition. Copies of the contracts shall be provided to the Development Services Director or Designee prior to issuance of a grading permit. 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 above standard conditions of approval would ensure that construction of the proposed project would result in ***no impact*** related to historical resources and unique archeological resources, as well as the disturbance of human remains.

VI. ENERGY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	☐	✖
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	✖

Discussion

a,b. The main forms of available energy supply are electricity, natural gas, and oil. A description of the 2019 California Green Building Standards Code (CALGreen Code) and the Building Energy Efficiency Standards, with which the proposed project would be required to comply, as well as discussions regarding the proposed project's potential effects related to energy demand during construction and operations are provided below.

California Green Building Standards Code

The 2019 California Green Building Standards Code, otherwise known as the CALGreen Code (CCR Title 24, Part 11) is a portion of the CBSC, which became effective on January 1, 2020.[20] The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a reduced negative impact or positive environmental impact and encouraging sustainable construction practices. The CALGreen standards regulate the method of use, properties, performance, types of materials used in construction, alteration repair, improvement and rehabilitation of a structure or improvement to property. The provisions of the code apply to the planning, design, operation, construction, use, and occupancy of every newly constructed building or structure throughout California. Requirements of the CALGreen Code include, but are not limited to, the following measures:

- Compliance with relevant regulations related to future installation of EV charging infrastructure in residential and non-residential structures;
- Indoor water use consumption is reduced through the establishment of maximum fixture water use rates;
- Outdoor landscaping must comply with the California Department of Water Resources' MWELO, or a local ordinance, whichever is more stringent, to reduce outdoor water use;
- Diversion of 65 percent of construction and demolition waste from landfills; and
- Mandatory use of low-pollutant emitting interior finish materials such as paints, carpet, vinyl flooring, and particle board.
- For some single-family and low-rise residential structures developed after January 1, 2020, mandatory on-site solar energy systems capable of producing 100 percent of the electricity demand created by the residence(s). Certain residential developments, such as developments that are subject to substantial shading, rendering the use of on-site solar photovoltaic systems infeasible, may be exempted from the foregoing requirement on a case-by-case basis.

[20] California Building Standards Commission. *California Green Building Standards Code*. 2019.

Building Energy Efficiency Standards

The 2019 Building Energy Efficiency Standards are a portion of the CBSC that expand upon energy efficiency measures from the 2016 Building Energy Efficiency Standards. The 2019 Building Energy Efficiency Standards are in effect for building permit applications submitted after January 1, 2020.

Energy reductions relative to previous Building Energy Efficiency Standards are achieved through various regulations, including requirements for the use of high efficacy lighting, improved water heating system efficiency, and high-performance attics and walls. For residential buildings, compliance with the 2019 standards will use approximately seven percent less energy due to energy efficiency measures compared to homes built under the 2016 standards.[21] The Building Energy Efficiency Standards require residential buildings that are three stories or less to include solar photovoltaic systems. Once solar electricity generation is factored in, homes built under the 2019 standards will use approximately 53 percent less energy than those under the 2016 standards.

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. Project construction would not involve the use of natural gas appliances or equipment.

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, 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 off-road, heavy-duty diesel vehicles in California by imposing limits 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. In addition, as a means of reducing emissions, construction vehicles are required to become cleaner through the use of renewable energy resources. The In-Use Off-Road Diesel Vehicle Regulation would therefore help to improve fuel efficiency for equipment used in construction of the proposed project. 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.

The CARB prepared the 2017 Climate Change Scoping Plan Update (2017 Scoping Plan),[22] which builds upon previous efforts to reduce GHG emissions and is designed to continue to shift the California economy away from dependence on fossil fuels. Appendix B of the 2017 Scoping Plan includes examples of local actions (municipal code changes,

[21] California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ*. November 2018.
[22] California Air Resources Board. *The 2017 Climate Change Scoping Plan Update.* January 20, 2017.

zoning changes, policy directions, and mitigation measures) that would support the State's climate goals. The examples provided include, but are not limited to, enforcing idling time restrictions for construction vehicles, utilizing existing grid power for electric energy rather than operating temporary gasoline/diesel-powered generators, and increasing use of electric and renewable fuel-powered construction equipment. The In-Use Off-Road Diesel Vehicle Regulation described above, with which the proposed project must comply, would be consistent with the intention of the 2017 Scoping Plan and the recommended actions included in Appendix B of the 2017 Scoping Plan.

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.

Operational Energy Use

In response to the growing climate crisis, the City has determined that natural gas use in local buildings, which accounts for approximately one-third of the community's carbon footprint, represents the City's greatest opportunity to reduce future GHG emissions. Requiring all new buildings to be constructed without natural gas will dramatically reduce future emission growth as electricity procured by Silicon Valley Clean Energy is 100 percent carbon free. The City Council adopted Ordinance No. 2306 on November 6, 2019, which prohibits natural gas infrastructure in new buildings.

Energy use associated with operation of the proposed project would be typical of residential and health care uses, 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. As noted above, the project would be required to include a solar photovoltaic system in accordance with the Building Energy Efficiency Standards. In addition to on-site energy use, the proposed project would result in transportation energy use associated with vehicle trips generated by the proposed development.

The proposed project would be subject to all relevant provisions of the most recent update of the CBSC, including the CALGreen Code and the Building Energy Efficiency Standards. Adherence to the most recent CALGreen Code and the Building Energy Efficiency Standards would ensure that the proposed structure 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, California has set energy-use reduction goals targeting zero-net-energy use in all new homes.[23] The CALGreen Code requires that new residential buildings use a combination of energy efficiency and distributed renewable energy generation to meet all annual energy needs. Required compliance with the CBSC would ensure that the building energy use associated with the proposed project would not be wasteful, inefficient, or unnecessary.

[23] California Energy Commission. *Title 24 2019 Building Energy Efficiency Standards FAQ*. November 2018.

With regard to transportation energy use, the proposed project would comply with all applicable regulations associated with vehicle efficiency and fuel economy. In addition, as discussed in Section XVII, Transportation, of this Initial Study, the project site is located in an urban area with access to public transit lines. The site's access to public transit, would help to minimize VMT and, consequently, fuel consumption associated with the proposed project, thereby reducing transportation energy use.

Conclusion

Based on the context above, construction and operation of the proposed project would not result in wasteful, inefficient, or unnecessary consumption of energy resources or conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Thus, ***no impact*** would occur.

VII. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☐	✖
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	✖
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	✖
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☐	✖
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	✖
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	✖

Discussion

ai-ii. According to the City of Morgan Hill General Plan EIR, major faults located in the project area include the Calaveras Fault located approximately 4.1 miles northeast of the City, the San Andreas Fault located approximately 9.3 miles southwest of the City, the Sargent Fault located approximately 7.0 miles southwest of the City, and the San Gregorio Fault located approximately 32 miles southwest of the City. Given that known surface expressions of fault traces do not exist within the City of Morgan Hill, including the site, fault rupture hazard is not a significant geologic hazard at the site. In addition, Alquist-Priolo Earthquake Fault Zones are not delineated within or near the project site.[24]

Due to the proximity of the site to nearby active faults, strong ground shaking could occur at the site as a result of an earthquake on any one of the faults. However, the proposed project would be subject to all applicable regulations within the CBSC and Chapter 15.08 (Building Code) of the City's Municipal Code, which provide standards to protect property and public safety by regulating the design and construction of foundations, building frames, and other building elements. Therefore, ***no impact*** would occur related to exposure of people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault or strong seismic ground shaking.

[24] California Department of Conservation. *Earthquake Zones of Required Investigation.* Available at: https://maps.conservation.ca.gov/cgs/EQZApp/app//. Accessed March 2022.

aiii,aiv,
c. The proposed project's potential effects related to liquefaction, landslides, lateral spreading, and subsidence/settlement are discussed in detail below.

Liquefaction

Liquefaction is the temporary transformation of loose, saturated granular sediments from a solid state to a liquefied state as a result of seismic ground shaking. In the process, the soil undergoes transient loss of strength, which commonly causes ground displacement or ground failure to occur. Because saturated soils are a necessary condition for liquefaction, soil layers in areas where the groundwater table is near the surface have higher liquefaction potential than those in which the water table is located at greater depths. Additionally, loose unsaturated sandy soils have the potential to settle during strong seismic shaking.

According to the ABAG Resilience Program's interactive Hazards Map, the project site is located in an area of very low and low liquefaction susceptibility.[25] However, the Safety, Services, and Infrastructure Element of the General Plan acknowledges the hazards associated with seismically induced liquefaction in the planning area, and includes a number of policies (SSI-1.1, 1.2, 2.1, and 2.3) that are relevant to the potential hazards. The CBSC and Morgan Hill Building Code also provide standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements, which would further reduce the potential for seismic-related ground failure, including liquefaction. Compliance with the aforementioned regulations would ensure that substantial adverse effects related to liquefaction would not occur.

Landslides

Seismically-induced landslides are triggered by earthquake ground shaking. The risk of landslide hazard is greatest in areas with steep, unstable slopes. The majority of the project site is located on two to nine percent slopes, while a small portion of the project site on the eastern border rises upward in a 15 to 30 percent slope.[26] However, construction of the project would include site grading to ensure that the ground surface of the project site would be generally flat. Per the California Geologic Survey, the site is not located within a designated seismic hazard zone for landslides.[27] Further, the General Plan EIR concludes that compliance with the policies within the Safety, Services, and Infrastructure Element of the General Plan, along with the CBSC and Morgan Hill Building Code, would ensure that substantial adverse effects related to landslides would not occur.

Lateral Spreading

Lateral spreading is horizontal/lateral ground movement of relatively flat-lying soil deposits towards a free face such as an excavation, channel, or open body of water; typically, lateral spreading is associated with liquefaction of one or more subsurface layers near the bottom of the exposed slope. As stated above, following grading activities, the project site would be generally flat. In addition, concrete reinforcement would be placed to support the

[25] Association of Bay Area Governments. *Resilience Program.* Available at: https://mtc.maps.arcgis.com/apps/webappviewer/index.html?id=4a6f3f1259df42eab29b35dfcd086fc8. Accessed March 2022.
[26] United States Department of Agriculture. *Web Soil Survey.* Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed March 2022.
[27] *Ibid.*

grades. Further, the General Plan EIR concluded that impacts related to lateral spreading would be reduced to a less-than-significant level with compliance with the CBSC, the Santa Clara County General Plan, and the Morgan Hill Municipal Code. Therefore, no adverse impacts related to lateral spreading would occur.

Subsidence/Settlement

Subsidence is the settlement of soils of very low density generally from either oxidation of organic material, or desiccation and shrinkage, or both, following drainage. Subsidence takes place gradually, usually over a period of several years. Given that the proposed project would comply with the CBSC, the potential for subsidence to pose a risk to the proposed development is relatively low. In addition, the General Plan EIR concludes that impacts related to subsidence/settlement would be reduced to a less-than-significant level with compliance with the CBSC, the Santa Clara County General Plan, and the Morgan Hill Municipal Code. Therefore, no adverse impacts related to subsidence or settlement would occur.

Conclusion

Based on the above, the proposed project would not be subject to substantial risks related to liquefaction, landslides, lateral spreading, and subsidence/settlement. Compliance with standard construction regulations included in the CBSC would ensure that the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving liquefaction, subsidence, or settlement, and would not 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 subsidence, liquefaction, or collapse. Thus, ***no impact*** would occur.

b. Development of the proposed project would cause ground disturbance of mostly topsoil related to construction activity. The ground disturbance would be limited to the areas proposed for grading and excavation, including building pads, curb, gutter, drainage, sewer, and water infrastructure alignments. After grading and excavation and prior to overlaying the disturbed surfaces with impervious surfaces and structures, the potential exists for wind and water erosion to occur, which could adversely affect downstream storm drainage facilities.

New development within the City that disturbs one or more acres of land is required to comply with the National Pollutant Discharge Elimination System (NPDES) General Construction Permit and prepare a Storm Water Pollution Prevention Plan (SWPPP) incorporating Best Management Practices (BMPs) to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. The proposed project would disturb approximately 1.94 acres and, thus, would be subject to such requirements. In addition, pursuant to Chapter 13.30 (Urban Storm Water Quality Management and Discharge Control) of the City's Municipal Code, an Erosion Control Plan must be prepared for the proposed project. BMPs of the Erosion Control Plan would include drainage inlet protection, designation of a temporary construction entrance, as well as temporary fiber rolls and other BMPs to prevent pollution and erosion. In addition, the Erosion Control Plan would be subject to review and approval by the City Engineer prior to the approval of improvement plans and the issuance of building permits to ensure that the plan complies with City standards. Therefore, the proposed project would not result in substantial soil erosion or the loss of topsoil, and, ***no impact*** would occur.

d. Expansive soils can undergo significant volume changes with changes in moisture content. Specifically, such soils shrink and harden when dried and expand and soften when wetted. If structures are underlain by expansive soils, foundation systems must be capable of withstanding the potential damaging movements of the soil. Per the U.S. Department of Agriculture's Web Soil Survey, the project site consists of two percent Keefers clay loam, 13 percent Gilroy clay loam, and 85 percent Los Robles clay loam. All three soil types have a shrink-swell rating of 0.5, which is considered moderate.[28] However, the proposed project would be required to comply with all applicable CBSC standards to ensure the structural integrity of the proposed structures. Furthermore, to avoid damage due to soil expansion and shrinkage, Section 15.08.090 (Section 1907A.1 amended-Minimum slab provisions) of the City's Municipal Code includes requirements for minimum thickness of concrete floor slabs, as well as required reinforcement with wire mesh or an approved alternative. Given required compliance with the CBSC and the slab and foundation construction standards provided in the Municipal Code, the proposed project would not be subject to substantial risks related to expansive soils.

   Based on the above, the proposed project would not create substantial direct or indirect risks to life or property related to being 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. Thus, a ***less-than-significant*** impact would occur.

e. The proposed development would connect to existing City-maintained sewer infrastructure and would not include the use of septic tanks. Accordingly, ***no impact*** would occur related to soils incapable of adequately supporting the use of septic tanks.

f. Paleontological resources or fossils are the remains of prehistoric plant and animal life. As noted in the General Plan EIR, based on a review of the University of California's Museum of Paleontology's fossil locality database conducted for all of Santa Clara County, paleontological resources have not been identified within the City of Morgan Hill.[29] In addition, the project site has been subject to previous disturbance. Thus, paleontological resources are not expected to occur on the site. Furthermore, the proposed project would be subject to the City's standard measures listed in Section V, Cultural Resources, of this Initial Study. As noted in the General Plan EIR, such measures would ensure adverse impacts to paleontological resources are avoided. As noted in the City's General Plan, occurrences of fossil resources are closely tied to the geologic units. The soil types at the project site are not considered unique geologic features and are common within the geographic area of the City. As such, development of the proposed project would not destroy a unique geologic feature. Therefore, the proposed project would not result in the direct or indirect destruction of a unique paleontological resource or unique geological feature, and ***no impact*** would occur.

[28] United States Department of Agriculture. *Web Soil Survey.* Available at: https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed March 2022.
[29] City of Morgan Hill. *2035 General Plan, City of Morgan Hill* [pg. 4.5-17]. Adopted July 2016.

VIII. GREENHOUSE GAS EMISSIONS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	✖
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gasses?	☐	☐	☐	✖

Discussion

a,b. Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on Earth. 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. Estimated GHG emissions attributable to future development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The proposed project is located within the jurisdictional boundaries of BAAQMD. On April 20, 2022, the BAAQMD Board of Directors held a public meeting and adopted proposed CEQA Thresholds for Evaluating the Significance of Climate Change Impacts from Land Use Projects and Plans.[30] However, according to BAAQMD Resolution No. 2022-06 adopting the CEQA thresholds, the newly adopted thresholds of significance are not applicable to projects that initiated the CEQA process prior to April 20, 2022, such as the proposed project. Therefore, the proposed project is not subject to compliance with the new thresholds of significance and the BAAQMD thresholds of significance for project-level GHG emissions that were in place prior to April 20, 2022 would be the applicable thresholds of significance for this analysis.

The BAAQMD's approach to developing the threshold was to identify a threshold level of GHG emissions for which a project would not be expected to substantially conflict with existing California legislation. At the time that the thresholds were developed, the foremost legislation regarding GHG emissions was AB 32, which established an emissions

[30] Bay Area Air Quality Management District. *CEQA Thresholds and Guidelines Update.* Available at: https://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/updated-ceqa-guidelines. Accessed June 2022.

reduction goal of reducing statewide emissions to 1990 levels by 2020.[31] The GHG emissions threshold of significance recommended by BAAQMD to determine compliance with AB 32 is 1,100 $MTCO_2e$/yr. or 4.6 $MTCO_2e$ per service population per year ($MTCO_2e$/SP/yr.). If a project generates GHG emissions above the BAAQMD's adopted threshold level, the project is considered to generate significant GHG emissions and conflict with AB 32.

The foregoing threshold is intended for use in assessing operational GHG emissions only. Construction of a proposed project would result in GHG emissions over a short-period of time in comparison to the operational lifetime of the project. To capture the construction-related GHG emissions due to buildout of the proposed project, such emissions are amortized over the anticipated project lifetime and added to the operational GHG emissions. Given that construction-related GHG emissions would not occur concurrently with operational emissions and would cease upon completion of construction activities, combining the two emissions sources represents a conservative estimate of total project GHG emissions.

Since the adoption of applicable BAAQMD's GHG thresholds of significance, the State legislature has passed AB 197 and SB 32, which builds off of AB 32 and establishes a statewide GHG reduction target of 40 percent below 1990 levels by 2030. Considering the legislative progress that has occurred regarding statewide reduction goals since the adoption of BAAQMD's standards, the emissions thresholds presented above would determine whether a proposed project would be in compliance with the 2020 emissions reductions goals of AB 32, but would not necessarily demonstrate whether a project would be in compliance with SB 32. In accordance with the changing legislative environment, the BAAQMD has begun the process of updating the District's CEQA Guidelines; however, at the time of this analysis, updated thresholds of significance to assess a project's compliance with SB 32 had not yet been adopted. However, SB 32 requires that by 2030 statewide emissions be reduced by 40 percent beyond the 2020 reduction target set by AB 32. Thus, this analysis assumes that in order to meet the reduction targets of SB 32, a proposed project would be required to reduce emissions by an additional 40 percent beyond the emissions reductions currently required by BAAQMD for compliance with AB 32. Assuming a 40 percent reduction from current BAAQMD targets, a proposed project would be in compliance with SB 32 if the project's emissions did not exceed the following thresholds: 660 $MTCO_2e$/yr or 2.6 $MTCO_2e$/SP/yr. The BAAQMD has informally endorsed this approach to analysis in other recent projects throughout the Bay Area.

By using the BAAQMD thresholds of significance for GHG and the updated SB 32 thresholds discussed above, the City would comply with Section 15064.4(b)(3) of the CEQA Guidelines, which suggests that lead agencies consider the extent that the project would comply with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction of GHG emissions.

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 and does not require quantification. Nonetheless, the proposed project's construction GHG emissions, as well as operational emissions, have been estimated

[31] Bay Area Air Quality Management District. *California Environmental Quality Act Guidelines Update: Proposed Thresholds of Significance*. May 2017.

using CalEEMod under the same assumptions discussed in Section III, Air Quality, of this IS/MND (see Appendix A).

The emissions estimates prepared for the proposed project determined that unmitigated construction of the project would result in total GHG emissions of 283.41 $MTCO_2e$ over the entire construction period. In the analyses below, the total construction GHG emissions are added to the operational emissions of the proposed project (see Table 4). The construction period would be fully completed prior to occupancy of the project and, thus, by adding both emissions sources, this analysis is extremely conservative.

Table 4
Unmitigated Operational GHG Emissions

Source	GHG Emissions (MTCO2e/yr)
Area	*3.81*
Energy	*38.94*
Mobile	*96.59*
Waste	*22.03*
Water	*6.35*
Total Operational GHG Emissions	167.72
Total Construction GHG Emissions	283.41
Total Annual GHG Emissions	**451.13**
BAAQMD AB 32 Threshold	**1,100.00**
Adjusted SB 32 Threshold	**660.00**
Exceeds Threshold?	**NO**
Source: CalEEMod, March 2022 (see Appendix A).	

As shown in Table 4, the project's total unmitigated annual GHG emissions in the first year of project operation, 2023, including construction-related emissions, were estimated to be approximately 451.13 $MTCO_2e$/yr, which would be below BAAQMD's adopted threshold of significance for AB 32 and the adjusted threshold of significance to represent compliance with SB 32. Accordingly, neither construction nor operations of the proposed project would be anticipated to result in significant emissions of GHGs.

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs; and ***no impact*** would occur.

IX. HAZARDS AND HAZARDOUS MATERIALS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	✖
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment?	☐	☐	☐	✖
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	✖
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	✖
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	✖
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	✖
g. Expose people or structures, either directly or indirectly, to the risk of loss, injury or death involving wildland fires?	☐	☐	☐	✖

Discussion

a. Due to the medical nature of the proposed project, use and storage of hazardous materials such as medications, sterilizing agents, and compressed gas, would occur at the project site. Some chemicals can pose physical hazards (e.g., chemical burns) or health hazards (e.g., poisoning), including potential acute or chronic illnesses. The properties and health effects of different chemicals are unique to each chemical and depend on the extent to which an individual is exposed.

Section 8.40.750 of the City's Municipal Code establishes regulations related to the types and quantities of hazardous materials that may be stored or used within the City. Based on the allowances within Section 8.40.750 of the Morgan Hill Municipal Code, should operation of the proposed project require the use or storage of hazardous materials in excess of the excepted limits, a formal request must be made to the City, including a declaration of information regarding the type and quantities of hazardous materials to be used or stored within the project site. Such requests would be considered by the City's Development Services Department. Therefore, such materials would be safely managed in accordance with the applicable regulations and would be subject to City review depending on the type or quantity of chemicals proposed for use. In addition, the site is already developed with an assisted living facility that provides similar medical support. Thus, the proposed project would be an extension of such, and would not introduce any new hazards to the site nor exacerbate the existing conditions.

Given the stringent regulations governing such materials, the proposed project would not create a significant hazard to the public or the environment related to the routine transport, use, or disposal of hazardous materials, and ***no impact*** would occur.

b. During operations, the proposed project could involve the use of hazardous materials associated with the proposed assisted living services. However, as discussed above, given the required compliance with all regulations governing the use of such materials, no impact would occur.

During demolition, the potential exists for construction personnel or nearby receptors to be exposed to hazardous materials that are present in the existing structures. The primary hazardous materials of concern are asbestos and lead, as discussed below.

For buildings constructed prior to 1980, the Code of Federal Regulations (29 CFR 1926.1101) states that all thermal system insulation (boiler insulation, pipe lagging, and related materials) and surface materials must be designated as "presumed asbestos-containing material" unless proven otherwise through sampling in accordance with the standards of the Asbestos Hazard Emergency Response Act. As noted previously, the project site currently includes a residential care facility and two small sheds that were constructed in the 1950s; the sheds are planned for demolition as part of the proposed project. Given that the sheds were constructed prior to 1980, the potential exists that asbestos-containing materials are present in the sheds, and that such material could be released during demolition activities. However, the General Plan includes Policy NRE-12.3, which requires construction and demolition projects that have the potential to disturb asbestos (from soil or building material) to comply with all the requirements of the CARB's airborne toxic control measures (ATCMs) for construction, grading, quarrying, and surface mining operations. Therefore, compliance with Policy NRE-12.3 would ensure that the proper precautions are taken prior to demolishing the existing structures, and adverse impacts related to asbestos would not occur.

Lead-based paint (LBP) is defined by federal guidelines as any paint, varnish, stain, or other applied coating that has one milligram of lead per square centimeter or greater. Lead is a highly toxic material that may cause a range of serious illnesses, and in some cases death. Structures built prior to 1978, and especially prior to the 1960s, are expected to contain LBP. As noted above, the existing facility and sheds were developed in the 1950s and, thus are assumed to include LBP. Therefore, demolition of the on-site sheds could result in exposure to LBP. However, Title 8, CCR Section 1532.1 establishes guidelines related to construction work and demolition of structure that may include lead. As required therein, the employer must conduct a lead exposure assessment prior to the initiation of any work, and ensure that no employee is exposed to lead at concentration greater than 50 micrograms per cubic meter of air. Compliance with the foregoing standards would ensure that the proper precautions are taken prior to demolishing the existing structures, and adverse impacts related to LBP would not occur.

Hazardous materials could be stored, used, and transported in varying amounts during construction of the proposed project. Construction activities associated with the proposed project would involve the use of various products such as concrete, paints, and adhesives. In addition, heavy-duty construction equipment operating on the project site would contain hydraulic fluid, diesel fuel, and other petroleum products. Small quantities of such potentially toxic substances would be used at the project site and transported to and from the site during construction. However, the project contractor would be required to comply

with all California Health and Safety Codes and local County ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. Compliance with such regulations would ensure that the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment during construction activities.

Based on the above, implementation of the proposed project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the likely release of hazardous materials into the environment. As such, ***no impact*** would occur.

c. The nearest school relative to the project site is St. Catherine School, located approximately 0.2-mile northwest of the site. As discussed under questions 'a' and 'b' above, construction and operation of the proposed project could include the use of small quantities of potentially toxic substances (e.g., medications, compressed gases, petroleum and other chemicals used to operate and maintain construction equipment); however, the project applicant/contractor would be required to comply with all State and local City ordinances regulating the use of such products. Therefore, the proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school, and ***no impact*** would occur.

d. Pursuant to the SWRCB GeoTracker data management system, hazardous materials sites, including LUST sites and DTSC cleanup sites, have not been identified on or within a 1,000-foot radius of the project site.[32] In addition, the project site is not located on or near any hazardous waste sites identified on the Envirostor's Hazardous Waste and Substance Site List.[33]

Based on the above, the proposed project would not be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. As such, ***no impact*** would occur.

e. The public airport nearest to the project site is the San Martin Airport, which is located approximately 5.3 miles southeast of the project site at 13030 Murphy Avenue. The project site is located well outside of the Airport Influence Area identified in the South County Airport Comprehensive Land Use Plan.[34] In addition, the project site is not located within the vicinity of a private airstrip. Therefore, the proposed project would not result in an airport-related safety hazard for people residing or working in the project area, and ***no impact*** would occur.

f. Implementation of the proposed project would not result in any modifications to the City's existing roadway system. In addition, during construction, heavy equipment would be

[32] State Water Resources Control Board. *GeoTracker*. Available at: https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=morgan+hill. Accessed March 2022.

[33] Department of Toxic Substances Control. *Hazardous Waste and Substances Site List*. Available at: https://www.envirostor.dtsc.ca.gov/public/search?cmd=search&reporttype=CORTESE&site_type=CSITES,FUDS&status=ACT,BKLG,COM&reporttitle=HAZARDOUS+WASTE+AND+SUBSTANCES+SITE+LIST+%28CORTESE%29. Accessed March 2022.

[34] Santa Clara County. *Comprehensive Land Use Plan, Santa Clara County, South County Airport.* Amended November 16, 2016.

staged on-site such that the local roadways would not be blocked. Thus, implementation of the proposed project would not interfere with potential evacuation or response routes used by emergency response teams. Furthermore, the project would not conflict with the City's Emergency Operations Plan because the project would not affect the local roadway network.[35] Therefore, 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.

g. The City's Wildland Urban Interface map indicates that the project site is not located in a High or Very High Fire Hazard Severity Zone (FHSZ).[36] In addition, the project site is substantially surrounded by urban development, thereby limiting the sources of fuel (e.g., dry grass) that could be ignited. Therefore, the proposed project would not expose people or structures to the risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands, and ***no impact*** would occur.

[35] City of Morgan Hill. *Emergency Operations Plan.* January 11, 2018.
[36] City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map.* March 2009.

X. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☐	✖
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☐	✖
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site;	☐	☐	☐	✖
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☐	✖
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☐	✖
iv. Impede or redirect flood flows?	☐	☐	☐	✖
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	✖
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	✖

Discussion

a. The proposed project's potential to result in water quality impacts during construction and operations is discussed in further detail separately below.

Construction

Project construction activities such as grading, excavation, and trenching for site improvements would result in the disturbance of on-site soils. The exposed soils have the potential to affect water quality in two ways: 1) suspended soil particles and sediments transported through runoff; or 2) sediments transported as dust that eventually reach local water bodies. Spills or leaks from heavy equipment and machinery, staging areas, or building sites also have the potential to enter runoff. Typical pollutants include, but are not limited to, petroleum and heavy metals from equipment and products such as paints, solvents, and cleaning agents, which could contain hazardous constituents. Sediment from erosion of graded or excavated surface materials, leaks or spills from equipment, or inadvertent releases of building products could result in water quality degradation if runoff containing the sediment or contaminants should enter receiving waters in sufficient quantities. Impacts from construction-related activities would generally be short-term and of limited duration.

Water quality degradation is regulated by the federal NPDES Program, established by the Clean Water Act, which controls and reduces pollutants to water bodies from point and non-point discharges. In California, the NPDES permitting program is administered by the

SWRCB through nine Regional Water Quality Control Boards (RWQCBs). As discussed in Section VII, Geology and Soils, of this Initial Study, new development within the City that disturbs one or more acres of land is required to comply with the NPDES General Construction Permit and prepare a SWPPP incorporating BMPs to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. The proposed project would disturb approximately 1.89 acres, and, thus, would be subject to the State NPDES General Construction Permit.

The proposed project would also be subject to all regional and local water quality regulations. In order to meet water quality objectives for the region, the City of Morgan Hill, City of Gilroy, and County of Santa Clara have prepared and are implementing a Revised Regional Storm Water Management Plan (SWMP).[37] The SWMP incorporates the efforts of the City of Morgan Hill, the City of Gilroy, and the unincorporated portion of Santa Clara County, within the watershed of the Pajaro River and Monterey Bay, to meet the Phase II Storm Water Permit requirements for small municipal separate storm sewer systems (MS4s). The City of Morgan Hill implements the SWMP through an extensive program that entails: 1) the establishment of SWMP goals for the City; 2) public education and outreach; 3) public involvement and participation; 4) illicit discharge control; 5) construction site stormwater runoff control; 6) post-construction stormwater management in development; and 7) pollution prevention. For construction activities, the SWMP presents BMPs that are required for the control of stormwater runoff quality during construction. Compliance with the City's SWMP, as well as the NPDES General Construction Permit, would ensure that adverse impacts to water quality would not occur during construction.

Operation

After project construction, impervious surfaces on the project site could contribute incrementally to the degradation of downstream water quality during storm events. During the dry season, vehicles and other urban activities may release contaminants onto the impervious surfaces, where they would accumulate until the first storm event. During the initial storm event, or first flush, the concentrated pollutants would be transported via stormwater runoff from the site to the stormwater drainage system and eventually a downstream waterway. Typical urban and medical facility pollutants that would likely be associated with the proposed project include sediment, pesticides, oil and grease, nutrients, metals, bacteria, and trash.

The proposed project would be managed in accordance with Resolution R3-2013-0032 issued by the Central Coast Regional Water Quality Control Board. The Resolution formally adopts post-construction stormwater management requirements for development projects in the Central Coast Region.[38] The requirements identify 10 Watershed Management Zones (WMZs) in the covered area, and specify stormwater management requirements for each zone, depending on the size of the development project. Because the project site is located in an area classified as WMZ-1, stormwater management at the project site must include site design and runoff features to limit the amount of runoff from the project site as well as on-site water quality treatment to reduce pollutant loads in the

[37] City of Morgan Hill. *Stormwater and Urban Runoff Management*. Available at: https://www.morgan-hill.ca.gov/737/Phase-II-General-Stormwater-Permit. Accessed March 2022.

[38] California Water Boards. *Central Coast Post-Construction Stormwater Requirements.* Available at: https://www.waterboards.ca.gov/centralcoast/water_issues/programs/stormwater/docs/lid/hydromod_lid_docs/2013_0032_attach1_post_construction_requirements.pdf. Accessed March 2022.

stormwater runoff using a Low Impact Development (LID) treatment system such as biofiltration. In WMZ-1, the treatment system must retain 95 percent of the runoff from the project site and also maintain peak runoff flows such that they do not exceed pre-project flows.

A Preliminary Hydrology and Detention Report was prepared for the proposed project by Talus, Inc. (Appendix C).[39] The Preliminary Hydrology and Detention Report concluded that construction of the project would be adequately designed to accommodate a 10-year storm event without increasing flows to the existing storm drain system.

A preliminary Stormwater Control Plan (SWCP) has been prepared for the proposed project (see Figure 8). Pursuant to the SWCP, the project site would be divided into 18 Drainage Management Areas (DMAs). DMAs 7, 17, and 18, would be self-treating, landscaped areas. Similarly, DMAs 12, 15, and 16 would be self-retaining pervious areas. All other DMAs on the project site would direct runoff towards flow-through planters or to one of three bioretention areas prior to discharge into the City's existing storm drain system in West Dunne Avenue or Peak Avenue. All proposed stormwater treatment measures have been designed in accordance with the Santa Clara County Clean Water Program Technical Guidance Handbook.

The design, construction, operation, and maintenance of the proposed stormwater system would need to be addressed in a final SWCP to be submitted to the City of Morgan Hill in accordance with the stormwater management requirements set forth in Chapter 18.140 of the City's Municipal Code. The final SWCP would demonstrate how the stormwater system would meet the specified water quality, runoff retention, and peak flow management requirements. Prior to the issuance of building permits, the stormwater controls would be verified by the City of Morgan Hill to confirm design of the controls in accordance with the specified standards, and the controls would be subject to later operation and maintenance inspections by the property owner.

The final design of the proposed drainage system would be reviewed and approved by the City Engineer, who would ensure that the proposed drainage system complies with all applicable regional and local standards and requirements with respect to incorporating sufficient permanent stormwater treatment control BMPs. Therefore, water quality standards or waste discharge requirements would not be violated, and water quality would not be substantially degraded as a result of operations of the proposed project or intersection improvement area.

Conclusion

Based on the above discussions, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality during construction and operations. Therefore, ***no impact*** would occur.

b,e. The City's water supplies currently consist entirely of groundwater. Approximately 25 percent of the City's supply is extracted from the Coyote Valley subarea of the Santa Clara Subbasin, and approximately 75 percent is extracted from the Llagas Subbasin. The project site is located within the Llagas Subbasin. Neither of the subbasins are in a

[39] Talus, Inc. *Preliminary Hydrology and Detention Report for Monte Villa Care Facility.* October 29, 2020.

condition of overdraft, and groundwater levels are not expected to drop.[40] It should be noted that water supply is further discussed in Section XIX, Utilities and Service Systems, of this Initial Study.

Groundwater within the Llagas Subbasin is managed by the SCVWD. The 2021 Groundwater Management Plan (GWMP), prepared pursuant to the Sustainable Groundwater Management Act of 2014, describes the SCVWD's comprehensive groundwater management framework, including existing and potential actions to achieve basin sustainability goals and ensure continued sustainable groundwater management. The GWMP covers the Santa Clara and Llagas subbasins, located entirely in Santa Clara County and identified by the Department of Water Resources (DWR) as Basins 2-9.02 and 3-3.01, respectively. DWR identified the Santa Clara and Llagas subbasins as high-priority based on criteria that include overlying population, projected growth, number of wells, irrigation acreage, groundwater reliance, and groundwater impacts. However, neither subbasin has been identified as being critically overdrafted.[41]

Major recharge facilities within the Llagas Subbasin include the Uvas and Chesbro Reservoirs, in-stream recharge in Llagas and Uvas Creeks, the Madrone Channel, the San Pedro and Main Avenue groundwater recharge ponds, and the Uvas-Llagas pipeline, which is capable of diverting water from Uvas Reservoir to Llagas Creek. The project site is not located in the vicinity of any such facilities. In addition, the proposed stormwater drainage system would allow for a portion of the captured runoff to infiltrate underlying soils in a manner similar to what currently occurs on-site.

Given that groundwater levels within the subbasin underlying the project site are currently stable, and that the proposed project would provide for opportunities for on-site recharge, 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 Llagas Subbasin. In addition, the project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Thus, ***no impact*** would occur.

ci-iii. The project site consists of an existing residential care facility and an associated parking lot. Development of the proposed project would include approximately 47,115 square feet of impervious surfaces, which would alter the existing drainage pattern of the site Stormwater runoff could cause soil erosion if not properly addressed and provide a more lucrative means of transport for pollutants to enter the waterways. However, as discussed above, the proposed project would include 18 different DMAs with stormwater treatment measures. Stormwater would be directed to a flow-through treatment planter for treatment prior to discharge to the existing storm drain system on West Dunne Avenue. Therefore, the proposed stormwater system would treat and retain runoff from the project site and would be required to maintain peak runoff flows such that they do not exceed pre-project flows in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032.

Stormwater runoff associated with the site would be required to comply with the City's SWMP standards. As such, the project would not significantly increase stormwater flows

[40] City of Morgan Hill. *Morgan Hill 2035 Final Environmental Impact Report* [pg. 4.9-18]. Adopted July 2016.
[41] Santa Clara Valley Water District. *2021 Groundwater Management Plan, Santa Clara and Llagas Subbasins* [pg. ES-1]. November 2021.

into the existing system. The final drainage system design for the project will be subject to review and approval by the City Engineer, who will confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval. Therefore, the proposed project would not substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion, siltation, or 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. Thus, ***no impact*** would occur.

civ. According to FEMA Flood Insurance Rate Map number 06085C606H, the project site is located within Zone X, which is not considered a Special Flood Hazard Area.[42] Therefore, the proposed project would not impede or redirect flood flows, and ***no impact*** would occur.

d. A discussion of flood hazards can be found above, under question 'civ.' A seiche is defined as a wave generated by rapid displacement of water within a reservoir or lake, due to an earthquake that triggers land movement within the water body or land sliding into or beneath the water body. The project site is not located near a water body that is susceptible to seiche hazard. In addition, the distance to the nearest coastline does not subject the site to tsunami hazards.

The project site is, however, located within the dam failure inundation hazard zone for Anderson Reservoir as indicated within the dam failure inundation hazard maps.[43] A seismic stability evaluation performed in 2007 for Anderson Dam indicated that the downstream and upstream embankments could become unstable during a very large magnitude earthquake and the rupture of faults underlying the dam may have adverse impact on the outlet pipes and intake structure. The SCVWD has initiated a capital project, the Anderson Dam Seismic Retrofit Project (ADSRP), to complete the planning, design, and construction of the seismic retrofit of the dam. Construction work for the ADSRP began on July 7, 2021.[44] Federal dam regulators have ordered Anderson Reservoir to operate at three percent capacity until the retrofit is complete.[45] Given the reduced capacity of, and ongoing improvements to, the Anderson Dam, flooding and/or inundation from the dam does not pose a risk to the proposed project.

Based on the above, the proposed project would not be exposed to substantial risks related to flooding as a result of the failure of a dam, tsunamis, or seiches. Therefore, the project would not result in the release of pollutants due to project inundation, and ***no impact*** would occur.

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42 Federal Emergency Management Agency. *National Flood Hazard Layer FIRMette No. 06085C606H.* Available at: https://msc.fema.gov/portal/search?AddressQuery=17090%20Peak%20Avenue%2C%20Morgan%20Hill%2C%20CA#searchresultsanchor. Accessed February 2022.

43 Association of Bay Area Governments. *Dam Failure Inundation Hazard Map for Morgan Hill*. 1995. Available at: http://www.mhcert.com/prepare/dam_failure.shtml. Accessed February 2022.

44 Santa Clara Valley Water District. *C1: Anderson Dam Seismic Retrofit*.* Available at: https://www.valleywater.org/anderson-dam-project. Updated October 2021.

45 *Ibid*.

XI. LAND USE AND PLANNING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Physically divide an established community?	☐	☐	☐	✖
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	✖

Discussion

a. A project risks dividing an established community if the project would introduce infrastructure or alter land use so as to change the land use conditions in the surrounding community, or isolate an existing land use. Currently, the project site consists of an operational assisted living facility, and the site is generally surrounded by existing development. The proposed project is an extension of the current use on the project site and, therefore, would not introduce a new land use, change the conditions in the surrounding community, or isolate an existing land use. Therefore, the proposed project would not physically divide an established community and ***no impact*** would occur.

b. The project site is designated Residential Attached Medium within the City's General Plan and is zoned RAM. The Residential Attached Medium land use designation allows for a mix of attached housing types including townhomes, garden apartments, and stacked flats. Additionally, a Residential Care Facility is allowed within the RAM district with approval of a Conditional Use Permit. Therefore, the proposed project would not conflict with the site's zoning or land use designation.

In addition, the proposed project would be consistent with other applicable policies and regulations adopted for the purpose of avoiding or mitigating environmental effects. For example, as discussed in Section IV, Biological Resources, of this Initial Study, the proposed project would comply with Section 12.32.030 of the City's Municipal Code regarding the removal of Ordinance Sized Trees. The project would not conflict with any applicable policies, regulations, or ordinances related to the protection of biological resources. Additionally, as discussed under Section XIII, Noise, of this Initial Study, the project would comply with the noise level thresholds established in the City's General Plan and Municipal Code during construction and operation. In addition, the proposed project would comply with Section 8.28.040.D of the City's Municipal Code, which limits the hours construction activities may occur.

Therefore, the proposed project would not cause a significant adverse environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect, and ***no impact*** would occur.

XII. MINERAL RESOURCES. *Would the project:*		Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	✖
b.	Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	✖

Discussion

a,b. The City's General Plan does not identify any regionally or locally important mineral resources within the City of Morgan Hill. The Santa Clara County General Plan does identify mineral resources of importance; however, the project site is not located in proximity to the quarries currently in operation. Furthermore, mining is not allowed in the project site's land use and zoning designations, and mining would be incompatible with the surrounding uses. Consequently, the proposed project would not result in the loss of a known mineral resource that would be of value to the region nor would the project result in the loss of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, ***no impact*** to mineral resources would occur as a result of the proposed project.

XIII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	✖
b. Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	✖
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✖

Discussion

a. The following section includes a discussion of noise standards and criteria applicable to various land uses, as well as potential traffic noise and non-transportation noise sources associated with the proposed project.

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 considered to be sensitive to noise because intrusive noise can be disruptive to such activities. Within the project vicinity, and for the purposes of a CEQA evaluation, the nearest sensitive receptor is the single-family residence surrounded by the site.

Existing Noise Environment

The ambient noise environment in the immediate project vicinity is defined by traffic on the local roadway network (Peak Avenue and West Dunne Avenue). Additional noise sources include emergency vehicle pass-bys and general community noise.

City Noise Standards and Criteria

Chapter 9, Safety, Service, and Infrastructure, of the City's General Plan contains the following policies that would be applicable to the proposed project:

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.

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.

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.

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.

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.

In addition to the policies listed above, Section 18.76.090 (Noise) of the City's Municipal Code contains maximum noise levels for non-transportation noise sources. The City's quantitative exterior noise standards are reproduced below in Table 5. Importantly, this section of the Code states that noise standards in the below table (i.e., Table 18.76-1 of the Code) do 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).

Table 5
Noise Level Performance Standards

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

Notes:
- The planning commission may allow an additional 5 dBA noise level at the lot line if the maximum noise level shown above cannot be achieved with reasonable and feasible mitigation.

Source: City of Morgan Hill Municipal Code.

Furthermore, Section 8.28.040.D of the Morgan Hill Municipal Code, limits construction activity noise as follows:

> "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 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 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 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 Works projects are exempt from this section and the City Engineer shall determine the hours of construction for City public projects.

Project Construction Noise

During construction of the proposed project, heavy-duty equipment would be used for demolition, grading, excavation, paving, and building construction, which would result in temporary noise level increases while in operation. Noise levels would vary depending on the type of equipment used, how the equipment is operated, and how well the equipment is maintained. In addition, noise exposure at any single point outside the project site would vary depending on the proximity of construction activities to that point. Standard construction equipment, such as graders, backhoes, loaders, and haul trucks would be used on-site. The nearest noise-sensitive receptor is the single-family residence that is surrounded by the project site on three sides.

Table 6 shows the maximum noise levels associated with typical construction equipment.

Table 6
Construction Equipment Noise

Type of Equipment	Maximum Level, dB at 50 feet
Backhoe	78
Compactor	83
Compressor (air)	78
Dozer	82
Dump Truck	76
Excavator	81
Generator	81
Pneumatic Tools	85

Source: ***Federal Highway Administration, Roadway Construction Noise Model User's Guide, January 2006.***

Based on the table, activities involved in typical construction would generate maximum noise levels up to 85 dB at a distance of 50 feet. Because the nearest receptor is less than 50 feet away, the receptor could be exposed to noise levels greater than 85 dB.

As noted in Section 18.76.090 of the City's Municipal Code, the noise level performance standards set forth therein do not apply to noise generated by construction activities. Additionally, Chapter 8.28 of the Morgan Hill Municipal Code prohibits construction activities between 8:00 PM and 7:00 AM, Monday through Friday, and between 6:00 PM and 9:00 AM on Saturdays. Construction activities may not occur on Sundays or federal holidays.

Given the restrictions on construction hours, and the City's standard conditions of approval requiring the use of best available technology by construction contractors to minimize excessive noise from construction equipment, the project would result in no impact related to a substantial temporary increase in noise generation during construction activities.

Project Operational Noise

It should be noted that the California Supreme Court has clarified that environmental analyses prepared under CEQA are intended to analyze a project's impact on the environment, rather than the potential impact of the environment on the project (*Ballona Wetlands Land Trust v. City of Los Angeles,* (2011) 201 Cal.App.4th 455, 473). As such, because the environmental analyses are not required to analyze the potential impact of the environment on the project, a discussion of the effects of off-site traffic noise on the project has not been included. Similarly, the effects of project construction on the existing on-site residential care facility is not evaluated herein.

Operation of the proposed project would generate noise primarily associated with increased traffic on nearby roadways. Pursuant to General Plan Policy SSI-8.5, noise level increases resulting from traffic associated with new projects are considered significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dB L_{dn}; or b) the noise level increase is 3 dB L_{dn} or greater, with a future noise level of 60 dB L_{dn} or greater. Table 4.11-7 of the General Plan EIR shows a decrease in noise levels of 0.6 dB by 2035 along Peak Avenue, between Dunne Avenue and Main Avenue, with future traffic noise levels projected to be less than 60 dB. The table also shows an increase in noise levels along Dunne Avenue, between Peak Avenue and Del Monte Avenue, by 2.6 dB, with future projected traffic noise levels exceeding 65 dB. Vehicle trips generated by the proposed project are generally included in the estimate of buildout of the General Plan because the proposed project is consistent with the RAM land use designation. Considering the anticipated change in transportation noise on adjacent roadways would not exceed the City's standards set forth in Policy SSI-8.5, traffic noise increases attributable to the project would be less than significant.

Non-transportation noise-generating operations associated with the proposed project would primarily consist of landscaping maintenance and HVAC systems. The landscaping maintenance and HVAC systems would be typical of the existing residential care facility on the project site. Assuming the project HVAC systems and maintenance equipment would be in normal working order, such stationary noise sources associated with the proposed project would not substantially increase noise levels from what currently exists in the project area.

Based on the above, the project would result in no impact related to a substantial increase in noise generation during project operation.

Conclusion

Based on the above, implementation of the proposed project would not result in the 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 City's General Plan and the Municipal Code. Therefore, ***no impact*** would occur.

b. Similar to noise, vibration involves a source, a transmission path, and a receiver. However, noise is generally considered to be pressure waves transmitted through air, whereas vibration usually consists of the excitation of a structure or surface. As with noise, vibration consists of an amplitude and frequency. A person's perception to the vibration depends on their individual sensitivity to vibration, as well as the amplitude and frequency of the source and the response of the system which is vibrating.

Vibration is measured in terms of acceleration, velocity, or displacement. A common practice is to monitor vibration in terms of peak particle velocities (PPV) in inches per second (in/sec). Standards pertaining to perception as well as damage to structures have been developed for vibration levels defined in terms of PPV.

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 7, which was developed by Caltrans, shows the vibration levels that would normally be required to result in damage to structures. As shown in the table, the threshold for architectural damage to structures is 0.20 in/sec PPV.

The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration. Although noise and vibration associated with the construction phases of the project would add to the noise environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours.

Table 8 shows the typical vibration levels produced by construction equipment at various distances. The most substantial source of groundborne vibrations associated with project construction would be the use of vibratory compactors.

Use of vibratory compactors/rollers could be required during construction of the proposed on-site parking areas and driveways. However, such activity would occur at approximately 40 feet from the existing single-family unit located adjacent to the project site. At a distance of 26 feet or greater from the vibration source, groundborne vibrations associated with construction equipment would be less than the 0.2 in/sec PPV threshold of significance for architectural damage to structures. Therefore, the proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels, and ***no impact*** would occur.

Table 7
Effects of Vibration on People and Buildings

PPV		Human Reaction	Effect on Buildings
mm/sec	in/sec		
0.15 to 0.30	0.006 to 0.019	Threshold of perception; possibility of intrusion	Vibrations unlikely to cause damage of any type
2.0	0.08	Vibrations readily perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
2.5	0.10	Level at which continuous vibrations begin to annoy people	Virtually no risk of "architectural" damage to normal buildings
5.0	0.20	Vibrations annoying to people in buildings (this agrees with the levels established for people standing on bridges and subjected to relative short periods of vibrations)	Threshold at which there is a risk of "architectural" damage to normal dwelling - houses with plastered walls and ceilings. Special types of finish such as lining of walls, flexible ceiling treatment, etc., would minimize "architectural" damage
10 to 15	0.4 to 0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause "architectural" damage and possibly minor structural damage

Source: Caltrans. Transportation Related Earthborne Vibrations. TAV-02-01-R9601. February 20, 2002.

Table 8
Vibration Levels for Various Construction Equipment

Type of Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)
Large Bulldozer	0.089	0.029
Loaded Trucks	0.076	0.025
Small Bulldozer	0.003	0.000
Auger/drill Rigs	0.089	0.029
Jackhammer	0.035	0.011
Vibratory Hammer	0.070	0.023
Vibratory Compactor/roller	0.210 (0.2 at 26 feet)	0.070

Source: Federal Transit Administration, Transit Noise and Vibration Impact Assessment Guidelines, May 2006.

c. The public airport nearest to the project site is the San Martin Airport, which is located approximately 5.3 miles southeast of the project site at 13030 Murphy Avenue. The project site is located well outside of the Airport Influence Area identified in the South County Airport Comprehensive Land Use Plan.[46] In addition, the project site is not located within the vicinity of a private airstrip. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with air traffic, and ***no impact*** would occur.

[46] Santa Clara County. *Comprehensive Land Use Plan, Santa Clara County, South County Airport.* Amended November 16, 2016.

XIV. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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)?	☐	☐	☐	✖
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖

Discussion

a. The proposed project would include the expansion of the existing residential care facility by 96 beds, for a total capacity of 128 beds. Based on the Department of Finance E-5 City/County Housing Population Estimates published in May 2021, the population of Morgan Hill is approximately 47,374.[47] The increase in population associated with the proposed project (96 residents) would constitute a 0.20 percent increase in the City's population. A 0.20 percent increase in population would not be considered substantial growth. In addition, the facility has the potential to accommodate existing aging residents of Morgan Hill. As a result, the proposed project would not necessarily increase the City population. Furthermore, the proposed project is allowable use in the zoning and land use designations. Therefore, the City has planned for similar development and anticipated the resulting population growth. The primary consideration regarding increased growth is not the growth itself, but the effects of such growth on the City's infrastructure systems, with the key inquiry being whether the systems would become overburdened as a result of the additional demand created by the project. As discussed in Section XIX, Utilities and Service Systems, of this Initial Study, adequate utility infrastructure would be available to support the proposed project. Thus, the proposed project would not induce substantial unplanned population growth in an area, either directly or indirectly, and ***no impact*** would occur.

b. The proposed project would not require the demolition of any existing residential units. Instead, the project would develop currently unused land to provide housing and treatment for mentally and physically ill people. As such, the proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere, and ***no impact*** would occur.

[47] California Department of Finance. *E-5 City/County Population and Housing Estimates.* May 2021.

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:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	☐	☐	☐	✖
b. Police protection?	☐	☐	☐	✖
c. Schools?	☐	☐	☐	✖
d. Parks?	☐	☐	☐	✖
e. Other Public Facilities?	☐	☐	☐	✖

Discussion

a-e. The City of Morgan Hill contracts with CAL FIRE (California Department of Forestry and Fire Protection) for fire protection services. The nearest fire station to the project site (El Toro Station) is located approximately 1.7 miles to the north. 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.[48] The incremental increase in demand for fire protection associated with the proposed project would not necessitate new or physically altered fire protection facilities and would not be substantial enough such that the current response times could not be maintained. In addition, the proposed building would include a fire sprinkler system which would decrease the likelihood of fire-related incidents to occur at the site.

The project site is also located in close proximity to the Morgan Hill Police Department, which is located at 16200 Vineyard Boulevard, approximately 1.6 miles southeast of the site. Thus, police response times would be comparable to nearby existing developments.

With respect to schools, given that the project would provide assisted living services for adults, the proposed project would not increase the demand for public schools in the area.

Regarding parks, the proposed project would include recreational facilities, such as multiple media rooms and living areas, for residents to use. The demand for recreation attributable to the proposed assisted living project would not be substantial enough to necessitate the construction of new parks or alteration of existing parks, the construction of which could have environmental impacts.

Other public facilities, such as libraries, are within close proximity to the project site as well. The Morgan Hill Library is located approximately 0.4-mile northwest of the project site, and would be available for use by future residents of the proposed project. However, it is noted that, given the demographic of the proposed project's residents, it is unlikely that such residents would leave the project site to use public facilities, such as libraries.

Because the project is an allowable use under the site's General Plan land use designations, buildout of the site has been evaluated in the City's General Plan EIR and

[48] 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.

assumed in City planning efforts. Thus, the associated increase in demand for public services has already been anticipated and planned for by the City. Furthermore, the proposed project would be subject to payment of development impact fees, which are used to help pay for infrastructure, including fire facilities, police facilities, and other public facilities needed to support new development within the City.

Based on the above, the proposed project would have ***no impact*** with respect to creating adverse physical environmental impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for fire protection, police protection, schools, and other public facilities.

XVI. RECREATION. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	✖
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	✖

Discussion

a,b. The proposed assisted living development would be expected to generate approximately 96 new residents. Due to the increase in population associated with the project, the proposed project could increase demand on existing park facilities. However, given the demographic of the proposed project's residents, it is unlikely that such residents would use such facilities. In addition, the proposed development would include on-site recreation opportunities such as media rooms and living areas for residents to use. The demand for recreation attributable to the proposed assisted living project would not be substantial enough to necessitate the construction of new parks or alteration of existing parks, the construction of which could have environmental impacts.

Therefore, because the proposed project would include on-site recreation opportunities and would not substantially increase the demand for recreation facilities within the City, the proposed project would not increase use of neighborhood and regional recreational parks or other recreational facilities such that physical deterioration of the facility would occur or be accelerated. Thus, ***no impact*** would occur related to recreational resources.

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

Discussion

a. The law has changed with respect to how transportation-related impacts may be addressed under CEQA. Traditionally, lead agencies used level of service (LOS) to assess the significance of such impacts, with greater levels of congestion considered to be more significant than lesser levels. Enacted as part of Senate Bill 743 (2013), PRC Section 21099, subdivision (b)(1), directed the Governor's Office of Planning and Research (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."

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.

Transit, Bicycle, and Pedestrian Facilities

Bus service in the City of Morgan Hill is provided by the Santa Clara Valley Transportation Authority (VTA), which operates local bus service with regional connections to destinations north and south of Morgan Hill. The nearest bus stop to the project site is located approximately 0.15-mile to the northwest at the intersection of Peak Avenue/Alkire Avenue. Because the proposed project would only slightly increase transit riders, the demands of the proposed project could be accommodated by the existing transit facilities. Therefore, the proposed project would not conflict with a program, plan, ordinance, or policy related to the City's transit facilities.

In the project vicinity, bike lanes are located along West Dunne Avenue and Peak Avenue.[49] Due to the nature of the proposed project, the project is not expected to generate a significant amount of bicycle trips. Therefore, the demand generated by the

[49] City of Morgan Hill. *Bikeways, Trails, Parks and Recreation Master Plan.* Adopted July 2017.

proposed project could be accommodated by the existing bicycle facilities in the vicinity of the project site. Thus, the proposed project would not conflict with a program, plan, ordinance, or policy related to the City's bicycle facilities.

Currently, sidewalks are located along each side of both Peak Avenue and West Dunne Avenue. Pedestrian crosswalks are also provided at the adjacent nearby intersections. As such, the proposed pedestrian facilities in the project vicinity would provide adequate connection for pedestrians between the project site and other surrounding land uses in the area. Therefore, the proposed project would not conflict with existing transit, bicycle, or pedestrian facilities.

Conclusion

Based on the above, ***no impact*** would occur related to conflicting with a program, plan, ordinance, or policy addressing the circulation system, including transit, bicycle, and pedestrian facilities.

b. Section 15064.3 of the CEQA Guidelines provides specific considerations for evaluating a project's transportation impacts. Pursuant to Section 15064.3, analysis of VMT attributable to a project is the most appropriate measure of transportation impacts, with other relevant considerations consisting of the effects of the project on transit and non-motorized travel. 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 site. 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, development projects 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.

In order to assess project VMT, the Santa Clara Countywide (SCC) VMT Evaluation Tool was used.[50] 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.

To adhere to the state's legislation, the City 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. The new policies will replace the City's current transportation policies that are based on LOS. However, as the City has not formally adopted City-specific VMT policies, the VMT assessment incorporated methodology and impact thresholds recommended in the OPR *Technical Advisory on Evaluating Transportation Impacts in CEQA* (*Technical Advisory*). In accordance with the *Technical Advisory*, VMT per capita is the recommended metric to evaluate CEQA-related

[50] Santa Clara Countywide VMT Evaluation Tool. *Results*. Available at: https://vmttool.vta.org/. Accessed March 2022.

transportation impacts for residential land uses, with an impact threshold of 15 percent below the existing VMT levels for residential land uses.

The SCC VMT Evaluation Tool determined that the VMT value resulting from buildout of the proposed project would be 12.81 VMT per capita.[51] The VTA's *VMT Evaluation Tool*, indicates that the City-wide VMT per capita is currently 24.64. Considering this, the VMT per capita of the proposed project is more than 15 percent below the City's existing VMT per capita and, per the OPR's criteria, can be assumed to be less than significant.

Residents of assisted living facilities are typically presumed not to be able to drive themselves, as by definition residents require assistance in one or more areas of daily functioning, nor are the residents assumed to make commute, shopping, or school trips independently. Thus, assisted care uses do not generate trips similar to other residential uses. Instead, most trips are employee commute trips, some local visitor trips, and delivery or service trips unrelated to automobile VMT. Therefore, assisted care uses may be most similar to office or other employment-based uses that involve a limited public component. Assisted living facilities are generally located to specifically serve the surrounding community, so that residents can be placed close to medical facilities and where the families of the residents live. As such, assisted living facilities may also be considered primarily local-serving. Of cities with adopted VMT policies, typical guidance includes screening out some or all local-serving uses, including day cares, community colleges, houses of worship, and government offices, regardless of the commute characteristics of any employees. In addition, some cities, such as the City of Fountain Valley and the City of Alhambra, include project-type screening for assisted living facilities.[52,53]

Based on the above, the proposed project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3(b), and ***no impact*** would occur.

c,d. Primary access to the project site would be provided by a driveway from Peak Avenue. The proposed project would also include a pick-up/drop-off area adjacent to the buildings at both proposed parking lots.

Based on the minor number of trips anticipated to be generated by the proposed project, operational traffic issues are not expected to occur at the project driveway. Implementation of the proposed project would not result in any substantial modifications to the City's existing roadway system.

The project driveway would be free and clear of any obstructions to provide adequate sight distance, thereby ensuring that vehicles would be able to see pedestrians on the sidewalk and other vehicles traveling on Peak Avenue. Landscaping and signage would be required to be located in a way to ensure that drivers have an unobstructed view.

Implementation of the proposed project would not result in any modifications to the City's existing roadway system, and would provide adequate access to the site for emergency vehicles. Emergency vehicles would use the primary access driveway to enter the site,

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51 Santa Clara Countywide VMT Evaluation Tool. *Results*. Available at: https://vmttool.vta.org/. Accessed March 2022.

52 City of Fountain Valley. *Transportation Impact Assessment Guidelines for Land Use Projects in CEQA and for General Plan Consistency* [pg.17]. June 2020.

53 City of Alhambra. *City of Alhambra Study Guidelines for Vehicle Miles Traveled and Level of Service Assessment* [pg. 15]. October 2020.

and could pull into the parking areas located besides each building on the project site, both of which would include modified fire truck turnarounds. Based on the above, the proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment), and would not result in inadequate emergency access. Therefore, ***no impact*** would occur.

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:	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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).	☐	☐	☐	✖
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.	☐	☐	☐	✖

Discussion

a,b. As discussed in Section V, Cultural Resources, of this Initial Study, the existing on-site structures do not meet the criteria to be eligible for listing in the California Register of Historical Resources, or a local register of historical resources as defined in PRC Section 5020.1(k), and do not contain known resources that could be considered historic pursuant to the criteria set forth in subdivision (c) of PRC Section 5024.1. Based on a search of the NAHC Sacred Lands File, the project site is not likely to contain tribal cultural resources.[54] However, the records search of the CHRIS database for cultural resource site records and survey reports within the project area indicated that a low to moderate potential exists for unrecorded Native American archaeological resources to occur within the project site.[55] Compliance with Section 18.60.090 of the City's Municipal Code would ensure that the proper measures are taken should tribal cultural resources be discovered within the project site.

Given compliance with the City's standard conditions of approval related to cultural resource discovery, ***no impact*** to tribal cultural resources would occur.

[54] Native American Heritage Commission. *Re: Peak Avenue Assisted Living Project, Santa Clara County.* March 24, 2022.

[55] California Historical Resources Information System. *Re: Record search results for the proposed Peak Avenue Assisted Living Project*. April 14, 2022.

XIX. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?	☐	☐	☐	✖
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	✖
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	✖
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☐	✖
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☐	✖

Discussion

a-c. Brief discussions of the water, wastewater, stormwater drainage, electrical, and telecommunications facilities that would serve the proposed project are included below.

Water

The City of Morgan Hill provides potable water service to its residential, commercial, industrial, and institutional customers within the City limits. The City's water system facilities include 17 groundwater wells, 10 reservoir sites, nine pumping stations, and 165 miles of pressured pipes ranging from two to 14 inches in diameter. The City has planned and constructed water projects in conjunction with new street construction in anticipation of future growth and water needs.

According to the City's Urban Water Management Plan (UWMP), the City's projected water supply far exceeds the water demand for normal, single-dry, and multiple-dry years until at least 2045.[56] For example, Table 7-2 of the UWMP indicates that, under a 2045 multiple-dry year scenario, Morgan Hill would have a 22,810 acre-feet water surplus by the third dry year. According to the City's UWMP, the water consumption rate during 2020 was approximately 150 gallons per capita per day . Given that the proposed project would result in approximately 96 new residents, the proposed project would result in a demand of approximately 5,256,000 gallons, or 19 acre-feet per year. The 19 acre-feet per year increase in water demand associated with implementation of the proposed project could be accommodated by the City's existing water supplies, even after three consecutive dry years in the year 2045, as identified in the UWMP. Therefore, the proposed project would not require or result in the construction of new water treatment facilities or expansion of

[56] City of Morgan Hill. *2020 Urban Water Management Plan* [pg. 7-4 to 7-7]. October 2021.

existing facilities, and sufficient water supplies would be available to serve the project from existing entitlements and resources.

Wastewater

The City of Morgan Hill sewer collection system consists of approximately 160 miles of gravity sewers, over 3,000 manholes, nearly three miles of force mains, and 14 lift stations. The sewer lines range in size from four inches to 30 inches in diameter and the piping system includes 26 siphons. The City's collection system directs wastewater to the South County Regional Wastewater Authority (SCRWA) Wastewater Treatment Facility (WWTF) located in southern Gilroy. SCRWA is a joint powers authority formed by the cities of Morgan Hill and Gilroy to collectively treat the wastewater of both cities.[57] The City of Morgan Hill has an allocation of 3.56 million gallons per day (MGD) from the WWTF. The average dry weather flow from the City of Morgan Hill was approximately 2.7 MGD in 2015.[58]

Based on a per capita flow rate of 78 gallons per capita per day, the proposed project would generate approximately 7,488 gallons per capita per day of wastewater (96 residents X 78 gallons per capita per day), which is well within the remaining treatment capacity of the WWTF allocated for the City of Morgan Hill.[59] In addition, because the General Plan EIR determined that the WWTF would be required to be expanded by the year 2022 in order to accommodate buildout of the General Plan, the SCRW is planning to fund, design, and construct expansion of the WWTF beyond its current wastewater treatment capacity of 8.5 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 capacity of the SCRWA WWTF facility.

Based on the above, the incremental increase in wastewater generation associated with the development of the proposed project would not require the construction of new or expansion of existing wastewater treatment facilities, as capacity is already sufficient to serve the proposed project.

Stormwater

Issues related to stormwater infrastructure are discussed in Section X, Hydrology and Water Quality, of this Initial Study. As noted therein, the proposed project would not significantly increase stormwater flows into the City's existing system. The final drainage system design for the project will be subject to review and approval by the City Engineer to confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval. Therefore, the proposed project would not require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

Electricity, Natural Gas, and Telecommunications

Electricity service for the proposed project would be Pacific Gas & Electric. The proposed project would not use natural gas, as natural gas is prohibited in all new construction

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57 City of Morgan Hill. *City Council Staff Report 2163, Accept Report Regarding Wastewater System Needs and Rate Study Schedule.* February 6, 2019.
58 City of Morgan Hill. *2035 General Plan Draft EIR*. January 2016.
59 City of Morgan Hill. *2035 General Plan Draft EIR*. [pg. 4.15-30]. January 2016.

effective March 1, 2020, pursuant to City Ordinance No. 2306. Telephone service would be provided by AT&T, and cable television would be provided by Comcast. The proposed project would be able to connect to the electricity and phone infrastructure that already serves the site. Therefore, the project would not require major upgrades to, or extension of, existing infrastructure.

Conclusion

Based on the above, the increase in water demand, wastewater generation, and stormwater drainage associated with the proposed project could be adequately accommodated by existing facilities. In addition, the project is located within an urbanized area and would not require major expansion or extension of existing water, wastewater, electrical, or telecommunications facilities in the project area.

Therefore, the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment, stormwater, electric power, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Sufficient water supplies would be available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Furthermore, adequate wastewater capacity would be available to serve the project's projected demand. Thus, ***no impact*** would occur.

d,e. Recology South Valley provides solid waste and recycling services to the businesses and residents of the cities of Morgan Hill and Gilroy. Recology South Valley has contracted with the Waste Solutions Group of San Benito, LLC to provide solid waste disposal services at John Smith Road Landfill for the waste collected by Recology. Pursuant to the Landfill's current 2021 Solid Waste Facility Permit, the Landfill has a maximum permitted tonnage limit of 1,000 tons per day, a design capacity of 9,797,000 cubic yards, and an estimated closure date of 2025.[60] Considering the relatively small scale of the proposed project, and because the project is consistent with the type of development that has been planned for the project site, the proposed project would not produce enough solid waste for the landfill to exceed capacity. As such, sufficient permitted capacity exists at the John Smith Road Landfill to accommodate the proposed project's incremental increase in solid waste disposal needs. As such, the proposed project would comply with applicable federal, State, and local statutes and regulations related to solid waste. Therefore, the proposed project would have ***no impact*** related to solid waste.

[60] California Department of Resources Recycling and Recovery (CalRecycle). *Facility/Site Summary Details:John Smith Road Landfill (35-AA-0001)*. Available at: https://www2.calrecycle.ca.gov/SolidWaste/Site/Summary/2583. Accessed May 2022.

XX. WILDFIRE. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:*	Potentially Significant Impact	Less-Than-Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	✖
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	✖
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	✖
d. Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☐	✖

Discussion

a-d. The City's Wildland Urban Interface map indicates that the project site is not located in a High or Very High FHSZ.[61] Furthermore, CAL FIRE's Fire and Resource Assessment program indicates that the project site is not located in a High or Very High FHSZ.[62] The nearest Very High FHSZ is located less than 0.1-mile to the west. Although the project site is located in close proximity to the Very High FHSZ, the intersection of Peak Avenue and West Dunne Avenue could potentially act as a firebreak. The proposed project would be required to comply with all applicable requirements of the California Fire Code (CFC), as adopted by Chapter 15.44 of the City's Municipal Code, including installation of fire sprinkler systems. In addition, the CBSC includes requirements related to fire hazards for new residential buildings. In compliance with the CBSC (specifically Section 903.2.1.3, Group A-2), the design of the residences would include automatic fire sprinklers, and fire alarm systems would be incorporated pursuant to CFC requirements. Such features would help to reduce the spread of fire.

As noted in Section IX, implementation of the proposed project would not interfere with potential evacuation or response routes used by emergency response teams. The project would not conflict with the City's Emergency Operations Plan.[63] In addition, the proposed project would not include any development on, or at the base of, a substantial slope. Thus, implementation of the proposed project would not exacerbate any existing conditions or hazards related to downslope flooding or landslides, slope instability, or drainage changes. Therefore, the project area does not include any existing features that would substantially increase fire risk for future residents.

Given that the project site is located within a developed urban area and is situated adjacent to existing roads, water lines, and other utilities, the proposed project would not require the development of additional infrastructure, and, thus, would not result in substantial fire

61 City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map.* March 2009.
62 California Department of Forestry and Fire Protection. *Morgan Hill, Very High Fire Hazard Severity Zones in LRA.* October 9, 2008.
63 City of Morgan Hill. *Emergency Operations Plan.* January 11, 2018.

risks related to installation or maintenance of such infrastructure. Therefore, the proposed project would not be subject to substantial risks related to wildfires, and ***no impact*** would occur.

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

Discussion

a. As discussed in Section IV, Biological Resources, of this Initial Study, the proposed project would not result in any significant impacts to rare, threatened or endangered species. In addition, the site does not contain known historical or cultural resources. Although unlikely, the possibility exists that grading and other construction activities associated with the site could unearth deposits of cultural significance. However, this Initial Study explains how the City's Municipal Code requires standard measures for development projects that would ensure no impacts to such resources would occur. Therefore, the proposed project would result in ***no impact*** related to degradation of the quality of the environment, substantial reduction of habitat or plant and wildlife species, and elimination of important examples of the major periods of California history or prehistory.

b. As demonstrated in this Initial Study, the proposed project would not result in any significant environmental impacts, through compliance with applicable General Plan policies and Municipal Code standards, as well as other applicable local and State regulations. For this reason, as well as due to the project's relatively small increase in traffic, noise, air pollutant emissions, and demand for utilities and service systems, the project's incremental contribution towards cumulative impacts in the area would not be cumulatively considerable. Therefore, when viewed in conjunction with other closely related past, present, or reasonably foreseeable future projects, development of the proposed project would not substantially contribute to cumulative impacts in the City of Morgan Hill, and ***no impact*** would occur.

c. The project site would be developed in a generally urbanized and built-up area of the City of Morgan Hill. As discussed throughout this Initial Study, development of the proposed project would not result in substantial adverse impacts to human beings, either directly or indirectly. Specifically, as discussed in Section III, Air Quality, Section VIII, GHG Emissions, Section IX, Hazards and Hazardous Materials, Section XIII, Noise, and Section XVII, Transportation, of this Initial Study, the proposed project would not cause substantial adverse effects to human beings, including effects related to exposure to air pollutants, GHG, hazardous materials, noise, and traffic. As such, ***no impact*** would result.

Appendix A

Air Quality and Greenhouse Gas Modeling Results

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Peak Avenue Assisted Living Project

Bay Area AQMD Air District, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	48.00	Dwelling Unit	1.94	18,201.00	137

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage and square footage adjusted to be consistent with site plan.

Construction Phase - Architectural coating phase adjusted to take place concurrently with building construction.

Demolition - demolition square footage of on-site sheds estimated from aerial maps.

Grading - Grading would require soil import, per site plans.

Mobile Land Use Mitigation - Project site located within 0.15-mile of bus stop.

Water Mitigation - Outdoor water conservation strategy applied to reflect compliance with MWELO.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	200.00
tblConstructionPhase	PhaseEndDate	4/12/2023	4/26/2023
tblConstructionPhase	PhaseEndDate	4/26/2023	7/20/2022

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	PhaseStartDate	4/27/2023	8/4/2022
tblConstructionPhase	PhaseStartDate	7/7/2022	7/21/2022
tblConstructionPhase	PhaseStartDate	4/13/2023	7/7/2022
tblGrading	MaterialImported	0.00	1,057.00
tblLandUse	LandUseSquareFeet	48,000.00	18,201.00
tblLandUse	LotAcreage	3.00	1.94

2.0 Emissions Summary

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2089	1.0888	1.1212	2.1000e-003	0.0450	0.0514	0.0964	0.0164	0.0494	0.0658	0.0000	179.1043	179.1043	0.0291	2.0600e-003	180.4447
2023	0.1365	0.5589	0.6499	1.2100e-003	0.0154	0.0248	0.0402	4.1300e-003	0.0240	0.0282	0.0000	102.3434	102.3434	0.0139	9.1000e-004	102.9617
Maximum	**0.2089**	**1.0888**	**1.1212**	**2.1000e-003**	**0.0450**	**0.0514**	**0.0964**	**0.0164**	**0.0494**	**0.0658**	**0.0000**	**179.1043**	**179.1043**	**0.0291**	**2.0600e-003**	**180.4447**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.2089	1.0888	1.1212	2.1000e-003	0.0450	0.0514	0.0964	0.0164	0.0494	0.0658	0.0000	179.1041	179.1041	0.0291	2.0600e-003	180.4445
2023	0.1365	0.5589	0.6499	1.2100e-003	0.0154	0.0248	0.0402	4.1300e-003	0.0240	0.0282	0.0000	102.3433	102.3433	0.0139	9.1000e-004	102.9616
Maximum	**0.2089**	**1.0888**	**1.1212**	**2.1000e-003**	**0.0450**	**0.0514**	**0.0964**	**0.0164**	**0.0494**	**0.0658**	**0.0000**	**179.1041**	**179.1041**	**0.0291**	**2.0600e-003**	**180.4445**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**6-1-2022**	**8-31-2022**	0.5332	0.5332
2	**9-1-2022**	**11-30-2022**	0.5702	0.5702
3	**12-1-2022**	**2-28-2023**	0.5408	0.5408
4	**3-1-2023**	**5-31-2023**	0.3484	0.3484
		Highest	0.5702	0.5702

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2054	6.6600e-003	0.5090	3.2000e-004		0.0238	0.0238		0.0238	0.0238	2.1883	1.4810	3.6693	4.0800e-003	1.4000e-004	3.8140
Energy	2.1700e-003	0.0185	7.8900e-003	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	38.6407	38.6407	3.1900e-003	7.3000e-004	38.9381
Mobile	0.0572	0.0648	0.5288	1.0700e-003	0.1114	8.0000e-004	0.1122	0.0298	7.5000e-004	0.0305	0.0000	99.8458	99.8458	6.7900e-003	4.9100e-003	101.4797
Waste						0.0000	0.0000		0.0000	0.0000	8.8910	0.0000	8.8910	0.5254	0.0000	22.0271
Water						0.0000	0.0000		0.0000	0.0000	0.9922	2.2042	3.1964	0.1023	2.4500e-003	6.4829
Total	**0.2648**	**0.0900**	**1.0457**	**1.5100e-003**	**0.1114**	**0.0261**	**0.1375**	**0.0298**	**0.0260**	**0.0558**	**12.0715**	**142.1718**	**154.2432**	**0.6418**	**8.2300e-003**	**172.7418**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.2054	6.6600e-003	0.5090	3.2000e-004		0.0238	0.0238		0.0238	0.0238	2.1883	1.4810	3.6693	4.0800e-003	1.4000e-004	3.8140
Energy	2.1700e-003	0.0185	7.8900e-003	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	38.6407	38.6407	3.1900e-003	7.3000e-004	38.9381
Mobile	0.0560	0.0624	0.5093	1.0200e-003	0.1058	7.7000e-004	0.1066	0.0283	7.2000e-004	0.0290	0.0000	95.0134	95.0134	6.5900e-003	4.7300e-003	96.5890
Waste						0.0000	0.0000		0.0000	0.0000	8.8910	0.0000	8.8910	0.5254	0.0000	22.0271
Water						0.0000	0.0000		0.0000	0.0000	0.9922	2.0765	3.0687	0.1022	2.4500e-003	6.3539
Total	**0.2635**	**0.0876**	**1.0262**	**1.4600e-003**	**0.1058**	**0.0261**	**0.1319**	**0.0283**	**0.0260**	**0.0543**	**12.0715**	**137.2116**	**149.2831**	**0.6415**	**8.0500e-003**	**167.7222**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.47**	**2.70**	**1.87**	**3.31**	**5.00**	**0.12**	**4.07**	**5.01**	**0.12**	**2.72**	**0.00**	**3.49**	**3.22**	**0.03**	**2.19**	**2.91**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	6/30/2022	5	2	
3	Grading	Grading	7/1/2022	7/6/2022	5	4	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Building Construction	Building Construction	7/21/2022	4/26/2023	5	200	
5	Paving	Paving	7/7/2022	7/20/2022	5	10	
6	Architectural Coating	Architectural Coating	8/4/2022	5/10/2023	5	200	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 36,857; Residential Outdoor: 12,286; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	5.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	132.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.9000e-004	0.0000	4.9000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2120
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**	**4.9000e-004**	**8.3800e-003**	**8.8700e-003**	**7.0000e-005**	**7.8300e-003**	**7.9000e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2120**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.3000e-004	9.0000e-005	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.1567	0.1567	1.0000e-005	2.0000e-005	0.1642
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.6000e-004	3.1100e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8262	0.8262	3.0000e-005	2.0000e-005	0.8339
Total	**3.7000e-004**	**6.9000e-004**	**3.2000e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9829**	**0.9829**	**4.0000e-005**	**4.0000e-005**	**0.9982**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.9000e-004	0.0000	4.9000e-004	7.0000e-005	0.0000	7.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0169	0.1662	0.1396	2.4000e-004		8.3800e-003	8.3800e-003		7.8300e-003	7.8300e-003	0.0000	21.0777	21.0777	5.3700e-003	0.0000	21.2119
Total	**0.0169**	**0.1662**	**0.1396**	**2.4000e-004**	**4.9000e-004**	**8.3800e-003**	**8.8700e-003**	**7.0000e-005**	**7.8300e-003**	**7.9000e-003**	**0.0000**	**21.0777**	**21.0777**	**5.3700e-003**	**0.0000**	**21.2119**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	1.0000e-005	4.3000e-004	9.0000e-005	0.0000	4.0000e-005	0.0000	5.0000e-005	1.0000e-005	0.0000	2.0000e-005	0.0000	0.1567	0.1567	1.0000e-005	2.0000e-005	0.1642
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.6000e-004	2.6000e-004	3.1100e-003	1.0000e-005	1.0300e-003	1.0000e-005	1.0300e-003	2.7000e-004	1.0000e-005	2.8000e-004	0.0000	0.8262	0.8262	3.0000e-005	2.0000e-005	0.8339
Total	**3.7000e-004**	**6.9000e-004**	**3.2000e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**3.0000e-004**	**0.0000**	**0.9829**	**0.9829**	**4.0000e-005**	**4.0000e-005**	**0.9982**

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0146	7.0900e-003	2.0000e-005		6.2000e-004	6.2000e-004		5.7000e-004	5.7000e-004	0.0000	1.5115	1.5115	4.9000e-004	0.0000	1.5238
Total	**1.3100e-003**	**0.0146**	**7.0900e-003**	**2.0000e-005**	**6.2700e-003**	**6.2000e-004**	**6.8900e-003**	**3.0000e-003**	**5.7000e-004**	**3.5700e-003**	**0.0000**	**1.5115**	**1.5115**	**4.9000e-004**	**0.0000**	**1.5238**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0508	0.0508	0.0000	0.0000	0.0513
Total	**2.0000e-005**	**2.0000e-005**	**1.9000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0508**	**0.0508**	**0.0000**	**0.0000**	**0.0513**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					6.2700e-003	0.0000	6.2700e-003	3.0000e-003	0.0000	3.0000e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.3100e-003	0.0146	7.0900e-003	2.0000e-005		6.2000e-004	6.2000e-004		5.7000e-004	5.7000e-004	0.0000	1.5115	1.5115	4.9000e-004	0.0000	1.5238
Total	**1.3100e-003**	**0.0146**	**7.0900e-003**	**2.0000e-005**	**6.2700e-003**	**6.2000e-004**	**6.8900e-003**	**3.0000e-003**	**5.7000e-004**	**3.5700e-003**	**0.0000**	**1.5115**	**1.5115**	**4.9000e-004**	**0.0000**	**1.5238**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.0000e-005	2.0000e-005	1.9000e-004	0.0000	6.0000e-005	0.0000	6.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0508	0.0508	0.0000	0.0000	0.0513
Total	**2.0000e-005**	**2.0000e-005**	**1.9000e-004**	**0.0000**	**6.0000e-005**	**0.0000**	**6.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0508**	**0.0508**	**0.0000**	**0.0000**	**0.0513**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8600e-003	0.0000	6.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0800e-003	0.0340	0.0184	4.0000e-005		1.4800e-003	1.4800e-003		1.3700e-003	1.3700e-003	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498
Total	**3.0800e-003**	**0.0340**	**0.0184**	**4.0000e-005**	**0.0142**	**1.4800e-003**	**0.0157**	**6.8600e-003**	**1.3700e-003**	**8.2300e-003**	**0.0000**	**3.6205**	**3.6205**	**1.1700e-003**	**0.0000**	**3.6498**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1000e-004	0.0114	2.4200e-003	4.0000e-005	1.1200e-003	1.0000e-004	1.2200e-003	3.1000e-004	1.0000e-004	4.0000e-004	0.0000	4.1372	4.1372	1.4000e-004	6.6000e-004	4.3358
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1271	0.1271	0.0000	0.0000	0.1283
Total	**3.6000e-004**	**0.0114**	**2.9000e-003**	**4.0000e-005**	**1.2800e-003**	**1.0000e-004**	**1.3800e-003**	**3.5000e-004**	**1.0000e-004**	**4.4000e-004**	**0.0000**	**4.2643**	**4.2643**	**1.4000e-004**	**6.6000e-004**	**4.4641**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0142	0.0000	0.0142	6.8600e-003	0.0000	6.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.0800e-003	0.0340	0.0184	4.0000e-005		1.4800e-003	1.4800e-003		1.3700e-003	1.3700e-003	0.0000	3.6205	3.6205	1.1700e-003	0.0000	3.6498
Total	**3.0800e-003**	**0.0340**	**0.0184**	**4.0000e-005**	**0.0142**	**1.4800e-003**	**0.0157**	**6.8600e-003**	**1.3700e-003**	**8.2300e-003**	**0.0000**	**3.6205**	**3.6205**	**1.1700e-003**	**0.0000**	**3.6498**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	3.1000e-004	0.0114	2.4200e-003	4.0000e-005	1.1200e-003	1.0000e-004	1.2200e-003	3.1000e-004	1.0000e-004	4.0000e-004	0.0000	4.1372	4.1372	1.4000e-004	6.6000e-004	4.3358
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	4.0000e-005	4.8000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1271	0.1271	0.0000	0.0000	0.1283
Total	**3.6000e-004**	**0.0114**	**2.9000e-003**	**4.0000e-005**	**1.2800e-003**	**1.0000e-004**	**1.3800e-003**	**3.5000e-004**	**1.0000e-004**	**4.4000e-004**	**0.0000**	**4.2643**	**4.2643**	**1.4000e-004**	**6.6000e-004**	**4.4641**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0965	0.7314	0.7445	1.2900e-003		0.0345	0.0345		0.0333	0.0333	0.0000	106.2225	106.2225	0.0185	0.0000	106.6850
Total	**0.0965**	**0.7314**	**0.7445**	**1.2900e-003**		**0.0345**	**0.0345**		**0.0333**	**0.0333**	**0.0000**	**106.2225**	**106.2225**	**0.0185**	**0.0000**	**106.6850**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3000e-004	0.0163	4.7600e-003	6.0000e-005	1.9200e-003	1.7000e-004	2.0900e-003	5.6000e-004	1.6000e-004	7.2000e-004	0.0000	6.0241	6.0241	1.3000e-004	8.9000e-004	6.2936
Worker	5.6200e-003	4.0500e-003	0.0490	1.4000e-004	0.0162	9.0000e-005	0.0163	4.3000e-003	8.0000e-005	4.3900e-003	0.0000	13.0122	13.0122	4.0000e-004	3.8000e-004	13.1341
Total	**6.2500e-003**	**0.0204**	**0.0537**	**2.0000e-004**	**0.0181**	**2.6000e-004**	**0.0184**	**4.8600e-003**	**2.4000e-004**	**5.1100e-003**	**0.0000**	**19.0363**	**19.0363**	**5.3000e-004**	**1.2700e-003**	**19.4277**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0965	0.7314	0.7445	1.2900e-003		0.0345	0.0345		0.0333	0.0333	0.0000	106.2224	106.2224	0.0185	0.0000	106.6849
Total	**0.0965**	**0.7314**	**0.7445**	**1.2900e-003**		**0.0345**	**0.0345**		**0.0333**	**0.0333**	**0.0000**	**106.2224**	**106.2224**	**0.0185**	**0.0000**	**106.6849**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	6.3000e-004	0.0163	4.7600e-003	6.0000e-005	1.9200e-003	1.7000e-004	2.0900e-003	5.6000e-004	1.6000e-004	7.2000e-004	0.0000	6.0241	6.0241	1.3000e-004	8.9000e-004	6.2936
Worker	5.6200e-003	4.0500e-003	0.0490	1.4000e-004	0.0162	9.0000e-005	0.0163	4.3000e-003	8.0000e-005	4.3900e-003	0.0000	13.0122	13.0122	4.0000e-004	3.8000e-004	13.1341
Total	**6.2500e-003**	**0.0204**	**0.0537**	**2.0000e-004**	**0.0181**	**2.6000e-004**	**0.0184**	**4.8600e-003**	**2.4000e-004**	**5.1100e-003**	**0.0000**	**19.0363**	**19.0363**	**5.3000e-004**	**1.2700e-003**	**19.4277**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0632	0.4860	0.5234	9.2000e-004		0.0214	0.0214		0.0206	0.0206	0.0000	75.3636	75.3636	0.0128	0.0000	75.6836
Total	**0.0632**	**0.4860**	**0.5234**	**9.2000e-004**		**0.0214**	**0.0214**		**0.0206**	**0.0206**	**0.0000**	**75.3636**	**75.3636**	**0.0128**	**0.0000**	**75.6836**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	9.2300e-003	2.8900e-003	4.0000e-005	1.3600e-003	5.0000e-005	1.4200e-003	3.9000e-004	5.0000e-005	4.5000e-004	0.0000	4.0960	4.0960	8.0000e-005	6.1000e-004	4.2786
Worker	3.7200e-003	2.5400e-003	0.0322	1.0000e-004	0.0115	6.0000e-005	0.0115	3.0500e-003	5.0000e-005	3.1100e-003	0.0000	8.9953	8.9953	2.6000e-004	2.5000e-004	9.0753
Total	**3.9400e-003**	**0.0118**	**0.0351**	**1.4000e-004**	**0.0128**	**1.1000e-004**	**0.0130**	**3.4400e-003**	**1.0000e-004**	**3.5600e-003**	**0.0000**	**13.0913**	**13.0913**	**3.4000e-004**	**8.6000e-004**	**13.3539**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0632	0.4860	0.5234	9.2000e-004		0.0214	0.0214		0.0206	0.0206	0.0000	75.3636	75.3636	0.0128	0.0000	75.6835
Total	**0.0632**	**0.4860**	**0.5234**	**9.2000e-004**		**0.0214**	**0.0214**		**0.0206**	**0.0206**	**0.0000**	**75.3636**	**75.3636**	**0.0128**	**0.0000**	**75.6835**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	2.2000e-004	9.2300e-003	2.8900e-003	4.0000e-005	1.3600e-003	5.0000e-005	1.4200e-003	3.9000e-004	5.0000e-005	4.5000e-004	0.0000	4.0960	4.0960	8.0000e-005	6.1000e-004	4.2786
Worker	3.7200e-003	2.5400e-003	0.0322	1.0000e-004	0.0115	6.0000e-005	0.0115	3.0500e-003	5.0000e-005	3.1100e-003	0.0000	8.9953	8.9953	2.6000e-004	2.5000e-004	9.0753
Total	**3.9400e-003**	**0.0118**	**0.0351**	**1.4000e-004**	**0.0128**	**1.1000e-004**	**0.0130**	**3.4400e-003**	**1.0000e-004**	**3.5600e-003**	**0.0000**	**13.0913**	**13.0913**	**3.4000e-004**	**8.6000e-004**	**13.3539**

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9315
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.4400e-003**	**0.0339**	**0.0440**	**7.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9315**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.5500e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4131	0.4131	1.0000e-005	1.0000e-005	0.4170
Total	**1.8000e-004**	**1.3000e-004**	**1.5500e-003**	**0.0000**	**5.1000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4131**	**0.4131**	**1.0000e-005**	**1.0000e-005**	**0.4170**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	3.4400e-003	0.0339	0.0440	7.0000e-005		1.7400e-003	1.7400e-003		1.6000e-003	1.6000e-003	0.0000	5.8848	5.8848	1.8700e-003	0.0000	5.9314
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**3.4400e-003**	**0.0339**	**0.0440**	**7.0000e-005**		**1.7400e-003**	**1.7400e-003**		**1.6000e-003**	**1.6000e-003**	**0.0000**	**5.8848**	**5.8848**	**1.8700e-003**	**0.0000**	**5.9314**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-004	1.3000e-004	1.5500e-003	0.0000	5.1000e-004	0.0000	5.2000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4131	0.4131	1.0000e-005	1.0000e-005	0.4170
Total	**1.8000e-004**	**1.3000e-004**	**1.5500e-003**	**0.0000**	**5.1000e-004**	**0.0000**	**5.2000e-004**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**0.4131**	**0.4131**	**1.0000e-005**	**1.0000e-005**	**0.4170**

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0686					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0109	0.0754	0.0970	1.6000e-004		4.3700e-003	4.3700e-003		4.3700e-003	4.3700e-003	0.0000	13.6599	13.6599	8.9000e-004	0.0000	13.6821
Total	**0.0795**	**0.0754**	**0.0970**	**1.6000e-004**		**4.3700e-003**	**4.3700e-003**		**4.3700e-003**	**4.3700e-003**	**0.0000**	**13.6599**	**13.6599**	**8.9000e-004**	**0.0000**	**13.6821**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	7.4000e-004	8.9600e-003	3.0000e-005	2.9600e-003	2.0000e-005	2.9800e-003	7.9000e-004	1.0000e-005	8.0000e-004	0.0000	2.3800	2.3800	7.0000e-005	7.0000e-005	2.4023
Total	**1.0300e-003**	**7.4000e-004**	**8.9600e-003**	**3.0000e-005**	**2.9600e-003**	**2.0000e-005**	**2.9800e-003**	**7.9000e-004**	**1.0000e-005**	**8.0000e-004**	**0.0000**	**2.3800**	**2.3800**	**7.0000e-005**	**7.0000e-005**	**2.4023**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0686					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0109	0.0754	0.0970	1.6000e-004		4.3700e-003	4.3700e-003		4.3700e-003	4.3700e-003	0.0000	13.6599	13.6599	8.9000e-004	0.0000	13.6821
Total	**0.0795**	**0.0754**	**0.0970**	**1.6000e-004**		**4.3700e-003**	**4.3700e-003**		**4.3700e-003**	**4.3700e-003**	**0.0000**	**13.6599**	**13.6599**	**8.9000e-004**	**0.0000**	**13.6821**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0300e-003	7.4000e-004	8.9600e-003	3.0000e-005	2.9600e-003	2.0000e-005	2.9800e-003	7.9000e-004	1.0000e-005	8.0000e-004	0.0000	2.3800	2.3800	7.0000e-005	7.0000e-005	2.4023
Total	**1.0300e-003**	**7.4000e-004**	**8.9600e-003**	**3.0000e-005**	**2.9600e-003**	**2.0000e-005**	**2.9800e-003**	**7.9000e-004**	**1.0000e-005**	**8.0000e-004**	**0.0000**	**2.3800**	**2.3800**	**7.0000e-005**	**7.0000e-005**	**2.4023**

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0596					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.9100e-003	0.0606	0.0842	1.4000e-004		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	11.8726	11.8726	7.1000e-004	0.0000	11.8904
Total	**0.0685**	**0.0606**	**0.0842**	**1.4000e-004**		**3.2900e-003**	**3.2900e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**11.8726**	**11.8726**	**7.1000e-004**	**0.0000**	**11.8904**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	5.7000e-004	7.2200e-003	2.0000e-005	2.5700e-003	1.0000e-005	2.5900e-003	6.8000e-004	1.0000e-005	7.0000e-004	0.0000	2.0158	2.0158	6.0000e-005	6.0000e-005	2.0338
Total	**8.3000e-004**	**5.7000e-004**	**7.2200e-003**	**2.0000e-005**	**2.5700e-003**	**1.0000e-005**	**2.5900e-003**	**6.8000e-004**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**2.0158**	**2.0158**	**6.0000e-005**	**6.0000e-005**	**2.0338**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	0.0596					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	8.9100e-003	0.0606	0.0842	1.4000e-004		3.2900e-003	3.2900e-003		3.2900e-003	3.2900e-003	0.0000	11.8726	11.8726	7.1000e-004	0.0000	11.8904
Total	**0.0685**	**0.0606**	**0.0842**	**1.4000e-004**		**3.2900e-003**	**3.2900e-003**		**3.2900e-003**	**3.2900e-003**	**0.0000**	**11.8726**	**11.8726**	**7.1000e-004**	**0.0000**	**11.8904**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.3000e-004	5.7000e-004	7.2200e-003	2.0000e-005	2.5700e-003	1.0000e-005	2.5900e-003	6.8000e-004	1.0000e-005	7.0000e-004	0.0000	2.0158	2.0158	6.0000e-005	6.0000e-005	2.0338
Total	**8.3000e-004**	**5.7000e-004**	**7.2200e-003**	**2.0000e-005**	**2.5700e-003**	**1.0000e-005**	**2.5900e-003**	**6.8000e-004**	**1.0000e-005**	**7.0000e-004**	**0.0000**	**2.0158**	**2.0158**	**6.0000e-005**	**6.0000e-005**	**2.0338**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0560	0.0624	0.5093	1.0200e-003	0.1058	7.7000e-004	0.1066	0.0283	7.2000e-004	0.0290	0.0000	95.0134	95.0134	6.5900e-003	4.7300e-003	96.5890
Unmitigated	0.0572	0.0648	0.5288	1.0700e-003	0.1114	8.0000e-004	0.1122	0.0298	7.5000e-004	0.0305	0.0000	99.8458	99.8458	6.7900e-003	4.9100e-003	101.4797

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	124.80	140.64	151.20	302,176	287,067
Total	124.80	140.64	151.20	302,176	287,067

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

5.0 Energy Detail

Historical Energy Use: N

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	17.1714	17.1714	2.7800e-003	3.4000e-004	17.3412
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	17.1714	17.1714	2.7800e-003	3.4000e-004	17.3412
NaturalGas Mitigated	2.1700e-003	0.0185	7.8900e-003	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.4694	21.4694	4.1000e-004	3.9000e-004	21.5969
NaturalGas Unmitigated	2.1700e-003	0.0185	7.8900e-003	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.4694	21.4694	4.1000e-004	3.9000e-004	21.5969

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	402321	2.1700e-003	0.0185	7.8900e-003	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.4694	21.4694	4.1000e-004	3.9000e-004	21.5969
Total		**2.1700e-003**	**0.0185**	**7.8900e-003**	**1.2000e-004**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**21.4694**	**21.4694**	**4.1000e-004**	**3.9000e-004**	**21.5969**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
Congregate Care (Assisted Living)	402321	2.1700e-003	0.0185	7.8900e-003	1.2000e-004		1.5000e-003	1.5000e-003		1.5000e-003	1.5000e-003	0.0000	21.4694	21.4694	4.1000e-004	3.9000e-004	21.5969
Total		**2.1700e-003**	**0.0185**	**7.8900e-003**	**1.2000e-004**		**1.5000e-003**	**1.5000e-003**		**1.5000e-003**	**1.5000e-003**	**0.0000**	**21.4694**	**21.4694**	**4.1000e-004**	**3.9000e-004**	**21.5969**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	185589	17.1714	2.7800e-003	3.4000e-004	17.3412
Total		**17.1714**	**2.7800e-003**	**3.4000e-004**	**17.3412**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Congregate Care (Assisted Living)	185589	17.1714	2.7800e-003	3.4000e-004	17.3412
Total		**17.1714**	**2.7800e-003**	**3.4000e-004**	**17.3412**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.2054	6.6600e-003	0.5090	3.2000e-004		0.0238	0.0238		0.0238	0.0238	2.1883	1.4810	3.6693	4.0800e-003	1.4000e-004	3.8140
Unmitigated	0.2054	6.6600e-003	0.5090	3.2000e-004		0.0238	0.0238		0.0238	0.0238	2.1883	1.4810	3.6693	4.0800e-003	1.4000e-004	3.8140

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0128					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0711					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1108	2.5500e-003	0.1525	3.0000e-004		0.0218	0.0218		0.0218	0.0218	2.1883	0.8988	3.0872	3.5200e-003	1.4000e-004	3.2178
Landscaping	0.0107	4.1100e-003	0.3565	2.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	0.5822	0.5822	5.6000e-004	0.0000	0.5962
Total	**0.2054**	**6.6600e-003**	**0.5090**	**3.2000e-004**		**0.0238**	**0.0238**		**0.0238**	**0.0238**	**2.1883**	**1.4810**	**3.6693**	**4.0800e-003**	**1.4000e-004**	**3.8140**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0128					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0711					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	0.1108	2.5500e-003	0.1525	3.0000e-004		0.0218	0.0218		0.0218	0.0218	2.1883	0.8988	3.0872	3.5200e-003	1.4000e-004	3.2178
Landscaping	0.0107	4.1100e-003	0.3565	2.0000e-005		1.9700e-003	1.9700e-003		1.9700e-003	1.9700e-003	0.0000	0.5822	0.5822	5.6000e-004	0.0000	0.5962
Total	**0.2054**	**6.6600e-003**	**0.5090**	**3.2000e-004**		**0.0238**	**0.0238**		**0.0238**	**0.0238**	**2.1883**	**1.4810**	**3.6693**	**4.0800e-003**	**1.4000e-004**	**3.8140**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	3.0687	0.1022	2.4500e-003	6.3539
Unmitigated	3.1964	0.1023	2.4500e-003	6.4829

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	3.12739 / 1.97162	3.1964	0.1023	2.4500e-003	6.4829
Total		**3.1964**	**0.1023**	**2.4500e-003**	**6.4829**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Congregate Care (Assisted Living)	3.12739 / 1.57729	3.0687	0.1022	2.4500e-003	6.3539
Total		**3.0687**	**0.1022**	**2.4500e-003**	**6.3539**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	8.8910	0.5254	0.0000	22.0271
Unmitigated	8.8910	0.5254	0.0000	22.0271

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	43.8	8.8910	0.5254	0.0000	22.0271
Total		**8.8910**	**0.5254**	**0.0000**	**22.0271**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Congregate Care (Assisted Living)	43.8	8.8910	0.5254	0.0000	22.0271
Total		**8.8910**	**0.5254**	**0.0000**	**22.0271**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Peak Avenue Assisted Living Project

Bay Area AQMD Air District, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	48.00	Dwelling Unit	1.94	18,201.00	137

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage and square footage adjusted to be consistent with site plan.

Construction Phase - Architectural coating phase adjusted to take place concurrently with building construction.

Demolition - demolition square footage of on-site sheds estimated from aerial maps.

Grading - Grading would require soil import, per site plans.

Mobile Land Use Mitigation - Project site located within 0.15-mile of bus stop.

Water Mitigation - Outdoor water conservation strategy applied to reflect compliance with MWELO.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	200.00
tblConstructionPhase	PhaseEndDate	4/12/2023	4/26/2023
tblConstructionPhase	PhaseEndDate	4/26/2023	7/20/2022

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	PhaseStartDate	4/27/2023	8/4/2022
tblConstructionPhase	PhaseStartDate	7/7/2022	7/21/2022
tblConstructionPhase	PhaseStartDate	4/13/2023	7/7/2022
tblGrading	MaterialImported	0.00	1,057.00
tblLandUse	LandUseSquareFeet	48,000.00	18,201.00
tblLandUse	LotAcreage	3.00	1.94

2.0 Emissions Summary

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2674	22.4796	15.7059	0.0423	7.7718	0.8388	8.5654	3.6092	0.7838	4.3413	0.0000	4,350.1994	4,350.1994	0.7226	0.3630	4,476.4281
2023	3.1152	13.2931	15.4947	0.0290	0.3789	0.5883	0.9672	0.1013	0.5705	0.6717	0.0000	2,698.0811	2,698.0811	0.3667	0.0233	2,714.2029
Maximum	**3.2674**	**22.4796**	**15.7059**	**0.0423**	**7.7718**	**0.8388**	**8.5654**	**3.6092**	**0.7838**	**4.3413**	**0.0000**	**4,350.1994**	**4,350.1994**	**0.7226**	**0.3630**	**4,476.4281**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2674	22.4796	15.7059	0.0423	7.7718	0.8388	8.5654	3.6092	0.7838	4.3413	0.0000	4,350.1994	4,350.1994	0.7226	0.3630	4,476.4281
2023	3.1152	13.2931	15.4947	0.0290	0.3789	0.5883	0.9672	0.1013	0.5705	0.6717	0.0000	2,698.0811	2,698.0811	0.3667	0.0233	2,714.2029
Maximum	**3.2674**	**22.4796**	**15.7059**	**0.0423**	**7.7718**	**0.8388**	**8.5654**	**3.6092**	**0.7838**	**4.3413**	**0.0000**	**4,350.1994**	**4,350.1994**	**0.7226**	**0.3630**	**4,476.4281**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	20.3195	0.4821	30.0420	0.0505		3.7245	3.7245		3.7245	3.7245	401.8006	185.0129	586.8135	0.5567	0.0284	609.1943
Energy	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6763	129.6763	2.4900e-003	2.3800e-003	130.4469
Mobile	0.4039	0.3779	3.3508	7.1700e-003	0.7350	5.1100e-003	0.7401	0.1957	4.7600e-003	0.2005		736.8026	736.8026	0.0443	0.0326	747.6213
Total	**20.7353**	**0.9615**	**33.4361**	**0.0583**	**0.7350**	**3.7378**	**4.4728**	**0.1957**	**3.7375**	**3.9332**	**401.8006**	**1,051.4918**	**1,453.2924**	**0.6035**	**0.0634**	**1,487.2625**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	20.3195	0.4821	30.0420	0.0505		3.7245	3.7245		3.7245	3.7245	401.8006	185.0129	586.8135	0.5567	0.0284	609.1943
Energy	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6763	129.6763	2.4900e-003	2.3800e-003	130.4469
Mobile	0.3961	0.3637	3.2180	6.8200e-003	0.6982	4.8800e-003	0.7031	0.1860	4.5500e-003	0.1905		701.0634	701.0634	0.0429	0.0314	711.4905
Total	**20.7275**	**0.9473**	**33.3032**	**0.0579**	**0.6982**	**3.7376**	**4.4358**	**0.1860**	**3.7373**	**3.9232**	**401.8006**	**1,015.7526**	**1,417.5532**	**0.6021**	**0.0622**	**1,451.1316**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.04	1.48	0.40	0.60	5.00	0.01	0.83	5.00	0.01	0.25	0.00	3.40	2.46	0.23	1.89	2.43

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	6/30/2022	5	2	
3	Grading	Grading	7/1/2022	7/6/2022	5	4	
4	Building Construction	Building Construction	7/21/2022	4/26/2023	5	200	
5	Paving	Paving	7/7/2022	7/20/2022	5	10	
6	Architectural Coating	Architectural Coating	8/4/2022	5/10/2023	5	200	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 36,857; Residential Outdoor: 12,286; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	5.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	132.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0492	0.0000	0.0492	7.4500e-003	0.0000	7.4500e-003			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.0492**	**0.8379**	**0.8871**	**7.4500e-003**	**0.7829**	**0.7903**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1800e-003	0.0415	9.1000e-003	1.6000e-004	4.3700e-003	3.9000e-004	4.7600e-003	1.2000e-003	3.7000e-004	1.5700e-003		17.2721	17.2721	5.7000e-004	2.7400e-003	18.1015
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0378	0.0228	0.3361	9.6000e-004	0.1068	5.6000e-004	0.1074	0.0283	5.1000e-004	0.0288		97.2482	97.2482	2.6500e-003	2.4200e-003	98.0371
Total	**0.0390**	**0.0643**	**0.3452**	**1.1200e-003**	**0.1112**	**9.5000e-004**	**0.1121**	**0.0295**	**8.8000e-004**	**0.0304**		**114.5202**	**114.5202**	**3.2200e-003**	**5.1600e-003**	**116.1386**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0492	0.0000	0.0492	7.4500e-003	0.0000	7.4500e-003			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.0492**	**0.8379**	**0.8871**	**7.4500e-003**	**0.7829**	**0.7903**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1800e-003	0.0415	9.1000e-003	1.6000e-004	4.3700e-003	3.9000e-004	4.7600e-003	1.2000e-003	3.7000e-004	1.5700e-003		17.2721	17.2721	5.7000e-004	2.7400e-003	18.1015
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0378	0.0228	0.3361	9.6000e-004	0.1068	5.6000e-004	0.1074	0.0283	5.1000e-004	0.0288		97.2482	97.2482	2.6500e-003	2.4200e-003	98.0371
Total	**0.0390**	**0.0643**	**0.3452**	**1.1200e-003**	**0.1112**	**9.5000e-004**	**0.1121**	**0.0295**	**8.8000e-004**	**0.0304**		**114.5202**	**114.5202**	**3.2200e-003**	**5.1600e-003**	**116.1386**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.3122	14.6277	7.0939	0.0172		0.6225	0.6225		0.5727	0.5727		1,666.1738	1,666.1738	0.5389		1,679.6457
Total	**1.3122**	**14.6277**	**7.0939**	**0.0172**	**6.2662**	**0.6225**	**6.8887**	**3.0041**	**0.5727**	**3.5768**		**1,666.1738**	**1,666.1738**	**0.5389**		**1,679.6457**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0233	0.0140	0.2068	5.9000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.2000e-004	0.0178		59.8450	59.8450	1.6300e-003	1.4900e-003	60.3305
Total	**0.0233**	**0.0140**	**0.2068**	**5.9000e-004**	**0.0657**	**3.4000e-004**	**0.0661**	**0.0174**	**3.2000e-004**	**0.0178**		**59.8450**	**59.8450**	**1.6300e-003**	**1.4900e-003**	**60.3305**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.3122	14.6277	7.0939	0.0172		0.6225	0.6225		0.5727	0.5727	0.0000	1,666.1738	1,666.1738	0.5389		1,679.6457
Total	**1.3122**	**14.6277**	**7.0939**	**0.0172**	**6.2662**	**0.6225**	**6.8887**	**3.0041**	**0.5727**	**3.5768**	**0.0000**	**1,666.1738**	**1,666.1738**	**0.5389**		**1,679.6457**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0233	0.0140	0.2068	5.9000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.2000e-004	0.0178		59.8450	59.8450	1.6300e-003	1.4900e-003	60.3305
Total	**0.0233**	**0.0140**	**0.2068**	**5.9000e-004**	**0.0657**	**3.4000e-004**	**0.0661**	**0.0174**	**3.2000e-004**	**0.0178**		**59.8450**	**59.8450**	**1.6300e-003**	**1.4900e-003**	**60.3305**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1125	0.0000	7.1125	3.4293	0.0000	3.4293			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.1125**	**0.7423**	**7.8548**	**3.4293**	**0.6829**	**4.1122**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1554	5.4785	1.2008	0.0209	0.5771	0.0509	0.6281	0.1582	0.0487	0.2069		2,279.9106	2,279.9106	0.0752	0.3611	2,389.3980
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0291	0.0175	0.2585	7.4000e-004	0.0822	4.3000e-004	0.0826	0.0218	4.0000e-004	0.0222		74.8063	74.8063	2.0400e-003	1.8700e-003	75.4131
Total	**0.1845**	**5.4960**	**1.4593**	**0.0217**	**0.6593**	**0.0514**	**0.7107**	**0.1800**	**0.0491**	**0.2291**		**2,354.7169**	**2,354.7169**	**0.0773**	**0.3630**	**2,464.8111**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1125	0.0000	7.1125	3.4293	0.0000	3.4293			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.1125**	**0.7423**	**7.8548**	**3.4293**	**0.6829**	**4.1122**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1554	5.4785	1.2008	0.0209	0.5771	0.0509	0.6281	0.1582	0.0487	0.2069		2,279.9106	2,279.9106	0.0752	0.3611	2,389.3980
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0291	0.0175	0.2585	7.4000e-004	0.0822	4.3000e-004	0.0826	0.0218	4.0000e-004	0.0222		74.8063	74.8063	2.0400e-003	1.8700e-003	75.4131
Total	**0.1845**	**5.4960**	**1.4593**	**0.0217**	**0.6593**	**0.0514**	**0.7107**	**0.1800**	**0.0491**	**0.2291**		**2,354.7169**	**2,354.7169**	**0.0773**	**0.3630**	**2,464.8111**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0108	0.2697	0.0801	1.0600e-003	0.0339	2.8700e-003	0.0367	9.7500e-003	2.7500e-003	0.0125		113.4929	113.4929	2.4700e-003	0.0168	118.5661
Worker	0.1018	0.0614	0.9048	2.5700e-003	0.2875	1.5000e-003	0.2890	0.0763	1.3800e-003	0.0777		261.8220	261.8220	7.1400e-003	6.5300e-003	263.9460
Total	**0.1126**	**0.3311**	**0.9849**	**3.6300e-003**	**0.3214**	**4.3700e-003**	**0.3258**	**0.0860**	**4.1300e-003**	**0.0902**		**375.3150**	**375.3150**	**9.6100e-003**	**0.0234**	**382.5121**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0108	0.2697	0.0801	1.0600e-003	0.0339	2.8700e-003	0.0367	9.7500e-003	2.7500e-003	0.0125		113.4929	113.4929	2.4700e-003	0.0168	118.5661
Worker	0.1018	0.0614	0.9048	2.5700e-003	0.2875	1.5000e-003	0.2890	0.0763	1.3800e-003	0.0777		261.8220	261.8220	7.1400e-003	6.5300e-003	263.9460
Total	**0.1126**	**0.3311**	**0.9849**	**3.6300e-003**	**0.3214**	**4.3700e-003**	**0.3258**	**0.0860**	**4.1300e-003**	**0.0902**		**375.3150**	**375.3150**	**9.6100e-003**	**0.0234**	**382.5121**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
Total	**1.5233**	**11.7104**	**12.6111**	**0.0221**		**0.5145**	**0.5145**		**0.4968**	**0.4968**		**2,001.7877**	**2,001.7877**	**0.3399**		**2,010.2858**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4400e-003	0.2145	0.0685	1.0100e-003	0.0339	1.3000e-003	0.0352	9.7500e-003	1.2400e-003	0.0110		108.7305	108.7305	2.2300e-003	0.0161	113.5761
Worker	0.0947	0.0544	0.8367	2.4900e-003	0.2875	1.4300e-003	0.2889	0.0763	1.3100e-003	0.0776		255.0957	255.0957	6.4300e-003	6.0500e-003	257.0600
Total	**0.1001**	**0.2688**	**0.9052**	**3.5000e-003**	**0.3214**	**2.7300e-003**	**0.3241**	**0.0860**	**2.5500e-003**	**0.0886**		**363.8262**	**363.8262**	**8.6600e-003**	**0.0221**	**370.6362**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
Total	**1.5233**	**11.7104**	**12.6111**	**0.0221**		**0.5145**	**0.5145**		**0.4968**	**0.4968**	**0.0000**	**2,001.7877**	**2,001.7877**	**0.3399**		**2,010.2858**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.4400e-003	0.2145	0.0685	1.0100e-003	0.0339	1.3000e-003	0.0352	9.7500e-003	1.2400e-003	0.0110		108.7305	108.7305	2.2300e-003	0.0161	113.5761
Worker	0.0947	0.0544	0.8367	2.4900e-003	0.2875	1.4300e-003	0.2889	0.0763	1.3100e-003	0.0776		255.0957	255.0957	6.4300e-003	6.0500e-003	257.0600
Total	**0.1001**	**0.2688**	**0.9052**	**3.5000e-003**	**0.3214**	**2.7300e-003**	**0.3241**	**0.0860**	**2.5500e-003**	**0.0886**		**363.8262**	**363.8262**	**8.6600e-003**	**0.0221**	**370.6362**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6877**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0378	0.0228	0.3361	9.6000e-004	0.1068	5.6000e-004	0.1074	0.0283	5.1000e-004	0.0288		97.2482	97.2482	2.6500e-003	2.4200e-003	98.0371
Total	**0.0378**	**0.0228**	**0.3361**	**9.6000e-004**	**0.1068**	**5.6000e-004**	**0.1074**	**0.0283**	**5.1000e-004**	**0.0288**		**97.2482**	**97.2482**	**2.6500e-003**	**2.4200e-003**	**98.0371**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6877**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**	**0.0000**	**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0378	0.0228	0.3361	9.6000e-004	0.1068	5.6000e-004	0.1074	0.0283	5.1000e-004	0.0288		97.2482	97.2482	2.6500e-003	2.4200e-003	98.0371
Total	**0.0378**	**0.0228**	**0.3361**	**9.6000e-004**	**0.1068**	**5.6000e-004**	**0.1074**	**0.0283**	**5.1000e-004**	**0.0288**		**97.2482**	**97.2482**	**2.6500e-003**	**2.4200e-003**	**98.0371**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.2813					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**1.4858**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0204	0.0123	0.1810	5.1000e-004	0.0575	3.0000e-004	0.0578	0.0153	2.8000e-004	0.0155		52.3644	52.3644	1.4300e-003	1.3100e-003	52.7892
Total	**0.0204**	**0.0123**	**0.1810**	**5.1000e-004**	**0.0575**	**3.0000e-004**	**0.0578**	**0.0153**	**2.8000e-004**	**0.0155**		**52.3644**	**52.3644**	**1.4300e-003**	**1.3100e-003**	**52.7892**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.2813					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**1.4858**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0204	0.0123	0.1810	5.1000e-004	0.0575	3.0000e-004	0.0578	0.0153	2.8000e-004	0.0155		52.3644	52.3644	1.4300e-003	1.3100e-003	52.7892
Total	**0.0204**	**0.0123**	**0.1810**	**5.1000e-004**	**0.0575**	**3.0000e-004**	**0.0578**	**0.0153**	**2.8000e-004**	**0.0155**		**52.3644**	**52.3644**	**1.4300e-003**	**1.3100e-003**	**52.7892**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.2813					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**1.4729**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0189	0.0109	0.1673	5.0000e-004	0.0575	2.9000e-004	0.0578	0.0153	2.6000e-004	0.0155		51.0192	51.0192	1.2900e-003	1.2100e-003	51.4120
Total	**0.0189**	**0.0109**	**0.1673**	**5.0000e-004**	**0.0575**	**2.9000e-004**	**0.0578**	**0.0153**	**2.6000e-004**	**0.0155**		**51.0192**	**51.0192**	**1.2900e-003**	**1.2100e-003**	**51.4120**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.2813					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**1.4729**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0189	0.0109	0.1673	5.0000e-004	0.0575	2.9000e-004	0.0578	0.0153	2.6000e-004	0.0155		51.0192	51.0192	1.2900e-003	1.2100e-003	51.4120
Total	**0.0189**	**0.0109**	**0.1673**	**5.0000e-004**	**0.0575**	**2.9000e-004**	**0.0578**	**0.0153**	**2.6000e-004**	**0.0155**		**51.0192**	**51.0192**	**1.2900e-003**	**1.2100e-003**	**51.4120**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3961	0.3637	3.2180	6.8200e-003	0.6982	4.8800e-003	0.7031	0.1860	4.5500e-003	0.1905		701.0634	701.0634	0.0429	0.0314	711.4905
Unmitigated	0.4039	0.3779	3.3508	7.1700e-003	0.7350	5.1100e-003	0.7401	0.1957	4.7600e-003	0.2005		736.8026	736.8026	0.0443	0.0326	747.6213

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	124.80	140.64	151.20	302,176	287,067
Total	124.80	140.64	151.20	302,176	287,067

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6763	129.6763	2.4900e-003	2.3800e-003	130.4469
NaturalGas Unmitigated	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6763	129.6763	2.4900e-003	2.3800e-003	130.4469

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1102.25	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6763	129.6763	2.4900e-003	2.3800e-003	130.4469
Total		**0.0119**	**0.1016**	**0.0432**	**6.5000e-004**		**8.2100e-003**	**8.2100e-003**		**8.2100e-003**	**8.2100e-003**		**129.6763**	**129.6763**	**2.4900e-003**	**2.3800e-003**	**130.4469**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1.10225	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6763	129.6763	2.4900e-003	2.3800e-003	130.4469
Total		**0.0119**	**0.1016**	**0.0432**	**6.5000e-004**		**8.2100e-003**	**8.2100e-003**		**8.2100e-003**	**8.2100e-003**		**129.6763**	**129.6763**	**2.4900e-003**	**2.3800e-003**	**130.4469**

6.0 Area Detail

6.1 Mitigation Measures Area

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	20.3195	0.4821	30.0420	0.0505		3.7245	3.7245		3.7245	3.7245	401.8006	185.0129	586.8135	0.5567	0.0284	609.1943
Unmitigated	20.3195	0.4821	30.0420	0.0505		3.7245	3.7245		3.7245	3.7245	401.8006	185.0129	586.8135	0.5567	0.0284	609.1943

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0702					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	19.7405	0.4364	26.0811	0.0503		3.7026	3.7026		3.7026	3.7026	401.8006	177.8824	579.6830	0.5498	0.0284	601.8924
Landscaping	0.1193	0.0457	3.9609	2.1000e-004		0.0219	0.0219		0.0219	0.0219		7.1305	7.1305	6.8600e-003		7.3019
Total	**20.3195**	**0.4821**	**30.0420**	**0.0505**		**3.7245**	**3.7245**		**3.7245**	**3.7245**	**401.8006**	**185.0129**	**586.8135**	**0.5567**	**0.0284**	**609.1943**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0702					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	19.7405	0.4364	26.0811	0.0503		3.7026	3.7026		3.7026	3.7026	401.8006	177.8824	579.6830	0.5498	0.0284	601.8924
Landscaping	0.1193	0.0457	3.9609	2.1000e-004		0.0219	0.0219		0.0219	0.0219		7.1305	7.1305	6.8600e-003		7.3019
Total	**20.3195**	**0.4821**	**30.0420**	**0.0505**		**3.7245**	**3.7245**		**3.7245**	**3.7245**	**401.8006**	**185.0129**	**586.8135**	**0.5567**	**0.0284**	**609.1943**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Peak Avenue Assisted Living Project

Bay Area AQMD Air District, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Congregate Care (Assisted Living)	48.00	Dwelling Unit	1.94	18,201.00	137

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	64
Climate Zone	4			**Operational Year**	2023
Utility Company	Pacific Gas and Electric Company				
CO2 Intensity (lb/MWhr)	203.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Acreage and square footage adjusted to be consistent with site plan.

Construction Phase - Architectural coating phase adjusted to take place concurrently with building construction.

Demolition - demolition square footage of on-site sheds estimated from aerial maps.

Grading - Grading would require soil import, per site plans.

Mobile Land Use Mitigation - Project site located within 0.15-mile of bus stop.

Water Mitigation - Outdoor water conservation strategy applied to reflect compliance with MWELO.

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	10.00	200.00
tblConstructionPhase	PhaseEndDate	4/12/2023	4/26/2023
tblConstructionPhase	PhaseEndDate	4/26/2023	7/20/2022

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblConstructionPhase	PhaseStartDate	4/27/2023	8/4/2022
tblConstructionPhase	PhaseStartDate	7/7/2022	7/21/2022
tblConstructionPhase	PhaseStartDate	4/13/2023	7/7/2022
tblGrading	MaterialImported	0.00	1,057.00
tblLandUse	LandUseSquareFeet	48,000.00	18,201.00
tblLandUse	LotAcreage	3.00	1.94

2.0 Emissions Summary

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2699	22.7858	15.6586	0.0422	7.7718	0.8388	8.5655	3.6092	0.7838	4.3413	0.0000	4,345.6248	4,345.6248	0.7227	0.3634	4,471.9808
2023	3.1179	13.3208	15.4546	0.0288	0.3789	0.5883	0.9672	0.1013	0.5705	0.6717	0.0000	2,676.5386	2,676.5386	0.3677	0.0245	2,693.0256
Maximum	**3.2699**	**22.7858**	**15.6586**	**0.0422**	**7.7718**	**0.8388**	**8.5655**	**3.6092**	**0.7838**	**4.3413**	**0.0000**	**4,345.6248**	**4,345.6248**	**0.7227**	**0.3634**	**4,471.9808**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	3.2699	22.7858	15.6586	0.0422	7.7718	0.8388	8.5655	3.6092	0.7838	4.3413	0.0000	4,345.6248	4,345.6248	0.7227	0.3634	4,471.9808
2023	3.1179	13.3208	15.4546	0.0288	0.3789	0.5883	0.9672	0.1013	0.5705	0.6717	0.0000	2,676.5386	2,676.5386	0.3677	0.0245	2,693.0256
Maximum	**3.2699**	**22.7858**	**15.6586**	**0.0422**	**7.7718**	**0.8388**	**8.5655**	**3.6092**	**0.7838**	**4.3413**	**0.0000**	**4,345.6248**	**4,345.6248**	**0.7227**	**0.3634**	**4,471.9808**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	20.3195	0.4821	30.0420	0.0505		3.7245	3.7245		3.7245	3.7245	401.8006	185.0129	586.8135	0.5567	0.0284	609.1943
Energy	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6763	129.6763	2.4900e-003	2.3800e-003	130.4469
Mobile	0.3643	0.4358	3.5820	6.7700e-003	0.7350	5.1100e-003	0.7401	0.1957	4.7600e-003	0.2005		695.5758	695.5758	0.0504	0.0358	707.5069
Total	**20.6958**	**1.0195**	**33.6673**	**0.0579**	**0.7350**	**3.7378**	**4.4728**	**0.1957**	**3.7375**	**3.9332**	**401.8006**	**1,010.2650**	**1,412.0656**	**0.6096**	**0.0666**	**1,447.1481**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	20.3195	0.4821	30.0420	0.0505		3.7245	3.7245		3.7245	3.7245	401.8006	185.0129	586.8135	0.5567	0.0284	609.1943
Energy	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6763	129.6763	2.4900e-003	2.3800e-003	130.4469
Mobile	0.3562	0.4196	3.4540	6.4400e-003	0.6982	4.8800e-003	0.7031	0.1860	4.5500e-003	0.1905		661.9329	661.9329	0.0490	0.0345	673.4428
Total	**20.6876**	**1.0032**	**33.5393**	**0.0576**	**0.6982**	**3.7376**	**4.4358**	**0.1860**	**3.7373**	**3.9232**	**401.8006**	**976.6220**	**1,378.4227**	**0.6082**	**0.0653**	**1,413.0840**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.04**	**1.60**	**0.38**	**0.57**	**5.00**	**0.01**	**0.83**	**5.00**	**0.01**	**0.25**	**0.00**	**3.33**	**2.38**	**0.23**	**1.95**	**2.35**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Demolition	Demolition	6/1/2022	6/28/2022	5	20	
2	Site Preparation	Site Preparation	6/29/2022	6/30/2022	5	2	
3	Grading	Grading	7/1/2022	7/6/2022	5	4	
4	Building Construction	Building Construction	7/21/2022	4/26/2023	5	200	
5	Paving	Paving	7/7/2022	7/20/2022	5	10	
6	Architectural Coating	Architectural Coating	8/4/2022	5/10/2023	5	200	

Acres of Grading (Site Preparation Phase): 1.88

Acres of Grading (Grading Phase): 4

Acres of Paving: 0

Residential Indoor: 36,857; Residential Outdoor: 12,286; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Rubber Tired Dozers	1	8.00	247	0.40
Demolition	Tractors/Loaders/Backhoes	3	8.00	97	0.37
Site Preparation	Graders	1	8.00	187	0.41
Site Preparation	Rubber Tired Dozers	1	7.00	247	0.40

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Tractors/Loaders/Backhoes	2	7.00	97	0.37
Building Construction	Cranes	1	6.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Building Construction	Welders	3	8.00	46	0.45
Paving	Cement and Mortar Mixers	1	6.00	9	0.56
Paving	Pavers	1	6.00	130	0.42
Paving	Paving Equipment	1	8.00	132	0.36
Paving	Rollers	1	7.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	5	13.00	0.00	5.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Grading	4	10.00	0.00	132.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	35.00	5.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	5	13.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	7.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0492	0.0000	0.0492	7.4500e-003	0.0000	7.4500e-003			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829		2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.0492**	**0.8379**	**0.8871**	**7.4500e-003**	**0.7829**	**0.7903**		**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1500e-003	0.0438	9.2400e-003	1.6000e-004	4.3700e-003	3.9000e-004	4.7600e-003	1.2000e-003	3.7000e-004	1.5700e-003		17.2777	17.2777	5.7000e-004	2.7400e-003	18.1074
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0386	0.0282	0.3206	8.9000e-004	0.1068	5.6000e-004	0.1074	0.0283	5.1000e-004	0.0288		90.3377	90.3377	3.0000e-003	2.7900e-003	91.2450
Total	**0.0398**	**0.0719**	**0.3298**	**1.0500e-003**	**0.1112**	**9.5000e-004**	**0.1121**	**0.0295**	**8.8000e-004**	**0.0304**		**107.6154**	**107.6154**	**3.5700e-003**	**5.5300e-003**	**109.3524**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Demolition - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0492	0.0000	0.0492	7.4500e-003	0.0000	7.4500e-003			0.0000			0.0000
Off-Road	1.6889	16.6217	13.9605	0.0241		0.8379	0.8379		0.7829	0.7829	0.0000	2,323.4168	2,323.4168	0.5921		2,338.2191
Total	**1.6889**	**16.6217**	**13.9605**	**0.0241**	**0.0492**	**0.8379**	**0.8871**	**7.4500e-003**	**0.7829**	**0.7903**	**0.0000**	**2,323.4168**	**2,323.4168**	**0.5921**		**2,338.2191**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	1.1500e-003	0.0438	9.2400e-003	1.6000e-004	4.3700e-003	3.9000e-004	4.7600e-003	1.2000e-003	3.7000e-004	1.5700e-003		17.2777	17.2777	5.7000e-004	2.7400e-003	18.1074
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0386	0.0282	0.3206	8.9000e-004	0.1068	5.6000e-004	0.1074	0.0283	5.1000e-004	0.0288		90.3377	90.3377	3.0000e-003	2.7900e-003	91.2450
Total	**0.0398**	**0.0719**	**0.3298**	**1.0500e-003**	**0.1112**	**9.5000e-004**	**0.1121**	**0.0295**	**8.8000e-004**	**0.0304**		**107.6154**	**107.6154**	**3.5700e-003**	**5.5300e-003**	**109.3524**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.3122	14.6277	7.0939	0.0172		0.6225	0.6225		0.5727	0.5727		1,666.1738	1,666.1738	0.5389		1,679.6457
Total	**1.3122**	**14.6277**	**7.0939**	**0.0172**	**6.2662**	**0.6225**	**6.8887**	**3.0041**	**0.5727**	**3.5768**		**1,666.1738**	**1,666.1738**	**0.5389**		**1,679.6457**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0238	0.0173	0.1973	5.5000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.2000e-004	0.0178		55.5924	55.5924	1.8500e-003	1.7200e-003	56.1508
Total	**0.0238**	**0.0173**	**0.1973**	**5.5000e-004**	**0.0657**	**3.4000e-004**	**0.0661**	**0.0174**	**3.2000e-004**	**0.0178**		**55.5924**	**55.5924**	**1.8500e-003**	**1.7200e-003**	**56.1508**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					6.2662	0.0000	6.2662	3.0041	0.0000	3.0041			0.0000			0.0000
Off-Road	1.3122	14.6277	7.0939	0.0172		0.6225	0.6225		0.5727	0.5727	0.0000	1,666.1738	1,666.1738	0.5389		1,679.6457
Total	**1.3122**	**14.6277**	**7.0939**	**0.0172**	**6.2662**	**0.6225**	**6.8887**	**3.0041**	**0.5727**	**3.5768**	**0.0000**	**1,666.1738**	**1,666.1738**	**0.5389**		**1,679.6457**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0238	0.0173	0.1973	5.5000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.2000e-004	0.0178		55.5924	55.5924	1.8500e-003	1.7200e-003	56.1508
Total	**0.0238**	**0.0173**	**0.1973**	**5.5000e-004**	**0.0657**	**3.4000e-004**	**0.0661**	**0.0174**	**3.2000e-004**	**0.0178**		**55.5924**	**55.5924**	**1.8500e-003**	**1.7200e-003**	**56.1508**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1125	0.0000	7.1125	3.4293	0.0000	3.4293			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829		1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.1125**	**0.7423**	**7.8548**	**3.4293**	**0.6829**	**4.1122**		**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1519	5.7806	1.2201	0.0210	0.5771	0.0510	0.6281	0.1582	0.0488	0.2070		2,280.6518	2,280.6518	0.0750	0.3612	2,390.1754
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0297	0.0217	0.2466	6.8000e-004	0.0822	4.3000e-004	0.0826	0.0218	4.0000e-004	0.0222		69.4905	69.4905	2.3100e-003	2.1500e-003	70.1885
Total	**0.1816**	**5.8022**	**1.4666**	**0.0216**	**0.6593**	**0.0514**	**0.7107**	**0.1800**	**0.0492**	**0.2292**		**2,350.1424**	**2,350.1424**	**0.0773**	**0.3634**	**2,460.3638**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					7.1125	0.0000	7.1125	3.4293	0.0000	3.4293			0.0000			0.0000
Off-Road	1.5403	16.9836	9.2202	0.0206		0.7423	0.7423		0.6829	0.6829	0.0000	1,995.4825	1,995.4825	0.6454		2,011.6169
Total	**1.5403**	**16.9836**	**9.2202**	**0.0206**	**7.1125**	**0.7423**	**7.8548**	**3.4293**	**0.6829**	**4.1122**	**0.0000**	**1,995.4825**	**1,995.4825**	**0.6454**		**2,011.6169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1519	5.7806	1.2201	0.0210	0.5771	0.0510	0.6281	0.1582	0.0488	0.2070		2,280.6518	2,280.6518	0.0750	0.3612	2,390.1754
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0297	0.0217	0.2466	6.8000e-004	0.0822	4.3000e-004	0.0826	0.0218	4.0000e-004	0.0222		69.4905	69.4905	2.3100e-003	2.1500e-003	70.1885
Total	**0.1816**	**5.8022**	**1.4666**	**0.0216**	**0.6593**	**0.0514**	**0.7107**	**0.1800**	**0.0492**	**0.2292**		**2,350.1424**	**2,350.1424**	**0.0773**	**0.3634**	**2,460.3638**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689		2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**		**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0107	0.2845	0.0829	1.0600e-003	0.0339	2.8800e-003	0.0367	9.7500e-003	2.7600e-003	0.0125		113.5389	113.5389	2.4600e-003	0.0168	118.6194
Worker	0.1040	0.0758	0.8630	2.3900e-003	0.2875	1.5000e-003	0.2890	0.0763	1.3800e-003	0.0777		243.2169	243.2169	8.0800e-003	7.5200e-003	245.6596
Total	**0.1147**	**0.3602**	**0.9459**	**3.4500e-003**	**0.3214**	**4.3800e-003**	**0.3258**	**0.0860**	**4.1400e-003**	**0.0902**		**356.7558**	**356.7558**	**0.0105**	**0.0244**	**364.2789**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.6487	12.5031	12.7264	0.0221		0.5889	0.5889		0.5689	0.5689	0.0000	2,001.5429	2,001.5429	0.3486		2,010.2581
Total	**1.6487**	**12.5031**	**12.7264**	**0.0221**		**0.5889**	**0.5889**		**0.5689**	**0.5689**	**0.0000**	**2,001.5429**	**2,001.5429**	**0.3486**		**2,010.2581**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0107	0.2845	0.0829	1.0600e-003	0.0339	2.8800e-003	0.0367	9.7500e-003	2.7600e-003	0.0125		113.5389	113.5389	2.4600e-003	0.0168	118.6194
Worker	0.1040	0.0758	0.8630	2.3900e-003	0.2875	1.5000e-003	0.2890	0.0763	1.3800e-003	0.0777		243.2169	243.2169	8.0800e-003	7.5200e-003	245.6596
Total	**0.1147**	**0.3602**	**0.9459**	**3.4500e-003**	**0.3214**	**4.3800e-003**	**0.3258**	**0.0860**	**4.1400e-003**	**0.0902**		**356.7558**	**356.7558**	**0.0105**	**0.0244**	**364.2789**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968		2,001.7877	2,001.7877	0.3399		2,010.2858
Total	**1.5233**	**11.7104**	**12.6111**	**0.0221**		**0.5145**	**0.5145**		**0.4968**	**0.4968**		**2,001.7877**	**2,001.7877**	**0.3399**		**2,010.2858**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2600e-003	0.2269	0.0708	1.0100e-003	0.0339	1.3000e-003	0.0352	9.7500e-003	1.2500e-003	0.0110		108.8860	108.8860	2.2100e-003	0.0161	113.7435
Worker	0.0971	0.0671	0.8013	2.3200e-003	0.2875	1.4300e-003	0.2889	0.0763	1.3100e-003	0.0776		237.0141	237.0141	7.3100e-003	6.9700e-003	239.2728
Total	**0.1024**	**0.2940**	**0.8722**	**3.3300e-003**	**0.3214**	**2.7300e-003**	**0.3241**	**0.0860**	**2.5600e-003**	**0.0886**		**345.9001**	**345.9001**	**9.5200e-003**	**0.0231**	**353.0163**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.5233	11.7104	12.6111	0.0221		0.5145	0.5145		0.4968	0.4968	0.0000	2,001.7877	2,001.7877	0.3399		2,010.2858
Total	**1.5233**	**11.7104**	**12.6111**	**0.0221**		**0.5145**	**0.5145**		**0.4968**	**0.4968**	**0.0000**	**2,001.7877**	**2,001.7877**	**0.3399**		**2,010.2858**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	5.2600e-003	0.2269	0.0708	1.0100e-003	0.0339	1.3000e-003	0.0352	9.7500e-003	1.2500e-003	0.0110		108.8860	108.8860	2.2100e-003	0.0161	113.7435
Worker	0.0971	0.0671	0.8013	2.3200e-003	0.2875	1.4300e-003	0.2889	0.0763	1.3100e-003	0.0776		237.0141	237.0141	7.3100e-003	6.9700e-003	239.2728
Total	**0.1024**	**0.2940**	**0.8722**	**3.3300e-003**	**0.3214**	**2.7300e-003**	**0.3241**	**0.0860**	**2.5600e-003**	**0.0886**		**345.9001**	**345.9001**	**9.5200e-003**	**0.0231**	**353.0163**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205		1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6877**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**		**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0386	0.0282	0.3206	8.9000e-004	0.1068	5.6000e-004	0.1074	0.0283	5.1000e-004	0.0288		90.3377	90.3377	3.0000e-003	2.7900e-003	91.2450
Total	**0.0386**	**0.0282**	**0.3206**	**8.9000e-004**	**0.1068**	**5.6000e-004**	**0.1074**	**0.0283**	**5.1000e-004**	**0.0288**		**90.3377**	**90.3377**	**3.0000e-003**	**2.7900e-003**	**91.2450**

Peak Avenue Assisted Living Project - Bay Area AQMD Air District, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Paving - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.6877	6.7738	8.8060	0.0135		0.3474	0.3474		0.3205	0.3205	0.0000	1,297.3789	1,297.3789	0.4113		1,307.6608
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.6877**	**6.7738**	**8.8060**	**0.0135**		**0.3474**	**0.3474**		**0.3205**	**0.3205**	**0.0000**	**1,297.3789**	**1,297.3789**	**0.4113**		**1,307.6608**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0386	0.0282	0.3206	8.9000e-004	0.1068	5.6000e-004	0.1074	0.0283	5.1000e-004	0.0288		90.3377	90.3377	3.0000e-003	2.7900e-003	91.2450
Total	**0.0386**	**0.0282**	**0.3206**	**8.9000e-004**	**0.1068**	**5.6000e-004**	**0.1074**	**0.0283**	**5.1000e-004**	**0.0288**		**90.3377**	**90.3377**	**3.0000e-003**	**2.7900e-003**	**91.2450**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.2813					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817		281.4481	281.4481	0.0183		281.9062
Total	**1.4858**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**		**281.4481**	**281.4481**	**0.0183**		**281.9062**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0208	0.0152	0.1726	4.8000e-004	0.0575	3.0000e-004	0.0578	0.0153	2.8000e-004	0.0155		48.6434	48.6434	1.6200e-003	1.5000e-003	49.1319
Total	**0.0208**	**0.0152**	**0.1726**	**4.8000e-004**	**0.0575**	**3.0000e-004**	**0.0578**	**0.0153**	**2.8000e-004**	**0.0155**		**48.6434**	**48.6434**	**1.6200e-003**	**1.5000e-003**	**49.1319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.2813					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2045	1.4085	1.8136	2.9700e-003		0.0817	0.0817		0.0817	0.0817	0.0000	281.4481	281.4481	0.0183		281.9062
Total	**1.4858**	**1.4085**	**1.8136**	**2.9700e-003**		**0.0817**	**0.0817**		**0.0817**	**0.0817**	**0.0000**	**281.4481**	**281.4481**	**0.0183**		**281.9062**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0208	0.0152	0.1726	4.8000e-004	0.0575	3.0000e-004	0.0578	0.0153	2.8000e-004	0.0155		48.6434	48.6434	1.6200e-003	1.5000e-003	49.1319
Total	**0.0208**	**0.0152**	**0.1726**	**4.8000e-004**	**0.0575**	**3.0000e-004**	**0.0578**	**0.0153**	**2.8000e-004**	**0.0155**		**48.6434**	**48.6434**	**1.6200e-003**	**1.5000e-003**	**49.1319**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.2813					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708		281.4481	281.4481	0.0168		281.8690
Total	**1.4729**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**		**281.4481**	**281.4481**	**0.0168**		**281.8690**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0194	0.0134	0.1603	4.6000e-004	0.0575	2.9000e-004	0.0578	0.0153	2.6000e-004	0.0155		47.4028	47.4028	1.4600e-003	1.3900e-003	47.8546
Total	**0.0194**	**0.0134**	**0.1603**	**4.6000e-004**	**0.0575**	**2.9000e-004**	**0.0578**	**0.0153**	**2.6000e-004**	**0.0155**		**47.4028**	**47.4028**	**1.4600e-003**	**1.3900e-003**	**47.8546**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	1.2813					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.1917	1.3030	1.8111	2.9700e-003		0.0708	0.0708		0.0708	0.0708	0.0000	281.4481	281.4481	0.0168		281.8690
Total	**1.4729**	**1.3030**	**1.8111**	**2.9700e-003**		**0.0708**	**0.0708**		**0.0708**	**0.0708**	**0.0000**	**281.4481**	**281.4481**	**0.0168**		**281.8690**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0194	0.0134	0.1603	4.6000e-004	0.0575	2.9000e-004	0.0578	0.0153	2.6000e-004	0.0155		47.4028	47.4028	1.4600e-003	1.3900e-003	47.8546
Total	**0.0194**	**0.0134**	**0.1603**	**4.6000e-004**	**0.0575**	**2.9000e-004**	**0.0578**	**0.0153**	**2.6000e-004**	**0.0155**		**47.4028**	**47.4028**	**1.4600e-003**	**1.3900e-003**	**47.8546**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

Increase Transit Accessibility

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3562	0.4196	3.4540	6.4400e-003	0.6982	4.8800e-003	0.7031	0.1860	4.5500e-003	0.1905		661.9329	661.9329	0.0490	0.0345	673.4428
Unmitigated	0.3643	0.4358	3.5820	6.7700e-003	0.7350	5.1100e-003	0.7401	0.1957	4.7600e-003	0.2005		695.5758	695.5758	0.0504	0.0358	707.5069

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Congregate Care (Assisted Living)	124.80	140.64	151.20	302,176	287,067
Total	124.80	140.64	151.20	302,176	287,067

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Congregate Care (Assisted	10.80	4.80	5.70	31.00	15.00	54.00	86	11	3

4.4 Fleet Mix

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Congregate Care (Assisted Living)	0.552821	0.058334	0.189005	0.121481	0.023262	0.005577	0.010166	0.007476	0.001000	0.000579	0.026545	0.000826	0.002928

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6763	129.6763	2.4900e-003	2.3800e-003	130.4469
NaturalGas Unmitigated	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6763	129.6763	2.4900e-003	2.3800e-003	130.4469

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1102.25	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6763	129.6763	2.4900e-003	2.3800e-003	130.4469
Total		**0.0119**	**0.1016**	**0.0432**	**6.5000e-004**		**8.2100e-003**	**8.2100e-003**		**8.2100e-003**	**8.2100e-003**		**129.6763**	**129.6763**	**2.4900e-003**	**2.3800e-003**	**130.4469**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
Congregate Care (Assisted Living)	1.10225	0.0119	0.1016	0.0432	6.5000e-004		8.2100e-003	8.2100e-003		8.2100e-003	8.2100e-003		129.6763	129.6763	2.4900e-003	2.3800e-003	130.4469
Total		**0.0119**	**0.1016**	**0.0432**	**6.5000e-004**		**8.2100e-003**	**8.2100e-003**		**8.2100e-003**	**8.2100e-003**		**129.6763**	**129.6763**	**2.4900e-003**	**2.3800e-003**	**130.4469**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	20.3195	0.4821	30.0420	0.0505		3.7245	3.7245		3.7245	3.7245	401.8006	185.0129	586.8135	0.5567	0.0284	609.1943
Unmitigated	20.3195	0.4821	30.0420	0.0505		3.7245	3.7245		3.7245	3.7245	401.8006	185.0129	586.8135	0.5567	0.0284	609.1943

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0702					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	19.7405	0.4364	26.0811	0.0503		3.7026	3.7026		3.7026	3.7026	401.8006	177.8824	579.6830	0.5498	0.0284	601.8924
Landscaping	0.1193	0.0457	3.9609	2.1000e-004		0.0219	0.0219		0.0219	0.0219		7.1305	7.1305	6.8600e-003		7.3019
Total	**20.3195**	**0.4821**	**30.0420**	**0.0505**		**3.7245**	**3.7245**		**3.7245**	**3.7245**	**401.8006**	**185.0129**	**586.8135**	**0.5567**	**0.0284**	**609.1943**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0702					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3895					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	19.7405	0.4364	26.0811	0.0503		3.7026	3.7026		3.7026	3.7026	401.8006	177.8824	579.6830	0.5498	0.0284	601.8924
Landscaping	0.1193	0.0457	3.9609	2.1000e-004		0.0219	0.0219		0.0219	0.0219		7.1305	7.1305	6.8600e-003		7.3019
Total	**20.3195**	**0.4821**	**30.0420**	**0.0505**		**3.7245**	**3.7245**		**3.7245**	**3.7245**	**401.8006**	**185.0129**	**586.8135**	**0.5567**	**0.0284**	**609.1943**

7.0 Water Detail

7.1 Mitigation Measures Water

Apply Water Conservation Strategy

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Peak Avenue Assisted Living Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Bay Area AQMD Air District, Mitigation Report

Construction Mitigation Summary

Phase	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Grading	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Paving	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

OFFROAD Equipment Mitigation

Peak Avenue Assisted Living Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Fuel Type	Tier	Number Mitigated	Total Number of Equipment	DPF	Oxidation Catalyst
Air Compressors	Diesel	No Change	0	1	No Change	0.00
Cement and Mortar Mixers	Diesel	No Change	0	1	No Change	0.00
Concrete/Industrial Saws	Diesel	No Change	0	1	No Change	0.00
Cranes	Diesel	No Change	0	1	No Change	0.00
Forklifts	Diesel	No Change	0	1	No Change	0.00
Generator Sets	Diesel	No Change	0	1	No Change	0.00
Graders	Diesel	No Change	0	2	No Change	0.00
Pavers	Diesel	No Change	0	1	No Change	0.00
Paving Equipment	Diesel	No Change	0	1	No Change	0.00
Rollers	Diesel	No Change	0	1	No Change	0.00
Rubber Tired Dozers	Diesel	No Change	0	3	No Change	0.00
Tractors/Loaders/Backhoes	Diesel	No Change	0	8	No Change	0.00
Welders	Diesel	No Change	0	3	No Change	0.00

Peak Avenue Assisted Living Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Unmitigated tons/yr						Unmitigated mt/yr					
Air Compressors	1.98500E-002	1.35940E-001	1.81240E-001	3.00000E-004	7.66000E-003	7.66000E-003	0.00000E+000	2.55325E+001	2.55325E+001	1.60000E-003	0.00000E+000	2.55725E+001
Cement and Mortar Mixers	2.20000E-004	1.38000E-003	1.16000E-003	0.00000E+000	5.00000E-005	5.00000E-005	0.00000E+000	1.71850E-001	1.71850E-001	2.00000E-005	0.00000E+000	1.72300E-001
Concrete/Industrial Saws	3.58000E-003	2.80100E-002	3.66500E-002	6.00000E-005	1.50000E-003	1.50000E-003	0.00000E+000	5.37656E+000	5.37656E+000	2.90000E-004	0.00000E+000	5.38390E+000
Cranes	2.73000E-002	3.02340E-001	1.40120E-001	4.30000E-004	1.25800E-002	1.15800E-002	0.00000E+000	3.80219E+001	3.80219E+001	1.23000E-002	0.00000E+000	3.83293E+001
Forklifts	8.18000E-003	7.61500E-002	8.62500E-002	1.10000E-004	4.91000E-003	4.52000E-003	0.00000E+000	1.00719E+001	1.00719E+001	3.26000E-003	0.00000E+000	1.01533E+001
Generator Sets	3.20000E-002	2.84000E-001	3.67320E-001	6.60000E-004	1.39200E-002	1.39200E-002	0.00000E+000	5.65208E+001	5.65208E+001	2.60000E-003	0.00000E+000	5.65858E+001
Graders	1.24000E-003	1.57700E-002	5.17000E-003	2.00000E-005	5.00000E-004	4.60000E-004	0.00000E+000	1.74528E+000	1.74528E+000	5.60000E-004	0.00000E+000	1.75939E+000
Pavers	7.80000E-004	7.87000E-003	1.08100E-002	2.00000E-005	3.70000E-004	3.40000E-004	0.00000E+000	1.54876E+000	1.54876E+000	5.00000E-004	0.00000E+000	1.56128E+000
Paving Equipment	8.90000E-004	8.69000E-003	1.27300E-002	2.00000E-005	4.20000E-004	3.90000E-004	0.00000E+000	1.78928E+000	1.78928E+000	5.80000E-004	0.00000E+000	1.80375E+000
Rollers	7.30000E-004	7.55000E-003	8.14000E-003	1.00000E-005	4.40000E-004	4.00000E-004	0.00000E+000	1.00852E+000	1.00852E+000	3.30000E-004	0.00000E+000	1.01668E+000
Rubber Tired Dozers	1.07800E-002	1.13220E-001	4.61200E-002	1.10000E-004	5.37000E-003	4.94000E-003	0.00000E+000	9.65978E+000	9.65978E+000	3.12000E-003	0.00000E+000	9.73788E+000
Tractors/Loaders/Backhoes	1.84400E-002	1.87500E-001	2.56040E-001	3.60000E-004	9.87000E-003	9.08000E-003	0.00000E+000	3.13000E+001	3.13000E+001	1.01200E-002	0.00000E+000	3.15531E+001
Welders	8.02500E-002	4.33600E-001	5.06520E-001	7.70000E-004	1.80800E-002	1.80800E-002	0.00000E+000	5.64662E+001	5.64662E+001	6.51000E-003	0.00000E+000	5.66289E+001

Peak Avenue Assisted Living Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	Mitigated tons/yr						Mitigated mt/yr					
Air Compressors	1.98500E-002	1.35940E-001	1.81240E-001	3.00000E-004	7.66000E-003	7.66000E-003	0.00000E+000	2.55325E+001	2.55325E+001	1.60000E-003	0.00000E+000	2.55725E+001
Cement and Mortar Mixers	2.20000E-004	1.38000E-003	1.16000E-003	0.00000E+000	5.00000E-005	5.00000E-005	0.00000E+000	1.71850E-001	1.71850E-001	2.00000E-005	0.00000E+000	1.72300E-001
Concrete/Industrial Saws	3.58000E-003	2.80100E-002	3.66500E-002	6.00000E-005	1.50000E-003	1.50000E-003	0.00000E+000	5.37656E+000	5.37656E+000	2.90000E-004	0.00000E+000	5.38389E+000
Cranes	2.73000E-002	3.02340E-001	1.40120E-001	4.30000E-004	1.25800E-002	1.15800E-002	0.00000E+000	3.80218E+001	3.80218E+001	1.23000E-002	0.00000E+000	3.83292E+001
Forklifts	8.18000E-003	7.61500E-002	8.62500E-002	1.10000E-004	4.91000E-003	4.52000E-003	0.00000E+000	1.00718E+001	1.00718E+001	3.26000E-003	0.00000E+000	1.01533E+001
Generator Sets	3.20000E-002	2.84000E-001	3.67320E-001	6.60000E-004	1.39200E-002	1.39200E-002	0.00000E+000	5.65207E+001	5.65207E+001	2.60000E-003	0.00000E+000	5.65858E+001
Graders	1.24000E-003	1.57700E-002	5.17000E-003	2.00000E-005	5.00000E-004	4.60000E-004	0.00000E+000	1.74527E+000	1.74527E+000	5.60000E-004	0.00000E+000	1.75938E+000
Pavers	7.80000E-004	7.87000E-003	1.08100E-002	2.00000E-005	3.70000E-004	3.40000E-004	0.00000E+000	1.54876E+000	1.54876E+000	5.00000E-004	0.00000E+000	1.56128E+000
Paving Equipment	8.90000E-004	8.69000E-003	1.27300E-002	2.00000E-005	4.20000E-004	3.90000E-004	0.00000E+000	1.78928E+000	1.78928E+000	5.80000E-004	0.00000E+000	1.80374E+000
Rollers	7.30000E-004	7.55000E-003	8.14000E-003	1.00000E-005	4.40000E-004	4.00000E-004	0.00000E+000	1.00852E+000	1.00852E+000	3.30000E-004	0.00000E+000	1.01667E+000
Rubber Tired Dozers	1.07800E-002	1.13220E-001	4.61200E-002	1.10000E-004	5.37000E-003	4.94000E-003	0.00000E+000	9.65976E+000	9.65976E+000	3.12000E-003	0.00000E+000	9.73787E+000
Tractors/Loaders/Backhoes	1.84400E-002	1.87500E-001	2.56040E-001	3.60000E-004	9.87000E-003	9.08000E-003	0.00000E+000	3.13000E+001	3.13000E+001	1.01200E-002	0.00000E+000	3.15531E+001
Welders	8.02500E-002	4.33600E-001	5.06520E-001	7.70000E-004	1.80800E-002	1.80800E-002	0.00000E+000	5.64661E+001	5.64661E+001	6.51000E-003	0.00000E+000	5.66289E+001

Peak Avenue Assisted Living Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Air Compressors	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.17497E-006	1.17497E-006	0.00000E+000	0.00000E+000	1.17313E-006
Cement and Mortar Mixers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Concrete/Industrial Saws	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.85739E-006
Cranes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.05203E-006	1.05203E-006	0.00000E+000	0.00000E+000	1.30449E-006
Forklifts	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.92866E-007	9.92866E-007	0.00000E+000	0.00000E+000	9.84903E-007
Generator Sets	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23848E-006	1.23848E-006	0.00000E+000	0.00000E+000	1.06034E-006
Graders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	5.72974E-006	5.72974E-006	0.00000E+000	0.00000E+000	5.68379E-006
Pavers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000
Paving Equipment	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	5.54401E-006
Rollers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	9.83594E-006
Rubber Tired Dozers	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	2.07044E-006	2.07044E-006	0.00000E+000	0.00000E+000	1.02692E-006
Tractors/Loaders/Backhoes	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.27795E-006	1.27795E-006	0.00000E+000	0.00000E+000	1.26770E-006
Welders	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	0.00000E+000	1.23968E-006	1.23968E-006	0.00000E+000	0.00000E+000	1.23612E-006

Fugitive Dust Mitigation

Yes/No	Mitigation Measure	Mitigation Input		Mitigation Input		Mitigation Input	
No	Soil Stabilizer for unpaved Roads	PM10 Reduction		PM2.5 Reduction			

Peak Avenue Assisted Living Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Replace Ground Cover of Area Disturbed	PM10 Reduction		PM2.5 Reduction			
No	Water Exposed Area	PM10 Reduction		PM2.5 Reduction		Frequency (per day)	
No	Unpaved Road Mitigation	Moisture Content %		Vehicle Speed (mph)	0.00		
No	Clean Paved Road	% PM Reduction	0.00				

		Unmitigated		Mitigated		Percent Reduction	
Phase	Source	PM10	PM2.5	PM10	PM2.5	PM10	PM2.5
Architectural Coating	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Architectural Coating	Roads	0.01	0.00	0.01	0.00	0.00	0.00
Building Construction	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Building Construction	Roads	0.03	0.01	0.03	0.01	0.00	0.00
Demolition	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Demolition	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Grading	Fugitive Dust	0.01	0.01	0.01	0.01	0.00	0.00
Grading	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Fugitive Dust	0.00	0.00	0.00	0.00	0.00	0.00
Paving	Roads	0.00	0.00	0.00	0.00	0.00	0.00
Site Preparation	Fugitive Dust	0.01	0.00	0.01	0.00	0.00	0.00
Site Preparation	Roads	0.00	0.00	0.00	0.00	0.00	0.00

Operational Percent Reduction Summary

Peak Avenue Assisted Living Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category	ROG	NOx	CO	SO2	Exhaust PM10	Exhaust PM2.5	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction												
Architectural Coating	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hearth	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	2.19	3.75	3.70	4.67	3.75	4.00	0.00	4.84	4.84	2.95	3.67	4.82
Natural Gas	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Water Indoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.79	3.99	0.02	0.00	1.99
Water Outdoor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Operational Mobile Mitigation

Project Setting: Low Density Suburban

Mitigation	Category	Measure	% Reduction	Input Value 1	Input Value 2	Input Value 3
No	Land Use	Increase Density	0.00			
No	Land Use	Increase Diversity	-0.01	0.13		
No	Land Use	Improve Walkability Design	0.00			
No	Land Use	Improve Destination Accessibility	0.00			
Yes	Land Use	Increase Transit Accessibility	0.20	0.15		
No	Land Use	Integrate Below Market Rate Housing	0.00			
	Land Use	Land Use SubTotal	0.05			

Peak Avenue Assisted Living Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Neighborhood Enhancements	Improve Pedestrian Network				
No	Neighborhood Enhancements	Provide Traffic Calming Measures				
No	Neighborhood Enhancements	Implement NEV Network	0.00			
	Neighborhood Enhancements	Neighborhood Enhancements Subtotal	0.00			
No	Parking Policy Pricing	Limit Parking Supply	0.00			
No	Parking Policy Pricing	Unbundle Parking Costs	0.00			
No	Parking Policy Pricing	On-street Market Pricing	0.00			
	Parking Policy Pricing	Parking Policy Pricing Subtotal	0.00			
No	Transit Improvements	Provide BRT System	0.00			
No	Transit Improvements	Expand Transit Network	0.00			
No	Transit Improvements	Increase Transit Frequency	0.00			
	Transit Improvements	Transit Improvements Subtotal	0.00			
		Land Use and Site Enhancement Subtotal	0.05			
No	Commute	Implement Trip Reduction Program				
No	Commute	Transit Subsidy				
No	Commute	Implement Employee Parking "Cash Out"	3.00			
No	Commute	Workplace Parking Charge				
No	Commute	Encourage Telecommuting and Alternative Work Schedules	0.00			
No	Commute	Market Commute Trip Reduction Option	0.00			
No	Commute	Employee Vanpool/Shuttle	0.00		2.00	

Peak Avenue Assisted Living Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Commute	Provide Ride Sharing Program	5.00			
	Commute	Commute Subtotal	0.00			
No	School Trip	Implement School Bus Program	0.00			
		Total VMT Reduction	0.05			

Area Mitigation

Measure Implemented	Mitigation Measure	Input Value
No	Only Natural Gas Hearth	
No	No Hearth	
No	Use Low VOC Cleaning Supplies	
No	Use Low VOC Paint (Residential Interior)	100.00
No	Use Low VOC Paint (Residential Exterior)	150.00
No	Use Low VOC Paint (Non-residential Interior)	100.00
No	Use Low VOC Paint (Non-residential Exterior)	150.00
No	Use Low VOC Paint (Parking)	150.00
No	% Electric Lawnmower	
No	% Electric Leafblower	
No	% Electric Chainsaw	

Energy Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
No	Exceed Title 24		

Peak Avenue Assisted Living Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

No	Install High Efficiency Lighting		
No	On-site Renewable		

Appliance Type	Land Use Subtype	% Improvement
ClothWasher		30.00
DishWasher		15.00
Fan		50.00
Refrigerator		15.00

Water Mitigation Measures

Measure Implemented	Mitigation Measure	Input Value 1	Input Value 2
Yes	Apply Water Conservation on Strategy	0.00	20.00
No	Use Reclaimed Water	0.00	0.00
No	Use Grey Water	0.00	
No	Install low-flow bathroom faucet	32.00	
No	Install low-flow Kitchen faucet	18.00	
No	Install low-flow Toilet	20.00	
No	Install low-flow Shower	20.00	
No	Turf Reduction	0.00	
No	Use Water Efficient Irrigation Systems	6.10	
No	Water Efficient Landscape	0.00	0.00

Solid Waste Mitigation

Peak Avenue Assisted Living Project

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Mitigation Measures	Input Value
Institute Recycling and Composting Services Percent Reduction in Waste Disposed	

Appendix B

Tree Inventory Report

HORTICULTURAL
Associates

Consultants in Horticulture and Arboriculture

TREE INVENTORY REPORT

17097 Peak Avenue
Morgan Hill, CA

Prepared for:

Raney Management
1501 Sports Drive, Suite A
Sacramento, CA 95834

Prepared by:

John C. Meserve
ISA Certified Arborist, WE #0478A
ISA Qualified Tree Risk Assessor/TRAQ
ASCA Qualified Tree and Plant Appraiser/TPAQ

March 9, 2022

HORTICULTURAL Associates

Consultants in Horticulture and Arboriculture
P.O Box 1261, Glen Ellen, CA 95442

March 9, 2022

Megane Brown-Allard
Raney Management
1501 Sports Drive, Suite A
Sacramento, CA 95834

Re: Completed *Tree Inventory Report*, 17097 Peak Avenue in Morgan Hill, California

Megane,

Attached you will find our completed *Tree Inventory Report* for the above noted site in Morgan Hill, California. A total of 74 trees were evaluated and this includes all trees that are present 6 inches or greater in trunk diameter and located on or near the proposed development.

All trees in this report were evaluated and documented for species, size, health, and structural condition. The *Tree Inventory Chart* also provides an assessment of expected impact for each tree based on the Tentative Map that was provided, as well as recommendations for preservation or removal. A *Tree Location Plan* shows the location and numbering sequence of all trees that were included. Also included are a *Fencing Detail*, *Tree Preservation Guidelines*, and *Pruning Standards* for your reference.

This report is intended to be a basic inventory of trees present at this site, which includes a general review of tree health and structural condition. No in-depth evaluation has occurred on any tree, and assessment has included only external visual examination without probing, drilling, coring, root collar examination, root excavation, or dissecting any tree part. Failures, deficiencies, and problems may occur in these trees in the future, and this inventory in no way guarantees or provides a warranty for their condition. No other trees are included in this report. If other trees need to be included it your responsibility to provide that direction to us.

EXISTING SITE CONDITION SUMMARY

The project site consists of an existing support facility with outbuildings and parking areas. The balance of the site contains some remnant improvements and vegetation.

EXISTING TREE SUMMARY

Species that are native to the site include Coast Live Oak and Valley Oak.

Species that are native to California, but not native to this site include Monterey Cypress.

Species that are not native include Chinese Pistache, English Walnut, Black Walnut, Stone Pine, Grapefruit, Orange, Black Acacia, Brazilian Pepper, Almond, Wild Plum, Mexican Fan Palm, Silk Oak, Canary Island Date Palm, and Italian Cypress.

CONSTRUCTION IMPACT SUMMARY

The development plan that was provided for our use did not illustrate grading or underground utilities that can affect existing trees. Based on this plan the following summary of impacts is provided:

(52) Trees that can be preserved.

(21) Trees that need to be removed due to expected construction impacts.

(1) Trees that need to be removed due to poor existing condition and expected development impacts.

All trees that will require removal are ornamental or fruit tree species. No native species will require removal.

Please feel free to contact me if you have questions regarding this report, or if further discussion would be helpful.

Regards,

John C. Meserve
ISA Certified Arborist, WE #0478A
ISA Qualified Tree Risk Assessor/TRAQ
ASCA Qualified Tree and Plant Appraiser/TPAQ

TREE INVENTORY CHART

TREE INVENTORY
17097 Peak Avenue
Morgan Hill, CA

March 9, 2022

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Expected Impact	Recommendations
1	*Pistache chinensis*	Chinese Pistache	7	14	8	5	4	1	6, 7, 8
2	*Pistache chinensis*	Chinese Pistache	6	14	8	5	4	1	6, 7, 8
3	*Jugalns regia*	English Walnut	8+10+30	40	28	4	3	2	6, 7, 8, 9
4	*Juglans nigra*	Black Walnut	15+15+16	35	21	3	2	2	6, 7, 8, 9
5	*Pinus pinea*	Stone Pine	9	20	10	3	4	3	2
6	*Pistache chinensis*	Chinese Pistache	12+15+17	35	21	4	2.5	3	2
7	*Quercus agrifolia*	Coast Live Oak	18	40	18	5	2.5	0	6, 7
8	*Citrus paradisi*	Grapefruit	9+11	18	8	4	3	0	6, 7
9	*Citrus sinensis*	Orange	4+5+7	14	8	4	3	0	6, 7
10	*Pistache chinensis*	Chinese Pistache	6+6+7	14	12	4	2.5	0	6, 7
11	*Pistache chinensis*	Chinese Pistache	3+4+5+6	14	12	4	2.5	0	6, 7

TREE INVENTORY
17097 Peak Avenue
Morgan Hill, CA

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Expected Impact	Recommendations
12	*Acacia melanoxylon*	Black Acacia	7+8	40	12	4	3	0	6
13	*Pistache chinensis*	Chinese Pistache	29+33	45	22	4	3	0	6
14	*Pistache chinensis*	Chinese Pistache	7+8+9+9	35	20	4	2.5	0	6
15	*Pistache chinensis*	Chinese Pistache	6+6+12+12+13	30	18	4	2.5	0	6
16	*Pistache chinensis*	Chinese Pistache	8+8+9+10	35	18	3	2.5	0	6, 11
17	*Pistache chinensis*	Chinese Pistache	10+10+10+14	35	18	3	2.5	0	6, 11
18	*Pistache chinensis*	Chinese Pistache	42	35	20	3	2.5	0	6, 11
19	*Pistache chinensis*	Chinese Pistache	12	35	18	3	3	0	6, 11
20	*Pistache chinensis*	Chinese Pistache	4+6	12	12	3	3	0	6, 7
21	*Pistache chinensis*	Chinese Pistache	4	10	4	4	4	0	6, 7
22	*Quercus agrifolia*	Coast Live Oak	10	25	20	4	3	1	6, 7, 8, 9

TREE INVENTORY
17097 Peak Avenue
Morgan Hill, CA

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Expected Impact	Recommendations
23	*Quercus agrifolia*	Coast Live Oak	10+15	30	18	4	3	1	6, 7, 8, 9
24	*Quercus agrifolia*	Coast Live Oak	11	35	18	4	3	1	6, 7, 8, 9
25	*Pistache chinensis*	Chinese Pistache	13+27	25	21	4	3	0	6, 7
26	*Schinus molle*	Brazillian Pepper	30	20	12	3	2	0	6, 7
27	*Pistache chinensis*	Chinese Pistache	8+12	20	16	4	3	1	6, 7, 8, 9
28	*Pistache chinensis*	Chinese Pistache	11	20	14	4	3	1	6, 7, 8, 9
29	*Pistache chinensis*	Chinese Pistache	6+6+10	10	6	1	1	3	4
30	*Prunus dulcis*	Almond	6	14	6	4	3	0	6, 7
31	*Prunus domestica*	Wild Plum	multiple trunks	12	12	3	2	0	6, 7
32	*Quercus agrifolia*	Coast Live Oak	9	21	12	4	3	1	6, 7, 9
33	*Pistache chinensis*	Chinese Pistache	12+13	35	18	4	3	0	6, 7, 9

TREE INVENTORY
17097 Peak Avenue
Morgan Hill, CA

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Expected Impact	Recommendations
34	*Pistache chinensis*	Chinese Pistache	6+10+10+12	35	18	4	3	3	2
35	*Pistache chinensis*	Chinese Pistache	6+7+7+8	25	18	4	3	3	2
36	*Quercus agrifolia*	Coast Live Oak	8+10	13	12	4	3	1	6, 7
37	*Pistache chinensis*	Chinese Pistache	10	18	10	4	3	1	6, 7, 8, 9
38	*Prunus dulcis*	Almond	12	20	1`4	4	3	3	2
39	*Pistache chinensis*	Chinese Pistache	7	18	12	3	2	3	2
40	*Pistache chinensis*	Chinese Pistache	9+10+12	25	15	4	3	2	6, 7, 8, 9
41	*Prunus dulcis*	Almond	multiple trunks	18	18	4	3	3	2
42	*Washungtonia robusta*	Mexican Fan Palm	6	4	4	5	4	3	2
43	*Prunus dulcis*	Almond	3+4	12	10	3	2	3	2
44	*Quercus agrifolia*	Coast Live Oak	14+16+19	40	25	4	3	2	6, 7, 8, 9

TREE INVENTORY
17097 Peak Avenue
Morgan Hill, CA

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Expected Impact	Recommendations
45	*Grevillea robusta*	Silk Oak	21	45	15	4	3	3	2
46	*Phoenix canariensis*	Canary Island Date Palm	12	8	6	5	4	3	2
47	*Phoenix canariensis*	Canary Island Date Palm	18	8	6	5	4	3	2
48	*Phoenix canariensis*	Canary Island Date Palm	24	8	6	5	3	3	2
49	*Prunus dulcis*	Almond	multiple trunks	25	16	4	2	3	2
50	*Prunus dulcis*	Almond	5+8+8+10	20	16	4	3	3	2
51	*Prunus dulcis*	Almond	6+9	22	14	4	3	3	2
52	*Pistache chinensis*	Chinese Pistache	3+3+5	8	4	4	2	0	13
53	*Pistache chinensis*	Chinese Pistache	6	18	14	4	3	0	11, 13
54	*Pistache chinensis*	Chinese Pistache	6	16	14	4	3	0	11, 13
55	*Quercus lobata*	Valley Oak	49	50	30	4	3	0	9

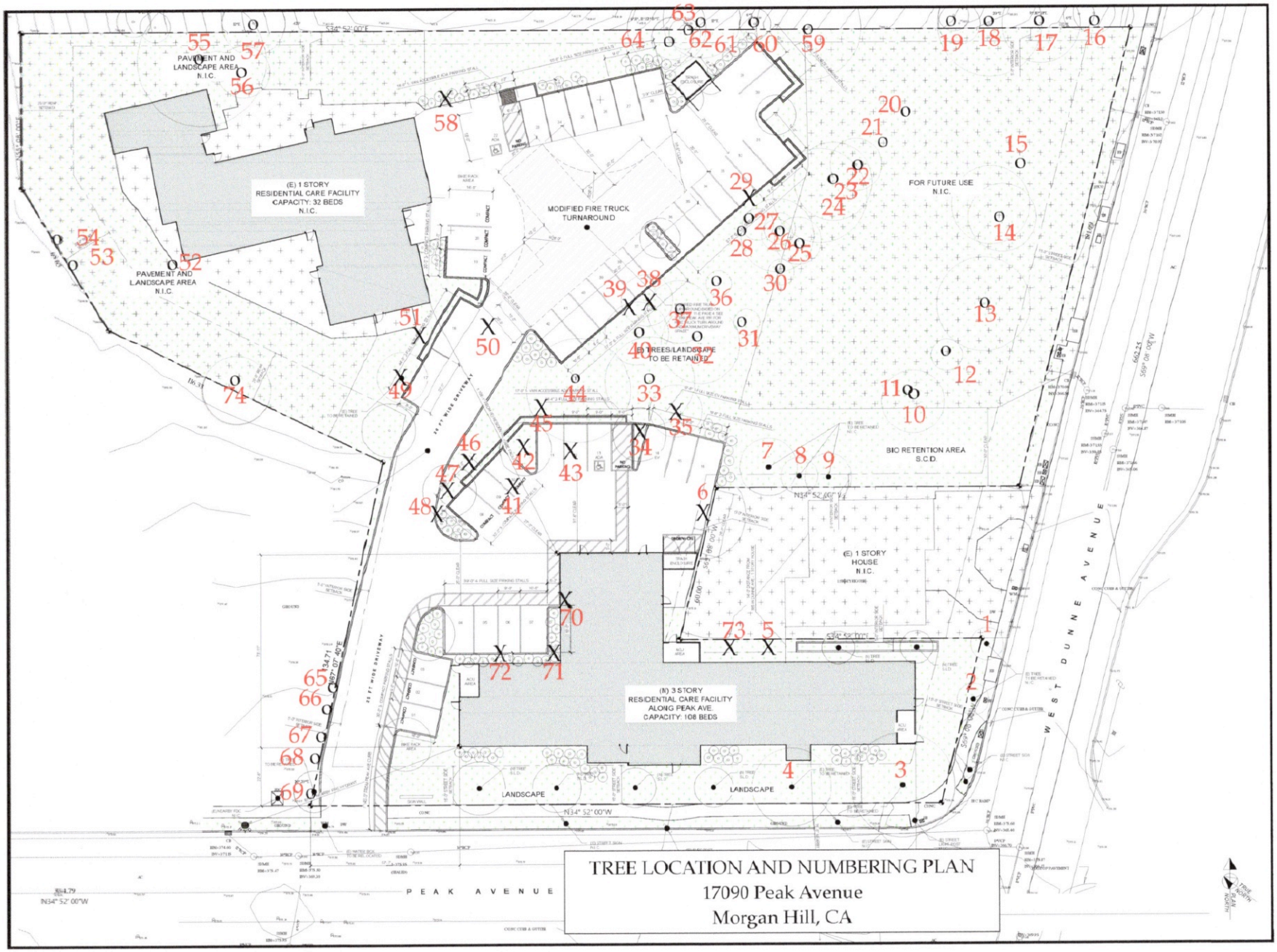
TREE INVENTORY
17097 Peak Avenue
Morgan Hill, CA

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Expected Impact	Recommendations
56	*Pistache chinensis*	Chinese Pistache	4+6+6+9	25	1`4	3	3	0	9
57	*Pistache chinensis*	Chinese Pistache	6+7+9	20	12	2	3	0	9, 11
58	*Pistache chinensis*	Chinese Pistache	6x4+8	22	16	4	3	3	2
59	*Pistache chinensis*	Chinese Pistache	10+12+15+15	25	20	3	1.5	1	6, 7, 8, 9, 11
60	*Prunus dulcis*	Almond	5	15	8	2	2	2	6, 7, 8, 9, 11
61	*Pistache chinensis*	Chinese Pistache	10	15	15	3	3	2	6, 7, 8, 9, 11
62	*Pistache chinensis*	Chinese Pistache	6+8+8+3x12	25	21	3	2	1	6, 7, 8, 9, 11
63	*Pistache chinensis*	Chinese Pistache	8+10+12	25	16	3	2	1	6, 7, 8, 9, 11
64	*Pistache chinensis*	Chinese Pistache	6+18+22	30	20	3	1.5	2	6, 7, 8, 9, 11
65	*Phoenix canariensis*	Canary Island Date Palm	50	22	12	5	4	1	6, 7, 11
66	*Phoenix canariensis*	Canary Island Date Palm	50	22	12	5	4	1	6, 7, 11

TREE INVENTORY
17097 Peak Avenue
Morgan Hill, CA

Tree #	Species	Common Name	Trunk (dbh ± inches)	Height (± feet)	Radius (± feet)	Health 1 - 5	Structure 1 - 4	Expected Impact	Recommendations
67	*Cupressus sempervirens*	Italian Cypress	8	35	2	5	4	2	6, 7, 11
68	*Cupressus sempervirens*	Italian Cypress	8	35	2	5	4	2	6, 7, 11
69	*Washingtonia robusta*	Mexican Fan Palm	24+24	50	12	5	4	1	6, 7, 11
70	*Cupressus macrocarpa*	Monterey Cypress	5+6	20	14	4	3	3	2
71	*Cupressus sempervirens*	Italian Cypress	6	25	2	4	3	3	2
72	*Washingtonia robusta*	Mexican Fan Palm	24	25	8	4	3	3	2
73	*Juglans nigra*	Black Walnut	6	18	10	4	3	3	2
74	*Pistache chinensis*	Chinese Pistache	10	15	16	3	3	0	11, 13

TREE LOCATION PLAN



TREE LOCATION AND NUMBERING PLAN
17090 Peak Avenue
Morgan Hill, CA

KEY TO TREE INVENTORY CHART

KEY TO TREE INVENTORY CHART
17097 Peak Avenue
Morgan Hill, CA

Tree Number

Each tree has been identified in the field with an aluminum tag and reference number. Tags are attached to the trunk at approximately eye level. The *Tree Location Plan* illustrates the location of each numbered tree.

Species

Each tree has been identified by genus, species and common name. Many species have more than one common name.

Trunk

Each trunk has been measured or estimated, in inches, to document its diameter, at 4.5 feet above adjacent grade. Trunk diameter is a good indicator of age, and is commonly used to determine mitigation replacement requirements.

Height

Height is estimated in feet, using visual assessment.

Radius

Radius is estimated in feet, using visual assessment. Since many canopies are asymmetrical, it is not uncommon for a radius estimate to be an average of the canopy size.

Health

The following descriptions are used to rate the health of a tree. Trees with a rating of 4 or 5 are very good candidates for preservation and will tolerate more construction impacts than trees in poorer condition. Trees with a rating of 3 may or may not be good candidates for preservation, depending on the species and expected construction impacts. Trees with a rating of 1 or 2 are generally poor candidates for preservation.

(5) Excellent - health and vigor are exceptional, no pest, disease, or distress symptoms.

(4) Good - health and vigor are average, no significant or specific distress symptoms, no significant pest or disease.

(3) Fair - health and vigor are somewhat compromised, distress is visible, pest or disease may be present and affecting health, problems are generally correctable.

(2) Marginal - health and vigor are significantly compromised, distress is highly visible and present to the degree that survivability is in question.

(1) Poor - decline has progressed beyond the point of being able to return to a healthy condition again. Long-term survival is not expected. This designation includes dead trees.

Structure

The following descriptions are used to rate the structural integrity of a tree. Trees with a rating of 3 or 4 are generally stable, sound trees which do not require significant pruning, although cleaning, thinning, or raising the canopy might be desirable. Trees with a rating of 2 are generally poor candidates for preservation unless they are preserved well away from improvements or active use areas. Significant time and effort would be required to reconstruct the canopy and improve structural integrity. Trees with a rating of 1 are hazardous and should be removed.

(4) Good structure - minor structural problems may be present which do not require corrective action.

(3) Moderate structure - normal, typical structural issues which can be corrected with pruning.

(2) Marginal structure - serious structural problems are present which may or may not be correctable with pruning, cabling, bracing, etc.

(1) Poor structure - hazardous structural condition which cannot be effectively corrected with pruning or other measures, may require removal depending on location and the presence of targets.

Construction Impacts

Considering the proximity of construction activities, type of activities, tree species, and tree condition - the following ratings are used to estimate the amount of impact on tree health and stability. Most trees will tolerate a (1) rating, many trees could tolerate a (2) rating with careful consideration and mitigation, but trees with a (3) rating are poor candidates for preservation.

(4) Impacts are unknown at this time and will depend on the location of improvements inside the illustrated building envelope.

(3) A significant impact on long term tree integrity can be expected as a result of proposed development.

(2) A moderate impact on long term tree integrity can be expected as a result of proposed development.

(1) A minor impact on long term tree integrity can be expected as a result of proposed development.

(0) No impact on long term tree integrity can be expected as a result of proposed development

Recommendations

Recommendations are provided for removal or preservation. For those being preserved, protection measures and mitigation procedures to offset impacts and improve tree health are provided.

(1) Preservation appears to be possible.

(2) Removal is required due to significant development impacts.

(3) Removal is required due to poor health or hazardous structure.

(4) Removal is required due to significant development impacts and poor existing condition.

(5) Removal is recommended due to poor species characteristics.

(6) Install temporary protective fencing at the edge of the dripline, or edge of approved construction, prior to beginning grading or construction. Maintain fencing in place for duration of all construction activity in the area.

(7) Maintain existing grade within the fenced portion of the dripline. Route drainage swales and all underground work outside the dripline.

(8) Place a 4" layer of chipped bark mulch over the soil surface within the fenced dripline prior to installing temporary fencing. Maintain this layer of mulch throughout construction.

(9) Prune to clean the canopy, per International Society of Arboriculture pruning standards.

(10) Prune to provide clearance for adjacent improvements, per International Society of Arboriculture pruning standards.

(11) This trunk may be located off site, but the canopy overhangs the project site.

(12) Excavation may be required within the TPZ and the dripline for development. Excavation within the TPZ of any type must adhere to the following guidelines:

All roots encountered that are 2 inches or larger in diameter must be cleanly cut as they are encountered by excavating equipment.

Roots may not be ripped from the ground and then trimmed. They must be trimmed as encountered and this will require the use of a ground man working with a suitable power tool.

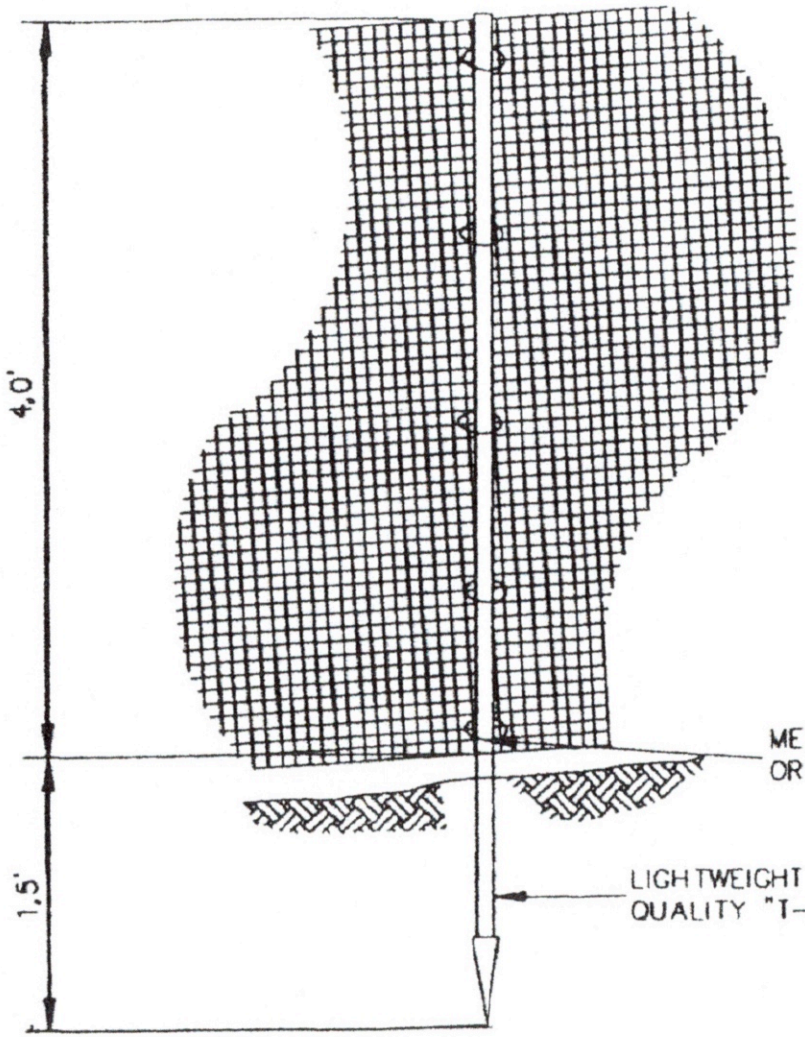
Pruned and exposed roots greater than 2 inches in diameter must be protected from desiccation if left exposed for more than 24 hours. Cover cut roots with heavy cloth, burlap, used carpeting, or similar material that has been soaked in water, until trench or excavation has been backfilled.

If excavation impacts more than 20% of the defined TPZ then supplemental irrigation may be required to offset loss of roots. Excavation in this case should be directed by the project arborist who will determine whether excavation is required, when, and how.

Any excavation within the defined TPZ will require that the tree be monitored on a monthly basis by the project arborist for the duration of construction and for one year beyond completion of construction. Monitoring may determine other mitigation measures that may be required to offset root loss or damage.

(13) No action is required. This tree is located away from development areas.

TREE FENCING DETAIL



NOTE:
TENSOR LIGHTWEIGHT SAFTY GRID, ORANGE
COLOR, BX226516, CUT OR FOLD AT POSTS
AS NEEDED TO CONFORM TO SLOPING TERRAIN.

TREE PROTECTION FENCING DETAIL

TREE PRESERVATION GUIDELINES

TREE PRESERVATION GUIDELINES

17097 Peak Avenue
Morgan Hill, CA

INTRODUCTION

Great care must be exercised when development is proposed in the vicinity of established trees of any type. The trees present at this site require specialized protection techniques during all construction activities to minimize negative impact on their long term health and vigor. The area immediately beneath and around canopy driplines is especially critical, and the specifications that follow are established to protect short and long term tree integrity. The purpose of this specification is therefore to define the procedures that must be followed during any and all phases of development in the immediate vicinity of designated protected trees.

Established, mature trees respond in a number of different ways to the disruption of their natural conditions. Change of grade within the root system area or near the root collar, damage to the bark of the trunk, soil compaction above the root system, root system reduction or damage, or alteration of summer soil moisture levels may individually or collectively cause physiological stress leading to tree decline and death. The individual impacts of these activities may cause trees to immediately exhibit symptoms and begin to decline, but more commonly the decline process takes many years, with symptoms appearing slowly and over a period of time. Trees may not begin to show obvious signs of decline from the negative impacts of construction until many years after construction is completed. It is not appropriate to wait for symptoms to appear, as this may be too late to correct the conditions at fault and to halt decline.

It is therefore critical to the long-term health of all protected trees that a defined protection program be established before beginning any construction activity where protected trees are found. Once incorporated at the design level, it is mandatory that developers, contractors, and construction personnel understand the critical importance of these guidelines, and the potential penalties that will be levied if they are not fully incorporated at every stage of development.

The following specifications are meant to be utilized by project managers and those supervising any construction in the vicinity of protected trees including grading contractors, underground contractors, all equipment operators, construction personnel, and landscape contractors. Questions which arise, or interpretation of specifications as they apply to specific site activities, must be referred to the project arborist as they occur.

Horticultural Associates
P.O. Box 1261
Glen Ellen, CA 95442
707-935-3911

TREE PROTECTION ZONE

1. The canopy dripline is illustrated on the Improvement Plans and represents the area around each tree, or group of trees, which must be protected at all times with tree protection fencing.

2. No encroachment into the dripline is allowed at any time without approval from the project arborist, and unauthorized entry may be subject to civil action and penalties.

3. The dripline will be designated by the project arborist at a location determined to be adequate to ensure long term tree viability and health. This is to occur prior to installation of fencing and in conjunction with the fencing contractor

TREE PROTECTION FENCING

1. Prior to initiating any construction activity on a construction project, including demolition or grading, temporary protective fencing shall be installed at each site tree, or group of trees. Fencing shall be located at the dripline designated by the project arborist and generally illustrated on the Improvement Plans.

2. Fencing shall be minimum 4' height at all locations, and shall form a continuous barrier without entry points around all individual trees, or groups of trees. Barrier type fencing such as *Tensar* plastic fencing is recommended, but any fencing system that adequately prevents entry will be considered for approval by the project arborist. The use of post and cable fencing is not acceptable, however.

3. Fencing shall be installed tightly between steel fence posts (standard quality farm 'T' posts work well) placed no more than 8 feet on center. Fencing shall be attached to each post at 5 locations with plastic electrical ties, metal tie wire, or flip ties. See attached fencing detail.

4. Fencing shall serve as a barrier to prevent encroachment of any type by construction activities, equipment, materials storage, or personnel.

5. All encroachment into the fenced dripline must be approved and supervised by the project arborist. Approved dripline encroachment may require

additional mitigation or protection measures that will be determined by the project arborist at the time of the request.

6. Contractors and subcontractors shall direct all equipment and personnel to remain outside the fenced area at all times until project is complete, and shall instruct personnel and sub-contractors as to the purpose and importance of fencing and preservation.

7. Fencing shall be upright and functional at all times from start to completion of project. Fencing shall remain in place and not be moved or removed until all construction activities at the site are completed.

TREE PRUNING AND TREATMENTS

1. All recommendations for pruning or other treatments must be completed prior to acceptance of the project. It is strongly recommended that pruning be completed prior to the start of grading to facilitate optimum logistics and access.

2. All pruning shall be conducted in conformance with International Society of Arboriculture pruning standards, and all pruning must occur by, or under the direct supervision of, an arborist certified by the International Society of Arboriculture.

GRADING AND TRENCHING

1. Any construction activity that necessitates soil excavation in the vicinity of preserved trees shall be avoided where possible, or be appropriately mitigated under the guidance of the project arborist. All contractors must be aware at all times that specific protection measures are defined, and non conformance may generate stop-work orders.

2. The designated dripline is defined around all site trees to be preserved. Fences protect the designated areas. No grading or trenching is to occur within this defined area unless so designated by the Improvement Plan, and where designated shall occur under the direct supervision of the project arborist.

3. Trenching should be routed around the dripline. Where trenching has been designated within the dripline, utilization of underground technology to bore, tunnel or excavate with high-pressure air or water will be specified. Hand digging will be generally discouraged unless site conditions restrict the use of alternate technology.

4. All roots greater than one inch in diameter shall be cleanly hand-cut as they are encountered in any trench or during any grading activity. The tearing of roots by equipment shall not be allowed. Mitigation treatment of pruned roots shall be specified by the project arborist as determined by the degree of root pruning, location of root pruning, and potential exposure to desiccation. No pruning paints or sealants shall be used on cut roots.

5. Where significant roots are encountered mitigation measures such as supplemental irrigation and/or organic mulches may be specified by the project arborist to offset the reduction of root system capacity.

6. Retaining walls are effective at holding grade changes outside the area of the dripline and are recommended where necessary. Retaining walls shall be constructed in post and beam or drilled pier construction styles where they are necessary near or within a dripline.

7. Grade changes outside the dripline, or those necessary in conjunction with retaining walls, shall be designed so that drainage water of any type or source is not diverted toward or around the root crown in any manner. Grade shall drain away from root crown at a minimum of 2%. If grading toward the root collar is unavoidable, appropriate surface and/or subsurface drain facilities shall be installed so that water is effectively diverted away from root collar area.

8. Grade reduction within the designated dripline shall be generally discouraged, and where approved, shall be conducted only after careful consideration and coordination with the project arborist.

9. Foundations of all types within the dripline shall be constructed using design techniques that eliminate the need for trenching into natural grade. These techniques might include drilled piers, grade beams, bridges, or cantilevered structures. Building footprints should generally be outside the dripline whenever possible.

DRAINAGE

The location and density of native trees may be directly associated with the presence of naturally occurring water, especially ephemeral waterways. Project design, especially drainage components, should take into consideration that these trees may begin a slow decline if this naturally present association with water is changed or eliminated.

TREE DAMAGE

1. Any form of tree damage which occurs during the demolition, grading, or construction process shall be evaluated by the project arborist. Specific mitigation measures will be developed to compensate for or correct the damage. Fines and penalties may also be levied.

2. Measures may include, but are not limited to, the following:

- pruning to remove damaged limbs or wood
- bark scoring to remove damaged bark and promote callous formation
- alleviation of compaction by lightly scarifying the soil surface
- installation of a specific mulching material
- supplemental irrigation during the growing season for up to 5 years
- treatment with specific amendments intended to promote health, vigor, or root growth
- vertical mulching or soil fracturing to promote root growth
- periodic post-construction monitoring at the developer's expense
- tree replacement, or payment of the established appraised value, if the damage is so severe that long term survival is not expected.

3. Any tree that is significantly damaged and whose survivability is threatened, due to negligence by any contractor, shall be appraised using the Trunk Formula Method provided in the 9th Edition of the Guide For Plant Appraisal. This appraisal value will be the basis for any fines levied on the offending contractor.

MULCHING

1. Trees will benefit from the application of a 4 inch layer of chipped bark mulch over the soil surface within the Tree Protection Zone. Ideal mulch material is a chipped bark containing a wide range of particle sizes. Bark mulches composed of shredded redwood, bark screened for uniformity of size, dyed bark, or chipped lumber will not function as beneficially. All trees that are expected to be

impacted in any way by project activities shall have mulch placed prior to the installation of protection fencing.

2. Mulch should be generated from existing site trees that are removed or pruned as part of the project. Much brought onto the site from an outside source must be from trees that are verified to be free of the Sudden Oak Death pathogen *Phytophtora ramorum*.

ISA PRUNING STANDARDS

WESTERN CHAPTER

ISA

PRUNING STANDARDS

Purpose:

Trees and other woody plants respond in specific and predictable ways to pruning and other maintenance practices. Careful study of these responses has led to pruning practices which best preserve and enhance the beauty, structural integrity, and functional value of trees.

In an effort to promote practices which encourage the preservation of tree structure and health, the W.C. ISA Certification Committee has established the following Standards of Pruning for Certified Arborists. The Standards are presented as working guidelines, recognizing that trees are individually unique in form and structure, and that their pruning needs may not always fit strict rules. The Certified Arborist must take responsibility for special pruning practices that vary greatly from these Standards.

I. Pruning Techniques

A. A thinning cut removes a branch at its point of attachment or shortens it to a lateral large enough to assume the terminal role. Thinning opens up a tree, reduces weight on heavy limbs, can reduce a tree's height, distributes ensuing invigoration throughout a tree and helps retain the tree's natural shape. Thinning cuts are therefore preferred in tree pruning.

When shortening a branch or leader, the lateral to which it is cut should be at least one-half the diameter of the cut being made. Removal of a branch or leader back to a sufficiently large lateral is often called "drop crotching."

B. A heading cut removes a branch to a stub, a bud or a lateral branch not large enough to assume the terminal role. Heading cuts should seldom be used because vigorous, weakly attached upright sprouts are forced just below such cuts, and the tree's natural form is altered. In some situations, branch stubs die or produce only weak sprouts.

C. When removing a live branch, pruning cuts should be made in branch tissue just outside the branch bark ridge and collar, which are trunk tissue. *(Figure 1)* If no collar is visible, the angle of the cut should approximate the angle formed by the branch bark ridge and the trunk. *(Figure 2)*

D. When removing a dead branch, the final cut should be made outside the collar of live callus tissue. If the collar has grown out along the branch stub, only the dead stub should be removed, the live collar should remain intact, and uninjured. *(Figure 3)*

E. When reducing the length of a branch or the height of a leader, the final cut should be made just beyond (without violating) the branch bark ridge of the branch being cut to. The cut should approximately bisect the angle formed by the branch bark ridge and an imaginary line perpendicular to the trunk or branch cut. *(Figure 4)*

F. A goal of structural pruning is to maintain the size of lateral branches to less than three-fourths the diameter of the parent branch or trunk. If the branch is codominant or close to the size of the parent branch, thin the branch's foliage by 15% to 25%, particularly near the terminal. Thin the parent branch less, if at all. This will allow the parent branch to grow at a faster rate, will reduce the weight of the lateral branch, slow its total growth, and develop a stronger branch attachment. If this does not appear appropriate, the branch should be completely removed or shortened to a large lateral. *(Figure 5)*

G. On large-growing trees, except whorl-branching conifers, branches that are more than one-third the diameter of the trunk should be spaced along the trunk at least 18 inches apart, on center. If this is not possible because of the present size of the tree, such branches should have their foliage thinned 15% to 25%, particularly near their terminals. *(Figure 6)*

H. Pruning cuts should be clean and smooth with the bark at the edge of the cut firmly attached to the wood.

I. Large or heavy branches that cannot be thrown clear, should be lowered on ropes to prevent injury to the tree or other property.

J. Wound dressings and tree paints have not been shown to be effective in preventing or reducing decay. They are therefore not recommended for routine use when pruning.

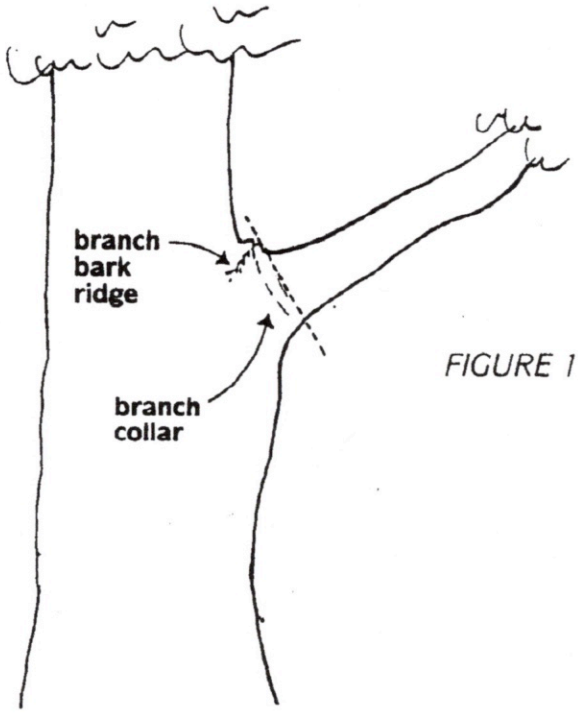


FIGURE 1. When removing a branch, the final cut should be just outside the branch bark ridge and collar.

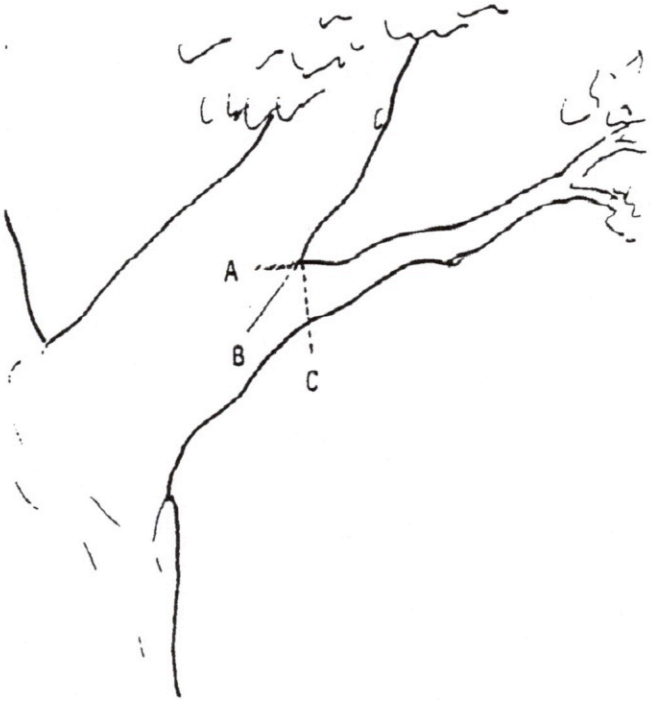


FIGURE 2. In removing a limb without a branch collar, the angle of the final cut to the branch bark ridge should approximate the angle the branch bark ridge forms with the limb. Angle AB should equal Angle BC.

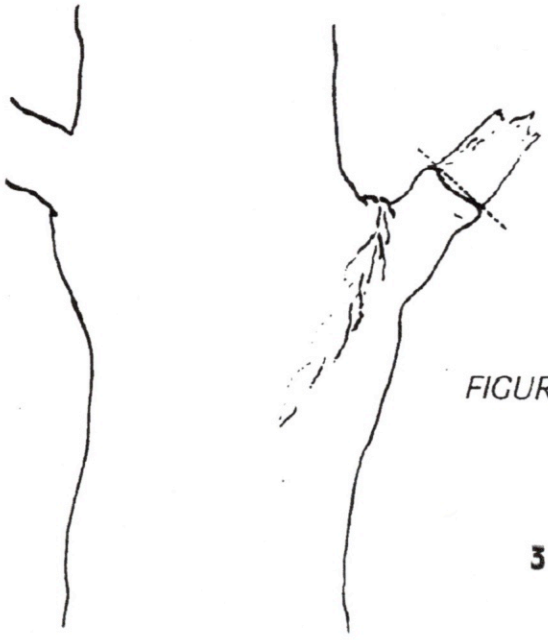


FIGURE 3. When removing a dead branch, cut outside the callus tissue that has begun to form around the branch.

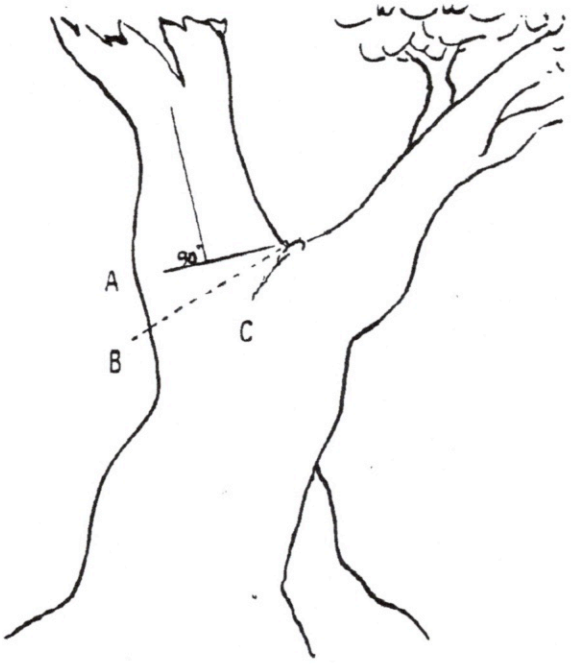


FIGURE 4. *In removing the end of a limb to a large lateral branch, the final cut is made along a line that bisects the angle between the branch bark ridge and a line perpendicular to the limb being removed. Angle AB is equal to Angle BC.*

FIGURE 5. *A tree with limbs tending to be equal-sized, or codominant. Limbs marked B are greater than ¾ the size of the parent limb A. Thin the foliage of branch B more than branch A to slow its growth and develop a stronger branch attachment.*

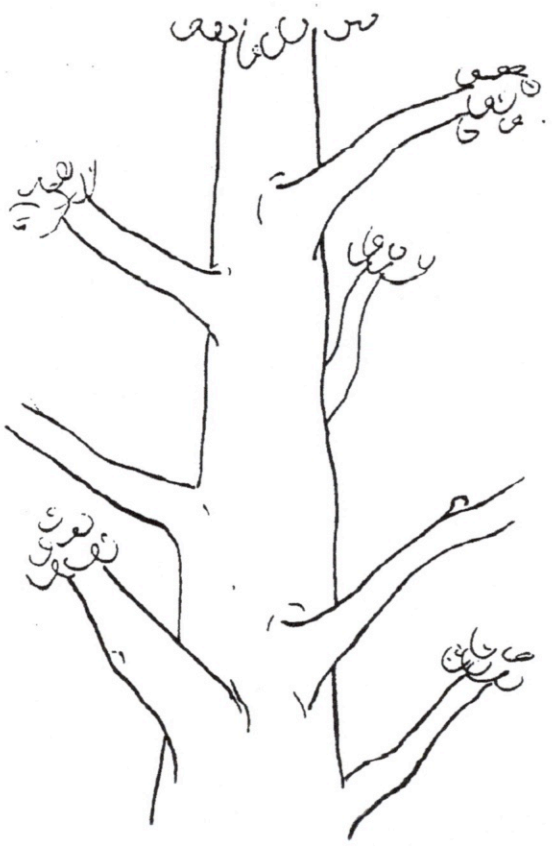


FIGURE 6. *Major branches should be well spaced both along and around the stem.*

II. Types of Pruning — Mature Trees

A. CROWN CLEANING

Crown cleaning or cleaning out is the removal of dead, dying, diseased, crowded, weakly attached, and low-vigor branches and watersprouts from a tree crown.

B. CROWN THINNING

Crown thinning includes crown cleaning and the selective removal of branches to increase light penetration and air movement into the crown. Increased light and air stimulates and maintains interior foliage, which in turn improves branch taper and strength. Thinning reduces the wind-sail effect of the crown and the weight of heavy limbs. Thinning the crown can emphasize the structural beauty of trunk and branches as well as improve the growth of plants beneath the tree by increasing light penetration. When thinning the crown of mature trees, seldom should more than one-third of the live foliage be removed.

At least one-half of the foliage should be on branches that arise in the lower two-thirds of the trees. Likewise, when thinning laterals from a limb, an effort should be made to retain inner lateral branches and leave the same distribution of foliage along the branch. Trees and branches so pruned will have stress more evenly distributed throughout the tree or along a branch.

An effect known as "lion's-tailing" results from pruning out the inside lateral branches. Lion's-tailing, by removing all the inner foliage, displaces the weight to the ends of the branches and may result in sunburned branches, water-sprouts, weakened branch structure and limb breakage.

C. CROWN REDUCTION

Crown reduction is used to reduce the height and/or spread of a tree. Thinning cuts are most effective in maintaining the structural integrity and natural form of a tree and in delaying the time when it will need to be pruned again. The lateral to which a branch or trunk is cut should be at least one-half the diameter of the cut being made.

D. CROWN RESTORATION

Crown restoration can improve the structure and appearance of trees that have been topped or severely pruned using heading cuts. One to three sprouts on main branch stubs should be selected to reform a more natural appearing crown. Selected vigorous sprouts may need to be thinned to a lateral, or even headed, to control length growth in order to ensure adequate attachment for the size of the sprout. Restoration may require several prunings over a number of years.

II. Types of Pruning — Mature Trees *(continued)*

E. CROWN RAISING

Crown raising removes the lower branches of a tree in order to provide clearance for buildings, vehicles, pedestrians, and vistas. It is important that a tree have at least one-half of its foliage on branches that originate in the lower two-thirds of its crown to ensure a well-formed, tapered structure and to uniformly distribute stress within a tree.

When pruning for view, it is preferable to develop "windows" through the foliage of the tree, rather than to severely raise or reduce the crown.

III. Size of Pruning Cuts

Each of the Pruning Techniques (Section I) and Types of Pruning (Section II) can be done to different levels of detail or refinement. The removal of many small branches rather than a few large branches will require more time, but will produce a less-pruned appearance, will force fewer watersprouts and will help to maintain the vitality and structure of the tree. Designating the maximum size (base diameter) that any occasional undesirable branch may be left within the tree crown, such as ½", 1" or 2" branch diameter, will establish the degree of pruning desired.

IV. Climbing Techniques

A. Climbing and pruning practices should not injure the tree except for the pruning cuts.

B. Climbing spurs or gaffs should not be used when pruning a tree, unless the branches are more than throw-line distance apart. In such cases, the spurs should be removed once the climber is tied in.

C. Spurs may be used to reach an injured climber and when removing a tree.

D. Rope injury to thin barked trees from loading out heavy limbs should be avoided by installing a block in the tree to carry the load. This technique may also be used to reduce injury to a crotch from the climber's line.

Appendix C

Preliminary Hydrology Report

PRELIMINARY HYDROLOGY

AND DETENTION REPORT

FOR

MONTE VILLA CARE FACILITY

17090 PEAK AVENUE

CITY OF MORGAN HILL

SANTA CLARA COUNTY

CALIFORNIA

Prepared for:

Huston General Contracting, Inc.
112 Spaulding Street, Unit A
San Anselmo, CA 94960

Prepared by:

Easton McAllister, PE
Talus, Inc.
811 San Ramon Valley Blvd #201
Danville, CA 94526

Overview

The purpose of this memorandum is to provide the analysis of the anticipated impacts by the proposed development on the existing drainage system.

Pre-Development Conditions

The property includes approximately 2 acres of hilly terrain with an existing a senior care facility and associated parking and access drive. The property is bordered by Peak Avenue to the southwest, W Dunne Ave to the southeast, and private properties to the north. A single family residential out-parcel is located along W Dunne Avenue, surrounded by the subject property on three sides. The majority of the site is vacant, with elevations ranging from a maximum of 424 to the northeast, sloping southerly to a low elevation of 372 along West Dunne Avenue. Site drainage follows the terrain with surface flows discharging to the existing storm drain system in West Dunne Avenue.

Post-Development Conditions

The proposed project will reconfigure existing parking to support the existing structure as well as a second building at the corner of Peak Avenue and West Dunne Avenue. New impervious pavement and building area will be collected though an underground storm drain system that will direct runoff to C.3 flow-through treatment planters designed in accordance with the Santa Clara Valley Urban Runoff Pollution Prevention Program. Site drainage will be split in two directions on either side of the existing out-parcel along West Dunne Avenue. Drainage Area 1 will include new improvements along Peak Avenue and after treatment, will be connected directly (without detention) to the existing storm drain system on West Dunne Avenue. Drainage area two will include the existing facility, entry drive and a portion of the new building. Storm waters will be directed to a flow-through treatment planter for treatment prior to discharge to the existing storm drain system on West Dunne Avenue. Detention of additional flows caused by redevelopment of the site will be provided in 8" deep ponding above the flow-through planter.

Hydrology Calculations

Hydrologic calculations are provided for the project site based on the City's Storm Drain Design Standards. The maximum published rainfall intensity of 1.244 in/hr (Tc = 20 min) is used from the City's rainfall intensity Table for a -year storm event. Exhibits and calculation tables are attached.

Rational Method (Pre-Development):

The existing 10-year storm event runoff rate is calculated for the 2-acre site including approximately 0.51 acres of impervious surface and 1.49 acres of pervious surfaces. With a weighted coefficient of 0.45, the existing site runoff is calculated as follows:

- ⇨ **Total Tributary Area: Q = ciA = (0.45)(1.244)(2.00) = 1.13 cfs**

Rational Method (Post-Development Area #1):

The 10-year storm event runoff rate is calculated for the 1.35 sub-area including approximately 0.17 acres of impervious surface and 1.18 acres of pervious surfaces. With a weighted coefficient of 0.38, the future sub-area runoff is calculated as follows:

- ⇨ **Total Tributary Area: Q = ciA = (0.38)(1.244)(1.18) = 0.63 cfs**

Rational Method (Post-Development Area #2):

The 10-year storm event runoff rate is calculated for the 0.65 sub-area including approximately 0.65 acres of impervious surface and less than 0.01 acres of pervious surfaces. With a weighted coefficient of 0.90, the future sub-area runoff is calculated as follows:

- ⇨ **Total Tributary Area: Q = ciA = (0.90)(1.244)(0.65) = 0.72 cfs**

Storm Water Detention

Based on the hydrologic analysis above, the proposed development will increase peak flow rates from the project site. For a 10-year storm event, the calculated additional flow rate is 0.22 cfs. To mitigate the increase in flows, the proposed development has been designed to detain waters above Flow-through planter #2 (IMP #2). Using the Synthetic Unit Hydrograph method, a required detention volume of 397 cu.ft. is calculated. By storing 8-inches of waters above the flow-through planter, a detention volume of 485 cu.ft is provided.

Flood Protection - FEMA

Based on the Flood Insurance Rate Map (FIRM# 06085C0606H) dated May 18, 2009, the project site is situated in Flood Zone X, identified as areas outside the 100-year flood. No processing with FEMA will be required for development on the site.

Findings

Based on the information included in this study, construction of the proposed project is adequately designed to accommodate the 10-year storm event without increasing flows to the existing storm drain system.

Signed,

Easton C. McAllister, PE

Attachments:

Hydrology Exhibits – Pre- and Post-Development Conditions

Rainfall Intensity Table

Hydrology and Detention Calculations

Synthetic Unit Hydrolograph

FEMA Flood Insurance Rate Map Panel 06085C0606H

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

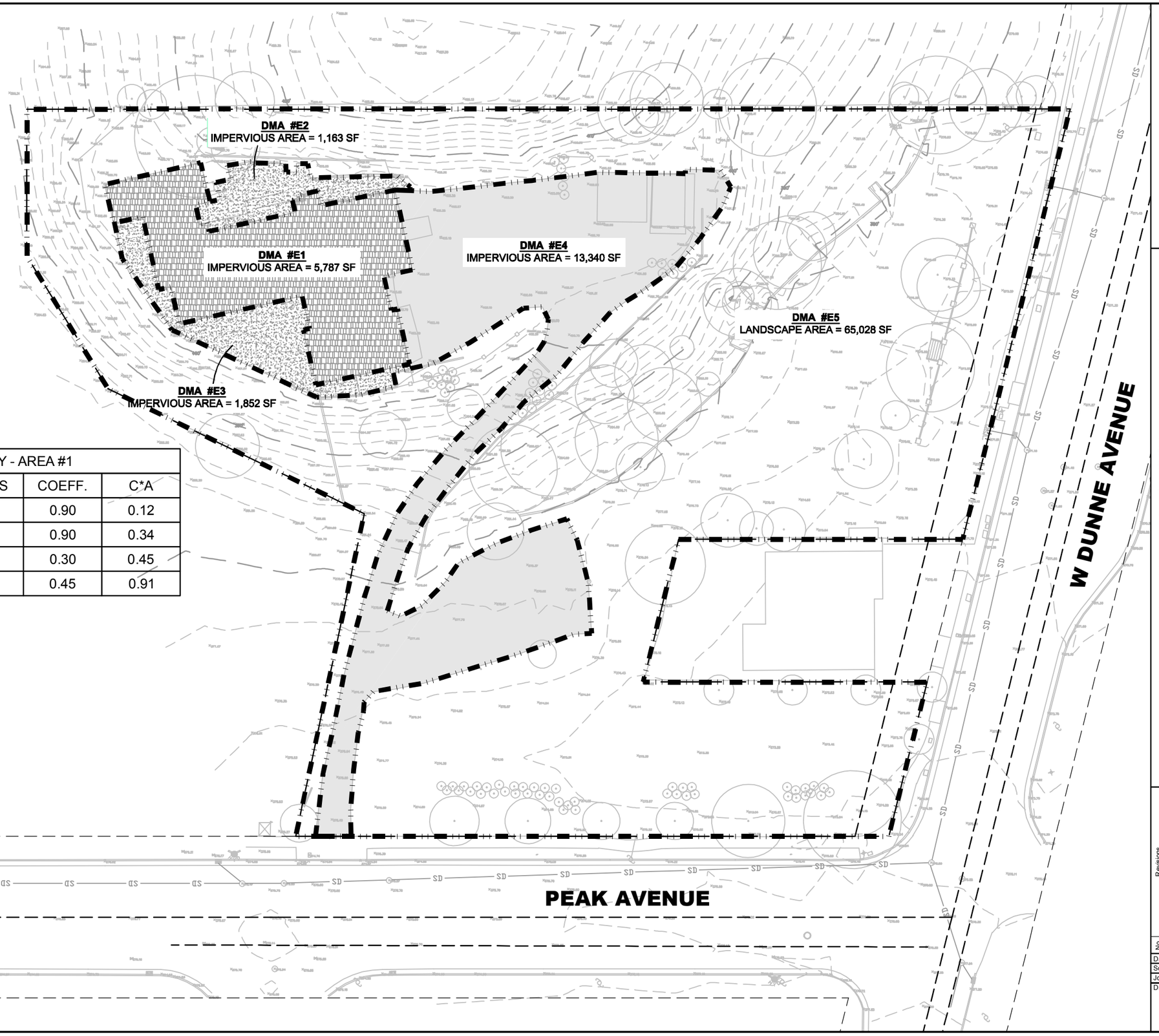
LEGEND:

- BUILDING ROOFS
- ASPHALTIC PAVEMENT
- CONCRETE PAVEMENT
- LANDSCAPE AREA

PRE-DEVELOPMENT HYDROLOGY - AREA #1				
SURFACE	AREA (SF)	ACRES	COEFF.	C*A
BUILDING ROOFS	5,787	0.13	0.90	0.12
IMPERVIOUS PAVEMENT	16,355	0.38	0.90	0.34
LANDSCAPE AREA	65,029	1.49	0.30	0.45
TOTAL	87,171	2.00	0.45	0.91

RATIONAL METHOD Q=ciA (i_{10} = 1.244 in/hr)

PEAK FLOW = (0.45)(1.244)(2.00) = 1.13 CFS



DRAWING NAME: P:\p20265\EXHIBITS\Hydrology\20_1029 20265 Hydro.dwg
PLOT DATE: 10-29-20 PLOTTED BY: Easton

TALUS
ENGINEERING | PLANNING | DEVELOPMENT

PRELIMINARY HYDROLOGY EXHIBITS
17090 PEAK AVENUE - VILLA MONTE CARE FACILITY
PRE-DEVELOPMENT CONDITIONS
CITY OF MORGAN HILL SANTA CLARA COUNTY CALIFORNIA

Revisions

No.

Date	10/29/20
Scale	1" = 40'
Job No.	20265

Drawing Number:

EXIST 1 OF 2

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

LEGEND:

- BUILDING ROOFS
- ASPHALTIC PAVEMENT
- CONCRETE PAVEMENT
- LANDSCAPE AREA

PRE-DEVELOPMENT HYDROLOGY - AREA #1				
SURFACE	AREA (SF)	ACRES	COEFF.	C*A
BUILDING ROOFS	4,835	0.11	0.90	0.10
IMPERVIOUS PAVEMENT	2,580	0.06	0.90	0.05
LANDSCAPE AREA	51,568	1.18	0.30	0.36
TOTAL	58,983	1.35	0.38	0.51

RATIONAL METHOD Q=ciA (i_{10} = 1.244 in/hr)

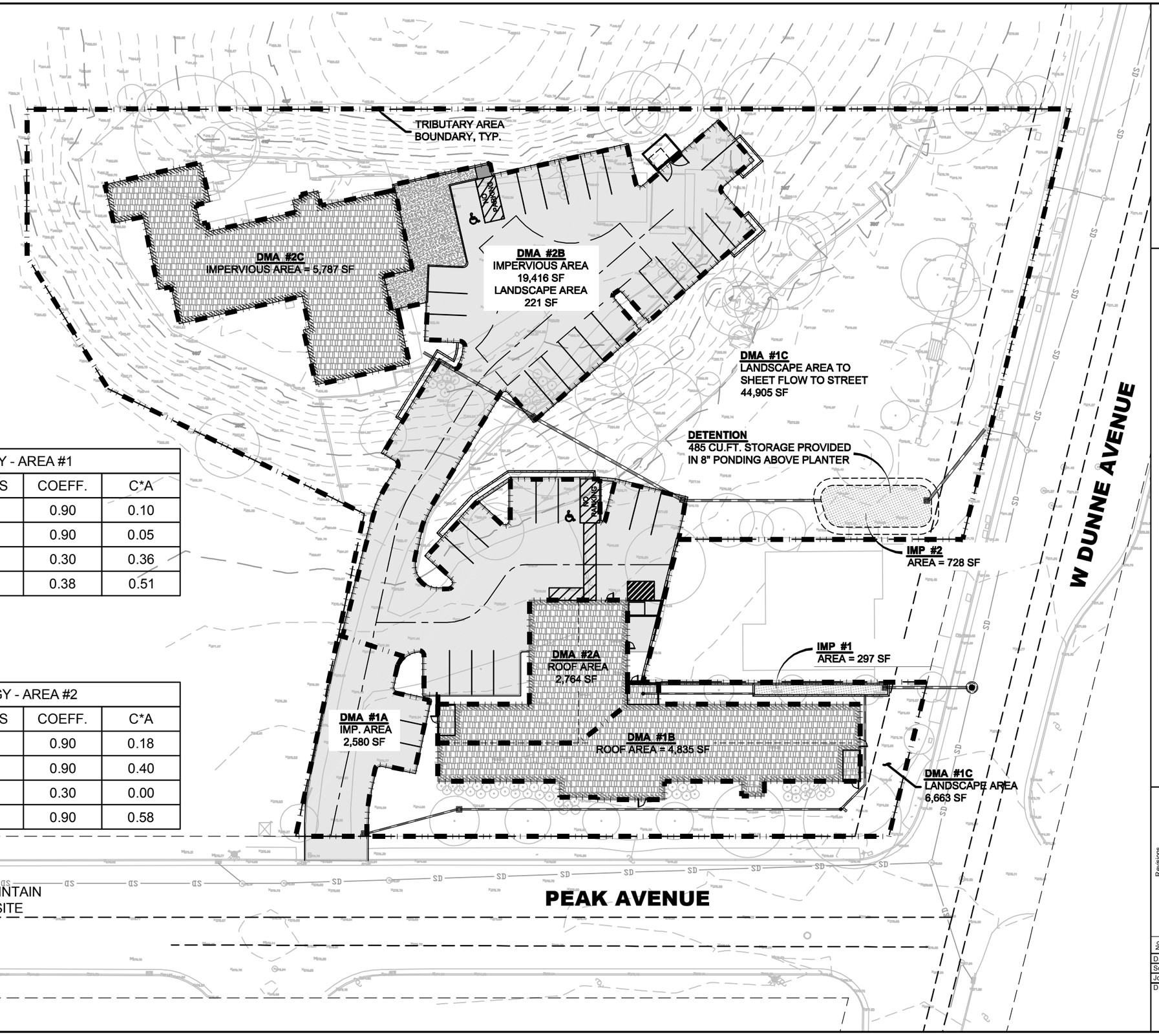
PEAK FLOW = (0.38)(1.244)(1.35) = 0.63 CFS

POST-DEVELOPMENT HYDROLOGY - AREA #2				
SURFACE	AREA (SF)	ACRES	COEFF.	C*A
BUILDING ROOFS	8,551	0.20	0.90	0.18
IMPERVIOUS PAVEMENT	19,416	0.45	0.90	0.40
LANDSCAPE AREA	221	0.01	0.30	0.00
TOTAL	28,188	0.65	0.90	0.58

RATIONAL METHOD Q=ciA (i_{10} = 1.75 in/hr)

PEAK FLOW = (0.90)(1.244)(0.65) = 0.72 CFS

=> FLOW TO BE RESTRICTED TO 0.50 CFS TO MAINTAIN EXISTING FLOW RATES FROM THE PROJECT SITE



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PLOT DATE: 10-29-20 PLOTTED BY: Easton

TALUS
ENGINEERING | PLANNING | DEVELOPMENT

PRELIMINARY HYDROLOGY EXHIBITS
17090 PEAK AVENUE - VILLA MONTE CARE FACILITY
POST-DEVELOPMENT CONDITIONS
CITY OF MORGAN HILL SANTA CLARA COUNTY CALIFORNIA

Revisions

No.	
Date	10/29/20
Scale	1" = 40'
Job No.	20265

Drawing Number:

PROP 2 OF 2

Manning's formula shall be used to determine the relation of design flow, slope, velocity and pipe diameter. The friction factor, "n", shall be 0.013 for concrete pipe.

The underground system shall be designed to handle a 10-year storm.

The streets shall be designed to carry a 100-year storm. The streets should carry this water to a release point where the water can get back into the natural water course of flood control facility. These overland flows should be kept in their original drainage basin if possible.

RAINFALL INTENSITY TABLE							
TC MIN	I_5	I_{10}	I_{100}	TC MIN	I_5	I_{10}	I_{100}
20	0.897	1.244	1.897	**90**	0.495	0.696	1.111
21	0.880	1.221	1.864	**100**	0.475	0.668	1.070
22	0.860	1.195	1.828	**110**	0.458	0.645	1.035
23	0.851	1.183	1.811	**120**	0.442	0.623	1.002
24	0.834	1.159	1.778	**140**	0.416	0.587	0.949
25	0.818	1.138	1.747	**160**	0.394	0.557	0.904
26	0.811	1.127	1.733	**180**	0.376	0.535	0.868
27	0.796	1.108	1.705	**210**	0.354	0.502	0.821
28	0.783	1.089	1.679	**240**	0.336	0.477	0.783
29	0.776	1.081	1.666	**300**	0.308	0.437	0.723
30	0.764	1.064	1.642	**360**	0.286	0.408	0.678
32	0.747	1.040	1.608	**420**	0.269	0.384	0.642
34	0.725	1.011	1.567	**480**	0.256	0.365	0.612
36	0.711	0.991	1.539	**540**	0.244	0.349	0.587
38	0.697	0.973	1.512	**600**	0.234	0.335	0.565
40	0.682	0.952	1.482	**660**	0.225	0.323	0.546
45	0.651	0.910	1.421	**720**	0.218	0.312	0.530
50	0.624	0.873	1.369	**840**	0.205	0.294	0.501
55	0.600	0.841	1.322	**960**	0.194	0.279	0.478
60	0.581	0.814	1.283	**1080**	0.186	0.267	0.459
70	0.546	0.766	1.213	**1200**	0.178	0.256	0.442
80	0.519	0.728	1.158	**1320**	0.171	0.247	0.427

Note: Formulas used for rainfall intensity data on following page.

Monte Villa Care Facility
Hydrology and Detention Calculations
October 29, 2020

TABLE 1 - HYDROLOGY

PRE-DEVELOPMENT	**AREA**		**Runoff**	**c*A**
Description	**(sf)**	**(acres)**	**Coeff.**	**(acres)**
Roof	5,787	0.13	0.90	0.12
Impervious Pavement	16,355	0.38	0.90	0.34
Pervious (Landscape)	65,029	1.49	0.30	0.45
Total	**87,171**	**2.00**	***0.45***	**0.91**
			Q_{10} = (i=1.244)	**1.13**

POST-DEVELOPMENT (AREA #1)	**AREA**		**Runoff**	**c*A**
Description	**(sf)**	**(acres)**	**Coeff.**	**(acres)**
Roof	4,835	0.11	0.90	0.10
Impervious Pavement	2,580	0.06	0.90	0.05
Pervious (Landscape)	51,568	1.18	0.30	0.36
Total	**58,983**	**1.35**	***0.38***	**0.51**
			$Q1_{pd}$ = (i=1.244)	**0.63**

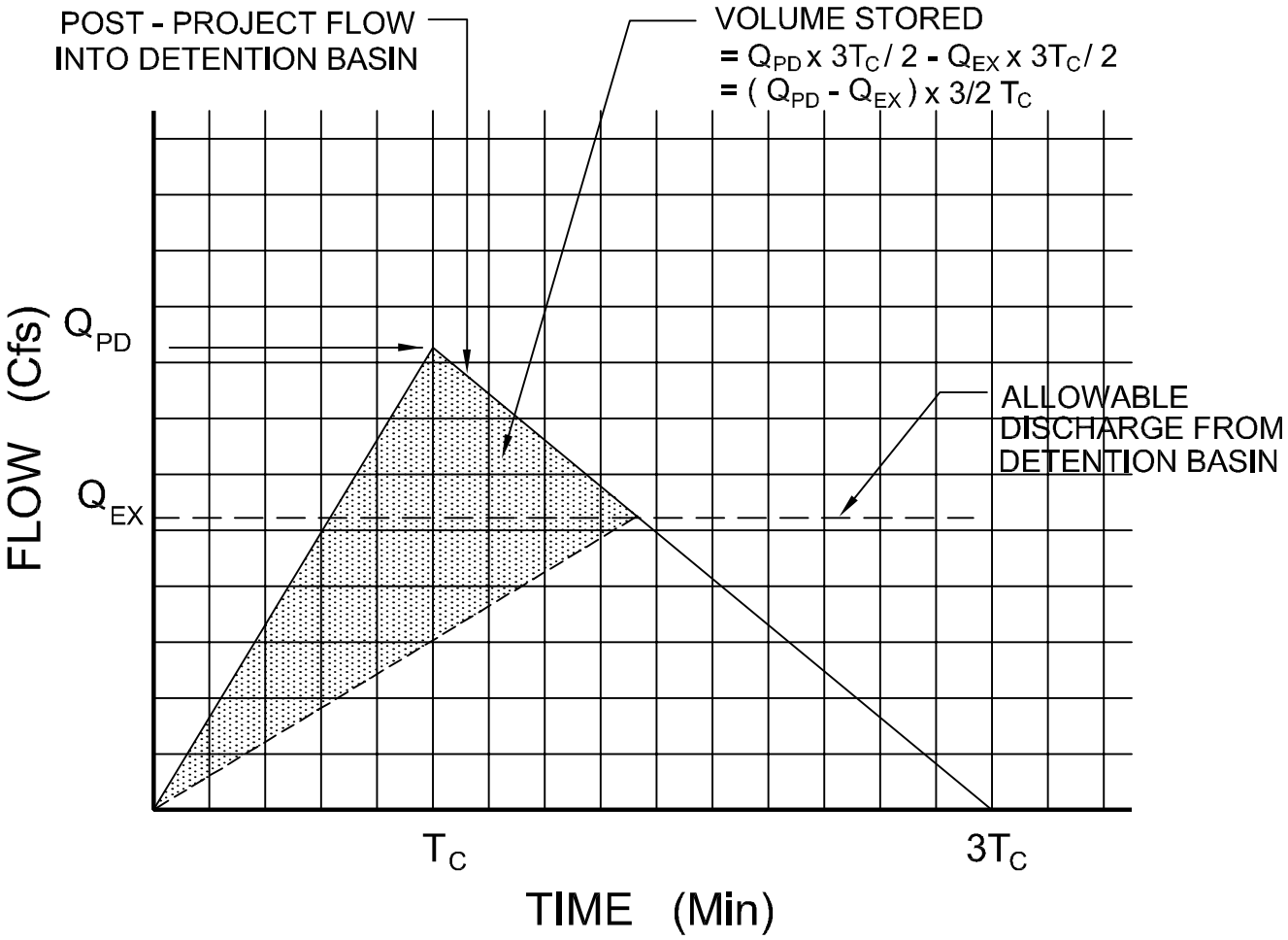
POST-DEVELOPMENT (AREA #2)	**AREA**		**Runoff**	**c*A**
Description	**(sf)**	**(acres)**	**Coeff.**	**(acres)**
Roof	8,551	0.20	0.90	0.18
Impervious Pavement	19,416	0.45	0.90	0.40
Pervious (Landscape)	221	0.01	0.30	0.00
Total	**28,188**	**0.65**	***0.90***	**0.58**
			$Q2_{pd}$ = (i=1.244)	**0.72**
			$Q2_{r}$ = (restricted)*	**0.50**

TABLE 2 - DETENTION SIZING
Unit Hydrograph Equation

Q_{ex} = (10-yr i=1.244)	1.13	cfs	
$Q2_{pd}$ = (unrestricted)	0.72	cfs	
$Q2_{r}$ = (outlet restricted)	0.50	cfs	<= matches Q_{ex}
Q_d ($Q1_{pd}$ - $Q1_{or}$) =	*0.22*	*cfs*	
Tc =	20	min	
Detention = Qd * 3/2Tc	**397**	**cu-ft***	

* 485 cu.ft. storage provided above C.3 planter IMP #2 (8" storage depth)

SYNTHETIC UNIT HYDROGRAPH
FOR ESTIMATING POST-DEVELOPMENT STORMWATER STORAGE



$$Q_{PD} = C_{PD} I A$$

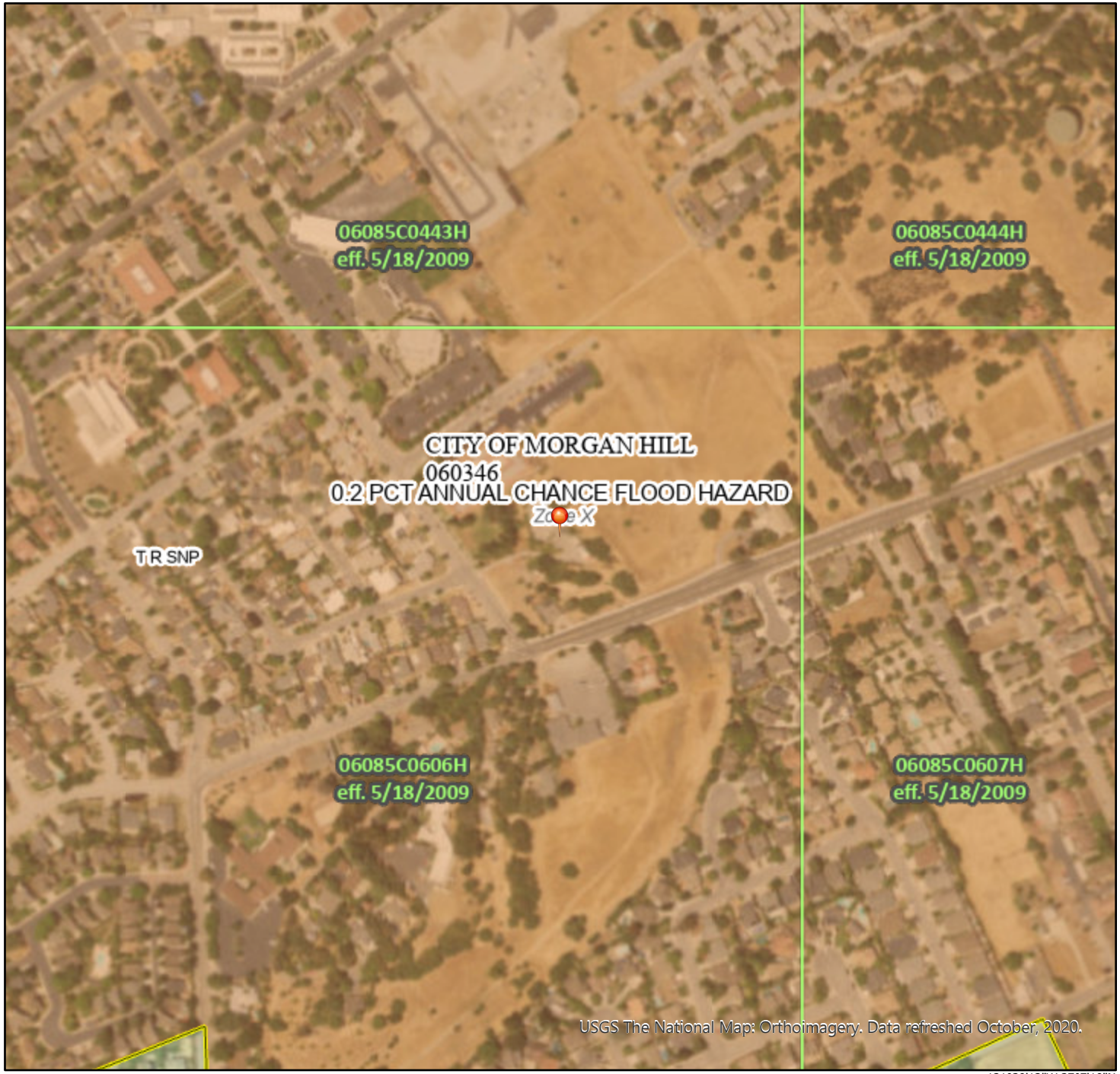
$$Q_{EX} = C_{EX} I A$$

PD = POST - DEVELOPMENT CONDITIONS
EX = EXISTING PRE - DEVELOPMENT CONDITIONS

National Flood Hazard Layer FIRMette

FEMA

121°39'49"W 37°7'39"N



121°39'12"W 37°7'10"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/29/2020 at 9:38 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.