

Draft EIR

Morgan Hill Technology Center Mixed Use Project



May 2020

TABLE OF CONTENTS

Summary	iv
Project Location	iv
Existing Conditions	iv
Project Overview	iv
Summary of Significant Impacts	iv
Section 1.0 Introduction	1
1.1 Purpose of the Environmental Impact Report	1
1.2 EIR Process	1
1.3 Final EIR/Responses to Comments	2
Section 2.0 Project Information and Description	3
2.1 Project Location	3
2.2 Project Description	3
2.3 Project Objectives	21
2.4 Uses of the EIR	23
Section 3.0 Environmental Setting, Impacts, and Mitigation	24
3.1 Agriculture and Forestry Resources	26
3.2 Air Quality	32
3.3 Biological Resources	59
3.4 Cultural Resources	75
3.5 Energy	87
3.6 Greenhouse Gas Emissions	95
3.7 Hazards and Hazardous Materials	102
3.8 Noise	116
3.9 Transportation	144
3.10 Utilities and Service Systems	181
Section 4.0 Growth-Inducing Impacts	193
Section 5.0 Significant and Irreversible Environmental Changes	194
5.1 Use of Nonrenewable Resources	194
5.2 Change in Land Use	194
5.3 Irreversible Damage From Environmental Accidents	194
Section 6.0 Significant and Unavoidable Impacts	195
Section 7.0 Alternatives	197
7.1 Introduction	197

7.2	Significant Impacts of the Project.....	197
7.3	Project Objectives.....	198
7.4	Feasibility of Alternatives.....	199
7.5	Selection of Alternatives.....	199
7.6	Project Alterantives	200
7.7	Environmentally Superior Alternative(s)	222
Section 8.0	References.....	224
Section 9.0	Lead Agency and Consultants.....	228
9.1	Lead Agency.....	228
9.2	Consultants	228

Figures

Figure 2.1-1:	Regional Map	4
Figure 2.1-2:	Vicinity Map	5
Figure 2.1-3:	Aerial Photograph and Surrounding Land Uses.....	6
Figure 2.2-1:	Existing Plus Proposed General Plan Designations	7
Figure 2.2-2:	Project Buildout Site Plan	8
Figure 2.2-3:	Morgan Hill Technology Center Site Plan.....	10
Figure 2.2-4:	Morgan Hill Technology Center Building A Elevations.....	11
Figure 2.2-5:	Morgan Hill Technology Center Building B Elevations.....	12
Figure 2.2-6:	Morgan Hill Technology Center Building C Elevations.....	13
Figure 2.2-7:	Morgan Hill Technology Center Building D Elevations.....	14
Figure 2.2-8:	Morgan Hill Technology Center Building E Elevations	15
Figure 2.2-9:	Morgan Hill Technology Center Building F Elevations	16
Figure 3.3-1:	Existing Trees in Northern/Western Area of Industrial/Commercial Site	63
Figure 3.3-2:	Existing Trees in Southern/Eastern Area of Industrial/Commercial Site.....	64
Figure 3.8-1:	Existing Noise Measurement Locations.....	122
Figure 3.9-1:	Site Location and Study Intersections.....	152

Tables

Table 2.2-1:	Development Summary	17
Table 3.2-1:	Health Effects of Air Pollutants	32
Table 3.2-2:	Ambient Air Quality Standards Violations and Highest Concentrations	38
Table 3.2-3:	BAAQMD Air Quality Significance Thresholds	40
Table 3.2-5:	Operational Period Emissions	48
Table 3.2-6:	Comparison of Project Emissions to Bay Area Air Basin Emissions	51
Table 3.2-7:	Project Community Risk Impacts for the General Light Industrial Component.....	54
Table 3.2-8:	Community Risk Impacts from Project Buildout.....	54
Table 3.2-9:	Impacts from Combined Sources at Off-Site MEI	56
Table 3.2-10:	Community Health Risk Impact to New Project Residences	58
Table 3.3-1:	Tree Resource Inventory	65
Table 3.5-1:	Estimated Annual Energy Use of Proposed Development ¹	91

Table 3.6-1: Annual Project GHG (CO ₂ e) Emissions (2025)	100
Table 3.8-1: Maximum Noise Levels at Adjacent Land Uses	121
Table 3.8-2: Summary of Short-Term Noise Measurements (dBA).....	123
Table 3.8-3: Estimated Noise Levels at Nearby Land Uses from Construction of.....	126
General Light Industrial Buildings A-F, dBA L _{eq}	126
Table 3.8-6: Existing Ambient Maximum Instantaneous Noise Levels	132
Table 3.8-7: Estimated Noise Levels Due to Truck Pass-bys for Existing Noise-Sensitive Receptors	133
Table 3.8-8: Vibration Levels at Nearest Surrounding Building Façades	135
Table 3.8-8: Summary of Roadway Segments with Estimated 2030 Cumulative Noise Level Increases	136
Table 3.8-9: Summary of Roadway Segments with Estimated 2035 Cumulative Noise Level Increases	138
Table 3.9-1: Project Trip Generation Estimates.....	153
Table 3.9-2: Study Intersections Level of Service – Existing Plus Project Conditions	154
Table 3.9-3: Study Intersections Level of Service – Year 2030 Cumulative Plus Project Conditions	163
Table 3.9-4: Study Intersections Level of Service – Year 2035 General Plan Conditions	173
Table 3.10-1: Current On-Site Water Use	183
Table 3.10-2: Project Water Demands.....	188
Table 7.6-1: Project Trip Generation Comparison.....	202
Table 7.6-1: Project Trip Generation Comparison.....	206
Table 7.6-2: Study Intersections Level of Service – Existing Plus Project Conditions (Warehouse Alternative).....	207
Table 7.6-3: Study Intersections Level of Service – Year 2030 Cumulative Plus Project Conditions (Warehouse Alternative).....	212
Table 7.6-4: Study Intersections Level of Service – Year 2035 General Plan Conditions (Warehouse Alternative).....	216
Table 7.6-5: Operation Criteria Air Pollutant Emissions Comparison	220
Table 7.6-6: Annual Project GHG (CO ₂ e) Emissions (2025).....	221
Table 7.7-1: Comparison of Impacts from Alternatives to the Proposed Project	223

Appendices

Appendix A: Notice of Preparation and Comment Letters
Appendix B: Initial Study
Appendix C: Air Quality and Greenhouse Gas Assessment
Appendix D: Tree Resource Evaluation/Construction Impact Assessment
Appendix E: Historic Evaluation Report
Appendix F1: Phase I Environmental Site Assessment
Appendix F2: Phase II Environmental Investigation
Appendix G: Noise and Vibration Assessment
Appendix H: Traffic Impact Analysis
Appendix I: Water Supply Assessment and Memorandum

SUMMARY

PROJECT LOCATION

The approximately 89-acre site is located west of Mission View Drive, south of Cochrane Road, east of US 101, and north of Half Road (APN: 728-30-001 through -004; 728-30-006, -008, -009; 728-31-014 through 016).

EXISTING CONDITIONS

The approximately 89-acre project site is comprised of 10 contiguous parcels in a mixed urban and rural setting. The project site is predominantly covered by fallowed agricultural fields, non-native grassland, orchards, and a tree farm. A single-family home and storage structures are located on the southern portion of the site. A single-story building is located within the tree nursery on the northern portion of the site, at the Cochrane Road frontage.

PROJECT OVERVIEW

The project proposes a mix of industrial, commercial, and residential uses on the 89-acre site. The industrial and commercial portions of the project would be located on approximately 61 acres on the western half of the site. The project would develop 1.04 million square feet of light industrial uses contained in six buildings on a 57.8-acre area of the site, 45,000 square feet of industrial office in one building situated between the industrial buildings on a 2.31-acre parcel, and 50,000 square feet of retail/commercial on a 2.92-acre parcel fronting on Cochrane Road. The residential portion of the project would consist of approximately 319 residential units on 28 acres in the eastern and southern portion of the site. DePaul Drive would be widened and improved to provide a minimum width of 72 feet and extended south from the existing reach to the right-of-way of Half Road.

SUMMARY OF SIGNIFICANT IMPACTS

The following table summarizes the significant impacts of the proposed project and mitigation measures proposed to reduce those impacts to a less than significant level. A significant impact is a substantial, or potentially substantial, adverse change to the environment. Impacts that are less than significant are not included in this summary but can be found in the text of this EIR.

Significant Impact	Mitigation Measures
<i>Agricultural Resources</i>	
Impact AG-1: The project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. (Significant and Unavoidable Impact)	MM AG-1.1: A minimum of one acre of agricultural land shall be preserved for each acre of agricultural land changed to a non-agricultural use. The required acreage of area to be protected through an agricultural conservation easement or agricultural preservation in-lieu fee will depend on the measurement of affected area. The entire project site will be used for calculating the required mitigation.

MM AG-1.2: Conversion of agricultural land will require off-setting acquisition and/or dedication of agricultural conservation easements over approved agricultural mitigation land, or payment to the City of the agricultural preservation in-lieu fee, to support agricultural preservation activities. Developer acquisition/dedication of easements will require the project to pay an agricultural lands preservation program stewardship fee to cover administrative costs and ongoing management and monitoring of the easements.

MM AG-1.3: Agricultural mitigation fees shall be required prior to the acceptance of a final parcel of subdivision map or prior to issuance of building or grading permits. Easement dedication is required prior to issuance of building permits.

Air Quality

Impact AIR-2: The project would 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. **(Significant and Unavoidable Impact)**

MM AIR-2.1:

Dust (PM₁₀) Control Measures:

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 miles per hour (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 mechanic and determined to be running in proper condition prior to operation.
 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.
 9. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.
 10. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph and visible dust extends beyond site boundaries.
 11. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity.
 12. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
-

13. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
14. Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) Site accesses to a distance of 100 feet from public paved roads shall be treated with a six to 12-inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site.
15. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
16. Minimizing the idling time of diesel-powered construction equipment to two minutes.

MM AIR-2.2:

Exhaust Emission (NO_x and PM) Control Measures:

The project shall develop a plan demonstrating that the off-road equipment (more than 25 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) and hauling truck traffic would achieve a 20-percent NO_x reduction and overall 60-percent PM (particulate matter) exhaust reduction. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. The following are feasible methods that shall be used unless an alternative plan that achieves this requirement is submitted and approved by the City:

1. Construction equipment larger than 25 horsepower used at the site for more than two

continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards (Tier 4 interim or Tier 4 final), if feasible, otherwise,

- a. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve an 85 percent reduction in particulate matter exhaust; alternatively (or in combination); or
 - b. Use of electric or alternatively fueled equipment with lower NO_x emissions that meet the NO_x and PM reduction requirements above.
 - c. For exceptions, a waiver to use other equipment for specialized purposes would have to be obtained from the City after review of evidence that use of such equipment meeting the above mitigation requirements is not feasible.
2. Diesel engines, whether for off-road equipment or on-road vehicles, shall not be left idling for more than 2 minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). The construction sites shall have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit.
 3. Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment, such as generators.

MM AIR-2.3:

- The project applicant shall implement a Transportation Demand Management (TDM) Plan that would reduce project-generated traffic trips by five percent. Examples of TDM measures include, but are not limited to, parking pricing strategies; parking maximums; mandated parking spaces for car-sharing programs; the provision of transit passes in residential, commercial and office developments; charging stations for electric vehicles; bicycle lockers or racks; teleworking policies; bicycling improvements; and more. Implementation of a TDM Plan would reduce ROG mobile emissions by approximately 0.05 to 0.1 tons per year or approximately one pound per day.
- The project shall use low volatile organic compound or VOC (i.e., ROG) coatings, that are below current BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings), for at least 50 percent of all nonresidential interior and exterior paints. This includes all architectural coatings applied during both construction and reapplications throughout the project's operational lifetime. At least 50 percent of coatings applied must meet a "super-compliant" VOC standard of less than 10 grams of VOC per liter of paint. For reapplication of coatings during the project's operational lifetime, the Declaration of Covenants, Conditions, and Restrictions shall contain a stipulation for low VOC coatings to be used. This mitigation would reduce ROG emissions by 0.2 to 0.4 tons per year or one to two pounds per day.

MM AIR-2.4:

- **Electrify Loading Docks.** Require the electrification of all loading docks to facilitate plug-in capability and encourage or require trucks to utilize grid power in order to deliver goods.

- **Limit Idling Times** Prohibit trucks from idling for more than two minutes or prohibit idling altogether. Prohibit off-site queuing and idling of trucks.
- **Truck Routes.** Establish appropriate truck routes that avoid trucks transiting through residential areas in accordance with General Plan Policy *NRE-11.4*.
- **Transportation Demand Management (TDM).** Develop TDM Programs to address General Plan Policy *NRE-15.10*. Examples include, but are not limited to, parking pricing strategies; parking maximums; mandated parking spaces for car-sharing programs; the provision of transit passes in residential, commercial and office developments; charging stations for electric vehicles; bicycle lockers or racks; teleworking policies; bicycling improvements; and more.

Biological Resources

Impact BIO-1: The project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. **(Less than Significant Impact with Mitigation Incorporated)**

MM BIO-1.1: Construction shall be scheduled to avoid the nesting season. If construction can be scheduled to occur between September 1st and January 31st (inclusive) to avoid the raptor nesting season, no impacts will be expected. If construction will take place between February 1st and August 31st, then pre-construction surveys for nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. Performance of the required surveys for construction occurring between February 1st and August 31st will ensure that impacts to nesting raptors are reduced to less than significant. Surveys will be completed within 30 days of the on-set of site clearing or construction activities. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, buildings) onsite trees as well as all trees within 250 feet of the site for nests.

MM BIO-1.2: If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a disturbance-free buffer zone to be established around the nest (typically 250 feet for raptors and 50-100 feet for other species) that will remain off limits to construction until the nesting season is over, to ensure that no nests of species protected by the Migratory Bird Treaty Act and California Fish and Wildlife Code will be disturbed during project implementation. A report indicating the result of the survey and any designated buffer zones shall be submitted to the satisfaction of the Director of Community and Economic Development prior to issuance of a grading permit.

Impact BIO-5: The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **(Less than Significant Impact with Mitigation Incorporated)**

MM BIO-5.1: The trees which would be removed by the industrial portion of the project shall be removed and replaced in accordance with the requirements below.

- Compensation for tree removal required in order to complete the project will include:
 - Preservation and protection of Trees #124, 125 and Tree Group #128
 - Implementation of Special Treatments to be defined by the Project Arborist once grade stakes are placed
 - Trees shall be planted as a component of the planned landscape during the issuance of tree removal permits for the project. All replacement trees shall meet the requirements described below.
- Replacement tree nursery stock selected for dominant species shall be standard (single trunk).
- Trees planted should be well formed without co-dominant, poorly attached stems. Trees shall be disease free and absent of swirling or girdling roots.
- Qualified professionals adhering to the following guidelines shall plant the replacement trees:
 - Prepare the planting site by excavating three times the width and two inches less than the exact depth of the nursery container.

-
- Prune any visible matted or circling roots to remove or straighten them. Cut the root ball vertically on opposite sides at least half the distance to the trunk.
 - Free roots from the root ball breaking away some of the soil to provide better contact between the root ball and the backfill soil.
 - Backfill with native soil.
 - After backfilling, a two- to four-inch layer of tree chip mulch should be applied to the soil layer. Chips should not be applied within 12 inches of the trunk.
 - Stakes for support should be driven on opposite sides of the root ball and driven into the soil. The tree can be secured to the stakes using “Arbortape” or by using the “ReadyStake” system.
 - Supplemental irrigation will be provided to the new trees by means of a temporary “drip” emitter system for a period of two years. This system shall be designed, installed, and maintained by a qualified professional to maintain appropriate moisture levels.
 - To ensure the survivability and proper growth of the replacement trees, success criteria will be defined to meet a 100 percent survival rate and implemented as follows.
 - A qualified professional will monitor the newly planted trees at one-month intervals for the first year of growth and every three months thereafter for an additional four-year period.
 - Tree health and growth rates will be assessed.
 - Trees suffering poor growth rates or declining health will be identified.
 - Invigoration treatments will be provided.
 - Dead trees or trees in an irreversible state of decline will be replaced
 - At the end of the five-year period the status of the new plantings will be assessed to make certain that success criteria have been met and all replacement trees planted are performing well.
-

MM BIO-5.2: The proposed future residential and industrial office ('Not a Part' parcel) developments shall implement the following measures at the time of a specific development proposal for these areas of the site:

- The approximately 2.31-acre 'Not a Part' parcel and the approximately 28-acre portion of the site proposed for future residential development shall be surveyed for trees by a licensed arborist. Tree surveys shall identify the number of trees which meet the City's definition of Ordinance-sized trees and the number of trees required to be removed from the site due to construction or operation of the project. All removed trees shall be replaced in accordance with the City's Municipal Code 12.32 and the recommendations of the tree survey.

MM BIO-5.3: The following measures shall apply to trees designated for preservation within the proposed commercial/industrial area of the project.

- Tree Preservation Structures shall be constructed of the following materials as field specified by the Project Arborist.
 - Chain link, 72 inches in height secured to metal stakes driven at least 18 inches into the soil.
 - Temporary orange snow fencing attached to "T" posts driven into the ground
 - Silt fencing
 - Rice straw bales

Tree Preservation Structure locations are documented in the tree resource evaluation in Appendix B.

- Monitoring of the project will be the responsibility of the Project Arborist. The City's Community Development Director shall verify that the Project Arborist has been retained for perform monitoring of project construction activities prior to issuance of grading and building permits for the project. The Project Arborist will conduct site inspections at the following intervals:

-
- Following on-site placement of grade stakes.
 - During tree removal operations.
 - During preconstruction root severance.
 - After Tree Preservation fencing locations have been staked.
 - Following Tree Protection fencing installation and prior to the commencement of grading.
 - During all grading activities within Critical Root Zones.
 - As necessary during the grading activities to ensure compliance with all conditions of project approval.

MM BIO-5.4: The proposed future residential and industrial office ('Not a Part' parcel) developments shall implement the following measures at the time of a specific development proposal for these areas of the project site:

- If the tree survey performed in accordance with MM BIO-5.2 indicates it is appropriate to designate trees for protection based on the extent of site development and/or the trees identified on the site, the project shall adhere to the tree protection measures (if any) set forth in the tree survey.
-

Cultural Resources

Impact CUL-2: The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. **(Less than Significant Impact with Mitigation Incorporated)**

MM CUL-2.1:

(a) The project applicant shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources including prehistoric Native American burials. Any archaeological site information supplied to the Contractor Foreman or authorized representative shall be considered confidential.

(b) The project applicant shall retain a Professional Archaeologist to develop an ALERT sheet outlining the potential for the discovery of unexpected archaeological resources and protocols to deal with a discovery. The Professional Archaeologist shall provide the Contractor's construction crew "toolbox" sensitivity training to present the ALERT sheet and protocols to supervisors, foreman, project managers,

and non-supervisory contractor personnel. The Contractor is responsible for ensuring that all workers requiring training are in attendance.

(c) The project applicant shall retain a Professional Archaeologist on an “on-call” basis during ground-disturbing construction to review, identify and evaluate cultural resources that may be inadvertently exposed during construction. The Professional Archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under CEQA.

(d) If the Professional Archaeologist determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource under CEQA, he/she shall notify the project proponent and other appropriate parties of the evaluation and recommend mitigation measures to mitigate to a less than significant impact in accordance with California Public Resources Code Section 15064.5. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing and data recovery among other options. The completion of a formal *Archaeological Monitoring Plan* (AMP) and/or *Archaeological Treatment Plan* (ATP) that may include data recovery may be recommended by the Professional Archaeologist if significant archaeological deposits are exposed during ground disturbing construction. Development and implementation of the AMP and ATP and treatment of significant cultural resources will be determined by the project proponent in consultation with any regulatory agencies.

Impact CUL-3: The project would not disturb any human remains, including those interred outside of dedicated cemeteries. **(Less than Significant Impact with Mitigation Incorporated)**

MM CUL-3: In the event of the unintentional discovery of undocumented human remains or significant historic or archaeological materials during construction, the following policies and procedures for treatment and disposition measures shall be implemented:

- If human remains are encountered, they shall be treated with dignity and respect as due to them.

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.

- Remains shall not be held by human hands. Surgical gloves shall be worn if remains need to be handled.
 - Surgical mask shall also be worn to prevent exposure to pathogens that may be associated with the remains.
- 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. Ground-disturbing project activities may continue in other areas that are outside the discovery location.
- 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, or if on-site at the time of discovery, by the Monitoring Archaeologist (typically 25 to 50 foot buffer for a single burial or archaeological find).
- The discovery location shall be secured as directed by the City if considered prudent to avoid further disturbances.
- The Contractor Foreman or authorized representative, or party who made the discovery 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
 - The Contractor's Point(s) of Contact
 - The Coroner of the County of Santa Clara (if human remains found)

-
- The Native American Heritage Commission (NAHC) in Sacramento
 - The Amah Mutsun Tribal Band
- The Coroner will have two working days to examine the human remains after being notified of the discovery. If the remains are Native American, the Coroner has 24 hours to notify the NAHC. The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD) from the Amah Mutsun Tribal Band. (Note: NAHC policy holds that the Native American Monitor will not be designated the MLD.)
 - Within 24 hours of their notification by the NAHC, the MLD will be granted permission to inspect the discovery site if they so choose.
 - Within 24 hours of their notification by the NAHC, the MLD may recommend to the City's Community Development 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 Amah Mutsun Tribal Band may be considered and carried out.
 - 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.

Greenhouse Gas Emissions

Impact GHG-1: The project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. **(Less than**

MM GHG-1: Develop a GHG reduction plan to reduce GHG emissions in the build-out year by 4,499 MT CO₂e/year. The following GHG reduction measures should be considered to further reduce

Significant Impact with Mitigation Incorporated)

GHG emissions from operation of the project and the service population efficiency metric such that the metric would be below the significance threshold. Elements of this reduction plan may include, but would not be limited to, the following:

1. Implementation of mitigation measure MM AIR-2.3 which includes the development and implementation of a transportation demand management (TDM) program to reduce mobile GHG emissions.
2. Installation of solar power systems or other renewable electric generating systems that provide electricity to power on-site equipment and possibly provide excess electric power.
3. Provide infrastructure for electric vehicle charging in for industrial and commercial parking areas and in residential units (i.e., provide 220 VAC power).
4. Increase water conservation above State average conditions for residential uses by installing low flow water utilities and irrigation.
5. Purchase verifiable carbon emission offsets.

Hazards and Hazardous Materials

Impact HAZ-2: The project, with incorporated of identified mitigation, would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. **(Less than Significant Impact with Mitigation Incorporated)**

MM HAZ-2.1: Prior to the issuance of grading permits, the analytical results of prior soil samples shall be compared against the most recent (2019) RWQCB screening levels by a certified environmental professional to determine if contaminants from previous agricultural operations occur at concentrations above established construction worker safety and environmental screening levels. The result of the analysis shall be provided to the Principal Planner of the City of Morgan Hill Development Services Department for review.

MM HAZ-2.2: If contaminated soils are determined to be present in concentrations above established regulatory environmental screening levels, the project applicant(s) responsible for the area of the site found to be contaminated shall enter into the Santa Clara County Department of Environmental Health's (SCCDEH) Voluntary Cleanup Program (VCP), or equivalent, to formalize regulatory oversight of the mitigation of contaminated soil to ensure the site is safe for construction workers and the public after development. The project applicant responsible for the contaminated area of the site must remove contaminated soil to levels acceptable to the SCCDEH (or equivalent oversight agency). The SCCDEH (or equivalent oversight agency) may also approve leaving in-place some of the contaminated soil if the contaminated soil will be buried under hardscape and/or several feet of clean soil and not at risk of being encountered by future site users.

A Removal Action Plan, Soil Mitigation Plan or other similarly titled report describing the remediation must be prepared and implemented to document the removal and /or capping of contaminated soil. A copy of any reports prepared shall be submitted to the Principal Planner of the City of Morgan Hill Development Services Department. All work and reports produced shall be performed under the regulatory oversight and approval of the SCCDEH (or equivalent oversight agency).

MM HAZ-2.3: The project applicant shall prepare a Site Management Plan (SMP) prior to issuance of any grading permits to reduce or eliminate exposure risk to human health and the environment, specifically, potential risks associated with the presence of organochlorine pesticides and pesticide-based metals. The SMP shall include, but is not limited to, the following elements to mitigate potential risks associated with environmental conditions:

- Procedures for transporting and disposing the waste material generated during removal

activities, if such transport and disposal is necessary

- Procedures for stockpiling soil on-site if such stockpiling is necessary
- Provisions for collecting soil samples to prior to grading activities
- Provisions for confirmation soil sampling as appropriate to obtain a “No Further Action” letter (or equivalent) from the state and/or local agency assuming oversight for the site
- Procedures to ensure that fill and cap materials are verified as clean truck routes
- Staging and loading procedures and record keeping requirements

The SMP shall reference the Storm Water Pollution Prevention Plan (SWPPP) required for the project in accordance with the Construction General Permit Order issued by the California State Water Resources Control Board. The SMP shall be submitted to the Santa Clara County Department of Environmental Health (SCCDEH), or equivalent regulatory agency, for review and approval. Copies of the approved SMP shall be provided to the City’s Development Services Department prior to issuance of any grading permits.

MM HAZ-2.4: All contractors and subcontractors at the project site shall develop a health and safety plan (HSP) specific to their scope of work and based upon the known environmental conditions for the site. Each Health and Safety plan shall be implemented under the direction of a Site Safety and Health Officer. The Health and Safety Plan shall include, but not limited to, the following elements, as applicable:

- Provisions for personal protection and monitoring exposure to construction workers
- Procedures to be undertaken in the event that contamination is identified above action levels or previously unknown contamination is discovered
- Procedures for the safe storage, stockpiling, and disposal of contaminated soils
- Provisions for the on-site management and/or treatment of contaminated groundwater during extraction or dewatering activities

-
- Emergency procedures and responsible personnel.

The HSP shall be submitted to the Santa Clara County Department of Environmental Health (SCCDEH), or equivalent regulatory agency, for review and approval. Copies of the approved HSP shall be provided to the City's Development Services Department prior to issuance of any grading permits.

MM HAZ-2.5: In conformance with State and local laws, a visual inspection/pre-demolition survey, and possible sampling, shall be conducted prior to the demolition of on-site building(s) to determine the presence of ACMs and/or lead-based paint.

During demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA Lead in Title 8, California Code of Regulations (CCR), Section 1532.1, including employee training, employee air monitoring, and dust control. Any debris or soil containing lead-based paint or coatings shall be disposed of at landfills that meet acceptance criteria for the type of lead being disposed.

All potentially friable asbestos containing materials (ACMs) shall be removed in accordance with National Emission Standards for Air Pollution (NESHAP) guidelines prior to demolition or renovation activities that may disturb ACMs. All demolition activities shall be undertaken in accordance with Cal/OSHA standards contained in Title 8, CCR, Section 1529, to protect workers from asbestos exposure.

A registered asbestos abatement contractor shall be retained to remove and dispose of ACMs identified in the asbestos survey performed for the site in accordance with the standards stated above.

Materials containing more than one-percent asbestos are also subject to Bay Area Air Quality Management District (BAAQMD) regulations.

Removal of materials containing more than one-percent asbestos shall be completed in accordance with BAAQMD requirements and notifications.

Based on Cal/OSHA rules and regulations, the following conditions are required to limit impacts to construction workers.

Prior to commencement of demolition activities, a building survey, including sampling and testing, shall be completed to identify and quantify building materials containing lead-based paint.

During demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA Lead in Construction Standard, Title 8, CCR, Section 1532.1, including employee training, employee air monitoring and dust control.

Any debris or soil containing lead-based paint or coatings shall be disposed of at landfills that meet acceptance criteria for the type of waste being disposed.

MM HAZ-2.6: In accordance with BAAQMD regulations, an Asbestos Dust Mitigation Plan (ADMP) will be prepared for BAAQMD review and approved prior to initiating the grading activities. The ADMP will include an air monitoring plan to be implemented when handling the stockpiled serpentine rock material. The project's construction plans specify the onsite burial of this material for encapsulation beneath permanent site improvements or at depths not to be encountered by future construction activities. The final deposition of the serpentine rock material will be documented and recorded with BAAQMD. Specially trained and state-certified workers will perform and monitor all construction activities involving this material.

Noise

Impact NOI-1: The project would not result in generation of a substantial

MM NOI-1.1: The individual buildings included in the proposed project shall be reviewed once design

temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. **(Less than Significant Impact with Mitigation Incorporated)**

details are available to ensure that ambient noise environment at noise-sensitive receptors on- and off-site would not be exceeded by mechanical equipment noise. Design planning should take into account the ambient noise environment when selecting equipment for the proposed buildings and utilize site planning to locate equipment in less noise-sensitive areas. Other noise controls could include, but shall not be limited to, fan silencers, enclosures, screen walls, and interior wall treatments. A qualified acoustical consultant shall be retained to review mechanical equipment systems during final design of the proposed project. The consultant shall review selected equipment and determine specific noise reduction measures necessary to reduce noise to comply with the City's noise level requirements.

MM NOI-1.2: Truck entrance driveways along DePaul Drive would potentially result in a future noise level exceedance over the City's 60 dBA L_{dn} threshold by seven dBA at future on-site residences. Trucks shall be rerouted along the western side of the industrial buildings, adjacent to US 101, to avoid increased heavy truck pass-by noise along the future DePaul Drive extension. Implementing this western access roadway for truck deliveries would reduce the impact to future on-site residences to a less than significant level.

MM NOI-1.3: If a western access driveway is not feasible, pursuant to MM NOI-1.2, an alternative to reduce exterior noise levels at future on-site residences is to construct a sound wall or a specially-designed barrier (along the eastern side of DePaul Drive) capable of reducing noise levels by up to seven dBA. The sound wall or specially-designed barrier would need to break the line-of-sight from the outdoor use areas to the heavy truck noise sources. An eight-foot sound wall or specially-designed fence would be required. The sound wall shall be solid and continuous from grade to top, with no cracks or gaps. This barrier shall consist of a minimum surface density of three pounds per square foot (e.g., one-inch thick marine-grade plywood, one half-inch laminated glass, or concrete masonry units (CMU)).

MM NOI-1.4: Another alternative to the western access roadway would be to increase the setback of the residential property lines, a combination of increased setbacks and sound walls, etc. The final recommendations shall be confirmed when detailed site plans for the residential and industrial/warehouse developments are available.

Transportation

Impact TRN-1: The project would conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities. **(Significant and Unavoidable Impact)**

MM TRN-1.1: The project applicant shall add an exclusive northbound left-turn lane and a separate eastbound right-turn lane at the intersection of Cochrane Road and DePaul Drive. The addition of the northbound left-turn lane will require a signal modification (with split-phasing on the north and south approaches) and widening of the south approach (DePaul Drive) of the intersection by removing and reconstructing the curb and gutter along the project's frontage. The eastbound right-turn lane will require striping of the lane to the right of the existing bicycle lane along Cochrane Road. Implementation of this improvement would improve the intersection's level of service to LOS C during the PM peak hour under existing plus project conditions. **(Less Than Significant Impact with Mitigation Incorporated)**

MM TRN-1.2: The project applicant shall add a second northbound left-turn lane on Mission View Drive and a cycle length adjustment at the Cochrane Road and Mission View Drive intersection. The addition of the second northbound left-turn lane will require lane striping and signal modification but will fit within the existing curb-to-curb pavement width on Mission View Drive. Implementation of this improvement would improve the intersection's level of service to LOS B during the AM peak hour under existing plus project conditions. **(Less Than Significant Impact with Mitigation Incorporated)**

MM TRN-1.3: The project applicant shall install a traffic signal at the Mission View Drive and Half Road intersection. Implementation of a traffic signal at this intersection would improve the level of service

	<p>to LOS B during both peak hours under existing plus project conditions.</p> <p>The eastern portion of Mission View Drive and Half Road intersection is located in the unincorporated area of Santa Clara County and is outside of the City's jurisdiction. Therefore, implementation of the above improvements will require County approval. Given this intersection is not within the City's jurisdiction and there is no current agreement with the County to implement the above mitigation, the timing of implementation of these improvements is outside of the City's control. Therefore, it is not guaranteed that these improvements would be implemented. As a result, the impact to this intersection would be significant and unavoidable under existing plus project conditions. (Significant and Unavoidable Impact)</p>
Impacts to Freeway Segments (Significant and Unavoidable)	<p>The addition of project traffic would result in a significant and unavoidable impact to 10 freeway segments under existing plus project conditions. The project would require freeway widening to construct additional through lanes, thereby increasing freeway capacity. Since it is not feasible for an individual development to bear responsibility for implementing such extensive transportation system improvements due to constraints in acquisition and cost of right-of-way, and no comprehensive project to add through lanes has been developed by Caltrans or VTA for individual projects to contribute to, the project would result in a significant and unavoidable deficiencies at these freeway segments.</p>
Impact TRN-C: The project, with identified improvements, would not result in a cumulatively considerable contribution to a significant transportation impact. (Significant and Unavoidable Impact)	<p>MM TRN-C-1.1: <i>Cochrane Road and DePaul Drive.</i> The project applicant shall implement MM TRN-1.1 (an exclusive northbound left-turn lane and a separate eastbound right-turn lane at the intersection of DePaul Drive and Cochrane Road) which would improve this intersection's level of service to LOS D during the PM peak hour under Year 2030 cumulative plus industrial/commercial project conditions. (Less Than Significant Impact with Mitigation Incorporated)</p> <p>MM TRN-C-1.2: <i>Cochrane Road and Mission View Drive.</i> The project applicant shall implement</p>

mitigation measure MM TRN-1.2 (a second northbound left-turn lane on Mission View Drive and a cycle length adjustment at the Mission View Drive and Cochrane Road intersection). This would improve the intersection's level of service to LOS D during both peak hours under Year 2030 cumulative plus project conditions. **(Less Than Significant Impact with Mitigation Incorporated)**

MM TRN-C-1.3: *Mission View Drive and Avenida De Los Padres.* Implementation of a traffic signal at this intersection would improve the level of service to LOS B during the AM peak hour under Year 2030 cumulative plus project conditions. The project applicant shall make a fair share contribution toward this improvement. **(Less Than Significant Impact with Mitigation Incorporated)**

MM TRN-C-1.4: *Mission View Drive and Half Road.* The project applicant shall install a signal at this intersection as required by mitigation measure MM TRN-1.3 under existing plus project conditions. Implementation of a traffic signal at this location would improve the level of service to LOS D during both peak hours under Year 2030 cumulative with the industrial/commercial components of the project.

The eastern portion of Mission View Drive and Half Road intersection is located in the unincorporated area of Santa Clara County and is outside of the City's jurisdiction. Therefore, implementation of the above improvements will require County approval. Given this intersection is not within the City's jurisdiction and there is no current agreement with the County to implement the above mitigation, the timing of implementation of these improvements is outside of the City's control. Therefore, it is not guaranteed that these improvements would be implemented by 2030. As a result, the cumulative impact to this intersection would be significant and unavoidable under Year 2030 cumulative plus project conditions. **(Significant and Unavoidable Impact)**

MM TRN-C-1.5: *Main Avenue and Condit Road.* The project applicant shall make a fair share contribution toward the addition of an exclusive

southbound right-turn lane on Condit Road and an exclusive eastbound right-turn lane on Main Avenue. The addition of the right-turn lanes will require signal modifications and lane striping on the southbound and eastbound approaches. Implementation of this improvement would improve the intersection's level of service to LOS D during both peak hours under Year 2030 cumulative plus project conditions.

The Main Avenue and Condit Road intersection is under the jurisdiction of Santa Clara County. Therefore, implementation of the recommended improvements will require County approval. Given this intersection is not within the City's jurisdiction and there is no current agreement with the County to implement the above improvements, the timing of implementation of these improvements is outside of the City's control. Therefore, it is not guaranteed that these improvements would be implemented by 2030. As a result, the cumulative impact to this intersection would be significant and unavoidable under Year 2030 cumulative plus project conditions.

(Significant and Unavoidable Impact)

MM TRN-C-1.6: *Condit Road and Diana Avenue.*

The project applicant shall make a fair share contribution toward the implementation of a traffic signal at the Condit Road and Diana Avenue intersection. This would improve the intersection's level of service to LOS B during the AM peak hour under Year 2030 cumulative plus project conditions.

(Less Than Significant Impact with Mitigation Incorporated)

MM TRN-C-1.7: *Tennant Avenue and Condit Road.*

The project applicant shall make a fair share contribution toward the implementation of a traffic signal at this intersection. The traffic signal would improve the intersection's level of service to LOS C during the PM peak hour under Year 2030 cumulative plus project conditions. **(Less Than**

Significant Impact with Mitigation Incorporated)

MM TRN-C-1.8: *Tennant Avenue and Murphy Avenue.* The project applicant shall make a fair share contribution toward the implementation of a traffic signal at this intersection. The traffic signal would improve the intersection's level of service to LOS C during both peak hours under Year 2030 cumulative plus project conditions. **(Less Than Significant Impact with Mitigation Incorporated)**

MM C-TRN-2.1: *Cochrane Road and DePaul Drive.* The project applicant shall implement mitigation measure MM TRN-1.1 (an exclusive northbound left-turn lane and a separate eastbound right-turn lane at the intersection of DePaul Drive and Cochrane Road). This would improve this intersection's level of service to LOS C during the PM peak hour under Year 2035 General Plan plus project conditions. **(Less Than Significant Impact with Mitigation Incorporated)**

MM C-TRN-2.2: *Half Road and DePaul Drive.* A full access intersection will be provided at the Half Road and De Paul Drive intersection under Year 2035 General Plan with project conditions (as a General Plan roadway improvement). Turn movements at the De Paul Drive and Half Road intersection shall be restricted to right-turns only. The turn restriction will restrict the use of De Paul Drive and Condit Road as cut-through routes. Implementation of the turn restrictions at the De Paul Drive and Half Road intersection along with a traffic signal at Mission View Drive and Half Road (planned improvement) would result in LOS B conditions during the PM peak hour at the Half Road and DePaul Drive intersection under Year 2035 General Plan with the project conditions. **(Less Than Significant Impact with Mitigation Incorporated)**

MM C-TRN-2.3: *Main Avenue and Condit Road.* The project applicant shall make a fair share contribution toward the addition of an exclusive southbound right-turn lane on Condit Road. Implementation of this improvement would improve the intersection's level of service to LOS D during the PM peak hour under Year 2035 General Plan plus project conditions.

This intersection is under the jurisdiction of Santa Clara County. Therefore, implementation of the recommended improvements will require County approval.

The Main Avenue and Condit Road intersection is under the jurisdiction of Santa Clara County. Therefore, implementation of the recommended improvements will require County approval. Given this intersection is not within the City's jurisdiction and there is no current agreement with the County to implement the above improvements, the timing of implementation of these improvements is outside of the City's control. Therefore, it is not guaranteed that these improvements would be implemented by 2035. As a result, the cumulative impact to this intersection would be significant and unavoidable under Year 2035 General Plan plus project conditions.

(Significant and Unavoidable Impact)

MM C-TRN-2.4: *Main Avenue and Murphy Avenue.*

The signalization of this intersection will be completed concurrently with the planned extension of Murphy Avenue from Diana Avenue to Half Road. The project applicant shall make a fair share toward the installation of a traffic signal at the Main Avenue and Murphy Avenue intersection. With implementation of a traffic signal at this Main Avenue and Murphy Avenue intersection, the level of service would improve to LOS D and C during the AM and PM peak hours, respectively, under Year 2035 General Plan with the project conditions. **(Less Than Significant Impact with Mitigation Incorporated)**

MM C-TRN-2.5: *Tennant Avenue and Condit Road.*

The project applicant shall make a fair share contribution toward the implementation of a traffic signal at this intersection. With implementation of this improvement, this intersection would operate at LOS B conditions during the PM peak hour under Year 2035 General Plan plus project conditions. **(Less Than Significant Impact with Mitigation Incorporated)**

MM C-TRN-2.6: *Tennant Avenue and Murphy Avenue.* The project applicant shall make a fair share contribution toward the implementation of a traffic signal at this intersection. With implementation of this improvement, the level of service would improve to LOS D during both peak hours under Year 2035 General Plan plus project conditions. **(Less Than Significant Impact with Mitigation Incorporated)**

SECTION 1.0 INTRODUCTION

1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The City of Morgan Hill, as the Lead Agency, has prepared this Draft Environmental Impact Report (EIR) for the proposed industrial/commercial/residential project in compliance with the California Environmental Quality Act (CEQA) and the CEQA Guidelines.

As described in CEQA Guidelines Section 15121(a), an EIR is an informational document that assesses potential environmental impacts of a proposed project, as well as identifies mitigation measures and alternatives to the proposed project that could reduce or avoid adverse environmental impacts (CEQA Guidelines 15121(a)). As the CEQA Lead Agency for this project, the City of Morgan Hill is required to consider the information in the EIR along with any other available information in deciding whether to approve the project. The basic requirements for an EIR include discussions of the environmental setting, significant environmental impacts including growth-inducing impacts, cumulative impacts, mitigation measures, and alternatives. It is not the intent of an EIR to recommend either approval or denial of a project.

This EIR evaluates project-level impacts for the proposed commercial/industrial portions of the project and program-level impacts for the residential portion of the project.

1.2 EIR PROCESS

1.2.1. Notice of Preparation and Scoping

In accordance with Section 15082 of the CEQA Guidelines, the City of Morgan Hill prepared a Notice of Preparation (NOP) for this EIR. The NOP was circulated to local, state, and federal agencies on March 20, 2019. The standard 30-day comment period concluded on April 19, 2019. The NOP provided a general description of the proposed project and identified possible environmental impacts that could result from implementation of the project. The City of Morgan Hill also held a public scoping meeting on April 23, 2019 to discuss the project and solicit public input as to the scope and contents of this EIR. The meeting was held at City Hall. Appendix A of this EIR includes the NOP and comments received on the NOP.

1.2.2 Draft EIR Public Review and Comment Period

Publication of this Draft EIR will mark the beginning of a 60-day public review period. During this period, the Draft EIR will be available to the public and local, state, and federal agencies for review and comment. Notice of the availability and completion of this Draft EIR will be sent directly to every agency, person, and organization that commented on the NOP, as well as the Office of Planning and Research. Written comments concerning the environmental review contained in this Draft EIR during the 60-day public review period should be sent to:

Adam Paszkowski, CPD
Principal Planner
City of Morgan Hill
17575 Peak Avenue
Morgan Hill, CA 95037

1.3 FINAL EIR/RESPONSES TO COMMENTS

Following the conclusion of the 60-day public review period, the City will prepare a Final EIR in conformance with CEQA Guidelines Section 15132. The Final EIR will consist of:

- Revisions to the Draft EIR text, as necessary;
- List of individuals and agencies commenting on the Draft EIR;
- Responses to comments received on the Draft EIR, in accordance with CEQA Guidelines (Section 15088);
- Copies of letters received on the Draft EIR.

Section 15091(a) of the CEQA Guidelines stipulates that no public agency shall approve or carry out a project for which an EIR has been certified which identifies one or more significant environmental effects of the project unless the public agency makes one or more written findings. If the lead agency approves a project despite it resulting in significant adverse environmental impacts that cannot be mitigated to a less than significant level, the agency must state the reasons for its action in writing. This Statement of Overriding Considerations must be included in the record of project approval.

1.3.1 Notice of Determination

If the project is approved, the City will file a Notice of Determination (NOD), which will be available for public inspection and posted within 24 hours of receipt at the County Clerk's Office and available for public inspection for 30 days. The filing of the NOD starts a 30-day statute of limitations on court challenges to the approval under CEQA (CEQA Guidelines Section 15094(g)).

SECTION 2.0 PROJECT INFORMATION AND DESCRIPTION

2.1 PROJECT LOCATION

The approximately 89-acre site is located west of Mission View Drive, south of Cochrane Road, east of US 101, and north of Half Road (APN: 728-30-001 through -004; 728-30-006, -008, -009; 728-31-014 through 016). See Figures 2.1-1, 2.1-2, and 2.1-3 on the following pages.

2.2 PROJECT DESCRIPTION

2.2.1 Overview

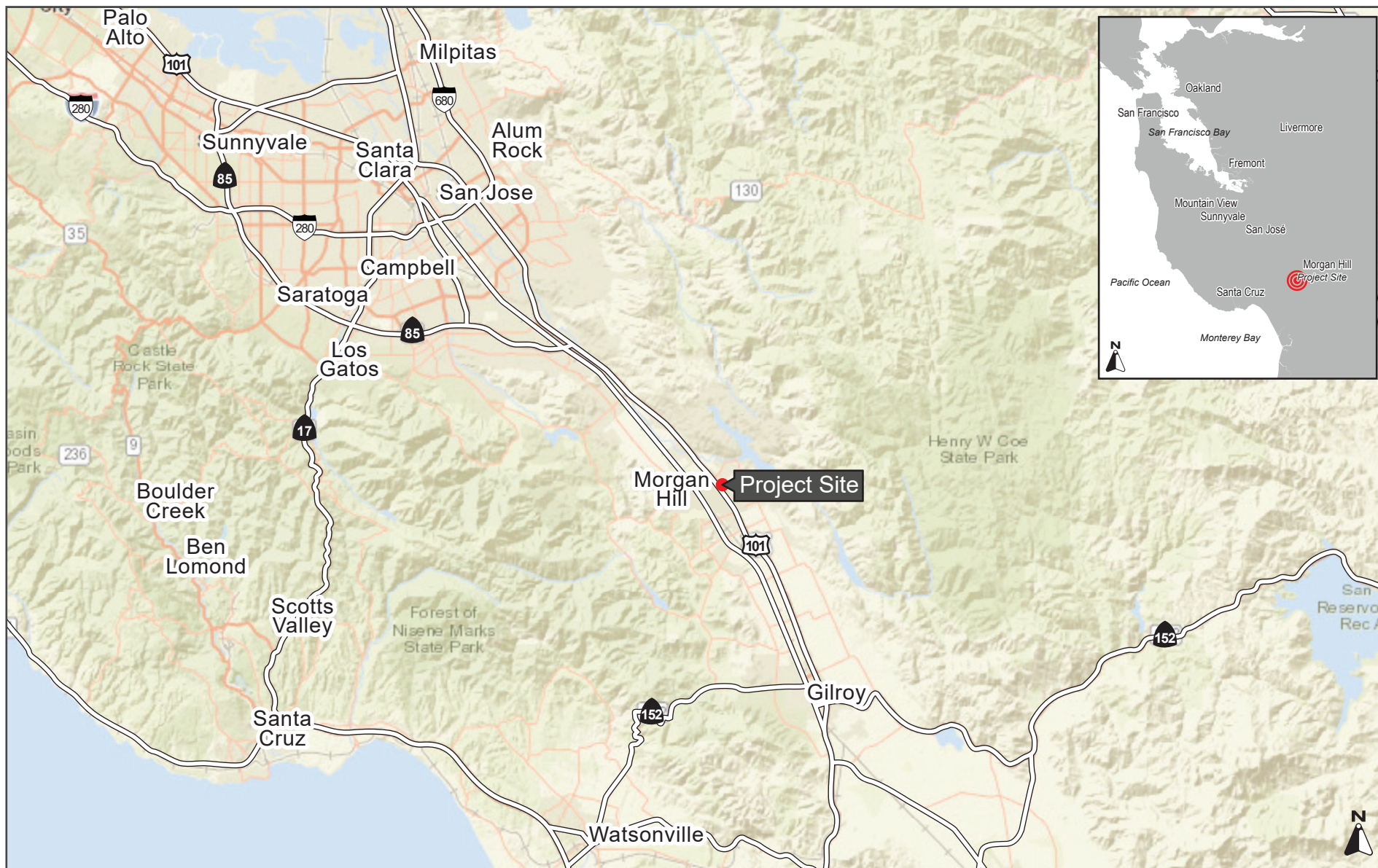
The commercial and industrial components of the project are currently configured in six parcels totaling approximately 61 acres, with Commercial and Commercial/Industrial General Plan designations, and located within three zoning districts: PUD Highway Commercial (CH), Administrative Office (CO), and PUD Light Industrial (IL). The applicant proposes to reconfigure the property into eight legal lots (one commercial, six commercial/industrial parcels controlled by the applicant, and one existing commercial/industrial parcel not controlled by the applicant); reduce the Commercial General Plan designation area and increase the Commercial/Industrial General Plan designation area through a General Plan Amendment (File No. GPA2019-0002); and establish a Planned Development (PD) Combining District over the commercial and industrial project area through a Zoning Amendment (File No. ZA2019-0005). Figure 2.2-1 shows the existing and proposed general plan designations at the project site. Figure 2.2-2 shows the proposed build-out of the project with General Plan Amendment and Zoning Amendment areas.

The residential component of the project is approximately 28 acres with an existing General Plan designation of Residential Attached Low (6-16 du/ac). No formal land use entitlement applications are currently on file, and this portion of the project is being evaluated at a programmatic level for a maximum of 319 single-family detached and attached units. The future development of this land is reasonably foreseeable given the existing land use designation and zoning, and the proposed roadway and other infrastructure improvements discussed below would be available to serve this property, and therefore this EIR analyzes and discloses the effects of the whole project (i.e. industrial, commercial, and residential). As further discussed in Section 2.2.2.3, only preliminary plans and no formal development applications were on file with the City at the time the EIR was prepared. The residential component is, therefore, analyzed at a programmatic rather than project level.

2.2.2 Project Description

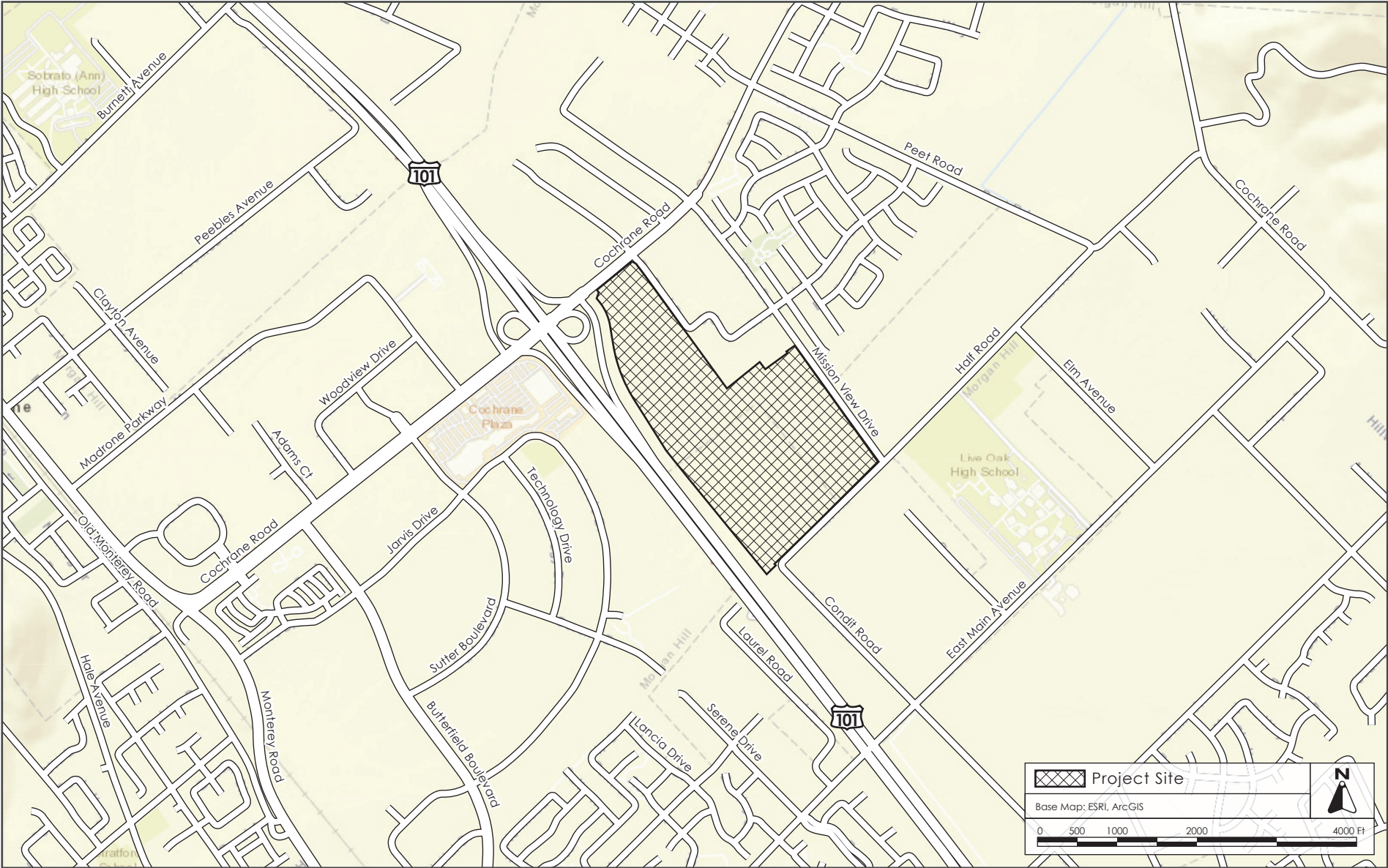
2.2.2.1 *Commercial*

The property immediately fronting Cochrane Road would be reconfigured to one legal lot of approximately 2.92 acres. The proposed rezoning will reduce the existing Commercial zoned acreage from +/-30 acres to 2.92 acres for uses consistent with the traditional CH - Highway Commercial Zoning District, allowing a range of retail, administrative, professional services and functions supporting freeway access at major intersections. The maximum FAR is 0.6. While no specific development project application is currently pending with the City, the development of this portion of the site is reasonably foreseeable, and this EIR evaluates a development scenario with 50,000 square feet of commercial uses at a project-level. There is no current site plan, however, this



REGIONAL MAP

FIGURE 2.1-1



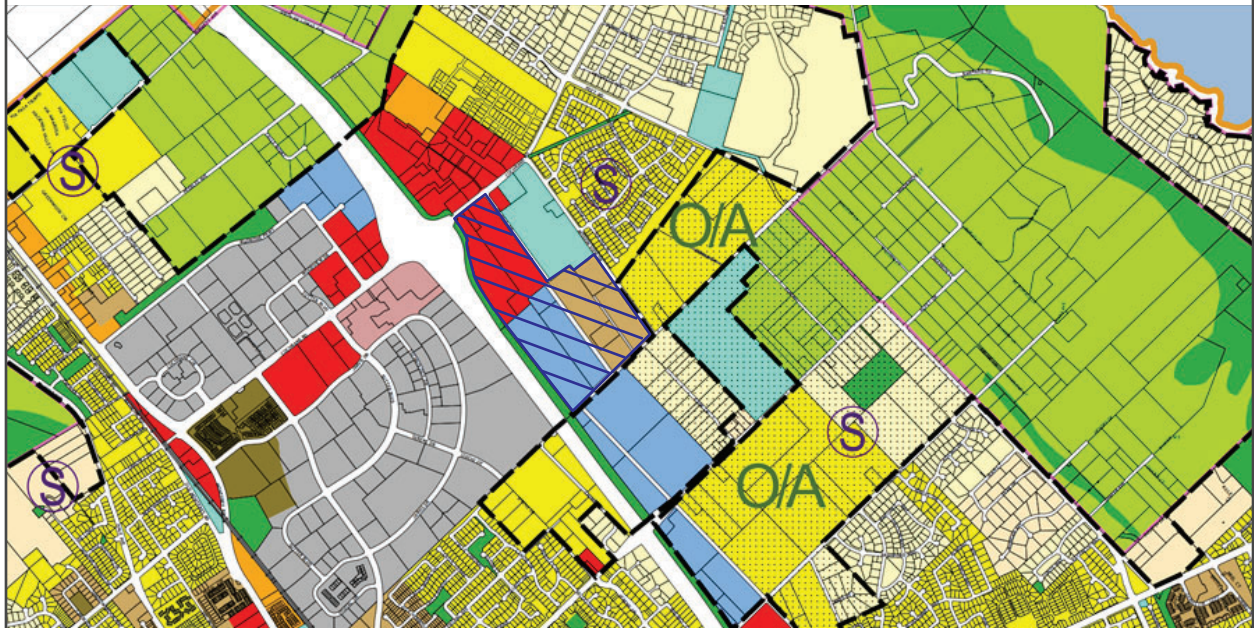
VICINITY MAP

FIGURE 2.1-2

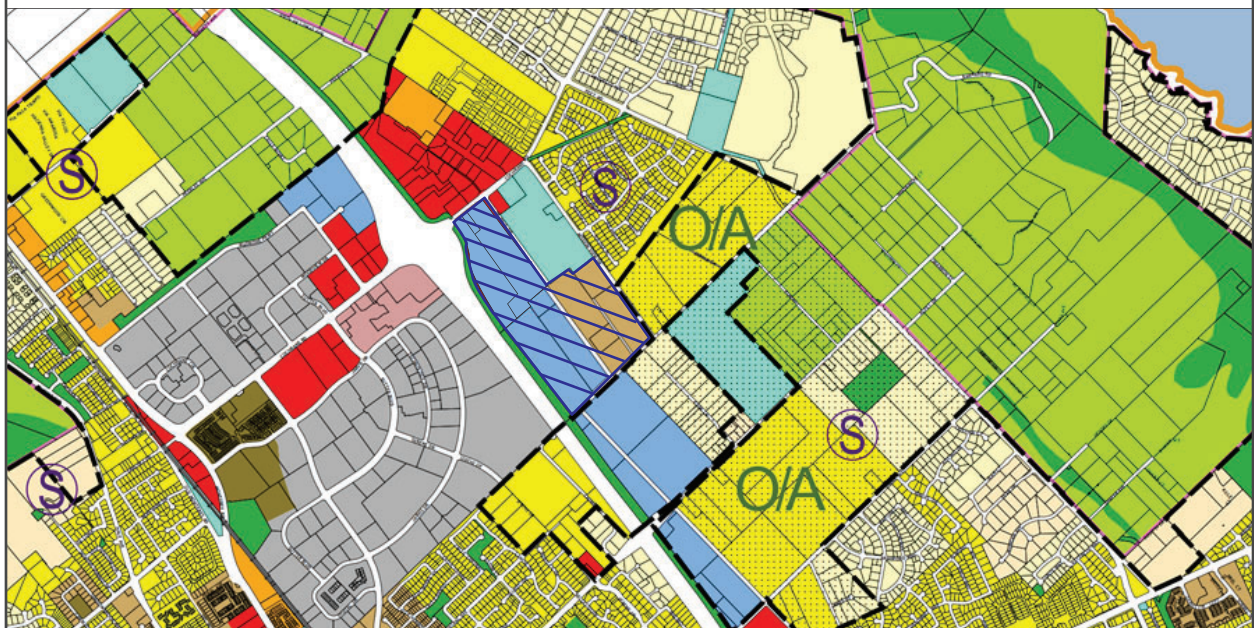


AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 2.1-3



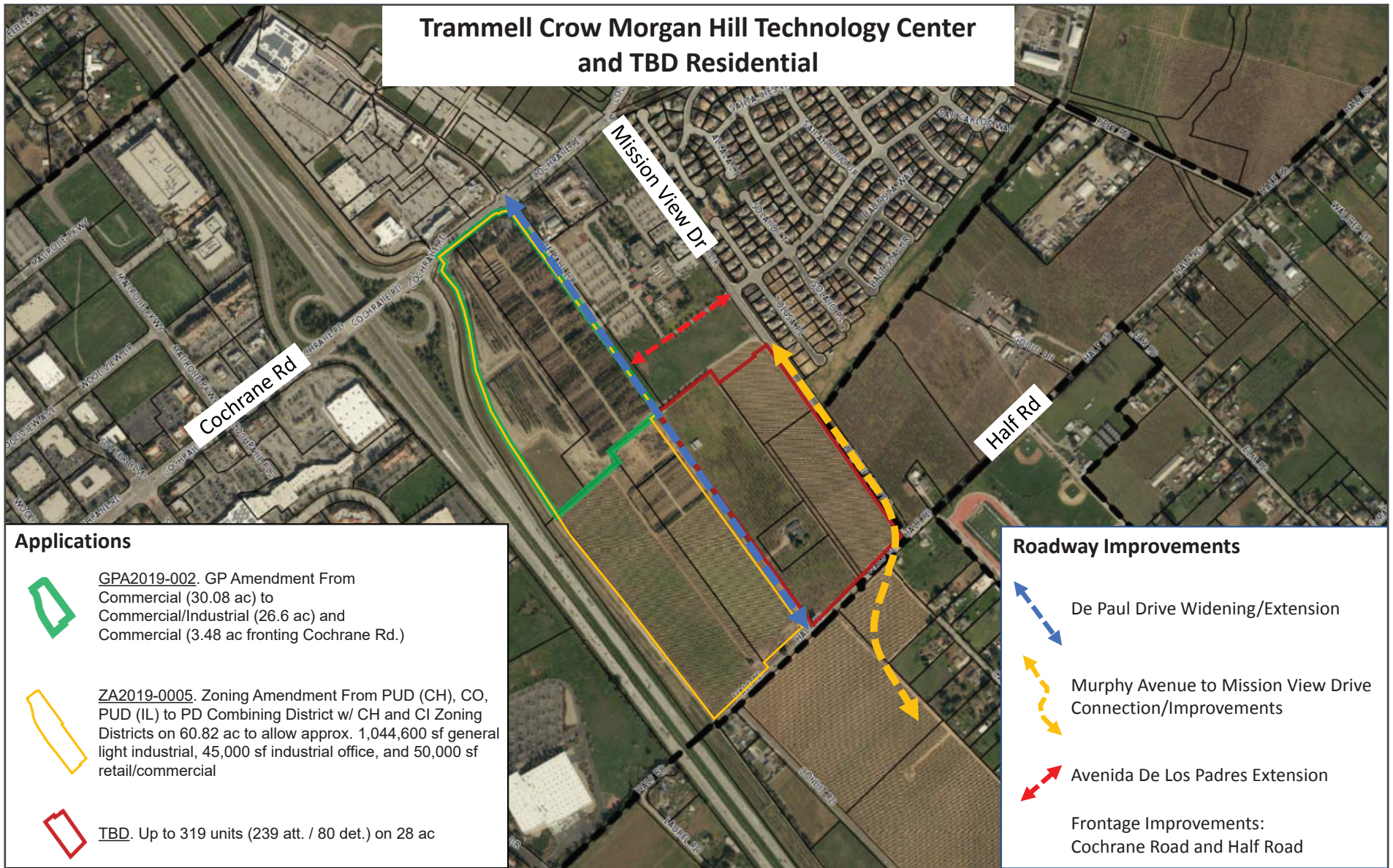
EXISTING



PROPOSED



Trammell Crow Morgan Hill Technology Center and TBD Residential



PROJECT BUILDOUT SITE PLAN

FIGURE 2.2-2

parcel is anticipated to be developed ultimately with several commercial structures, most likely single-story. The proposed uses are anticipated to be retail, administrative and professional services, with parking and landscaping provided on-site. The proposed zoning would allow for buildings up to four stories of 55 feet in height, whichever is less.

The east bound frontage of Cochrane Road would be improved for the benefit of the commercial property. Access off Cochrane Road would be provided via a right-turn in only driveway, with a full access driveway entry/exit at the southwest corner of the property off DePaul Drive.

2.2.2.2 *Industrial*

This portion of the property would be reconfigured into seven legal lots designated for flexible industrial and commercial uses, including advanced manufacturing, warehouse distribution, supporting office, and similar light industrial and commercial uses totaling up to 1.04 million square feet on approximately 58 acres. The Industrial designation allows for a maximum FAR of 0.6. The current proposal shows a FAR below 0.45. The proposed site plan for the industrial and commercial portion of the project is shown on Figure 2.2-3. If additional development is proposed in the future up to the allowed 0.6 FAR, the City would conduct supplemental environmental review, as appropriate.

The industrial component of the project is comprised of six buildings (Buildings A through F on Figure 2.0-6) located on the western half of the project site adjacent to U.S. 101. The proposed buildings would have maximum heights of 50 feet. The industrial building elevations are shown on Figures 2.2-4 through 2.2-9. The proposed industrial buildings will include emergency generators powered by diesel engines to provide backup power for fire pumps located within each building. The engines would be operated for testing and maintenance purposes, with a maximum of 50 hours per year of non-emergency operation under normal conditions. The industrial buildings will include a total of 124 loading dock doors; the dock doors will be distributed between the six buildings, with a minimum of nine dock doors per building (Building C) and a maximum of 25 doors per building (Building B). Under the proposed zoning, the six industrial buildings would be permitted to be built to a maximum of 50 feet in height.

The remainder of the project site would be parking and landscaping/stormwater treatment as common open space for the benefit of employees and visitors. The industrial component of the project would provide 1,435 standard vehicle parking stalls. Access to the Industrial zoned property would be provided exclusively via full-access driveways off the west side of DePaul Drive.

A 2.31-acre parcel, under separate private ownership, that is depicted as ‘Not a Part’ on Figure 2.2-3 would be evaluated at a programmatic level for future industrial uses, although no specific development application is proposed at this time. This DEIR will evaluate for potential future industrial/warehouse uses based on the proposed PD Combining District, assuming 45,000 square feet of industrial office, which results in a FAR of 0.51.

2.2.2.3 *Residential Component East of DePaul Drive*

This DEIR will evaluate a residential scenario of up to 319 units between DePaul Drive and Mission View Drive, north of Half Road, which is approximately 75 percent of the maximum



MORGAN HILL TECHNOLOGY CENTER SITE PLAN

FIGURE 2.2-3



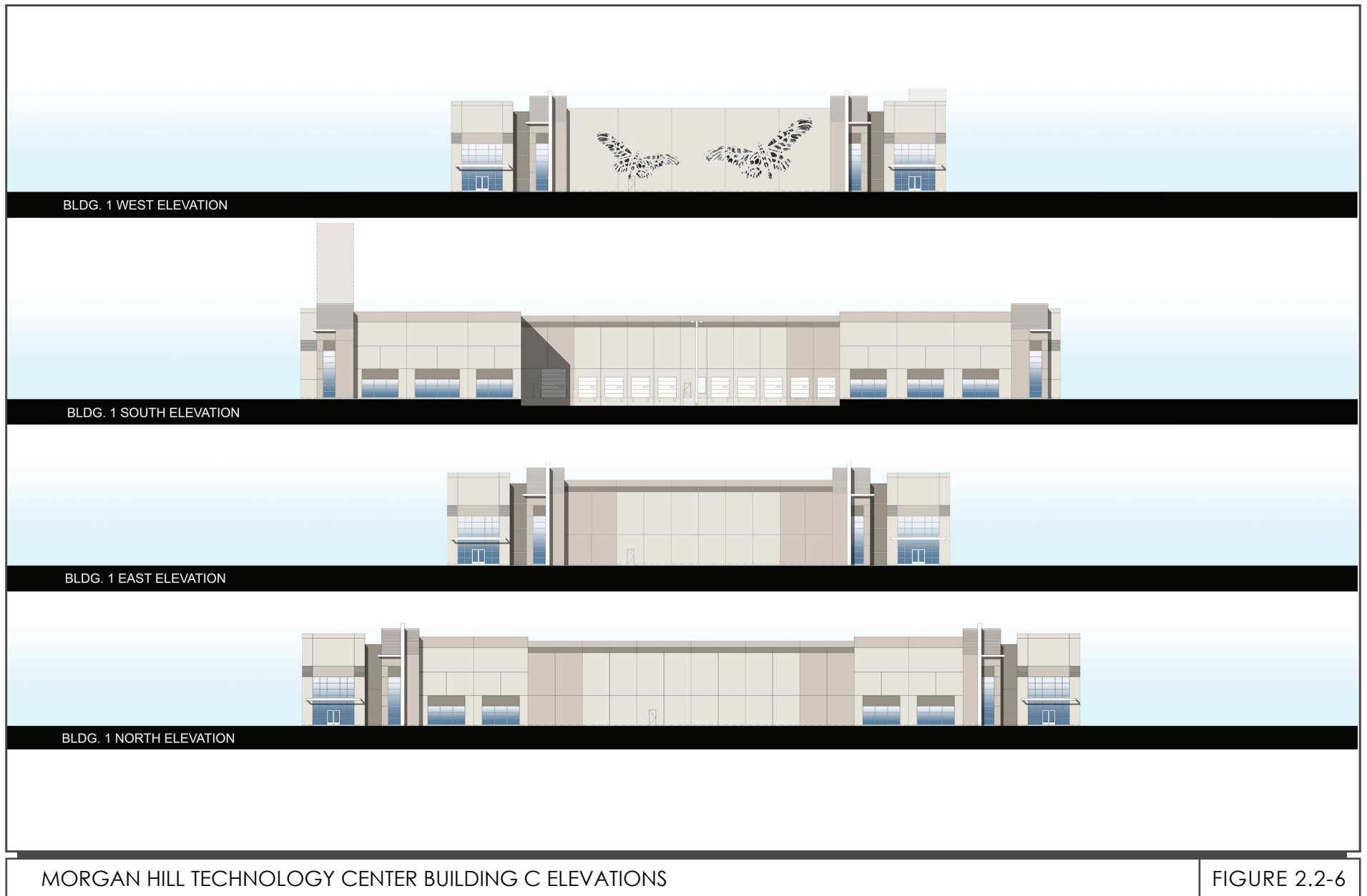
MORGAN HILL TECHNOLOGY CENTER BUILDING A ELEVATIONS

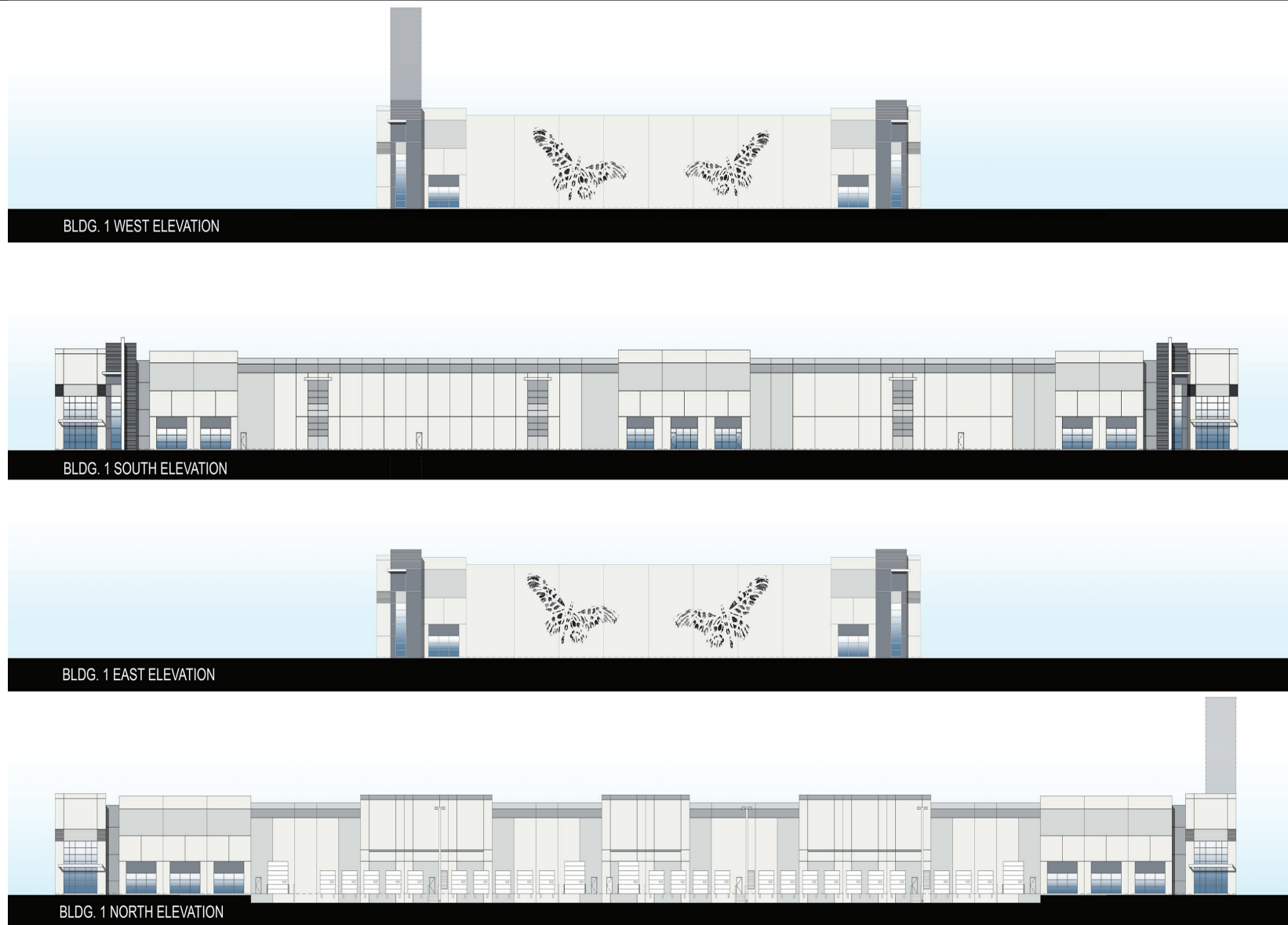
FIGURE 2.2-4



MORGAN HILL TECHNOLOGY CENTER BUILDING B ELEVATIONS

FIGURE 2.2-5





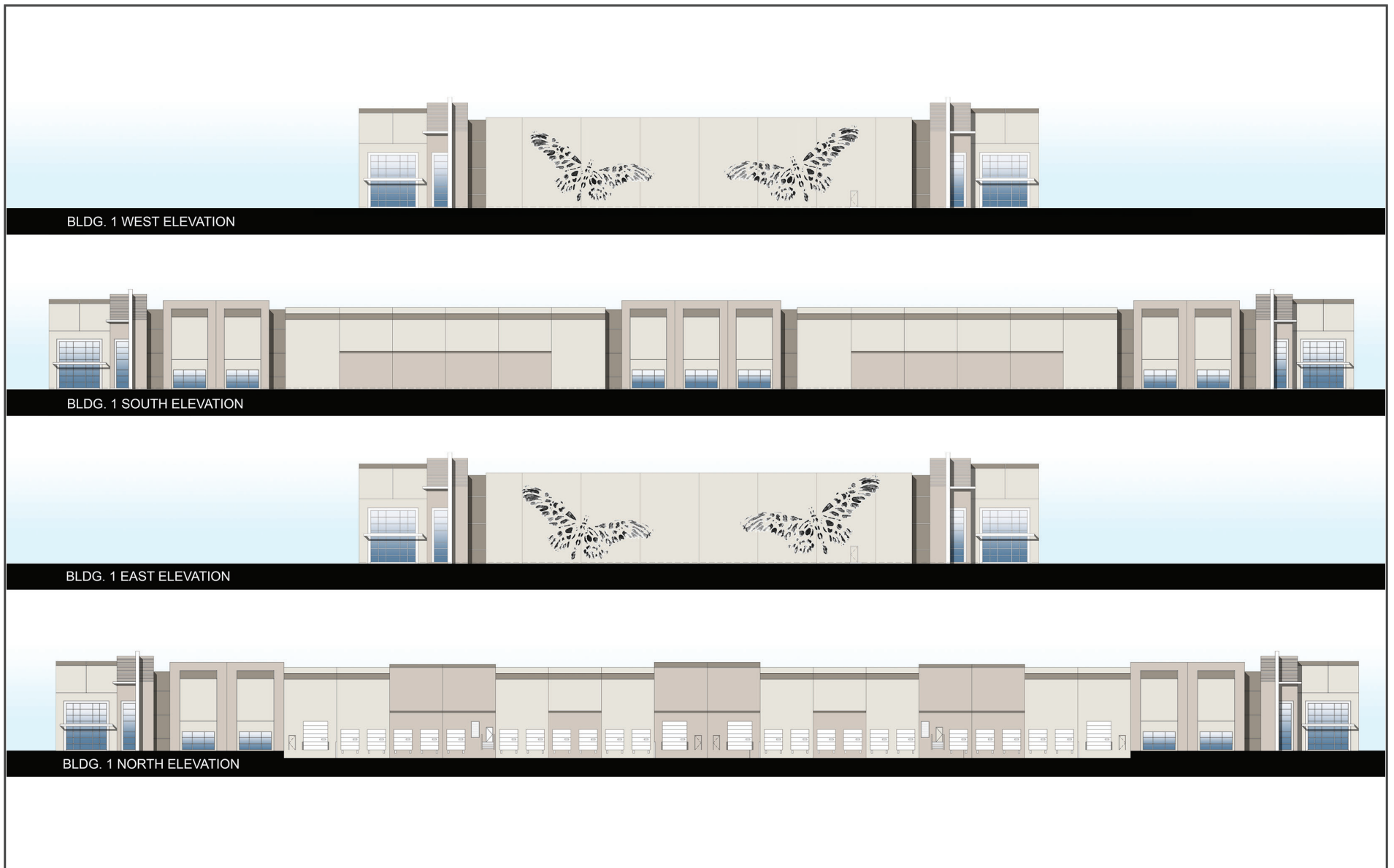
MORGAN HILL TECHNOLOGY CENTER BUILDING D ELEVATIONS

FIGURE 2.2-7



MORGAN HILL TECHNOLOGY CENTER BUILDING E ELEVATIONS

FIGURE 2.2-8



MORGAN HILL TECHNOLOGY CENTER BUILDING F ELEVATIONS

FIGURE 2.2-9

development allowed under the General Plan (i.e., 16 dwelling units/acre).¹ Properties do not typically develop at the maximum allowable density due to site constraints, land dedication, and other factors, and the City does not assume 100 percent of the allowed density when identifying anticipated residential yield for purposes of demonstrating Regional Housing Needs Allocation compliance, for instance. For these reasons, assuming future development at 75 percent of the allowed density is a reasonable assumption. Residential development would occur on a 28-acre area of the site. No formal land use entitlement applications are currently on file, and this portion of the project is being evaluated at a programmatic level. The future development of this land is reasonably foreseeable given the existing land use designation and zoning, and the proposed roadway and other infrastructure improvements discussed below would be available to serve this property, and therefore this EIR discloses the combined effects of the various components of future development on the three distinct areas, i.e. industrial, commercial, and residential.

The residential project’s proposed site improvements could include visitor and on-street parking, small neighborhood park areas, sidewalks or pedestrian paths, landscape areas, drive aisles, screen walls, lighting, BBQ/picnic area, and common park areas.

The site plan for the entirety of the site, showing the proposed General Plan and Zoning Amendments and including the residential portion, is shown on Figure 2.2-2. The site plan for the Morgan Hill Technology Center² is shown on Figure 2.2-3. A summary of the various project components is included below in Table 2.2-1.

Table 2.2-1: Development Summary			
Land Use	Size (square feet)	Site Area (acres)	Construction Interval
Industrial¹			
General Light Industrial – Proposed Project			
Building A	212,100	12.19	January 2021 to April 2022
Building B	219,600	10.89	
Building C	79,900	4.80	
Building D	193,000	9.16	
Building E	173,000	8.53	
Building F	167,000	9.16	
“Not a Part” Parcel (Industrial Office)	45,000	2.31	

¹ This EIR is evaluating 319 single-family residential units (239 single-family attached and 80 single-family detached units) based on preliminary plans provided to the City. Subsequent updated preliminary residential plans now show 56 courtyard style single family detached units, 64 duets and 149 townhouse style condominiums for a total of 269 dwelling units. The 319 residential analyzed in EIR is more conservative compared to the 269 dwellings.

² When referred to throughout this DEIR, the “Morgan Hill Technology Center” only includes the six industrial buildings and associated improvements shown in Figure 2.2-3.

Table 2.2-1: Development Summary			
Land Use	Size (square feet)	Site Area (acres)	Construction Interval
Commercial			
Commercial	50,000	127,195	March 2021 to August 2021
Residential			
Residential	319 units	28 acres	October 2021 to April 2027
<u>Notes</u> ¹ The defined portion of the project consists of Building A through F. No development applications have been received for any other project components.			

2.2.2.4 Site Access

Commercial: The east bound frontage of Cochrane Road would be improved for the benefit of the Commercial zoned property. Access off Cochrane Road would be provided via a right-turn in only driveway, with a full access driveway entry/exit at the southwest corner of the property off DePaul Drive. The Cochrane Road access points would not provide access to the industrial buildings and would not be used by trucks that are bound for the industrial buildings.

Industrial: Access to the Industrial zoned property would be provided exclusively via full-access driveways off the west side of DePaul Drive. The three northernmost access points along DePaul Drive would provide shared access to two industrial buildings (Buildings A and B shown on Figure 2.0-5) and the commercial site. The two remaining access points along DePaul Drive would provide access to four industrial buildings (Buildings C through F on Figure 2.2-3).

Residential: Although there is no current site plan for the residential portion of the project, site access is assumed to be provided from Mission View Drive, from Half Road, and from DePaul Drive, which would be widened and extended from Cochrane Road to Half Road (see the discussion below).

Project Improvements: As part of the development of the proposed project, DePaul Drive is proposed to be extended by approximately 2,280 feet south along the project site's eastern frontage to provide direct access to the industrial uses of the project via full access driveways. The extension will also provide access to the future residential component of the project. As proposed to support the industrial development on the west side of DePaul Drive, DePaul Drive will terminate as a cul-de-sac just north of Half Road.

A full access intersection from the planned De Paul Drive extension to Half Road would be constructed as a part of the residential component of the project. This extension would be fully designed and evaluated at the time of specific development of the residential component.

Pedestrian and bicycle (and County Parks trail maintenance) access is established on the western boundary of the industrial portion of the project from Cochrane Road on the north to Half Road on the south via the unpaved Madrone Channel Trail. The commercial component of the project would provide a sidewalk along its entire Cochrane Road frontage and result in a continuous connection to

the existing sidewalk along the south side of Cochrane Road. The industrial project would provide a sidewalk along its frontage along DePaul Drive.

2.2.2.5 *Parking*

Commercial: The project would provide the required parking for the future commercial development per Table 18.72-2 of the Zoning Code. Retail uses and personal services are generally parked at one space per 250 square feet. Restaurants are generally parked at one space per 100 square feet.

Industrial: The industrial component of the project (Buildings A through F) will provide a total of 1,435 auto spaces. In addition, the 2.31-acre parcel shown as ‘Not a Part’ on Figure 2.0-6 would be required to provide parking at the rates shown in Table 18.72-2 of the Zoning Code.

Residential: The proposed residential portion of the project has a General Plan designation of Residential Attached Low and is zoned Residential Attached Low Density. This portion of the project would be required to provide two covered parking spaces per residential unit as shown in Table 18.72-2 of the Zoning Code.

2.2.2.6 *Grading and Construction*

Mass Excavation/Soil displacement: The non-residential portions of the mixed-use project would include demolishing the existing residential and storage structures on the Cochrane Road frontage, constructing the six new industrial buildings (Industrial Buildings A through F), and future development on the Commercial property and the 2.31-acre Industrial parcel that is not part of the current application (Dr. Lee parcel, referred to as ‘Not a Part’ throughout this DEIR). The subject development would include general rough grading and underground utility installation for the planned Commercial and Industrial building sites and associated parking and driveway areas. Site grading would include the over-excavation and re-compaction of the near-surface fill at select locations identified by the soils engineer. Site grading would include relocation and compaction of existing stockpiled soil mixed with serpentine rock to areas beneath the planned industrial building locations in accordance with project Soil Management Plan to provide suitable support for the planned building footings and slab-on-grade floors, as well as to encapsulate the existing serpentinite rock to prevent public exposure to material.

Cuts and fills for the planned Industrial portion of project are estimated to be up to 165,000 cubic yards, mass-graded to achieve a balanced site. The average depth of excavation at new footing locations is estimated to be 3.5 feet below the final pad elevation. Maximum depth of cut for mass grading would be approximately four feet below existing grade, with cut up to 13 feet for sanitary sewer utility trenching at existing Cochrane Road tie-in. Excavations for utility trenches are expected to represent less than one half of one percent of the total excavations. After site grading is completed, conventional building footings and concrete floor slabs would be constructed; followed by the construction of conventional asphalt-concrete and Portland cement concrete driveways and parking areas. The final site improvement would include new landscaping and pedestrian sidewalks/pathways; and the construction of new stormwater treatment/detention basins.

The proposed Residential portion of the project is located on relatively level ground. Future residential development on the 28-acre portion of the site would likely require shallow grading for utilities, positive drainage, and roads and building foundations.

2.2.2.7 *Soil Management Plan*

A Soil Management Plan (SMP) would be prepared by an environmental professional - describing procedures to be implemented by the Industrial/Commercial projects' grading contractor when handling and managing soil, both onsite and, if necessary, imported material. The SMP will include procedures for onsite stockpiling, dust control and mitigation, and offsite transportation and disposal/reuse. The SMP will also identify mitigation measures and required notifications should suspect environmental concerns be encountered during the grading activities. The SMP will reference the Storm Water Pollution Prevention Plan (SWPPP) required for this construction project in accordance with the Construction General Permit Order issued by the California State Water Resources Control Board.

The Industrial/Commercial portion of the site contains an approximately 81,000 cubic yard stockpile of soil mixed with serpentine rock, which is a locally mined aggregate material with naturally occurring asbestos (NOA). The stockpile is located in the northwest corner of the site, adjacent to the approximate locations of the proposed commercial building on Cochrane Road and the industrial Buildings A and B. In accordance with Bay Area Air Quality Management District (BAAQMD) regulations, an Asbestos Dust Mitigation Plan (ADMP) will be prepared for BAAQMD review and approved prior to initiating the grading activities. The ADMP will include an air monitoring plan to be implemented when handling the stockpiled serpentine rock material. The Industrial project's construction plans specify the onsite burial of this material for encapsulation beneath permanent site improvements or at depths not to be encountered by future construction activities (i.e. construction of the commercial property fronting Cochrane Road or the industrial office building on the 'Not a Part' parcel). The final disposition of the serpentine rock material will be documented and recorded with BAAQMD. Specially trained and state-certified workers will perform and monitor all construction activities involving this material.

2.2.2.8 *Storm Drainage Improvements*

All runoff from the site would ultimately be directed into the existing Santa Clara Valley Water District's Madrone Channel on the west boundary of the project site. The Industrial portion of the project would convey stormwater to on-site treatment and detention areas on the perimeter of the site and to the Madrone Channel via three existing outfalls. The Commercial development on Cochrane Road would utilize existing storm drain lines in the Cochrane Road right-of-way to convey stormwater to the Madrone Channel and would be required to treat or capture on-site stormwater runoff from building rooftops, hardscapes, and parking areas. The Residential development would likely convey stormwater to the Madrone Channel via public storm drains and lines in Half Road. The proposed storm drainage system for future residential development will be detailed at the time of a specific development proposal for this area of the site and would be required to conform to the City's Stormwater Management Guidance Manual for Low Impact Development and Post-Construction Requirements.

2.2.2.9 *Utilities*

Sanitary Sewer: There is an existing eight-inch sanitary sewer stub south of Cochrane Road that is at a depth sufficient to provide service to the proposed industrial/commercial portion of the project. This alignment would provide public sewer easement through the south edge of the Commercial site on Cochrane Road as well as through the drive aisles of the Industrial sites. An alternate design would be to extend sanitary sewer from East Main Ave northerly along Condit Road and Half Road if the needs of the residential development dictate a main extension coming from the south. The alternate design would be subject to supplemental environmental review at the time the residential development receives entitlements.

Water Service: The existing water main will be extended along DePaul Drive, with private domestic water and fire protection services extended into the site to serve the proposed Industrial buildings. Existing 12-inch water mains in Cochrane Road would be available to serve the Commercial building on Cochrane Road. The industrial office building ('Not a Part' parcel) would connect to the water main in DePaul Drive. The Residential portion of the project would connect to 10- and 12-inch diameter pipes in Half Road and/or eight- and 10-inch pipes in Mission View Drive.

Dry Utilities: Gas and electric utilities will be extended along with DePaul Drive in coordination with PG&E. Electrical will loop into existing electrical lines along Half Road. Other utilities such as fiber optic, telephone, and cable will also be extended along Half Road and into the site to service the industrial buildings. Similarly, existing gas, electric, telephone, cable, and fiber optic utilities in the project area will be extended to the Residential portion of the project.

2.2.2.11 *Construction Interval*

The anticipated construction duration for the Industrial site and shell improvements is 15 months. The initial mass grading & site preparation phase for the Industrial will last one month. Rough grading and building pad construction will immediately follow the mass grading phase for a three-month interval. After completion of rough grading, wet utility improvement work and miscellaneous site preparation work will begin and run 3.5 months. Fine grading and hardscape improvements will begin thereafter and run for four months. The final site improvement phase of landscape and miscellaneous site finish improvements will then run for 3.5 months. It is anticipated that construction of the Industrial portion of the project would begin in January 2021 and be complete by April 2022.

Construction of the Commercial portion of the project is anticipated to begin in March 2021 and be completed by August 2021. Construction of the Residential portion of the project is anticipated to begin in October/November 2021 and be completed by April 2027.

2.3 **PROJECT OBJECTIVES**

Pursuant to CEQA Guidelines Section 15124, an EIR must identify the objectives sought by the proposed project.

Project objectives as proposed by the applicant include:

- To efficiently cluster large-scale development allowing for:
 - Efficient use of existing infrastructure (including roads, utility lines, transit, etc.);
- Add approximately 1,300 needed jobs to Morgan Hill;
- Create buildings sizeable enough to attract large-company tenants to Morgan Hill;
- Attract companies to contribute to the City's tax and job base and provide flexibility to support companies to grow;
- Meet CALGreen standards optimizing efficient use of energy, water, and building materials;
- Locate the project near existing transit corridors, bicycle infrastructure, and traffic arterials;
- Ensure a sustainable demolition and construction operation;
- Establish pedestrian- and bicycle-oriented connections within the area;
- Utilize on-site amenities to minimize impact on community infrastructure and provide flexibility of work environment.

Project objectives as proposed by the City include:

- To develop an industrial business center on the site in conformance with the applicable goals, objectives and policies of the City's General Plan;
- To develop a business center that will accommodate light manufacturing/ warehouse/ distribution tenants with access to freeways and regional transportation corridors, thereby minimizing truck traffic on local streets and reducing vehicles miles traveled in the region;
- Create opportunities for business-to-business interaction between various on-site tenants, promoting economic development;
- To develop a business center on the site in a manner that is economically viable and provides long term fiscal benefits to the property owner and City;
- To attract new businesses and jobs to the City, thereby improving the jobs/housing balance both in the City and the region;
- Attract high-quality businesses by providing a development with a range of facility options, such as varying structure sizes and building configurations;
- To develop a high-quality business center on the site with architectural design, landscaping, signage, and operational characteristics that are compatible with existing and planned development in the immediate vicinity;
- To construct a business center that incorporates energy efficiency and low water use principles in order to promote the City's environmental goals
- Implement a comprehensive and cohesive plan for the physical and economic development of the project site.

2.4 USES OF THE EIR

- General Plan Amendments
- Rezoning
- Tentative Maps
- Use Permit(s)
- Architectural Design Review
- Development Agreement
- Tree Removal Permits
- Grading Permits

SECTION 3.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

An Initial Study was prepared for the proposed project by the City of Morgan Hill. The Initial Study determined that the project could have potentially significant impacts in the resource areas of agriculture and forestry, air quality, biological resources, cultural resources, energy, greenhouse gas emissions, hazards and hazardous materials, noise, transportation, and utilities and service systems. This EIR concentrates on the potentially significant impacts of the project on the environmental resource areas shown below. This EIR references the Initial Study prepared for the project for all other areas of impact analysis not provided in this EIR (see Appendix B).

This section presents the discussion of impacts related to the following environmental subjects in their respective subsections:

- | | | | |
|-----|------------------------------------|------|-------------------------------|
| 3.1 | Agriculture and Forestry Resources | 3.8 | Noise |
| 3.2 | Air Quality | 3.9 | Transportation |
| 3.3 | Biological Resources | 3.10 | Utilities and Service Systems |
| 3.4 | Cultural Resources | | |
| 3.5 | Energy | | |
| 3.6 | Greenhouse Gas Emissions | | |
| 3.7 | Hazards and Hazardous Materials | | |

The discussion for each environmental subject includes the following subsections:

Environmental Setting – This subsection 1) provides a brief overview of relevant plans, policies, and regulations that compose the regulatory framework for the project and 2) describes the existing, physical environmental conditions at the project site and in the surrounding area, as relevant.

Impact Discussion – This subsection includes the recommended checklist questions from Appendix G of the CEQA Guidelines to assess impacts.

- **Project Impacts** – This subsection discusses the project’s impact on the environmental subject as related to the checklist questions. For significant impacts, feasible mitigation measures are identified. “Mitigation measures” are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines Section 15370). Each impact is numbered to correspond to the checklist question being answered. For example, Impact BIO-1 answers the first checklist question in the Biological Resources section. Mitigation measures are also numbered to correspond to the impact they address. For example, MM BIO-1.3 refers to the third mitigation measure for the first impact in the Biological Resources section.
- **Cumulative Impacts** – This subsection discusses the project’s cumulative impact on the environmental subject. Cumulative impacts, as defined by CEQA, refer to two or more individual effects, which when combined, compound or increase other environmental impacts. Cumulative impacts may result from individually minor, but collectively significant effects taking place over a period of time. CEQA Guideline Section 15130 states that an EIR should discuss cumulative impacts “when the project’s incremental effect is cumulatively

considerable.” The discussion does not need to be in as great detail as is necessary for project impacts but is to be “guided by the standards of practicality and reasonableness.” The purpose of the cumulative analysis is to allow decision makers to better understand the impacts that might result from approval of past, present, and reasonably foreseeable future projects, in conjunction with the proposed project addressed in this EIR.

The CEQA Guidelines advise that a discussion of cumulative impacts should reflect both their severity and the likelihood of their occurrence (CEQA Guidelines Section 15130(b)). To accomplish these two objectives, the analysis should include either a list of past, present, and probable future projects or a summary of projections from an adopted general plan or similar document (CEQA Guidelines Section 15130(b)(1)). This EIR relies on a summary projection of future growth and development based on the City’s General Plan, regional plans, and statewide plans, e.g. the Scoping Plan for SB 32.³

The analysis must determine whether the project’s contribution to any cumulatively significant impact is cumulatively considerable, as defined by CEQA Guideline Section 15065(a)(3). The cumulative impacts discussion for each environmental issue accordingly addresses the following issues: 1) would the effects of all of past, present, and probable future (pending) development result in a significant cumulative impact on the resource in question; and, if that cumulative impact is likely to be significant, 2) would the contribution from the proposed project to that significant cumulative impact be cumulatively considerable? The discussion of cumulative impacts is included within each of the respective resource sections throughout this EIR.

³ The Climate Change Scoping Plan for SB 32 is a comprehensive plan identifying how emission reductions would be achieved from significant GHG sources throughout the State of California, in alignment with GHG reduction targets.

3.1 AGRICULTURE AND FORESTRY RESOURCES

3.1.1 Environmental Setting

3.1.1.1 *Regulatory Framework*

State

Farmland Mapping and Monitoring Program

The California Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) assesses the location, quality, and quantity of agricultural land and conversion of these lands over time. Agricultural land is rated according to soil quality and irrigation status. The best quality land is called Prime Farmland. In CEQA analyses, the FMMP classifications and published county maps are used, in part, to identify whether agricultural resources that could be affected are present on-site or in the project area.⁴

California Land Conservation Act

The California Land Conservation Act (Williamson Act) enables local governments to enter into contracts with private landowners to restrict parcels of land to agricultural or related open space uses. In return, landowners receive lower property tax assessments. In CEQA analyses, identification of properties that are under a Williamson Act contract is used to also identify sites that may contain agricultural resources or are zoned for agricultural uses.⁵

Forest Land, Timberland, and Timberland Production

The California Department of Forestry and Fire Protection (Cal Fire) identifies forest land, timberland, and lands zoned for timberland production that can (or do) support forestry resources.⁶ Programs such as Cal Fire's Fire and Resource Assessment Program (FRAP) are used to identify whether forest land, timberland, or timberland production areas that could be effected are located on or adjacent to a project site.⁷

Local

Morgan Hill Agricultural Lands Preservation Program and Agricultural Mitigation Ordinance

The City of Morgan Hill has adopted an Agricultural Lands Preservation Program to encourage the preservation and enhancement of open space/agriculture outside of the City boundaries but within the City's Urban Growth Boundary (UGB) Sphere of Influence (SOI), while identifying certain

⁴ California Department of Conservation. *Farmland Mapping and Monitoring Program*. Accessed May 21, 2019. <http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx>.

⁵ California Department of Conservation. *Williamson Act*. Accessed May 21, 2019. <http://www.conservation.ca.gov/dlrp/lca>.

⁶ *Forest land* is land that can support 10 percent native tree cover and allows for management of one or more forest resources, including timber, fish, wildlife, and biodiversity (California Public Resources Code Section 12220(g)); *Timberland* is land not owned by the federal government or designated as experimental forest land that is available for, and capable of, growing a crop of trees used to produce lumber and other forest products, including Christmas trees (California Public Resources Code Section 4526); and *Timberland Production* is land devoted to and used for growing and harvesting timber and other compatible uses (Government Code Section 51104(g)).

⁷ Cal Fire. *FRAP*. Accessed May 21, 2019. <http://frap.fire.ca.gov/>.

properties within the boundaries for mitigation and compatible development with sports, recreation, and leisure uses. The ordinance establishes CEQA mitigation procedures to mitigate the loss of agricultural lands under the jurisdiction of the City of Morgan Hill. Mitigation for the loss of farmland with a designated “soil quality” on the FMMP maps provides for payment of an agricultural mitigation fee, acquisition of other agricultural land, or dedication of a permanent agricultural conservation easement on agricultural land and payment of a fee to cover ongoing stewardship and monitoring activities. Mitigation is required at a ratio of 1:1 (meaning one acre of perpetual farmland preservation for each acre of farmland development/conversion). Should a mitigation fee be paid, the City will combine those fees with open space fees to acquire easements near the City boundary.

3.1.1.2 *Existing Conditions*

The approximately 89-acre project site is comprised of 10 contiguous parcels in a mixed urban and rural setting. The project site is predominantly covered by fallowed agricultural fields, non-native grassland, non-producing orchards, and a tree nursery. A single-family house and storage structures are located on the southern portion of the site. A single-story building is located within the tree nursery on the northern portion of the site, at the Cochrane Road frontage. While the site is largely undeveloped, it has been historically disturbed by agricultural activities. No forestry resources are present on or near the site. The existing tree nursery is not considered a forestry resource, as the trees are boxed and intended to be sold or otherwise removed from the site.

There are four farmland categories in the California Department of Conservation Farmland Mapping Program: *Prime Farmland*, *Farmland of Statewide Importance*, *Unique Farmland* and *Farmland of Local Importance*. According to the 2016 Santa Clara County Important Farmlands Map, the project site includes designated *Prime Farmland*, *Unique Farmland*, and *Farmland of Statewide Importance* and *Other Land*.⁸ Prime Farmland is defined as having the best combination of physical and chemical features able to sustain long-term agricultural production. Farmland of Statewide Importance is similar to Prime Farmland with minor shortcomings, such as greater slopes or less ability to store soil moisture. Unique Farmland consists of lesser quality soils used for the production of the state’s leading agricultural crops. Other Land is land not included in any other mapping category. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.⁹

The project site has several urban land use designations, meaning its conversion has been accounted for in the General Plan and it is not zoned for farmland, and is not subject to a Williamson Act contract.¹⁰

⁸ California Department of Conservation, Farmland Mapping and Monitoring Program. *Santa Clara County Important Farmland 2016*. September 2018.

⁹ California Department of Conservation. *California Important Farmland Finder*. Accessed February 12, 2020. <https://maps.conservation.ca.gov/DLRP/CIFF/>.

¹⁰ County of Santa Clara Department of Planning and Development. *Williamson Act Properties*. Accessed February 12, 2020. <https://www.sccgov.org/sites/dpd/programs/wa/pages/wa.aspx>.

3.1.2 **Impact Discussion**

For the purpose of determining the significance of the project's impact on agriculture and forestry resources, would the project:

- 1) Convert Prime Farmland not zoned for agriculture, 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?
- 2) Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- 3) 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))?
- 4) Result in a loss of forest land or conversion of forest land to non-forest use?
- 5) 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?

3.1.2.1 ***Project Impacts***

Impact AG-1:	The project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. (Significant and Unavoidable Impact)
---------------------	--

The City of Morgan Hill adopted its Agricultural Lands Preservation Program (Preservation Program) in November 2014 to preserve potential agricultural land subject to development.¹¹ Lands classified as *Prime Farmland*, *Farmland of Statewide Importance*, *Unique Farmland*, or *Farmland of Local Importance* under the California Department of Conservation Farmland Mapping Program are covered under the Preservation Program. As previously discussed, the project site is designated as *Prime Farmland*, *Unique Farmland*, and *Farmland of Statewide Importance*. The project proposes to develop the site with industrial, commercial, and residential uses. Conversion of the above-mentioned farmland types to industrial, commercial, and residential uses would constitute a significant impact to agricultural resources.

¹¹ City of Morgan Hill. *Agricultural Lands Preservation Program*. Accessed February 12, 2020. <https://www.morgan-hill.ca.gov/1468/Agricultural-Lands-Preservation>.

Mitigation Measures: The project would be required to comply with the Preservation Program’s mitigation measures as detailed in the Agricultural Mitigation Ordinance (Chapter 18.152 of the Municipal Code). The applicant shall implement one of the following measures listed below:

MM AG-1.1: A minimum of one acre of agricultural land (1:1 mitigation ratio) shall be preserved for each acre of agricultural land changed to a non-agricultural use. The required acreage of area to be protected through an agricultural conservation easement or agricultural preservation in-lieu fee will depend on the measurement of affected area. The entire project site will be used for calculating the required mitigation.

MM AG-1.2: Conversion of agricultural land will require off-setting acquisition and/or dedication of agricultural conservation easements over approved agricultural mitigation land, or payment to the City of the agricultural preservation in-lieu fee, to support agricultural preservation activities. Developer acquisition/dedication of easements will require the project to pay an agricultural lands preservation program stewardship fee to cover administrative costs and ongoing management and monitoring of the easements.

MM AG-1.3: Agricultural mitigation fees shall be required prior to the acceptance of a final parcel or subdivision map or prior to issuance of building or grading permits. Easement dedication is required prior to issuance of building permits.

Implementation of the mitigation measures described above, per the City’s Agricultural Preservation Program and Agricultural Mitigation Ordinance, would reduce the project’s impacts associated with conversion of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance to non-agricultural uses, but not to a less than significant level. There are no other feasible mitigation measures which could be implemented to reduce the loss of agricultural lands.

The project site is not designated for agricultural use in the City’s General Plan and the site’s conversion to urban land uses would be consistent with what was analyzed in the General Plan EIR in respect to agricultural impacts. The General Plan EIR concluded that the conversion of farmland to urban uses would remain significant and unavoidable despite the adoption and implementation of the Preservation Program, as there would nonetheless be a substantial loss of farmland. In addition, the purchase of conservation easements does not mitigate loss of agricultural land since it would not create new agricultural lands.¹² Therefore, the proposed project would result in a significant and unavoidable impact to agricultural resources, consistent with the impact identified in the General Plan EIR (**Significant and Unavoidable Impact**)

¹² King and Gardiner Farms, LLC v. County of Kern (2020) 45 Cal.App.5th 814.

Impact AG-2: The project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. **(No Impact)**

The project site is currently zoned for commercial, industrial, and residential uses. The project proposes a Zoning Amendment to a PD Combining District with Commercial Highway and Commercial Industrial zoning to allow for development of the industrial/commercial portion of the site. The residential portion of the project would remain under the current Residential Attached Low-Density zoning. The project site is not under Williamson Act contract. Therefore, the project would not conflict with existing zoning for agricultural use, or a Williamson Act contract. **(No Impact)**

Impact AG-3: The project would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **(No Impact)**

The project site is zoned for commercial, industrial, and residential uses. The project would not conflict with existing zoning, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. **(No Impact)**

Impact AG-4: The project would not result in a loss of forest land or conversion of forest land to non-forest use. **(No Impact)**

The project site does not contain any forest land, as the tree nursery is not a forestry resource. The proposed project would not convert and forest land to non-forest use. **(No Impact)**

Impact AG-5: The project would not 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. **(Less than Significant Impact)**

As discussed under Impact AG-1, the project would convert Farmland to non-agricultural use and would be required to incorporate mitigation measures per the City's Agricultural Preservation Program and Agricultural Mitigation Ordinance to offset impacts to Farmland, although those impacts would remain significant and unavoidable. Aside from the physical conversion of land, the proposed project would not result in other changes in the existing environment which could result in the conversion of agricultural land or forest land. **(Less than Significant Impact)**

3.1.1.2 *Cumulative Impacts*

Impact AG-C: The project would not result in a cumulatively considerable contribution to a significant agricultural and forestry resources impact. **(Significant and Unavoidable Cumulative Impact)**

As discussed under Impact AG-1, the project would incorporate mitigation measures per the City's Agricultural Mitigation Ordinance to reduce project-level impacts to Prime Farmland, Farmland of Statewide Importance, and Unique Farmland, although those impacts would remain significant and unavoidable. These mitigation measures would require the project to preserve the amount of agricultural land lost at a 1:1 ratio for the 89-acre project site, either through land dedication or in-lieu fees paid to the City. Although these mitigation measures can be applied to the project and other farmland conversion in the City, in its General Plan EIR the City determined that full buildout through 2035 would result in the conversion of approximately 1,125 acres of farmland to non-agricultural use.¹³ This was recognized as a significant and unavoidable impact to agricultural resources. Therefore, the project would contribute to the significant and unavoidable cumulative impact to agricultural resources identified in the City's General Plan EIR. **(Significant and Unavoidable Cumulative Impact)**

¹³ City of Morgan Hill. *2035 Draft Environmental Impact Report*. January 2016. Page 4.2-26.

3.2 AIR QUALITY

The following discussion is based, in part, on an air quality and greenhouse gas assessment prepared by *Illingworth & Rodkin, Inc.* in May 2020. A copy of the report is included in Appendix C of this DEIR.

3.2.1 Environmental Setting

3.2.1.1 *Background Information*

Criteria Pollutants

Air quality in the Bay Area is assessed related to six common air pollutants (referred to as criteria pollutants), including ground-level ozone (O₃), nitrogen oxides (NO_x), particulate matter (PM), carbon monoxide (CO), sulfur oxides (SO_x), and lead.¹⁴ Criteria pollutants are regulated because they result in health effects. An overview of the sources of criteria pollutants and their associated health are summarized in Table 3.2-1. The most commonly regulated criteria pollutants in the Bay Area are discussed further below.

Table 3.2-1: Health Effects of Air Pollutants		
Pollutants	Sources	Primary Effects
O ₃	Atmospheric reaction of organic gases with nitrogen oxides in sunlight	<ul style="list-style-type: none">• Aggravation of respiratory and cardiovascular diseases• Irritation of eyes• Cardiopulmonary function impairment
Nitrogen Dioxide (NO ₂)	Motor vehicle exhaust, high temperature stationary combustion, atmospheric reactions	<ul style="list-style-type: none">• Aggravation of respiratory illness• Reduced visibility
Fine Particulate Matter (PM _{2.5}) and Coarse Particulate Matter (PM ₁₀)	Stationary combustion of solid fuels, construction activities, industrial processes, atmospheric chemical reactions	<ul style="list-style-type: none">• Reduced lung function, especially in children• Aggravation of respiratory and cardiorespiratory diseases• Increased cough and chest discomfort• Reduced visibility
Toxic Air Contaminants (TACs)	Cars and trucks, especially diesel-fueled; industrial sources, such as chrome platers; dry cleaners and service stations; building materials and products	<ul style="list-style-type: none">• Cancer• Chronic eye, lung, or skin irritation• Neurological and reproductive disorders

¹⁴ The area has attained both state and federal ambient air quality standards for CO. The project does not include substantial new emissions of sulfur dioxide or lead. Sulfur dioxide is typically generated by industrial activity that processes materials that contain sulfur or incomplete combustion of fuels containing sulfur. Examples of sources of lead emissions include lead smelters, waste incinerators, and lead-acid battery manufacturers. The project does not propose substantial new sources of these criteria pollutants and they are not discussed further.

High O₃ levels are caused by the cumulative emissions of reactive organic gases (ROG) and NO_x. These precursor pollutants react under certain meteorological conditions to form high O₃ levels. Controlling the emissions of these precursor pollutants is the focus of the Bay Area's attempts to reduce O₃ levels. The highest O₃ levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources.

PM is a problematic air pollutant of the Bay Area. PM is assessed and measured in terms of respirable particulate matter or particles that have a diameter of 10 micrometers or less (PM₁₀) and fine particulate matter where particles have a diameter of 2.5 micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide emissions and localized emissions.

Toxic Air Contaminants

TACs are a broad class of compounds known to have health effects. They include but are not limited to criteria pollutants. TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, diesel fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter [DPM] near a freeway).

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs. Diesel exhaust is a complex mixture of gases, vapors, and fine particles. Medium- and heavy-duty diesel trucks represent the bulk of DPM emissions from California highways. The majority of DPM is small enough to be inhaled into the lungs. Most inhaled particles are subsequently exhaled, but some deposit on the lung surface or are deposited in the deepest regions of the lungs (most susceptible to injury).¹⁵ Chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by the California Air Resources Board (CARB).

Sensitive Receptors

Some groups of people are more affected by air pollution than others. CARB has identified the following persons who are most likely to be affected by air pollution: children under 16, the elderly over 65, athletes, and people with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive receptors. Locations that may contain a high concentration of these sensitive population groups include residential areas, hospitals, daycare facilities, elder care facilities, and elementary schools.

¹⁵ California Air Resources Board. "Overview: Diesel Exhaust and Health." Accessed August 16, 2019. <https://www.arb.ca.gov/research/diesel/diesel-health.htm>.

3.2.1.2 *Regulatory Framework*

Federal and State

Air Quality Overview

Federal and state agencies regulate air quality in the San Francisco Bay Area Air Basin, within which the proposed project is located. At the federal level, the United States Environmental Protection Agency (EPA) is responsible for overseeing implementation of the Clean Air Act and its subsequent amendments. The California Air Resources Board (CARB) is the state agency that regulates mobile sources throughout the state and oversees implementation of the state air quality laws and regulations, including the California Clean Air Act.

Regional and Local Criteria Pollutants

The federal Clean Air Act requires the EPA to set national ambient air quality standards for six common air pollutants (referred to as criteria pollutants), including particulate matter (PM), ground-level ozone (O₃), carbon monoxide (CO), sulfur oxides, nitrogen oxides (NO_x), and lead. The EPA and the CARB have adopted ambient air quality standards establishing permissible levels of these pollutants to protect public health and the climate. Violations of ambient air quality standards are based on air pollutant monitoring data and are determined for each air pollutant. Attainment status for a pollutant means that a given air district meets the standard set by the EPA and/or CARB.

Toxic Air Contaminants

Toxic Air Contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality, usually because they cause cancer. TACs are found in ambient air, especially in urban areas, and are released by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Diesel exhaust is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs. Diesel exhaust is a complex mixture of gases, vapors, and fine particles. CARB has adopted regulations for stationary and mobile sources to reduce emissions of diesel exhaust and diesel particulate matter (DPM). Several of these regulatory programs affect medium and heavy-duty diesel trucks, which represent the bulk of DPM emissions from California highways. The majority of DPM is small enough to be inhaled into the lungs. Most inhaled particles are subsequently exhaled, but some deposit on the lung surface or are deposited in the deepest regions of the lungs (most susceptible to injury).¹⁶

Fine Particulate Matter (PM_{2.5}) is a TAC composed of a mix of substances, such as carbon and metals, compounds such as nitrates, organics, and sulfates, and mixtures such as diesel exhaust and wood smoke. Because of their small size (particles are less than 2.5 micrometers in diameter), PM_{2.5} can lodge deeply into the lungs. According to BAAQMD, PM_{2.5} is the air pollutant most harmful to

¹⁶ CARB. *Overview: Diesel Exhaust and Health*. Accessed May 21, 2019.
<https://www.arb.ca.gov/research/diesel/diesel-health.htm>.

the health of Bay Area residents. Sources of PM_{2.5} include gasoline stations, dry cleaners, diesel vehicles, and diesel backup generators.

Local risks associated with TACs and PM_{2.5} are evaluated on the basis of risk to human health rather than comparison to an ambient air quality standard or emission-based threshold.

Community health risk assessments typically look at all substantial sources of TACs located within 1,000 feet of project sites. These sources include highways and busy surface streets (with average daily trips of 10,000 or more) and stationary sources identified by BAAQMD.

Regional

2017 Clean Air Plan

BAAQMD is the agency primarily responsible for assuring that the federal and state ambient air quality standards are maintained in the San Francisco Bay Area. Regional air quality management districts, such as BAAQMD, must prepare air quality plans specifying how state and federal air quality standards would be met. BAAQMD's most recently adopted plan is the *Bay Area 2017 Clean Air Plan* (2017 CAP). The 2017 CAP focuses on two related BAAQMD goals: protecting public health and protecting the climate. To protect public health, the 2017 CAP describes how BAAQMD will continue its progress toward attaining state and federal air quality standards and eliminating health risk disparities from exposure to air pollution among Bay Area communities. To protect the climate, the 2017 CAP includes control measures designed to reduce emissions of methane and other super-greenhouse gasses (GHGs) that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.¹⁷

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. The City of Morgan Hill and other jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing air quality Impacts developed by BAAQMD within their CEQA Air Quality Guidelines. The guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

¹⁷ BAAQMD. *Final 2017 Clean Air Plan*. April 19, 2017. Accessed August 13, 2019. <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>.

Local

City of Morgan Hill 2035 General Plan

Adopted July 27, 2016, the *Morgan Hill 2035 General Plan* includes goals and policies to improve air quality issues facing the City of Morgan Hill.¹⁸ The following goals, policies, and actions are applicable to the proposed project:

Goal NRE-10: *Reduced air pollution emissions.*

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

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

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

Policy NRE-11.1: **TACs and Proposed Sensitive Uses.** Require modeling for sensitive land uses, such as residential development, proposed near sources of pollution such as freeways and industrial uses. Require new residential development and projects categorized as sensitive receptors to incorporate effective mitigation measures into project designs or be located adequate distances from sources of toxic air contaminants (TACs) to avoid significant risk to health and safety.

Policy NRE-11.2: **TACs and Existing Sensitive Uses.** Encourage the installation of appropriate air filtration mechanisms at existing schools, residences, and other sensitive receptors adversely affected by existing or proposed pollution sources.

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

¹⁸ City of Morgan Hill. *City of Morgan Hill 2035 General Plan. Chapter 8 Natural Resources and Environment.* Adopted July 27, 2016. Accessed August 13, 2019. <https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId=>

Quality Management District to identify stationary and mobile toxic air contaminant sources and determine the need for and requirements of a health risk assessment for proposed developments.

Policy NRE-11.4: **Truck Routes.** For development projects generating significant heavy-duty truck traffic, design truck routes that minimize exposure of sensitive receptors to toxic air contaminants and particulate matter.

Policy NRE-11.5: **Truck Idling.** For development projects generating significant truck traffic, require signage to remind drivers that the State truck idling law limits truck idling to five (5) minutes.

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

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

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

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

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

3.2.1.3 *Existing Conditions*

Air quality and the amount of a given pollutant in the atmosphere are determined by the amount of pollutant released and the atmosphere's ability to transport and dilute the pollutant. The major determination of transport and dilution are wind, atmospheric stability, terrain, and, for photochemical pollutants, sunlight.

The project site is located at the south end of the Santa Clara Valley, within the San Francisco Bay Area Air Basin. The region typically has moderate ventilation and frequent inversions that restrict vertical dilution. The Santa Cruz Mountains and Diablo Range, located on either side of the Santa Clara Valley, restrict horizontal dilution. The surrounding terrain results in a prevailing wind that follows along the valley's northwest-southeast axis. The combined effects of these geographical and

meteorological factors make air pollution potential in the Santa Clara Valley quite high. The San Francisco Bay Area, however, is considered to be one of the cleanest metropolitan areas in the country, with respect to air quality.

The project site contributes minimally to local and regional air pollutant levels. Emissions are generated by vehicle travel to and from the site and operation of heavy equipment.

Existing Air Pollutant Levels

As mentioned previously, the San Francisco Bay Area Air Basin, within which the project site is located, has non-attainment status for ground level ozone, fine particulate matter (PM_{2.5}), and respirable particulate matter (PM₁₀). The San Francisco Bay Area Air Basin has attainment or undetermined status for all other regional criteria pollutants for which the US EPA and CARB have set standards. The nearest official monitoring station to the City of Morgan Hill is located at 158 East Jackson Street in San José, approximately 19 miles north of the site.¹⁹ Pollutant monitoring results for the years 2016 to 2018 at the San José monitoring station are shown in Table 3.2-2. The station monitors ozone, carbon monoxide, nitrogen oxide, PM₁₀ and PM_{2.5} levels.

Table 3.2-2: Ambient Air Quality Standards Violations and Highest Concentrations				
Pollutant	Standard	Days Exceeding Standard		
		2016	2017	2018
San José Station				
Ozone	State 1-hour	0	3	0
	Federal 8-hour	0	4	0
Carbon Monoxide	Federal 8-hour	0	0	0
	State 8-hour	0	0	0
Nitrogen Dioxide	State 1-hour	0	0	0
	Federal 1-hour	0	0	0
PM ₁₀	Federal 24-hour	0	0	0
	State 24-hour	0	6	4
PM _{2.5}	Federal 24-hour	0	6	15
Source: BAAQMD. Air Pollution Summaries (2016-2018). Available at: http://www.baaqmd.gov/about-air-quality/air-quality-summaries .				

Sensitive Receptors

The closest sensitive receptors to the project site are single-family residences to the east and south of the project site. The closest residence is immediately south of the site at the corner of Half Road and Condit Road (south of the planned industrial uses). In addition, Live Oak High School is located approximately 300 feet southeast of the southeastern portion of the project site. De Paul Health Center is located east of the project area where industrial and commercial uses are planned and to the north-northwest of the area where residences are planned. The Westmont of Morgan Hill assisted

¹⁹ BAAQMD, Meteorology and Measurement Division. 2018 Air Monitoring Network Plan. July 1, 2019. Accessed February 16, 2020. https://www.baaqmd.gov/~media/files/technical-services/2018_network_plan-pdf.pdf?la=en. The San Martin monitoring station only monitors ground-level ozone.

living facility is located east of the project area where commercial uses are planned. The location of the sensitive receptors in the vicinity of the project area identified in the project's air quality and greenhouse gas assessment.

Odors

Common sources of odors and odor complaints include wastewater treatment plants, transfer stations, coffee roasters, painting/coating operations, and landfills. Significant sources of offending odors are typically identified based on complaint histories received and compiled by BAAQMD. Typical large sources of odors that result in complaints are wastewater treatment facilities, landfills including composting operations, food processing facilities, and chemical plants. Other sources, such as restaurants, paint or body shops, and coffee roasters typically result in localized sources of odors. There are no substantial sources of odor in the project area.

3.2.2 Impact Discussion

For the purpose of determining the significance of the project's impact on air quality, would the project:

- 1) Conflict with or obstruct implementation of the applicable air quality plan?
- 2) 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?
- 3) Expose sensitive receptors to substantial pollutant concentrations?
- 4) Result in substantial emissions (such as odors) adversely affecting a substantial number of people?

3.2.2.1 *Thresholds of Significance*

Impacts from the Project

As discussed in CEQA Guidelines Section 15064(b), the determination of whether a project may have a significant effect on the environment calls for judgment on the part of the lead agency and must be based to the extent possible on scientific and factual data. The City of Morgan Hill has considered the air quality thresholds updated by BAAQMD in May 2017 and regards these thresholds to be based on the best information available for the San Francisco Bay Area Air Basin and conservative in terms of the assessment of health effects associated with TACs and PM_{2.5}. The BAAQMD CEQA Air Quality thresholds used in this analysis are identified in Table 3.2-3.

Table 3.2-3: BAAQMD Air Quality Significance Thresholds			
Pollutant	Construction Thresholds	Operation Thresholds	
	Average Daily Emissions (pounds/day)	Annual Daily Emissions (pounds/year)	Annual Average Emissions (tons/year)
Criteria Air Pollutants			
ROG, NO _x	54	54	10
PM ₁₀	82 (exhaust)	82	15
PM _{2.5}	54 (exhaust)	54	10
CO	Not Applicable	9.0 ppm (eight-hour) or 20.0 ppm (one-hour)	
Fugitive Dust	Dust Control Measures/Best Management Practices	Not Applicable	
Health Risks and Hazards for New Sources (within a 1,000-foot Zone of Influence)			
Health Hazard	Single Source	Combined Cumulative Sources	
Excess Cancer Risk	10 per one million	100 per one million	
Hazard Index	1.0	10.0	
Incremental Annual PM _{2.5}	0.3 µg/m ³	0.8 µg/m ³ (average)	

3.2.2.2 *Project Impacts*

Impact AIR-1: The project would conflict with or obstruct implementation of the applicable air quality plan. **(Significant Unavoidable Impact)**

2017 Clean Air Plan

BAAQMD recommends that the agency evaluating a project where an air quality plan consistency determination is required analyze the project with respect to the following questions.

- 1) Does the project support the primary goals of the 2017 CAP?
- 2) Does the project include applicable control measures from the 2017 CAP?
- 3) Does the project disrupt or hinder the implementation of any 2017 CAP control measures?

The proposed industrial/commercial/residential mixed-use project would support the primary goals of the CAP, which are to attain air quality standards, reduce population exposure and protect public health, and reduce greenhouse gas emissions and protect the climate. This is evidenced by the project's consistency with the BAAQMD thresholds of significance and statewide greenhouse gas (GHG) reduction targets. However, as discussed below under Impact AIR-2, the project would

exceed BAAQMD thresholds for NO_x emissions during the construction period but includes mitigation measures (MM AIR-2.1 and MM AIR-2.2) which would sufficiently reduce emissions to below the threshold. The project would exceed the threshold for operational NO_x emissions (54 pounds per day) as discussed under Impact AIR-2 in this section. The project would not exceed BAAQMD thresholds for any other criteria pollutants (ROG, PM₁₀, PM_{2.5}) during construction and operations.

The 2017 CAP contains a control strategy intended to complement efforts to improve air quality and protect the climate being made by other partner agencies at the state, regional and local levels. The strategy is based on the following four key priorities and identifies 85 individual control measures to reduce pollutant emissions.

- Reduce emissions of criteria pollutants and TACs from all key sources.
- Reduce emissions of “Super GHGs” such as methane, black carbon, and fluorinated gases.
- Decrease demand for fossil fuels.
- Decarbonize our energy system.

The control measures are organized into the following economic sector categories: Stationary Sources; Transportation; Energy; Buildings; Agriculture; Natural and Working Lands; Waste Management; Water; and Super GHG Pollutants. The majority of control measures apply to plan/program level projects, specific industries or pollutant sources (i.e. agriculture or refining), or policies/regulations at the local or regional government level. BAAQMD develops regulations based on the measures identified in the 2017 CAP; the project’s consistency with applicable rules and regulations is discussed below.

BAAQMD Rules and Regulations

Combustion equipment which includes new diesel engines, power generators, and natural gas-fired boilers would be subject to BAAQMD Regulations and Rules. The District’s rules and regulations that may apply to the proposed project include:

- Regulation 2 – Permits
 - Rule 2-1: General Requirements
 - Rule 2-2: New Source Review
- Regulation 6 – Particulate Matter and Visible Emissions
- Regulation 9 – Inorganic Gaseous Pollutants
 - Rule 9-1: Sulfur Dioxide
 - Rule 9-7: Nitrogen Oxides and Carbon Monoxide from Industrial, Institutional, and Commercial Boilers, Steam Generators, And Process Heaters
 - Rule 9-8: Nitrogen Oxides and Carbon Monoxide from Stationary Internal Combustion Engines

Permits – Rule 2-1-301 requires that any person installing, modifying, or replacing any equipment, the use of which may reduce or control the emission of air contaminants, shall first obtain an authority to construct (ATC).

Rule 2-1-302 requires that written authorization from the BAAQMD in the form of a permit to operate (PTO) be secured before any such equipment is used or operated.

Rule 2-1 lists sources that are exempt from permitting. At the proposed industrial facility, diesel-fueled generators would be included within each of the three buildings. The generators would be accompanied by diesel fuel storage tanks, which are expected to be exempt from permitting.

New Source Review - Rule 2-2, New Source Review (NSR), applies to all new and modified sources or facilities that are subject to the requirements of Rule 2-1-301. The purpose of the rule is to provide for review of such sources and to provide mechanisms by which no net increase in emissions will result.

Rule 2-2-301 requires that an applicant for an Authority to Construct (ATC) or Permit to Operate (PTO) apply best available control technology (BACT) to any new or modified source that results in an increase in emissions and has emissions of precursor organic compounds, non-precursor organic compounds, NO_x, SO₂, PM₁₀, or CO of 10.0 pounds or more per highest day. Based on the estimated emissions from the proposed project, BACT will be required for NO_x emissions from the diesel-fueled generator engines.

BACT for Diesel Generator Engines – Since the generators will be used exclusively for emergency use during involuntary loss of power, the BACT 2 levels listed for IC compression engines in the BAAQMD BACT Guidelines would apply. The BACT 2 NO_x emission factor limit is 6.9 grams per horsepower hour (g/hp-hr). The project's proposed engines will have emissions lower than the BACT 2 level and, as such, will comply with the BACT requirements.

Offsets - Rule 2-2-302 require that offsets be provided for a new or modified source that emits more than 10 tons per year of NO_x or precursor organic compounds. It is not expected that emissions of any pollutant will exceed the offset thresholds. Thus, is not expected that offsets for the proposed project would be required.

Prohibitory Rules - Regulation 6 pertains to particulate matter and visible emissions. Although the engines will be fueled with diesel, they will be modern, low emission engines. Thus, the engines are expected to comply with Regulation 6.

Rule 9-1 applies to sulfur dioxide. The engines will use ultra-low sulfur diesel fuel (less than 15 ppm sulfur) and will not be a significant source of sulfur dioxide emissions and are expected to comply with the requirements of Rule 9-1.

Rule 9-8 prescribes NO_x and CO emission limits for stationary internal combustion engines. Since the proposed engines will be used with emergency standby generators, Regulation 9-8-110 exempts the engines from the requirements of this Rule, except for the recordkeeping requirements (9-8-530) and limitations on hours of operation for reliability-related operation (maintenance and testing). The engines will not operate more than 50 hours per year, which will satisfy the requirements of 9-8-111.

Stationary Diesel Airborne Toxic Control Measure (ACTM) – The BAAQMD administers the State's ACTM for Stationary Diesel engines (section 93115, title 17 CA Code of Regulations). The project's engines will be new stationary emergency standby diesel engines larger than 50 hp. Since the engines

will have an uncontrolled PM emission factor of less than 0.15 g/hp-hr and operate no more than 50 hours per year, the engines will comply with the requirements of the ACTM.

Naturally Occurring Asbestos ACTM - To reduce public exposure to naturally occurring asbestos, BAAQMD regulates all construction and mining activities that produce dust potentially containing naturally occurring asbestos. The ACTM places requirements on the following activities in areas where naturally occurring asbestos is likely to be found:

- Road construction and maintenance.
- Construction and grading.
- Quarrying and surface mining.

Construction projects greater than one acre with potential to disturb naturally occurring asbestos must submit an asbestos dust mitigation plan application. The District reviews and evaluates the plan to ensure the appropriate minimization measures are incorporated and may require monitoring if in close proximity to sensitive receptors.

The project would be consistent with applicable control measures of the 2017 CAP by developing a mixed-use infill development, installing energy efficient features in the proposed buildings, and planting trees on-site that meet or exceed the City's required tree replacement ratios. The project's stationary sources of emissions, which include back-up diesel generators and natural gas-fired boilers, would be regulated by BAAQMD Rules and Regulations. Although the project would be consistent with the above control measures discussed in the 2017 CAP, the project would result in significant operational NO_x emissions. The project would, therefore, conflict with the CAP's goal to reduce NO_x emissions. **(Significant Unavoidable Impact)**

Impact AIR-2: The project would 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. **(Significant and Unavoidable Impact)**

The California Emissions Estimator Model (CalEEMod) Version 2016.3.2 was used to estimate emissions from construction and operation of the project. The following project build-out scenario was modeled:

1. Proposed Defined Industrial Project: 1,044,600 sf of "General Light Industrial" and a 1,435-space "Parking Lot" on a 54.74-acre site. Construction would occur in 2020 and 2021 with operation in 2023.
2. Proposed Industrial Commercial Lot: 50,000 sf of "Strip Mall" on a 3.06-acre site. The earliest that construction activity would be possible was estimated at 2021 with operation beginning in 2023 at the earliest.

3. Proposed Industrial Office (Industrial Dr. Lee²⁰): 45,000 sf of “General Light Industrial” a on a 2.31-acre site. Construction would occur in 2021 with operation beginning in 2023 at the earliest.
4. Proposed Residential Component: 319 units of “Single Family Housing” on a 28-acre site. Construction was assumed to begin in 2022 at the earliest and continue to 2024 with the earliest full operation year of 2025 assumed.²¹

Construction Period Emissions

CalEEMod provided annual emissions for construction and estimated emissions for both on-site and off-site construction activities. On-site activities are primarily made up of construction equipment emissions, while off-site activity includes worker, hauling, and vendor traffic.

A construction build-out scenario, including equipment list and schedule, was based on the information provided for the defined industrial project. The other project components relied on the CalEEMod model defaults. Since the project site is flat and mostly undeveloped, no substantial import or export of soil material was assumed in the modeling.

Construction of the Morgan Hill Technology Center (general light industrial) portion of the project is projected to begin in January 2021 and last through April 2022. There is an estimated 308 construction workdays for this portion of the project. Other components of the project could be constructed in late 2021 through 2024. The total construction period for the project would be January 2021 through January 2024, or 792 days. Average daily emissions were computed by dividing the total construction emissions by the number of construction days. Table 3.2-4 below shows the average daily criteria pollutant emissions during construction of the project, divided up into the defined industrial component of the project and the other industrial, commercial, and residential uses.

²⁰ This parcel is denoted as ‘Not a Part’ on the proposed site plan in Figure 2.0-5.

²¹ The actual timeframe for construction of the general light industrial and industrial office components is January 2021 to April 2022, March 2021 to August 2021 for the commercial component, and April 2027 for buildout of the residential component. Shorter construction timeframes were assumed for the project which provides a more conservative estimate for emissions.

Table 3.2-4: Construction Criteria Pollutant Emissions				
Scenario	ROG	NO_x	Total PM₁₀	Total PM_{2.5}
Construction Period Emissions (Year 2021 – 2024)				
Total construction emissions (tons)				
Unmitigated	12.51	22.21	0.92	0.86
Mitigated	--	15.39	--	--
Average daily emissions based on 792 construction days (pounds/day)				
Unmitigated	32	56	2	2
Mitigated	--	39	--	--
<i>BAAQMD Thresholds (pounds/day)</i>	<i>54 lbs.</i>	<i>54 lbs.</i>	<i>82 lbs.</i>	<i>54 lbs.</i>
<i>Exceed Threshold?</i>				
<i>Unmitigated</i>	No	Yes	No	No
<i>Mitigated</i>	--	No	--	--

As shown in Table 3.2-4, construction of the project would exceed BAAQMD thresholds for average daily emissions of NO_x (54 pounds/day). This would constitute a significant impact.

Mitigation Measures: The following mitigation measures would be implemented by the project to reduce criteria air pollutant emissions to a less than significant level.

MM AIR-2.1:

Dust (PM₁₀) Control Measures:

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 miles per hour (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 mechanic and determined to be running in proper condition prior to operation.
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.
9. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.
10. All excavation, grading, and/or demolition activities shall be suspended when average wind speeds exceed 20 mph and visible dust extends beyond site boundaries.
11. Wind breaks (e.g., trees, fences) shall be installed on the windward side(s) of actively disturbed areas of construction adjacent to sensitive receptors. Wind breaks should have at maximum 50 percent air porosity.
12. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.
13. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.
14. Avoid tracking of visible soil material on to public roadways by employing the following measures if necessary: (1) Site accesses to a distance of 100 feet from public paved roads shall be treated with a six to 12-inch compacted layer of wood chips, mulch, or gravel and (2) washing truck tires and construction equipment of prior to leaving the site.
15. Sandbags or other erosion control measures shall be installed to prevent silt runoff to public roadways from sites with a slope greater than one percent.
16. Minimizing the idling time of diesel-powered construction equipment to two minutes.

The above measures are consistent with the control measures for reducing fugitive particulate matter that are contained in the BAAQMD CEQA Air Quality Guidelines. Implementation of mitigation measure MM AIR-2.1 would reduce exhaust emissions by five percent and fugitive dust emissions by over 50 percent. **(Less than Significant Impact with Mitigation Incorporated)**

MM AIR-2.2:

Exhaust Emission (NO_x and PM) Control Measures:

The project shall develop a plan demonstrating that the off-road equipment (more than 25 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles)

and hauling truck traffic would achieve a 20-percent NO_x reduction and overall 60-percent PM (particulate matter) exhaust reduction. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as such become available. The following are feasible methods that shall be used unless an alternative plan that achieves this requirement is submitted and approved by the City:

1. Construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA Tier 4 emission standards (Tier 4 interim or Tier 4 final), if feasible, otherwise,
 - a. All construction equipment larger than 25 horsepower used at the site for more than two continuous days or 20 hours total shall meet U.S. EPA emission standards for Tier 3 engines and include particulate matter emissions control equivalent to CARB Level 3 verifiable diesel emission control devices that altogether achieve an 85 percent reduction in particulate matter exhaust; alternatively (or in combination); or
 - b. Use of electric or alternatively fueled equipment with lower NO_x emissions that meet the NO_x and PM reduction requirements above.
 - c. For exceptions, a waiver to use other equipment for specialized purposes would have to be obtained from the City after review of evidence that use of such equipment meeting the above mitigation requirements is not feasible.
2. Diesel engines, whether for off-road equipment or on-road vehicles, shall not be left idling for more than 2 minutes, except as provided in exceptions to the applicable state regulations (e.g., traffic conditions, safe operating conditions). The construction sites shall have posted legible and visible signs in designated queuing areas and at the construction site to clearly notify operators of idling limit.
3. Provide line power to the site during the early phases of construction to minimize the use of diesel-powered stationary equipment, such as generators.

Assuming construction equipment that meets the U.S. EPA's Tier 4 equipment standards described above, mitigation measure MM AIR-2.2 would reduce NO_x emissions by 31 percent and PM₁₀ exhaust emissions by 90 percent. With the implementation of MM AIR-2.2, construction NO_x emissions would be reduced to below the BAAQMD significance threshold of 54 pounds per day which would result in a less than significant construction NO_x emissions impact. Therefore, implementation of these mitigation measures would reduce construction criteria air pollutant emissions to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Operational Period Emissions

Operational air emissions from the project would be generated primarily from trucks using the industrial buildings, and autos driven by future residents, employees, and customers. Evaporative emissions from architectural coatings and maintenance products (classified as consumer products) are typical emissions from these types of uses. CalEEMod was also used to estimate emissions from operation of the proposed project assuming full build-out. The model was used to estimate

operational emissions from use of electricity, natural gas, and stationary equipment (e.g., fire pumps). It was assumed that natural gas would not be used for the proposed residences. For a detailed discussion of the assumptions and inputs included in the modeling of operational air pollutant emissions, refer to the air quality assessment in Appendix A.

Table 3.2-5 below shows average daily emissions of ROG, NO_x, PM₁₀, and PM_{2.5} during operation of the project. It was assumed that full build-out of the defined industrial project would be completed in 2023, and build-out of the remaining commercial and residential components would be completed in 2025.

Table 3.2-5: Operational Period Emissions				
Scenario	ROG	NO_x	Total PM₁₀	Total PM_{2.5}
Full Project Build Out				
Total operational emissions (tons) Unmitigated	9.91	11.70	9.21	2.52
<i>BAAQMD Thresholds (tons/year)</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>10</i>
Average daily emissions (pounds/day) ¹ Unmitigated	54	64	50	14
<i>BAAQMD Thresholds (pounds/day)</i>	<i>54 lbs.</i>	<i>54 lbs.</i>	<i>82 lbs.</i>	<i>54 lbs.</i>
<i>Exceeds Threshold?</i>	Yes	Yes	No	No
Notes: ¹ Assumes 365 days of operation.				

Operational ROG Emissions

Based on the results of the modeling shown in Table 3.2-5 above, operational ROG emissions would be 54 pounds per day, which is the BAAQMD threshold for ROG emissions. Approximately 64 percent of the operational ROG emissions would be from consumer products (e.g., cleaning products), 11 percent from architectural coatings, and 25 percent from traffic emissions. There are no apparent feasible mitigation measures that the City can impose that can reduce emissions from consumer products. However, CARB regulates many of these products. The project would implement the below mitigation to reduce operational ROG emissions from architectural coatings and vehicular traffic.

Mitigation Measures: The following mitigation measures would be implemented by the project to reduce operational ROG emissions to a less than significant level.

MM AIR-2.3:

- The project applicant shall implement a Transportation Demand Management (TDM) Plan that would reduce project-generated traffic trips by five percent. Examples of TDM measures include, but are not limited to, parking pricing strategies; parking maximums; mandated parking spaces for car-sharing programs; the provision of transit passes in residential, commercial and office developments; charging stations for electric vehicles; bicycle lockers or racks; teleworking policies; bicycling improvements; and more. Implementation of a TDM

Plan would reduce ROG mobile emissions by approximately 0.05 to 0.1 tons per year or approximately one pound per day.

- The project shall use low volatile organic compound or VOC (i.e., ROG) coatings, that are below current BAAQMD requirements (i.e., Regulation 8, Rule 3: Architectural Coatings), for at least 50 percent of nonresidential interior and exterior paints. This includes all architectural coatings applied during both construction and reapplications throughout the project's operational lifetime. At least 50 percent of coatings applied must meet a "super-compliant" VOC standard of less than 10 grams of VOC per liter of paint. For reapplication of coatings during the project's operational lifetime, the Declaration of Covenants, Conditions, and Restrictions shall contain a stipulation for low VOC coatings to be used. This mitigation would reduce ROG emissions by 0.2 to 0.4 tons per year or one to two pounds per day.

With the implementation of mitigation measure MM AIR-2.3 which require a TDM Plan and application of low VOC coatings, the operational ROG emissions would be reduced to 51 to 52 pounds per day or lower, which is below the BAAQMD threshold. Therefore, with the implementation of the above measures, the project would have a less than significant contribution to regional ROG emissions. **(Less Than Significant Impact with Mitigation Incorporated)**

Operational NO_x Emissions

As shown in the Table 3.2-5, operations of the project would result in NO_x emissions above the BAAQMD threshold of 54 pounds per day and 10 tons per year.

The project would include diesel truck traffic, approximately 248 daily truck trips per day as discussed in Section 3.9, Transportation. A combination of 50 percent Medium Heavy-Duty trucks and 50-percent Heavy-Duty trucks were assumed. Truck trips were assumed to be 18 miles per trip on average. Unnecessary idling and queuing of trucks could cause additional emissions and/or nuisance air quality impacts that are not specifically predicted in this study. The following mitigation measures are recommended to address air quality impacts due to emissions from idling and queueing of trucks.

Mitigation Measures: Implementation of the following mitigation measures reduce operational NO_x emissions:

MM AIR-2.4:

- **Electrify Loading Docks.** Require the electrification of all loading docks to facilitate plug-in capability and encourage or require trucks to utilize grid power in order to deliver goods.
- **Limit Idling Times** Prohibit trucks from idling for more than two minutes or prohibit idling altogether. Prohibit off-site queuing and idling of trucks.
- **Truck Routes.** Establish appropriate truck routes that avoid trucks transiting through residential areas in accordance with General Plan Policy *NRE-11.4*.

- **Transportation Demand Management (TDM).** Develop TDM Programs to address General Plan Policy *NRE-15.10*. Examples include, but are not limited to, parking pricing strategies; parking maximums; mandated parking spaces for car-sharing programs; the provision of transit passes in residential, commercial and office developments; charging stations for electric vehicles; bicycle lockers or racks; teleworking policies; bicycling improvements; and more.

TDM plans can achieve a five to 10 percent reduction in normal traffic trips. The majority of the NO_x emissions are attributable to truck trips that would not be affected by the TDM plan. Implementing mitigation measure MM AIR-2.4 would reduce NO_x emissions; however, emissions would not be reduced to below the significance threshold. The project would, therefore, result in significant and unavoidable NO_x emissions primarily due to truck trips. **(Significant Unavoidable Impact)**

Significant and Unavoidable NO_x Emissions

As stated above, with the implementation of mitigation measure MM AIR-2.3, operational emissions would continue to exceed the BAAQMD threshold of significance for NO_x emissions.

Significant emissions of NO_x results in a cumulatively considerable net increase of criteria pollutants for which the project region is nonattainment under an applicable ambient air quality standard. Because the project would result in operational NO_x emissions that exceed BAAQMD thresholds, the project would result in a cumulatively considerable net increase in pollutant emissions that contributes to elevated ozone concentrations which exceed ambient air quality standards.

Ozone is an oxidant that is harmful to public health at high concentrations. Ozone, at high levels, can damage the tissues of the lungs and respiratory tract. High concentrations of ozone irritate the nose, throat, and respiratory system and constrict the airways. Ozone also can aggravate other respiratory conditions such as asthma, bronchitis, and emphysema, causing increased hospital admissions. Repeated exposure to high ozone levels can make people more susceptible to respiratory infection and lung inflammation and permanently damage lung tissue. Ozone can also have negative cardiovascular impacts, including chronic hardening of the arteries and acute triggering of heart attacks. Children are most at risk, as they tend to be active and outdoors in the summer, when ozone levels are highest. Seniors and people with respiratory illnesses are also especially sensitive to ozone's effects. Healthy adults, working or exercising outdoors during high ozone levels, can be affected.

Emissions of ROG and NO_x throughout the Bay Area contribute to ozone formation. Because emissions in one part of the region can impact air quality miles downwind, efforts to reduce ozone levels focus on reducing emissions of ROG and NO_x throughout the region. The relationship between ROG and NO_x in ozone formation is complex; the ratio between the precursor pollutants influences how ozone forms. Modeling suggests that large reductions in NO_x emissions will be needed to achieve the ozone reductions required to attain the current health-based ozone standards. A certain amount of ozone formation occurs naturally, even in the absence of anthropogenic emissions of ROG and NO_x.

CARB reports statistics for ozone monitoring in the San Francisco Bay Area²². Over the last three years in San José, maximum one-hour average ozone levels are 0.095 parts per million (ppm). Eight-hour maximum ozone levels over this same period were 0.079 ppm. Both levels exceed the ambient air quality standards of 0.09 ppm for the one-hour standard and 0.070 ppm for the eight-hour period. Throughout the Bay Area, the eight-hour standard was exceeded on 15 days in 2016, six days in 2017 and three days in 2018. The eight-hour design value for the 8-hour standard is reported by CARB as 0.073ppm. The less restrictive one-hour standard was exceeded on two to six days per year and a state standard designation of 0.10 ppm was assigned to the basin.

The project NO_x emissions from operations are compared against regional emissions that lead to elevated concentrations of ozone in Table 3.2-6.

Table 3.2-6 Comparison of Project Emissions to Bay Area Air Basin Emissions	
Scenario	NO_x
Bay Area Air Basin in 2015 ¹	298 tons/day
Unmitigated Project Operation	0.03 tons/day
Percentage of Basin	0.01 percent
¹ Based on Bay Area Air Quality Management District Clean Air Plan 2017 at http://www.baaqmd.gov/~media/files/planning-and-research/plans/2017-clean-air-plan/attachment-a_-proposed-final-cap-vol-1-pdf.pdf?la=en , accessed December 18, 2019)	

Since the project emissions in comparison to regional emissions are a small percentage of the regional inventory (i.e., less than 0.01 percent unmitigated), the project would not cause regional pollutant levels to measurably change. As a result, the project would not measurably increase ozone levels. A measurable effect would be a change of 0.001 ppm. Changing emissions in the Bay Area by 0.01 percent would not change ozone levels. Therefore, the health effects associated with the project NO_x emissions are not measurable and no direct link can be drawn between the project's ozone precursor emissions and health effects predicted for the region by BAAQMD resulting from elevated ozone levels.

Impact AIR-3: The project would not expose sensitive receptors to substantial pollutant concentrations. **(Less than Significant Impact with Mitigation Incorporated)**

Project impacts related to increased community risk were evaluated in two ways:

- Increased exposure to TACs and PM_{2.5} from project emissions sources, and
- Exposure of new project sensitive receptors to existing and future TAC and PM_{2.5} emissions.

Temporary project construction activity would generate dust and equipment exhaust that would affect nearby sensitive receptors. The project would increase traffic in the area which would result in greater air pollutant and TAC emissions. In addition, the project would include the installation of emergency generators powered by diesel engines that would emit TACs and air pollutants. Project

²² CARB. Top 4 Summary: Highest 4 Daily Maximum Hourly Ozone Measurements. See <https://www.arb.ca.gov/adam/topfour/topfourdisplay.php>, accessed February 12, 2020.

impacts to existing sensitive receptors were addressed for construction activities, project operation, the combined effect from construction activities and project operation, and the cumulative effect of the project and nearby emission sources. As mentioned before, sensitive receptors in proximity to the site include residences to the east and southeast and the Westmont of Morgan Hill assisted living facility to the east of the planned commercial uses. The De Paul Health Center to the east was not expected to have sensitive receptors that would be exposed chronically, and therefore, lifetime cancer risk and increase to annual PM_{2.5} concentration were not evaluated at these receptors. Although the closest portions of Live Oak School are within the area of influence, the classrooms and locations where students would mainly reside were beyond 1,000 feet from the site.

TAC and PM_{2.5} Sources

The project would emit TACs and PM_{2.5} during both construction and operational periods. Each emission source is discussed below.

Construction Activity

Construction of the proposed project would generate emissions of TACs and PM_{2.5} via construction, generation of diesel truck traffic, and routine testing and maintenance of diesel engines associated with the fire pumps. Construction emissions would be temporary and emissions from commercial and industrial truck traffic and fire pump diesel engine operation would be long term.

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known TAC. Construction exhaust emissions may pose health risks for nearby sensitive receptors. The primary community health risk impact issue associated with construction emissions are cancer risk and exposure to PM_{2.5} from diesel exhaust and construction dust. The community health risk assessment for project construction activities included emissions estimation and dispersion modeling to predict the off-site and on-site concentrations resulting from project construction, so that lifetime cancer risks and non-cancer health effects on nearby receptors could be evaluated.

Emissions from construction activities in the industrial, commercial, and residential areas were grouped into two categories: exhaust emissions of DPM and fugitive PM_{2.5} dust emissions. For each of the construction areas modeled, the modeling utilized two area sources to represent the on-site construction emissions, one for exhaust emissions and one for fugitive dust emissions. To represent the construction equipment exhaust emissions, an emission release height of six meters (19.7 feet) was used for the area sources. The elevated source height reflects the height of the equipment exhaust pipes plus an additional distance for the height of the exhaust plume above the exhaust pipes to account for plume rise of the exhaust gases. For modeling fugitive PM_{2.5} emissions, a near-ground level release height of two meters (6.6 feet) was used for the area sources. Emissions from the construction equipment and on-road construction vehicle travel were distributed throughout the modeled area sources. Construction emissions were modeled as occurring daily between 7:00 AM to 4:00 PM, when most of the construction activity would occur.

Truck Traffic

The traffic report's trip generation estimates include 248 daily truck trips generated from the industrial uses of the project.²³ Idle emissions were estimated for loading dock areas. Travel emissions were estimated for 15-miles per hour (mph) speeds on site and 20 mph speeds on DePaul Drive and 25 mph on Cochrane Road. Emissions estimates were based on rates generated by the Caltrans version of the EMFAC2017 model, known as CT-EMFAC. This model provides emission rates for mobile source air toxics that include diesel particulate matter.

Stationary Sources

The defined industrial project would include a diesel engine to provide backup power for each fire pump. A fire pump is assumed to be centrally located in each of the three industrial buildings. Emissions from these fire pump engines were computed using CalEEMod. The annual PM₁₀ exhaust emissions were used to represent DPM emissions from the engines. The engine would be operated for testing and maintenance purposes, with a maximum of 50 hours per year of non-emergency operation under normal conditions. During testing periods, the engine would typically be run for less than one hour under light engine loads. The generator engine would be required to meet U.S. EPA emission standards and consume commercially available California low sulfur diesel fuel. The emissions from the operation of the generator were calculated using CalEEMod.

Community Health Risk Assessment

A community health risk assessment was completed for the proposed project. The assessment took into account construction and operation of the project and evaluated the project's impact on the Maximally Exposed Individual (MEI) using BAAQMD recommended risk assessment methods and parameters. These methods evaluate cancer risk due to DPM exposure and incorporate age sensitivity factors for infant (third trimester to two years of age) and children (two years of age to 16 years). Additionally, the assessment accounted for the combined impact of existing and future TAC sources on the MEI. Existing TAC sources included roadways and highways with over 10,000 average daily trips (ADT) within a 1,000-foot radius of the project site; these sources include US 101, Cochrane Road, De Paul Drive and Mission View Drive. No stationary sources were identified within a 1,000-foot radius of the site. The project site, emission sources, locations of off-site sensitive receptors, and MEI locations is shown in the air quality/GHG assessment (Appendix A).

Tables 3.2-7 and 3.2-8 show the community risk impacts on the MEI for cancer risk, maximum annual PM_{2.5} concentration and maximum annual Hazard Index. Table 3.2-7 shows the community risk impacts on the MEI for cancer risk, maximum annual PM_{2.5} concentration and maximum annual hazard index for the construction and operation of the 1,044,600 general light industrial component. Table 3.2-8 shows the community risk impacts on the MEI for the construction and operation of the project buildout (including the industrial, residential, and commercial components).

²³ The proposed general light industrial portion of the project would generate 248 truck trips. Therefore, the number of truck trips modeled (385 truck trips) provides a conservative estimate.

Table 3.2-7: Project Community Risk Impacts for the General Light Industrial Component			
Source	Cancer Risk at MEI (per million)¹	Maximum Annual	
		PM_{2.5} (µg/m³)	Hazard Index
Construction (year 2021-2022)	19.12	0.17	0.02
Truck Traffic Increase (year 2023)	0.32	<0.01	<0.01
Fire Pump Engines (2023)	0.16	<0.01	<0.01
Combined Project (Construction and Operational Impacts)	19.6¹	0.17 ²	0.02 ²
<i>BAAQMD Single-Source Threshold</i>	>10.0	>0.3	>1.0
<i>Exceed Threshold?</i>	Yes	<i>No</i>	<i>No</i>
Notes:			
1. For cancer risk, at receptor with combined maximum risk, assuming third trimester/infant exposure begins with construction.			
2. Maximum annual level for any year of construction or operation.			

Table 3.2-8: Community Risk Impacts from Project Buildout			
Source	Cancer Risk at MEI (per million)¹	Maximum Annual	
		PM_{2.5} (µg/m³)	Hazard Index
Construction (year 2021-2023)	25.81	0.21	0.02
Truck Traffic Increase (year 2023 on)	0.32	<0.01	<0.01
Fire Pump Engines (2023 on)	0.16	<0.01	<0.01
Combined Project (Construction and Operational Impacts)	26.3¹	0.21 ²	0.02 ²
<i>BAAQMD Single-Source Threshold</i>	>10.0	>0.3	>1.0
<i>Exceed Threshold?</i>	Yes	<i>No</i>	<i>No</i>
Notes:			
1. For cancer risk, at receptor with combined maximum risk, assuming third trimester/infant exposure begins with construction.			
2. Maximum annual level for any year of construction or operation.			

As shown in Tables 3.2-7 and 3.2-8, construction and operation of the proposed project and the general light industrial component would result in a cancer risk above the BAAQMD single-source threshold of 10 in one million at the project MEI. The construction and operational impacts from the general light industrial component of the project and the proposed project (industrial, commercial, and residential components) on the project MEI would be 19.6 in one million and 26.3 in one million, respectively. The project would, therefore, would result in a significant cancer risk to the project MEI without mitigation.

As described under Impact AIR-2, implementation of mitigation measure MM AIR-2.1 would reduce exhaust emissions by five percent and fugitive dust emissions by over 50 percent. Implementation of mitigation measure MM AIR-2.2 would require a 60-percent reduction in exhaust PM₁₀ emissions.

As a result, increased cancer risk at the project MEI (from construction and operation of the proposed project) would be reduced to 2.7 per million. This cancer risk includes the contribution of project operational sources (e.g., project traffic and generators). The cancer risk for the proposed project and general light industrial component would be below the threshold of greater than 10 per one million. Therefore, with the implementation of mitigation measures MM AIR-2.1 and MM AIR-2.2, the cancer risk to the project MEI would be less than significant. **(Less than Significant Impact with Mitigation Incorporated)**

Impact AIR-4: The project would not result in substantial emissions (such as odors) adversely affecting a substantial number of people. **(Less than Significant Impact)**

Emissions of air pollutants or TACs are addressed under Impacts AIR-2 and AIR-3. In terms of odor emissions, BAAQMD has identified a variety of land uses and types of operations that would produce emissions that may lead to odors in their CEQA Air Quality Guidelines. Some of the identified land uses include wastewater treatment plants, sanitary landfills, food processing facilities, coffee roasters, composting facilities, and confined animal facility/feed lot/dairy facility. The proposed project would construct industrial warehousing facilities, residential, office, and retail land uses, which do not fall under any of the land uses BAAQMD has identified.

Additionally, according to the BAAQMD CEQA Guidelines, an odor source with five or more confirmed complaints per year averaged over three years is considered to have a significant impact. Future construction activities in the Project area could result in odorous emissions from diesel exhaust associated with construction equipment. Because of the temporary nature of these emissions and the highly diffusive properties of diesel exhaust, exposure of sensitive receptors to these emissions would be limited. Therefore, odors that could cause complaints from the general public and affect a substantial number of people are not expected and impact would be less than significant. **(Less than Significant Impact)**

3.2.2.3 *Cumulative Impacts*

Impact AIR-C: The project would result in a cumulatively considerable contribution to a significant air quality impact. **(Significant Unavoidable Cumulative Impact)**

Past, present, and future development projects contribute to the region's adverse air quality impacts on a cumulative basis. By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size to result in the region being in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. Because the proposed project would result in significant operational NO_x emissions (which would be above BAAQMD cumulative threshold), the project would result in a cumulatively considerable contribution toward regional NO_x emissions. The project would implement mitigation measure MM AIR-2.3 (including implementation of a TDM plan, electrifying loading docks, limiting idling times, and establishing truck routes that avoid residential areas) to reduce NO_x emissions, however, the mitigation measure would not reduce emissions below the cumulative threshold for NO_x. Therefore, the project would result in a cumulatively considerable contribution to a regional air quality impact. **(Significant Unavoidable Cumulative Impact)**

Combined Impact of All TAC Sources on the Off-Site MEI

The community health risk assessment addressed the contribution from substantial sources of TACs located within 1,000 feet of the project site and at new TAC sources that would be introduced by the project. Sources typically evaluated include highways, busy surface streets, and stationary sources identified by BAAQMD. Traffic on U.S. 101 and Cochrane Road are the primary cumulative sources affecting the project site. Roadways considered included those with an assumed ADT of greater than 10,000 vehicles. As previously discussed, no stationary sources were identified within the 1,000-foot influence area based on BAAQMD's stationary source Google Earth map along with BAAQMD's 2017 geographic information systems (GIS) website database.

The lifetime cancer risk, annual PM_{2.5} exposure, and non-cancer hazard impacts associated with U.S. 101 vehicle emissions (in which the MEI was approximately 250 feet east of U.S. 101) were identified using the BAAQMD Highway Screening Analysis Google Earth Map tool.

For local roadways, BAAQMD has provided the Roadway Screening Analysis Calculator to assess whether roadways with traffic volumes of over 10,000 vehicles per day may have a potentially significant effect on a proposed project. Adjustments were made to the cancer risk predictions including an adjustment for the latest vehicle emissions rates predicted using EMFAC2014 and for consistency with the California Office of Environmental Health Hazard Assessment (OEHHA) guidance.²⁴ Cochrane Road was the only nearby roadway that currently averages over 10,000 vehicles per day. De Paul Drive and Mission View Drive, which currently are estimated to have less than 10,000 ADT would increase above 10,000 ADT on segments near Cochrane Road under future General Plan build-out conditions including project traffic. Therefore, these roadways were included in this assessment. Table 3.2-9 shows the project and cumulative community risk impacts at the project MEI.

Table 3.2-9: Impacts from Combined Sources at Off-Site MEI			
Source	Cancer Risk (per million)	Annual PM_{2.5} (µg/m³)	Hazard Index
Project Construction and Operation			
Unmitigated	26.3	0.21	0.02
Mitigated	2.7	<0.05	<0.01
U.S. 101 traffic (250 feet east)	81.3	0.41	0.06
Cochrane Road (30,000 ADT, 3,000 feet north)	<1.0	<.002	<0.01
De Paul Drive (14,000 ADT, 2,000 feet north)	<0.3	<0.02	0.00
Mission View Drive (11,000 ADT, 2,600 feet north)	<0.2	<0.02	0.00
Combined Sources			
Unmitigated	109.1	0.68	0.10
Mitigated	85.5	0.52	0.09
<i>BAAQMD Cumulative Source Threshold</i>	>100	>0.8	>10.0
<i>Exceed Threshold?</i>			
Unmitigated	Yes	No	No
Mitigated	No	No	No

²⁴ The most recent OEHHA guidelines (2015) incorporate changes designed to provide for enhanced protection of children, as required by state law, compared to previous public risk assessment guidelines.

As discussed previously, project would have a significant impact with respect to community risk caused by project construction and operational activities, since the maximum cancer risk is 26.3 in one million, which is above the single-source threshold of 10.0 per million. Without mitigation, the combined cancer risk from the project (construction and operation) would exceed the cumulative threshold of 100 in one million for lifetime cancer risk. The increased PM_{2.5} concentrations and hazard index values do not exceed the cumulative thresholds.

As discussed under Impact AIR-3, with the implementation of mitigation measures MM AIR-2.1 and MM AIR-2.2, increased cancer risk (from construction and operation) at the project MEI would be reduced to 2.7 per million. When combined with cumulative sources, the overall cancer risk would be reduced to 85.5 chances per million, which is below the cumulative threshold of 100 in one million. Therefore, the project would have a less than significant cumulative impact, with respect to community risk caused by construction and operational activities, on the project MEI.

(Less than Significant Cumulative Impact with Mitigation Incorporated)

3.2.3 Non-CEQA Effects

Per *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369 (*BIA v. BAAQMD*), effects of the environment on the project are not considered CEQA impacts. The following discussion is included for informational purposes only because the City of Morgan Hill has policies that address existing air quality conditions affecting a proposed project.

The proposed project would also introduce new residents that are sensitive receptors. The project would add new sources of TACs and there are several existing sources of TACs and localized air pollutants in the vicinity of the project. The existing and new sources of TACs and PM_{2.5} were quantified and assessed against BAAQMD community health risk thresholds to determine impacts to the sensitive receptors which would be introduced in the residential component of the project. Community health risk thresholds are based on lifetime cancer risk, increase in annual PM_{2.5} concentrations, and Hazard Index (HI) for non-cancer health risks. For a detailed discussion of the methodology used to assess the project's community health risk impacts, refer to the air quality assessment in Appendix C.

In addition to the community health risk impact to the off-site MEI, the air quality assessment analyzed the community risk impact to the new sensitive receptors that the proposed project would introduce. The analysis was limited to existing and reasonably foreseeable future TAC and PM_{2.5} sources within 1,000 feet of proposed sensitive receptors. The same TAC sources identified in the discussion above were used to analyze health risk impacts to proposed sensitive receptors, with the exception of Cochrane Road and US 101 which are both located more than 1,000 feet from the residential portion of the project. Table 3.2-10 below shows the community health risk impacts to new project residences.

Table 3.2-10: Community Health Risk Impact to New Project Residences			
Source	Cancer Risk (per million)	Annual PM_{2.5} (µg/m³)	Hazard Index
Industrial Project Operation	0.8	0.01	<0.01
De Paul Drive (10,000 ADT, 30 feet east)	5.5	0.19	<0.01
Mission View Drive (10,000 ADT, 30 feet west)	3.9	0.12	0.01
<i>BAAQMD Single-Source Threshold</i>	<i>>10.0</i>	<i>>0.3</i>	<i>>1.0</i>
<i>Significant?</i>	<i>No</i>	<i>No</i>	<i>No</i>
Combined Sources	10.2	<0.32	<0.02
<i>BAAQMD Cumulative Source Threshold</i>	<i>>100</i>	<i>>0.8</i>	<i>>10.0</i>
<i>Significant?</i> Unmitigated	<i>No</i>	<i>No</i>	<i>No</i>

As seen in Table 3.2-10, the proposed project residences would not be exposed to substantial health risks due to emissions from project operation or nearby sources. The new project residences would be exposed to cancer risk, annual PM_{2.5} and non-cancer health risks at levels below BAAQMD single-source and cumulative source thresholds.

3.3 BIOLOGICAL RESOURCES

The following discussion is based, in part, on a Tree Resource Evaluation/Construction Impact Assessment prepared by *James P. Allen & Associates* in September 2019.²⁵ The report is included in Appendix D of this DEIR.

3.3.1 Environmental Setting

3.3.1.1 *Regulatory Framework*

Federal and State

Special-Status Species

Individual plant and animal species listed as rare, threatened, or endangered under state and federal Endangered Species Acts are considered special-status species. Federal and state endangered species legislation has provided the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) with a mechanism for conserving and protecting plant and animal species of limited distribution and/or low or declining populations. Permits may be required from both the USFWS and CDFW if activities associated with a proposed project would result in the take of a species listed as threatened or endangered. To “take” a listed species, as defined by the State of California, is “to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture or kill” said species. Take is more broadly defined by the federal Endangered Species Act to include harm of a listed species.

In addition to species listed under state and federal Endangered Species Acts, Section 15380(b) and (c) of the CEQA Guidelines provide that all potential rare or sensitive species, or habitats capable of supporting rare species, must be considered as part of the environmental review process. These may include plant species listed by the California Native Plant Society and CDFW listed Species of Special Concern.

Migratory Bird and Birds of Prey Protections

The federal Migratory Bird Treaty Act (MBTA) prohibits killing, capture, possession, or trade in migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. Hunting and poaching are also prohibited. The taking and killing of birds resulting from an activity is not prohibited by the MBTA when the underlying purpose of that activity is not to take birds.²⁶ Nesting birds are considered special-status species and are protected by the USFWS. The CDFW also protects migratory and nesting birds under California Fish and Game Code Sections 3503, 3503.5, and 3800. The CDFW defines taking as causing abandonment and/or loss of reproductive efforts through disturbance.

²⁵ The tree survey was completed for the industrial and commercial parcels and does not include the residential parcel. A tree survey will be completed for the residential parcel at the time a specific development application is on file with the City.

²⁶ U.S. Department of the Interior. M-37050. The Migratory Bird Treaty Act Does Not Prohibit Incidental Take. <https://www.doi.gov/sites/doi.gov/files/uploads/m-37050.pdf>.

Sensitive Habitats

Wetland and riparian habitats are considered sensitive habitats under CEQA. They are also afforded protection under applicable federal, state, and local regulations, and are generally subject to regulation by the US Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), CDFW, and/or the USFWS under provisions of the federal Clean Water Act (e.g., Sections 303, 304, 404) and State of California Porter-Cologne Water Quality Control Act.

CDFW Stream/Riparian Habitat

Streambeds and banks, as well as associated riparian habitat, are regulated by the CDFW per Section 1602 of the Fish and Game Code. Work within the bed or banks of a stream or the adjacent riparian habitat requires a Streambed Alteration Agreement from the CDFW.

Regional and Local

Santa Clara Valley Habitat Plan/Natural Community Conservation Plan

The Santa Clara Valley Habitat Plan/Natural Community Conservation Plan (Habitat Plan) covers an area of 519,506 acres, or approximately 62 percent of Santa Clara County. It was developed and adopted through a partnership between Santa Clara County, the Cities of San José, Morgan Hill, and Gilroy, Santa Clara Valley Water District (Valley Water), Santa Clara Valley Transportation Authority (VTA), USFWS, and CDFW. The Habitat Plan 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 Santa Clara Valley Habitat Agency is responsible for implementing the plan.

City of Morgan Hill Tree Removal Controls

The City of Morgan Hill maintains the urban natural landscape partly by promoting the health, safety, and welfare of the City by controlling the removal of significant sized trees (Municipal Code 12.32.020, G.). According to the City of Morgan Hill Tree Removal Controls, a significant tree is considered to be a tree with a single stem or trunk of a circumference of 40 inches (or diameter of 12.7 inches) or more for nonindigenous species and a circumference of 18 inches (or diameter of 5.7 inches) or more for indigenous species measured at four and one-half feet vertically above the ground. Indigenous species to Morgan Hill include oak (all types), California bay, madrone, sycamore, and alder trees.

“Street trees” are also protected and defined as a tree, of any size, situated within the public street right-of-way or publicly accessible private street (e.g., trees within a landscape park strip), or within five feet of publicly accessible sidewalk adjacent to a public or private street in the case of a street without a landscape park strip.

A “community of trees,” which is a group of trees of any size which are ecologically or aesthetically related to each other such that loss of several of them would cause a significant ecological, aesthetic, or environmental impact in the immediate area, are protected under the City’s ordinance.

In addition, the Tree Removal Controls specify that all commercial tree farms, nonindigenous tree species in residential zones, and orchards (including individual fruit trees) are exempted from the definition of significant tree.

City of Morgan Hill Burrowing Owl Habitat Mitigation Plan

Since 2003, the City of Morgan Hill has implemented a citywide program (Burrowing Owl Habitat Mitigation Plan) to evaluate and mitigate impacts to burrowing owls and potential burrowing owl habitat that could result from development activities within the City limits. Under the Burrowing Owl Habitat Mitigation Plan, the City requires pre-construction owl surveys to be completed in areas of potentially suitable habitat (generally any grassland and/or mixed herbaceous vegetation below 600 feet above mean sea level) within 30 days of the on-set of construction.

City of Morgan Hill 2035 General Plan

The following goal and policies related to biological resources are applicable to the proposed project:

Goal NRE-6: Protection of native plants, animals, and sensitive habitats.

Policy NRE-6.2: **Habitat Conservation Plan.** Support the implementation of the Santa Clara Valley Habitat Plan to protect wildlife, rare and endangered plants and animals, and sensitive habitats from loss and destruction.

Policy NRE-6.4: **Tree Preservation and Protection.** Preserve and protect mature, healthy trees whenever feasible, particularly native trees, historically significant trees, and other trees which are of significant size or of significant aesthetic value to the immediate vicinity or to the community as a whole.

3.3.1.2 Existing Conditions

The approximately 89-acre project site is comprised of 10 contiguous parcels in a mixed urban and rural setting. The project site is predominantly covered by fallowed agricultural fields, non-native grassland, orchards, and a tree nursery. A single-family home and storage structures are located on the southern portion of the site. A single-story building is located within the tree nursery on the northern portion of the site, at the Cochrane Road frontage. While the site is largely undeveloped, it has been historically disturbed by agricultural activities and is bordered by development to the north and east, with US 101 to the west. For these reasons, the site contains limited habitat suitable for wildlife species occurring in the area.

The project site does not contain any riparian corridors or wetlands. The nearest riparian corridor is Coyote Creek, located approximately 0.8-mile north of the site. The project site is not located in area containing any of the sensitive natural communities or special status species identified in the City's General Plan EIR.²⁷ The man-made Madrone Channel is located immediately west of the site. The Madrone Channel provides no habitat value for fish²⁸ and limited habitat value for other wildlife species occupying the area.

²⁷ City of Morgan Hill. *City of Morgan Hill 2035 General Plan DEIR*. Figures 4.4-2 and 4.4-4. January 2016.

²⁸ City of Morgan Hill. *City of Morgan Hill 2035 General Plan DEIR*. Figure 4.4-3. January 2016.

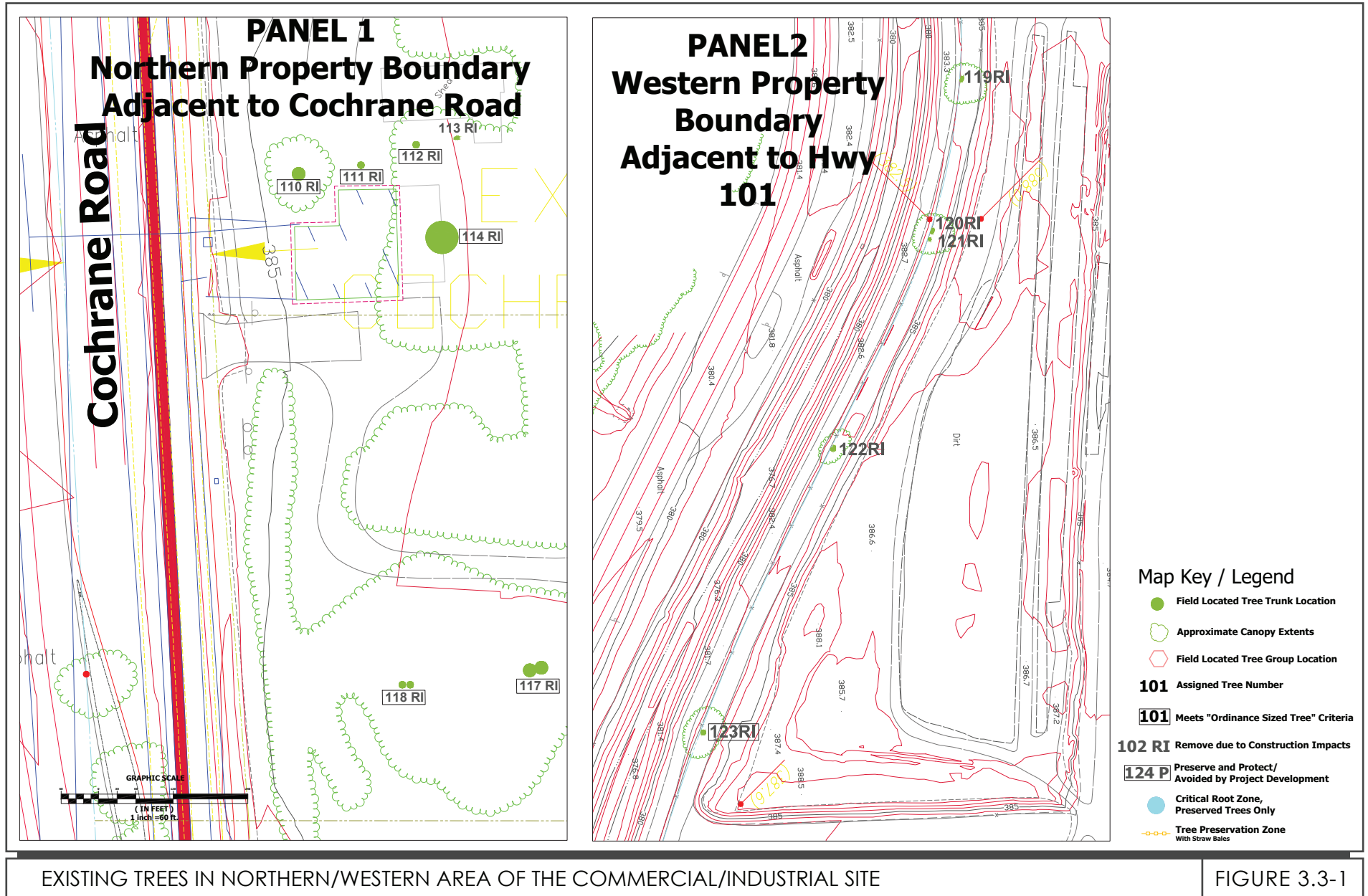
The project site is covered under the Santa Clara Valley Habitat Plan (Habitat Plan), designated as “Urban Development Equal to or Greater than 2 Acres”.²⁹ The land cover of the site is comprised of a mix of “Grain, Row-crop, Hay and Pasture, Disked/Short-term Fallowed” (approximately 72.6 acres), “Orchard” (approximately 16.3 acres), and “Urban – Suburban” (approximately 0.9 acres). The entire site is located within Fee Zone B (Agricultural and Valley Floor Lands); removal of this land cover type will be required to pay applicable fees per the Habitat Plan.

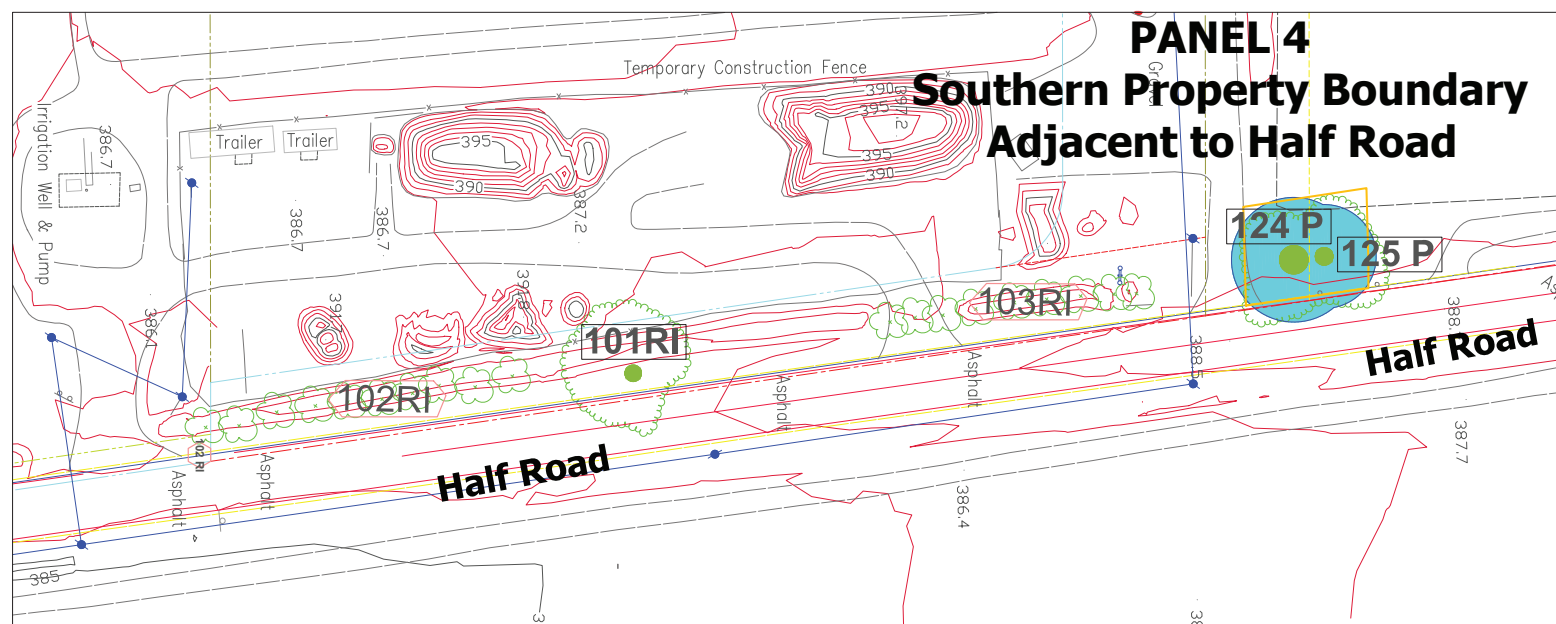
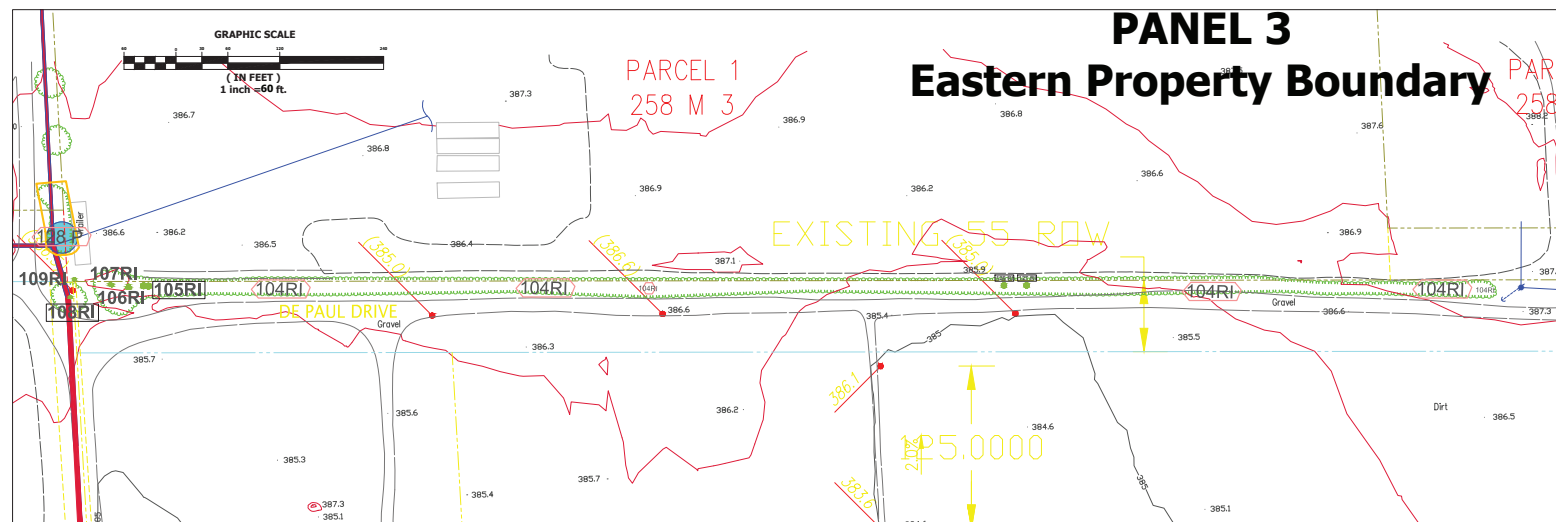
Trees

The commercial/industrial portion of the project site contains a tree nursery which is being used to store a large quantity of boxed specimen trees. Trees are also planted along adjacent roadways. Trees on-site are comprised of both native and non-native species. A tree resource evaluation was conducted for the trees growing on the 63.36-acre area of the site (excluding the boxed trees) which is proposed for commercial/industrial development; there are 28 trees/tree groups located in this area of the site. Refer to Figure 3.3-1 and 3.3-2 on the following pages for maps detailing the locations of existing trees/tree groups within the commercial/industrial portion of the site.




Per Morgan Hill Municipal Code Section 12.32.020, non-native trees with a single stem or trunk of a circumference of 40 inches (or diameter of 12.7 inches) and native trees with a circumference of 18 inches (diameter of 5.7 inches) are protected by the City. All street trees are also City-protected. The trees surveyed are summarized in Table 3.3-1.

²⁹ Santa Clara Valley Habitat Agency. *Habitat Agency Geobrowser*. Accessed July 18, 2019. <http://www.hcpmaps.com/habitat/>.





Map Key / Legend

-  **Field Located Tree Trunk Location**
-  **Approximate Canopy Extents**
-  **Field Located Tree Group Location**

101 Assigned Tree Number

101 Meets "Ordinance Sized Tree" Criteria

102 RI Remove due to Construction Impacts

124 P **Preserve and Protect/
Avoided by Project Development**

Critical Root Zone,

 Tree Preservation Zone
With Straw Bales

EXISTING TREES IN SOUTHERN/EASTERN AREA OF THE COMMERCIAL/INDUSTRIAL SITE

FIGURE 3.3-2

Table 3.3-1: Tree Resource Inventory				
Tree/Tree Group #	Tree Species Common Name	Tree Species	Diameter (inches) at 4.5 feet above ground	Health
101	Coast live oak	<i>Quercus agrifolia</i>	39.8	Good
102	Locust	<i>Gleditsia sp.</i>	0.75 to 5.3 (Group of 10 small trees)	Poor
103	Locust	<i>Gleditsia sp.</i>	0.75 to 4 (Group of nine small trees)	Fair
104	Lombardy poplar	<i>Populus nigra</i>	0.75 to 13.5 (Line of 198 trees)	Poor
105	Coast live oak	<i>Quercus agrifolia</i>	12.5 and 14 (Double trunk)	Good
106	Coast live oak	<i>Quercus agrifolia</i>	8.3, 4 and 6.5 (Triple trunk)	Fair
107	Coast live oak	<i>Quercus agrifolia</i>	3 and 3.1 (Double trunk)	Good
108	Coast live oak	<i>Quercus agrifolia</i>	6.2	Fair
109	Coast live oak	<i>Quercus agrifolia</i>	4.2	Fair
110	Acacia	<i>Acacia sp.</i>	12.8	Fair
111	Plum	<i>Prunus sp.</i>	5 and 5.4 (Double trunk)	Fair
112	Walnut	<i>Juglans sp.</i>	12.8	Fair
113	Plum	<i>Prunus sp.</i>	6, 7, 5.5, 5.3, and 2.4 (Five trunks)	Fair
114	California pepper	<i>Schinus mole</i>	35.9	Fair
115	California pepper	<i>Schinus mole</i>	4.8	Fair
116	Plum	<i>Prunus sp.</i>	4.2 and 3.5 (Double trunk)	Fair
117	California pepper	<i>Schinus mole</i>	22.5 and 16 (Double trunk)	Fair
118	California pepper	<i>Schinus mole</i>	8.5 and 7.7 (Double trunk)	Fair
119	Plum	<i>Prunus sp.</i>	6.3 and 5.2 (Double trunk)	Fair

Table 3.3-1: Tree Resource Inventory				
Tree/Tree Group #	Tree Species Common Name	Tree Species	Diameter (inches) at 4.5 feet above ground	Health
120	Walnut	<i>Juglans sp.</i>	9.9 and 7 (Double trunk)	Fair
121	Walnut	<i>Juglans sp.</i>	9.5	Fair
122	Plum	<i>Prunus sp.</i>	7, 6.3, and 6.2 (Three trunks)	Fair
123	Walnut	<i>Juglans sp.</i>	27.1	Fair
124	Canary Island pine	<i>Pinus canariensis</i>	31.9	Fair
125	Canary Island pine	<i>Pinus canariensis</i>	26	Fair
126	Lombardy poplar	<i>Populus nigra</i>	13.3	Poor
127	Lombardy poplar	<i>Populus nigra</i>	12.8	Poor
128	Various	-	0.75 to 11.5	Fair
Notes: Bold = City-protected tree (or tree within tree group)				

Most of the surveyed trees are in fair or good condition. Tree Groups #102 and 103 are composed of 19 small locust trees that were planted parallel to Half Road on the southern portion of the project site. Tree Group #104 is a line of 198 Lombardy poplar trees growing on or near the property boundary. In total, there are 15 trees/tree groups which are protected under the City's Municipal Code Section 12.32.020 within the commercial/industrial portion of the site.

The area of the site which is proposed for residential development was not included in the tree resource evaluation in Appendix D. This 28-acre portion of the site is covered by an orchard and an agricultural field; there are also two mature conifer trees on the site's perimeter along Half Road. Orchard trees are not considered protected trees under the City's Municipal Code Section 12.32.020.

3.3.2 Impact Discussion

For the purpose of determining the significance of the project's impact on biological resources, would the project:

- 1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS)?
- 2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS?

- 3) 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?
- 4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?
- 5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
- 6) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

3.3.2.1 *Project Impacts*

Impact BIO-1: The project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. **(Less than Significant Impact with Mitigation Incorporated)**

As mentioned in Section 3.3.1.2 Existing Conditions, the project site contains a tree nursery, fallowed agricultural fields, and orchards. There are two existing residences on-site. The project site does not contain any known candidate, sensitive, or special-status species, nor does it contain sensitive habitat. The site is not located in a plant or wildlife survey area as identified in the Habitat Plan and the adjacent Madrone Channel has not been identified as sensitive habitat in the General Plan EIR. The extent of disturbance of the areas surrounding the project site and the historical use of the project site greatly reduce its suitability for sensitive species. Further, the project site is surrounded by development to the north and north east, agricultural lands to the south and southeast, and US 101 and development to the west, and would provide minimal dispersal habitat for native wildlife in the area.

The proposed project would remove numerous trees from the project site. The mature trees on-site could provide nesting or foraging habitat for nesting raptors and migratory birds. Nesting raptors and migratory birds are protected under state and federal regulations. At the time of development, raptors and migratory birds could be nesting in the trees and vegetation on and adjacent to the project site. Construction during the nesting season could destroy nests or disturb occupied nests, resulting in the loss of reproductive effort. This would constitute a significant impact requiring project-level mitigation.

Mitigation Measures: The following mitigation measures will reduce impacts from construction at the project site nesting raptors and migratory birds to a less than significant level:

MM BIO-1.1: Construction shall be scheduled to avoid the nesting season. If construction can be scheduled to occur between September 1st and January 31st (inclusive) to avoid the raptor nesting season, no impacts will be expected. If construction will take place between February 1st and August 31st, then pre-construction surveys for

nesting birds shall be completed by a qualified ornithologist to ensure that no nests will be disturbed during project implementation. Performance of the required surveys for construction occurring between February 1st and August 31st will ensure that impacts to nesting raptors are reduced to less than significant. Surveys will be completed within 30 days of the on-set of site clearing or construction activities. During this survey, the ornithologist will inspect all trees and other potential nesting habitats (e.g., trees, shrubs, buildings) onsite trees as well as all trees within 250 feet of the site for nests.

MM BIO-1.2: If an active nest is found sufficiently close to work areas to be disturbed by these activities, the ornithologist will determine the extent of a disturbance-free buffer zone to be established around the nest (typically 250 feet for raptors and 50-100 feet for other species) that will remain off limits to construction until the nesting season is over, to ensure that no nests of species protected by the Migratory Bird Treaty Act and California Fish and Wildlife Code will be disturbed during project implementation. A report indicating the result of the survey and any designated buffer zones shall be submitted to the satisfaction of the Director of Community and Economic Development prior to issuance of a grading permit.

With the implementation of the above mitigation measures, the project would not result in a substantial adverse impact on sensitive species regulated by the CDFW or USFW. **(Less Than Significant Impact with Mitigation Incorporated)**

Impact BIO-2: The project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or USFWS. **(No Impact)**

The project site is located within a mixed urban and rural area of the City. There are no riparian habitats located on the project site. The Madrone Channel borders the site to the west but is an engineered drainage channel and provides minimal habitat value. There are no sensitive natural communities located on or adjacent to the project site. Therefore, the proposed project would not result in adverse effects to riparian habitat or other sensitive natural communities. **(No Impact)**

Impact BIO-3: The project would not have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, hydrological interruption, or other means. **(No Impact)**

The project site does not contain any wetlands. Therefore, implementation of the project would not result in a substantial adverse effect on protected wetlands. **(No Impact)**

Impact BIO-4: The project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites. **(No Impact)**

The project site is located within a mixed urban and rural area of the City. Because the project site is surrounded by development, it does not provide linkages to natural areas located at the City's northern and eastern boundaries. As discussed under Impact BIO-2, the site does not contain riparian corridors which could facilitate migratory fish and avian movement. The project would, therefore, not interfere with the movement of fish or wildlife species, nor interfere with established migratory corridors or wildlife nursery sites. **(No Impact)**

Impact BIO-5: The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. **(Less than Significant Impact with Mitigation Incorporated)**

Tree Removal

The proposed industrial/commercial portion of the proposed project would remove 25 trees from the site due to construction impacts, 11 of which meet the definition of ordinance-sized trees and require replacement in accordance with City policy. In addition, implementation of the future residential project and development of the 'Not a Part' parcel would likely result in the removal of additional trees, some of which could be ordinance-sized trees. Removal of ordinance-sized trees from the project site would constitute a significant impact.

In accordance with the Municipal Code 12.32.030, the applicant will apply for a tree removal permit prior to removal of the 11 ordinance-sized trees. In accordance with Municipal Code 12.32.080, the project applicant will replace these trees with plantings of trees acceptable to the City's Community Development Director. Similar requirements would apply to trees removed as during development of the residential portion of the project site and the 'Not a Part' parcel.

Mitigation Measures: The following mitigation measures shall be implemented by the project to ensure the project is consistent with Municipal Code 12.32.080 and does not result in a significant impact due to tree loss.

- MM BIO-5.1:** The trees which would be removed by the industrial portion of the project shall be removed and replaced in accordance with the requirements below.
- Compensation for tree removal required in order to complete the project will include:
 - Preservation and protection of Trees #124, 125 and Tree Group #128
 - Implementation of Special Treatments to be defined by the Project Arborist once grade stakes are placed

- Trees shall be planted as a component of the planned landscape during the issuance of tree removal permits for the project. All replacement trees shall meet the requirements described below.
- Replacement tree nursery stock selected for dominant species shall be standard (single trunk).
- Trees planted should be well formed without co-dominant, poorly attached stems. Trees shall be disease free and absent of swirling or girdling roots.
- Qualified professionals adhering to the following guidelines shall plant the replacement trees:
 - Prepare the planting site by excavating three times the width and two inches less than the exact depth of the nursery container.
 - Prune any visible matted or circling roots to remove or straighten them. Cut the root ball vertically on opposite sides at least half the distance to the trunk.
 - Free roots from the root ball breaking away some of the soil to provide better contact between the root ball and the backfill soil.
 - Backfill with native soil.
 - After backfilling, a two- to four-inch layer of tree chip mulch should be applied to the soil layer. Chips should not be applied within 12 inches of the trunk.
 - Stakes for support should be driven on opposite sides of the root ball and driven into the soil. The tree can be secured to the stakes using “Arbortape” or by using the “ReadyStake” system.
 - Supplemental irrigation will be provided to the new trees by means of a temporary “drip” emitter system for a period of two years. This system shall be designed, installed, and maintained by a qualified professional to maintain appropriate moisture levels.
- To ensure the survivability and proper growth of the replacement trees, success criteria will be defined to meet a 100 percent survival rate and implemented as follows.
 - A qualified professional will monitor the newly planted trees at one-month intervals for the first year of growth and every three months thereafter for an additional four-year period.
 - Tree health and growth rates will be assessed.
 - Trees suffering poor growth rates or declining health will be identified.
 - Invigoration treatments will be provided.
 - Dead trees or trees in an irreversible state of decline will be replaced
 - At the end of the five-year period the status of the new plantings will be assessed to make certain that success criteria have been met and all replacement trees planted are performing well.

MM BIO-5.2: The proposed future residential and industrial office ('Not a Part' parcel) developments shall implement the following measures at the time of a specific development proposal for these areas of the site:

- The approximately 2.31-acre 'Not a Part' parcel and the approximately 28-acre portion of the site proposed for future residential development shall be surveyed for trees by a licensed arborist. Tree surveys shall identify the number of trees which meet the City's definition of Ordinance-sized trees and the number of trees required to be removed from the site due to construction or operation of the project. All removed trees shall be replaced in accordance with the City's Municipal Code 12.32 and the recommendations of the tree survey.

Implementation of the mitigation measures described above would ensure the project does not result in a significant impact due to the loss of trees. **(Less than Significant Impact with Mitigation Incorporated)**

Tree Protection

The project would remove 25 trees and preserve the remaining trees in the commercial/industrial area of the project site. The 25 trees would be removed in a controlled, sectional manner to avoid damaging surrounding trees to be preserved (Trees #124, 125 and Tree Group #128 shown on Figure 3.3-1 and 3.3-2) and adjacent properties. As mentioned, the planned residential area of the site and the 'Not a Part' parcel planned for industrial office use have not been surveyed for trees. The following mitigation measures shall be implemented by the proposed project to avoid impacting preserved trees on the site.

Mitigation Measures:

MM BIO-5.3: The following measures shall apply to trees designated for preservation within the proposed commercial/industrial area of the project.

- Tree Preservation Structures shall be constructed of the following materials as field specified by the Project Arborist.
 - Chain link, 72 inches in height secured to metal stakes driven at least 18 inches into the soil.
 - Temporary orange snow fencing attached to "T" posts driven into the ground
 - Silt fencing
 - Rice straw balesTree Preservation Structure locations are documented in the tree resource evaluation in Appendix B.
- Monitoring of the project will be the responsibility of the Project Arborist. The City's Community Development Director shall verify that the Project Arborist has been retained for perform monitoring of project construction activities prior to issuance of grading and building permits

for the project. The Project Arborist will conduct site inspections at the following intervals:

- Following on-site placement of grade stakes.
- During tree removal operations.
- During preconstruction root severance.
- After Tree Preservation fencing locations have been staked.
- Following Tree Protection fencing installation and prior to the commencement of grading.
- During all grading activities within Critical Root Zones.
- As necessary during the grading activities to ensure compliance with all conditions of project approval.

MM BIO-5.4: The proposed future residential and industrial office ('Not a Part' parcel) developments shall implement the following measures at the time of a specific development proposal for these areas of the project site:

- If the tree survey performed in accordance with MM BIO-5.2 indicates it is appropriate to designate trees for protection based on the extent of site development and/or the trees identified on the site, the project shall adhere to the tree protection measures (if any) set forth in the tree survey.

Adherence to the mitigation measures described above would ensure that the trees preserved on the commercial/industrial portion of the project site are protected during construction activities. At the time of specific development proposal for the residential portion of the project and the 'Not a Part' parcel, a tree survey will be prepared, and additional tree protection measures will be established, as necessary, to ensure the survivability of any trees remaining on-site. Therefore, the project would not result in a significant impact to trees preserved on the site. **(Less than Significant Impact with Mitigation Incorporated)**

Impact BIO-6: The project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. **(Less than Significant Impact)**

As mentioned previously, the project site is covered under the Santa Clara Valley Habitat Plan (Habitat Plan), designated as "Urban Development Equal to or Greater than 2 Acres".³⁰ The land cover of the site is comprised of a mix of "Grain, Row-crop, Hay and Pasture, Disked/Short-term Fallowed" (approximately 72.6 acres), "Orchard" (approximately 16.3 acres), and "Urban – Suburban" (approximately 0.9 acres). The entire site is located within Fee Zone B (Agricultural and Valley Floor Lands). The proposed project would be required to pay this fee to offset the loss of this land cover type. The project site is not located in any other fee zone or within or adjacent to any plant or wildlife survey area.

³⁰ Santa Clara Valley Habitat Agency. *Habitat Agency Geobrowser*. Accessed July 18, 2019. <http://www.hcpmaps.com/habitat/>.

The HCP/NCCP also considers covered activities to result in a certain amount of indirect impacts from urban development mostly in the form of increased impervious surface and from the effects of nitrogen deposition. Urban development that increases the intensity of land use results in increased air pollutant emissions from passenger and commercial vehicles and other industrial and nonindustrial sources. Emissions from these sources are known to increase airborne nitrogen, of which a certain amount is converted into forms that can fall to earth as depositional nitrogen. It has been shown that increased nitrogen in serpentine soils can favor the growth of nonnative annual grasses over native serpentine species and these nonnative species, if left unmanaged, can overtake the native serpentine species, which are host plants for larval Bay Checkerspot butterfly. As such, covered projects within the HCP/NCCP area are subject to paying a “Nitrogen Deposition Impact Fee” which is calculated based on the number of daily vehicle trips attributed to the activity and collected prior to the commencement of the use.

In addition, all covered activities in the HCP/NCCP are subject to certain conditions (as identified in Chapter 6 of the Plan) based on the project’s location and type of project. To ensure that the project complies with conditions of the HCP/NCCP, the conditions would be applied to each component as part of the entitlement approval conditions and/or other permits (i.e. grading permits, building permits, etc.).

The City of Morgan Hill has adopted the HCP/NCCP and, as an ordinance³¹ implementing the measures and conditions set forth in the HCP/NCCP, would levy applicable impact fees and incorporate relevant conditions on covered activities into the project. Therefore, the project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. **(Less Than Significant Impact)**

3.3.2.2 *Cumulative Impacts*

Impact BIO-C:	The project would not result in a cumulatively considerable contribution to a significant biological resources impact. (Less than Significant Cumulative Impact)
----------------------	---

The proposed project, when combined with other projects in Morgan Hill, would not result in a significant cumulative impact to biological resources. The City’s General Plan EIR concluded that cumulative development in the City would result in a less than significant impact on biological resources because impacts would typically be site-specific and compliance with federal, state, regional, and local regulations would protect biological resources.³² While the project would deviate slightly from the General Plan land use designations, general development of the site was analyzed in the General Plan EIR and found to have less than significant cumulative impacts to biological resources.

As described above, there is potential for nesting and migratory birds to occur in the project area. The project would not impact sensitive habitats or special status species. The project would implement mitigation measures to avoid nesting bird impacts, which would reduce the project’s contribution to cumulative impacts to nesting birds to a less than significant level, since the measures ensure no

³¹ Chapter 18.132 of the City of Morgan Hill Municipal Code.

³² City of Morgan Hill. *2035 Draft Environmental Impact Report*. January 2016. Page 4.4-34.

impacts to nesting activity would occur. In addition, cumulative projects in the City are required to undergo site-specific analyses for their potential to adversely affect sensitive natural communities, habitats and special-status plant and animal species; if potential impacts are identified, mitigation measures would be incorporated into individual projects to reduce impacts to a less than significant level. Cumulative projects would also be required to adhere to the City of Morgan Hill Municipal Code Section 12.32 for tree removal and replacement and applicable Habitat Plan conditions. Payment of HCP nitrogen deposition fees ensures that the cumulative effects of nitrogen deposition are offset.

For these reasons, the project would not result in a cumulatively considerable contribution to a significant biological resources impact. **(Less than Significant Cumulative Impact)**

3.4 CULTURAL RESOURCES

The following discussion is based, in part, on an Archaeological Resources Assessment Report, prepared by *Basin Research Associates* and dated June 2019, and a Historic Evaluation Report, prepared by *Urban Programmers Historic Preservation and Urban Revitalization Consultants (Urban Programmers)* and dated June 2019. The Archaeological Resources Assessment Report contains sensitive information and is available for review by qualified persons at Morgan Hill City Hall. The Historic Evaluation Report is included in this DEIR as Appendix E.

3.4.1 Environmental Setting

3.4.1.1 *Regulatory Framework*

Federal and State

National Register of Historic Places

The National Register of Historic Places (NRHP) is a comprehensive inventory of known historic resources throughout the United States. The NRHP is administered by the National Park Service and includes buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. A historic resource listed in, or formally determined to be eligible for listing in, the NRHP is, by definition, included in the California Register of Historical Resources (CRHR).³³

National Register Bulletin Number 15, *How to Apply the National Register Criteria for Evaluation*, describes the Criteria for Evaluation as being composed of two factors. First, the property must be “associated with an important historic context.” The NRHP identifies four possible context types, of which at least one must be applicable at the national, state, or local level. As listed under Section 8, “Statement of Significance,” of the NRHP Registration Form, these are:

- A. Property is associated with events that have made a significant contribution to the broad patterns of our history.
- B. Property is associated with the lives of persons significant in our past.
- C. Property embodies the distinctive characteristics of a type, period, or method of construction or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components lack individual distinction.
- D. Property has yielded, or is likely to yield, information important to prehistory or history.

Second, for a property to qualify under the NRHP’s Criteria for Evaluation, it must also retain “historic integrity of those features necessary to convey its significance.” While a property’s significance relates to its role within a specific historic context, its integrity refers to “a property’s physical features and how they relate to its significance.” To determine if a property retains the physical characteristics corresponding to its historic context, the NRHP has identified seven aspects of integrity: 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association.

³³ Refer to Public Resources Code Section 5024.1(d)(1).

California Register of Historical Resources

The guidelines for identifying historic resources during the project review process under CEQA are set forth in Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5(a). These provisions of CEQA create three categories of historical resources: mandatory historical resources; presumptive historical resources; and resources that may be found historical at the discretion of the lead agency. These categories are described below.

- **Mandatory Historical Resources.** A resource the State Historical Resources Commission lists on the CRHR, or the State Historical Resources Commission determines to be eligible for listing in the CRHR, is defined by CEQA to be a historical resource. Resources are formally listed or determined eligible for listing by the State Historical Resources Commission in accordance with the procedures set forth in the provisions of state law relating to listing of historical resources.³⁴ If a resource has been listed in the CRHR, or formally determined to be eligible for listing by the State Historical Resources Commission under these procedures, it is conclusively presumed to be a historical resource under CEQA.
- **Presumptive Historical Resources.** A resource included in a local register of historic resources as defined by state law³⁵ or identified as significant in a historical resource survey meeting the requirements of state law,³⁶ shall be presumed to be historically or culturally significant. The lead agency must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
- **Discretionary Historical Resources.** A resource that is not determined to be a significant historical resource under the criteria described above, may, in the discretion of the lead agency, be found to be a significant historical resource for purposes of CEQA, provided its determination is supported by substantial evidence in light of the whole record. The CEQA Guidelines further provide that generally, a lead agency should consider a resource historically significant if the resource is found to meet the criteria for listing on the CRHR, including the following:
 - Criterion 1 (Events): The resource is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history and cultural heritage of California or the United States; or
 - Criterion 2 (Persons): The resource is associated with the lives of persons important to local, California, or national history; or

³⁴ Set forth in Public Resources Code Section 5024.1 and 14 California Code of Regulations (CCR) Section 4850, et. seq.

³⁵ Set forth in Public Resources Code Section 5020.1(k), a local register of historical resources is a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution.

³⁶ Under Public Resources Code Section 5024.1(g), a resource can be identified as significant in a historical resources survey and found to be significant by the State Office of Historic Preservation (i.e., listed in the CRHR) if three criteria are met: (1) the survey has or will be included in the State Historic Resources Inventory; (2) the survey and documentation were prepared in accordance with State Office of Historic Preservation procedures and requirements; and (3) the State Office of Historic Preservation has determined the resource has a significance rating of Category 1 to 5 on Form 523.

- Criterion 3 (Architecture): The resource embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values, or
- Criterion 4 (Information Potential): The resource has the potential to yield information important to the prehistory or history of the local area, California, or the nation.³⁷

Historical resources eligible for listing in the CRHR must meet one of the criteria of significance described above *and* retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if it maintains the potential to yield significant scientific or historical information or specific data.

The concept of integrity is essential to identifying the important physical characteristics of historical resources and in evaluating adverse changes to them. Integrity is defined as “the authenticity of a historical resource’s physical identity evidenced by the survival of characteristics that existed during the resource’s period of significance.” The process of determining integrity is similar for both the California and National Registers, and the same seven variables or aspects to define integrity are used to evaluate a resource’s eligibility for listing. These seven characteristics include: 1) location, 2) design, 3) setting, 4) materials, 5) workmanship, 6) feeling, and 7) association.

California Native American Historical, Cultural, and Sacred Sites Act

The California Native American Historical, Cultural, and Sacred Sites Act applies to both state and private lands. The act requires that upon discovery of human remains, construction or excavation activity must cease, and the County coroner be notified.

Public Resources Code Sections 5097 and 5097.98

Section 15064.5 of the CEQA Guidelines specifies procedures to be used in the event of an unexpected discovery of Native American human remains on non-federal land. These procedures are outlined in Public Resources Code Sections 5097 and 5097.98. These codes protect such remains from disturbance, vandalism, and inadvertent destruction, establish procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establish the Native American Heritage Commission (NAHC) as the authority to resolve disputes regarding disposition of such remains.

Pursuant to Public Resources Code Section 5097.98, in the event of human remains discovery, no further disturbance is allowed until the county coroner has made the necessary findings regarding the origin and disposition of the remains. If the remains are of a Native American, the county coroner must notify the NAHC. The NAHC then notifies those persons most likely to be related to the Native American remains. The code section also stipulates the procedures that the descendants may follow for treating or disposing of the remains and associated grave goods.

³⁷ CEQA Guidelines Section 15064.5(a)(3) and California Office of Historic Preservation Technical Assistance Series #6. March 14, 2006.

Local

Morgan Hill 2035 General Plan

The Morgan Hill 2035 General Plan includes goals, policies, and actions to avoid significant impacts due to loss of cultural resources.³⁸ The following goal and policies related to cultural resources are applicable to the proposed project:

Healthy Community:

Goal HC-8: *Historic identity and cultural resources that are preserved for future generations.*

Policy HC-8.1: **Identify and Protect Resources.** Identify and protect heritage resources from loss and destruction. (South County Joint Area Plan 15.09)

Policy HC-8.2: **Historic Structures.** Encourage the preservation and rehabilitation of the City's historic structures.

Policy HC-8.3: **Demolition.** Prior to approving demolition or alteration of historically significant buildings, evaluate alternatives, including structural preservation, relocation, or other mitigation, and demonstrate that financing has been secured for replacement use.

Policy HC-8.4: **Tribal Consultation.** Consult with Native American tribes that have ancestral ties to Morgan Hill regarding proposed new development projects and land use policy changes.

Policy HC-8.5: **Mitigation.** Require that if cultural resources, including tribal, archaeological, or paleontological resources, are uncovered during grading or other on-site excavation activities, construction shall stop until appropriate mitigation is implemented.

Morgan Hill Historic Context Statement

The City's Historic Context Statement creates a framework against which to objectively qualify a property's significance in relation to larger historic themes and events. The Historic Context Statement includes a historical inventory and historical maps which recognize existing historic resources in the City. Historical evaluation of a subject property should use the context statement as a tool for understanding where a property's significance lies within the City's historical timeline. The City determines historical significance and eligibility for inclusion in the historical inventory based on the California Register criteria.³⁹

³⁸ City of Morgan Hill, California (2016). "Chapter 6, Healthy Community." *City of Morgan Hill General Plan 2035*. Accessed July 2, 2019. <https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId=>

³⁹ City of Morgan Hill. Municipal Code Chapter 18.60 – Historic Resources.

Santa Clara County Heritage Resource Inventory

The Santa Clara County Heritage Resource Inventory compiles historical landmarks throughout the County and sets forth guidelines for their treatment and evaluation. Properties listed in the inventory are subject to a demolition review process by the Historical Heritage Commission (HHC) and the Board of Supervisors. The Heritage Resource Inventory was last updated in 2012.⁴⁰

3.4.1.2 *Existing Conditions*

The approximately 89-acre project site is comprised of 10 contiguous parcels in a mixed urban and rural setting. The project site is predominantly covered by an undeveloped field consisting of non-native grassland and orchards, and a tree nursery. A single-family home and storage structures are located on the southern portion of the site, just north of Half Road. A single-story building is located within the tree nursery on the northern portion of the site, at the Cochrane Road frontage.

3.4.1.3 *Historic Resources*

The project site contains two properties which are greater than 50 years in age. The first property is located on the south side of Cochrane Road (hereafter Cochrane Road Property) to the west of DePaul Drive, and consists of a single-story building. The Cochrane Road Property was constructed circa-1900, with various structural additions completed since then. The second property is located at 1105 Half Road (hereafter Half Road Property) and consists of a single-story house, barn, tanks, and sheds. The Half Road Property was constructed circa 1957. Resources greater than 50 years in age are considered potentially historic and require evaluation for their potential historical significance under the California Register's eligibility criteria. As such, these properties were the subject of the historic evaluation completed by *Urban Programmers*.

Cochrane Road Property

The Cochrane Road Property (APN 728-31-014) consists of a simple, single-story wood building. The building was constructed circa 1900 and was later converted to a house and sheds. The building appears to have been moved to the site based upon the type of foundations. The building does not have a defined style. The building appears to have started with a circa-1900 rectangular form and later (circa 1955) added a large section to create a residential style building with a low-pitched roof and side wing.

The property was historically used for agricultural purposes since at least 1912. Ownership of the property changed hands several times throughout the mid-20th century but remained planted with orchards until 2004. At the time of its sale in 2004, the property was cleared of fruit trees and rented to Michael Bonfonte of Bonfonte Nursey. Michael Bonfonte is the son of John Bonfonte, who founded Nob Hill Foods markets in 1934 and operated a nursery in Gilroy starting in 1983. The nursery eventually transitioned into a horticulturally themed amusement park, which was sold to the City of Gilroy and became Gilroy Gardens. Excess trees from Bonfante Nursery were moved to the property on Cochrane Road, where they have been stored since the 1990s.

⁴⁰ County of Santa Clara – Department of Planning and Development. *Historic Context Statement*. December 2004. Revised February 2012.

The Cochrane Road Property is not listed in the Historic Properties Directory for Santa Clara County (2011) or the Morgan Hill Historic Resources Inventory. Properties that are not listed in local historic resource inventories are still required to be considered for their historical significance, per CEQA Guidelines 15064.5(a)(4).

The Cochrane Road Property was evaluated under the criteria of the California Register and the National Register. To be eligible for listing as a historical resource, the property must meet one of the criteria of significance described in Section 3.4.1.1 and retain enough of its historic character or appearance to be recognizable as a historical resource and to convey the reasons for its significance. *Urban Programmers* found that the property was not directly associated with individuals or events that have made a significant contribution to the broad patterns of local or regional history, or to the cultural heritage of Morgan Hill. The building on the property appears to have been moved to the site and altered in a way that destroys its original circa-1900 architectural integrity. When the property was evaluated as a rural unit, it did not meet the criteria because the buildings and use are not distinctive. For these reasons, the Cochrane Road Property is not eligible for listing under the California Register. Properties that are not eligible for listing in the California Register are not considered significant under the criteria of the National Register.

Half Road Property

The Half Road Property (APN 728-30-004) is located in a rural setting within an orchard. The property contains a 1957 Ranch Style house, a barn, tanks, and sheds. The single-story house is an eclectic variation of the California Ranch Style. The house is a common economical type of construction without artistic style. Across from the house is a single-story utility barn, which was likely used as a packing shed and storage space. The house and barn are vacant and in poor condition.

The property was historically used for agricultural purposes since at least 1912. The original owner, William Pierce, was the same as the Cochrane Road Property. Ownership of the site has changed several times over the past century, most recently being sold by Patricia A. Hann to Llagas LLC in 2000. The agricultural use of the site has continued to the present day. For the last several years, the house on-site has not been occupied by the owner, but the orchard has been maintained.

The Half Road Property is not listed in the Historic Properties Directory for Santa Clara County (2011) or the Morgan Hill Historic Resources Inventory. *Urban Programmers* found that the property was not directly associated with individuals or events that have made a significant contribution to the broad patterns of local or regional history, or to the cultural heritage of Morgan Hill. Neither the Mid-century Ranch House nor the other structures on the property possess distinctive characteristics. When the property was evaluated as a rural unit, it was concluded that it did not meet the criteria because the utilitarian structures and buildings are not distinctive or artistic and do not show unique engineering. For these reasons, the Half Road Property is not eligible for listing under the California Register or the National Register.

Archaeological Resources

According to the City's archaeological sensitivity map (2000), the proposed project is located in an area of archaeological sensitivity due to the past presence of three historic-era ranch locations in the

site vicinity. *Basin Research Associates* completed a records search in the California Historical Resource Information System (CHRIS) database, reviewed archival literature, and conducted a field inspection to determine the potential presence of historic-era archaeological resources at the project site. The lack of archaeological discoveries over the past 20 years suggest a low to moderate sensitivity for the project site for historic archaeological resources. No evidence of significant historical archaeological resources was observed during the field survey conducted for the proposed project.

No known historic dwellings or other features have been identified in or adjacent to the project site. The closest known Hispanic-Era feature, El Camino Real/Monterey Road/US Route 101 (“Old Monterey Road”) is located approximately one mile west of the site. No American Period archaeological sites have been recorded in or adjacent to the project site. The historic map review indicates that a single circa-1876 historic era structure owned by “S. Matthews” was located within the project site but was no longer present in 1901/1907.

3.4.1.4 *Prehistoric Resources*

The aboriginal inhabitants of the Santa Clara Valley include a group known as the Costanoans who occupied the central California coast as far east as the Diablo Range. The descendants of these Native Americans now prefer to be called Ohlone. The project site appears to have been within the *Mutsun* tribelet/group territory. For a detailed discussion of tribal cultural resources at the project site, refer to Section 4.18, Tribal Cultural Resources of the Initial Study, which is included as Appendix B of this EIR.

Prehistoric site types in the Santa Clara Valley include habitation sites ranging from villages to temporary campsites, stone tool and other manufacturing areas, quarries for tool stone procurement, cemeteries usually associated with large villages, isolated burial sites, rock art locations, bedrock mortars or other milling features sites, and trails.⁴¹ No prehistoric sites have been recorded in or adjacent to the project site. Three cultural resource reports on file with the CHRIS/NWIC include the project site or areas adjacent; all of the studies were negative for prehistoric archaeological resources. For the reasons described above, the project site is considered to have low to moderate sensitivity for prehistoric resources.

3.4.2 Impact Discussion

For the purpose of determining the significance of the project’s impact on cultural resources, would the project:

- 1) Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5?
- 2) Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?
- 3) Disturb any human remains, including those interred outside of dedicated cemeteries?

⁴¹ Basin Research and Associates. *Archaeological Resources Assessment Report – Morgan Hill Technology and Mixed-Use Residential Project*. June 2019.

3.4.2.1 *Project Impacts*

Impact CUL-1: The project would not cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. **(Less than Significant Impact)**

Per CEQA Guidelines Section 15064.5 (b)(1), a “substantial adverse change” in the significance of a historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. As described in Section 3.4.1.3, Historic Resources, there are two properties on the project site which are considered potentially historic due to their age. The two properties were evaluated for potential eligibility for listing on local, state, and national historical registers and were found to not meet the criteria for eligibility.

The proposed project would completely redevelop the Cochrane Road and Half Road properties, including the demolition of existing structures and the conversion of land use to commercial and industrial uses. While the existing structures would be permanently removed, the structures (and associated properties) were not found to qualify as historical resources under the California Register or the National Register, nor at the local level for the City or County register. Therefore, the proposed project would not result in a significant impact to historical resources. **(Less than Significant Impact)**

Impact CUL-2: The project would not cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. **(Less than Significant Impact with Mitigation Incorporated)**

As discussed in Section 3.4.1.2, the project site is considered to have low to moderate sensitivity for prehistoric and historic archaeological resources. While the project site is not known to contain an archaeological site or buried deposits, construction operations could result in the inadvertent exposure of buried prehistoric or historic archaeological materials, as well as yet unknown tribal cultural resources that could be eligible for inclusion on the California Register and/or meet the definition of a unique archaeological resource as defined in Section 21083.2 of the Public Resources Code.

Mitigation Measures: The following mitigation measures would be implemented during project demolition and construction activities to avoid impacts to unknown subsurface cultural resources:

- MM CUL-2.1:**
- (a) The project applicant shall note on any plans that require ground disturbing excavation that there is a potential for exposing buried cultural resources including prehistoric Native American burials. Any archaeological site information supplied to the Contractor Foreman or authorized representative shall be considered confidential.
 - (b) The project applicant shall retain a Professional Archaeologist to develop an ALERT sheet outlining the potential for the discovery of unexpected

archaeological resources and protocols to deal with a discovery. The Professional Archaeologist shall provide the Contractor's construction crew "toolbox" sensitivity training to present the ALERT sheet and protocols to supervisors, foreman, project managers, and non-supervisory contractor personnel. The Contractor is responsible for ensuring that all workers requiring training are in attendance.

(c) The project applicant shall retain a Professional Archaeologist on an "on-call" basis during ground-disturbing construction to review, identify and evaluate cultural resources that may be inadvertently exposed during construction. The Professional Archaeologist shall review and evaluate any discoveries to determine if they are historical resource(s) and/or unique archaeological resources under CEQA.

(d) If the Professional Archaeologist determines that any cultural resources exposed during construction constitute a historical resource and/or unique archaeological resource under CEQA, he/she shall notify the project proponent and other appropriate parties of the evaluation and recommend mitigation measures to mitigate to a less than significant impact in accordance with California Public Resources Code Section 15064.5. Mitigation measures may include avoidance, preservation in-place, recordation, additional archaeological testing and data recovery among other options. The completion of a formal *Archaeological Monitoring Plan* (AMP) and/or *Archaeological Treatment Plan* (ATP) that may include data recovery may be recommended by the Professional Archaeologist if significant archaeological deposits are exposed during ground disturbing construction. Development and implementation of the AMP and ATP and treatment of significant cultural resources will be determined by the project proponent in consultation with any regulatory agencies.

Implementation of the mitigation measures described above would reduce the proposed project's impact to archaeological resources to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Impact CUL-3: The project would not disturb any human remains, including those interred outside of dedicated cemeteries. **(Less than Significant Impact with Mitigation Incorporated)**

Although it is not expected, human remains could be discovered during construction of the project. The following mitigation measures shall be implemented by the project to reduce impacts to any human remains that are discovered on the project site.

Mitigation Measures

MM CUL-3.1: In the event of the unintentional discovery of undocumented human remains or significant historic or archaeological materials during construction, the following policies and procedures for treatment and disposition measures shall be implemented:

- If human remains are encountered, they shall be treated with dignity and respect as due to them. 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.
 - Remains shall not be held by human hands. Surgical gloves shall be worn if remains need to be handled.
 - Surgical mask shall also be worn to prevent exposure to pathogens that may be associated with the remains.
- 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.⁴² Ground-disturbing project activities may continue in other areas that are outside the discovery location.
- 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, or if on-site at the time of discovery, by the Monitoring Archaeologist (typically 25 to 50 foot buffer for a single burial or archaeological find).
- The discovery location shall be secured as directed by the City if considered prudent to avoid further disturbances.
- The Contractor Foreman or authorized representative, or party who made the discovery 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
 - The Contractor's Point(s) of Contact

⁴² 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, groundstone 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.

- The Coroner of the County of Santa Clara (if human remains found)
 - The Native American Heritage Commission (NAHC) in Sacramento
 - The Amah Mutsun Tribal Band
- The Coroner will have two working days to examine the human remains after being notified of the discovery. If the remains are Native American, the Coroner has 24 hours to notify the NAHC. The NAHC is responsible for identifying and immediately notifying the Most Likely Descendant (MLD) from the Amah Mutsun Tribal Band. (Note: NAHC policy holds that the Native American Monitor will not be designated the MLD.)
 - Within 24 hours of their notification by the NAHC, the MLD will be granted permission to inspect the discovery site if they so choose.
 - Within 24 hours of their notification by the NAHC, the MLD may recommend to the City's Community Development 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 Amah Mutsun Tribal Band may be considered and carried out.
 - 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.

The mitigation measures described above would ensure that if human remains are discovered during project construction, they are treated in compliance with applicable state laws and an appropriate process is followed prior to the commencement of construction. Therefore, the project would have a less than significant impact on human remains. **(Less than Significant Impact with Mitigation Incorporated)**

3.4.2.2 *Cumulative Impacts*

Impact CUL-C: The project would not result in a cumulatively considerable contribution to a significant cultural resources impact. **(Less than Significant Cumulative Impact)**

Cumulative projects in the City of Morgan Hill may contain historic and/or prehistoric resources, whether or not they are currently recognized. Pursuant to CEQA, projects that could significantly impact historic and/or prehistoric resources will be analyzed under the criterion discussed previously

in this section, and mitigation measures will be implemented, as necessary, to reduce any impacts that are identified. Further, the City of Morgan Hill has adopted standard conditions that will be implemented by all cumulative projects to reduce impacts to as yet undiscovered cultural resources. Adherence to the City's standard conditions would reduce impacts to cultural resources, and project-level analyses will determine the necessity of additional mitigation measures to reduce localized impacts to cultural resources. For these reasons, the cumulative projects, including the proposed project, would not result in significant cumulative impacts to cultural resources. **(Less than Significant Cumulative Impact)**

3.5 ENERGY

3.5.1 Environmental Setting

3.5.1.1 *Regulatory Framework*

Federal and State

Energy Star and Fuel Efficiency

At the federal level, energy standards set by the EPA apply to numerous consumer products and appliances (e.g., the EnergyStar™ program). The EPA also sets fuel efficiency standards for automobiles and other modes of transportation.

Renewables Portfolio Standard Program

In 2002, California established its Renewables Portfolio Standard Program, with the goal of increasing the percentage of renewable energy in the state's electricity mix to 20 percent of retail sales by 2010. In 2008, Executive Order S-14-08 was signed into law, requiring retail sellers of electricity serve 33 percent of their load with renewable energy by 2020. In October 2015, Governor Brown signed SB 350 to codify California's climate and clean energy goals. A key provision of SB 350 requires retail sellers and publicly owned utilities to procure 50 percent of their electricity from renewable sources by 2030. SB 100, passed in 2018, requires 100 percent of electricity in California to be provided by 100 percent renewable and carbon-free sources by 2045.

California Building Standards Code

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6 of the California Code of Regulations (Title 24), was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years, and the 2019 Title 24 updates went into effect on January 1, 2020.⁴³ Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments.⁴⁴

California Green Building Standards Code

CALGreen establishes mandatory green building standards for buildings in California. CALGreen was developed to reduce GHG emissions from buildings, promote environmentally responsible and healthier places to live and work, reduce energy and water consumption, and respond to state environmental directives. The most recent update to CALGreen went into effect on January 1, 2020, and covers five categories: planning and design, energy efficiency, water efficiency and conservation, material and resource efficiency, and indoor environmental quality.

⁴³ California Building Standards Commission. "California Building Standards Code: 2019 Triennial Edition of Title 24." Accessed May 3, 2020. <https://www.dgs.ca.gov/BSC/Codes..>

⁴⁴ California Building Standards Commission. "2019 California Green Building Standards Code." Accessed May 3, 2020. <https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen>.

California Air Resources Board. 2017 Scoping Plan. Appendix I: Green Buildings Strategy. November 2017. Accessed May 3, 2020. https://ww3.arb.ca.gov/cc/scopingplan/2030sp_appi_greenbuildings_final.pdf.

Local

City of Morgan Hill 2035 General Plan

Adopted July 27, 2016, the *Morgan Hill 2035 General Plan* includes goals, policies, and actions to conserve energy and mitigate energy impacts resulting from planned developments within the City of Morgan Hill.⁴⁵ The following goals, policies, and actions are applicable to the proposed project:

Energy Efficiency

Goal NRE-16: *Conservation of energy resources.*

Policy NRE-16.1: **Energy Standards for New Development.** New development, including public buildings, should be designed to exceed State standards for the use of energy.

Policy NRE-16.2: **Energy Conservation.** Promote energy conservation techniques and energy efficiency in building design, orientation, and construction.

Policy NRE-16.3: **Energy Use Data and Analysis.** Provide information to increase building owner, tenant, and operator knowledge about how, when, and where building energy is used.

Policy NRE-16.5: **Energy Efficiency.** Encourage development project designs that protect and improve air quality and minimize direct and indirect air pollutant emissions by including components that promote energy efficiency.

Policy NRE-16.6: **Landscaping for Energy Conservation.** Encourage landscaping plans for new development to address the planting of trees and shrubs that will provide shade to reduce the need for cooling systems and allow for winter daylighting.

Policy NRE-16.7: **Renewable Energy.** Encourage new and existing development to incorporate renewable energy generating features, like solar panels and solar hot water heaters.

Policy NRE-16.9: **Subdivision Design.** In compliance with Section 66473.1 of the State Subdivision Map Act, promote subdivision design that provides for passive solar heating and natural cooling through the Development Review Committee subdivision review procedures.

⁴⁵ City of Morgan Hill. "Chapter 8 Natural Resources and Environment." *City of Morgan Hill 2035 General Plan*. Accessed May 8, 2019. <https://www.morgan-hill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId>

3.5.1.2 *Existing Conditions*

Total energy usage in California was approximately 7,881 trillion British thermal units (Btu) in the year 2017, the most recent year for which this data was available.⁴⁶ Out of the 50 states, California is ranked second in total energy consumption and 48th in energy consumption per capita. The breakdown by sector was approximately 18 percent (1,416 trillion Btu) for residential uses, 19 percent (1,473 trillion Btu) for commercial uses, 23 percent (1,818 trillion Btu) for industrial uses, and 40 percent (3,175 trillion Btu) for transportation.⁴⁷ This energy is primarily supplied in the form of natural gas, petroleum, nuclear electric power, and hydroelectric power.

Electricity

Electricity in Santa Clara County in 2018 was consumed primarily by the commercial sector (77 percent), followed by the residential sector consuming 23 percent. In 2018, a total of approximately 16,668 gigawatt hours (GWh) of electricity was consumed in Santa Clara County.⁴⁸

The community-owned Silicon Valley Clean Energy (SVCE) is the electricity provider for the City of Morgan Hill.⁴⁹ SVCE sources the electricity and Pacific Gas and Electric Company delivers it to customers over their existing utility lines. Customers are automatically enrolled in the GreenStart plan, which generates its electricity from 100 percent carbon free sources; with 50 percent from solar and wind sources, and 50 percent from hydroelectric. Customers have the option to enroll in the GreenPrime plan, which generates its electricity from 100 percent renewable sources, such as wind and solar.

Natural Gas

PG&E provides natural gas services within Morgan Hill. In 2018, approximately one percent of California's natural gas supply came from in-state production, while the remaining supply was imported from other western states and Canada.⁵⁰ In 2018, residential and commercial customers in California used 34 percent of the state's natural gas, power plants used 35 percent, the industrial sector used 21 percent, and other uses used 10 percent. Transportation accounted for one percent of natural gas use in California. In 2018, Santa Clara County used approximately 3.5 percent of the state's total consumption of natural gas.⁵¹

⁴⁶ United States Energy Information Administration. "State Profile and Energy Estimates, 2017." Accessed August 1, 2019. <https://www.eia.gov/state/?sid=CA#tabs-2>.

⁴⁷ United States Energy Information Administration. "State Profile and Energy Estimates, 2017." Accessed August 1, 2019. <https://www.eia.gov/state/?sid=CA#tabs-2>.

⁴⁸ California Energy Commission. Energy Consumption Data Management System. "Electricity Consumption by County." Accessed March 15, 2019. <http://ecdms.energy.ca.gov/elecbycounty.aspx>.

⁴⁹ SVCE. "Frequently Asked Questions". Accessed September 6, 2019. <https://www.svcleanenergy.org/faqs>.

⁵⁰ California Gas and Electric Utilities. 2019 *California Gas Report*. Accessed August 27, 2019.

https://www.socalgas.com/regulatory/documents/cgr/2019_CGR_Supplement_7-1-19.pdf.

⁵¹ California Energy Commission. "Natural Gas Consumption by County." Accessed February 21, 2019. <http://ecdms.energy.ca.gov/gasbycounty.aspx>.

Fuel for Motor Vehicles

In 2017, 15 billion gallons of gasoline were sold in California.⁵² The average fuel economy for light-duty vehicles (autos, pickups, vans, and sport utility vehicles) in the United States has steadily increased from about 13.1 miles per gallon (mpg) in the mid-1970s to 24.9 mpg in 2018.⁵³ Federal fuel economy standards have changed substantially since the Energy Independence and Security Act was passed in 2007. That standard, which originally mandated a national fuel economy standard of 35 miles per gallon by the year 2020, was subsequently revised to apply to cars and light trucks model years 2011 through 2020.^{54,55}

Energy Use of Existing Development

The project site is developed with two residential structures, one of which is unoccupied. The residential structure at the site's Cochrane Road frontage uses energy primarily for building heating. The northern portion of the site is used as a nursery to store mature trees. The trees are irrigated with above ground drip irrigation lines that use electricity. The site also consumes energy due to gasoline consumption from vehicles traveling to and from the site and from heavy equipment used to move the containerized trees.

3.5.2 Impact Discussion

For the purpose of determining the significance of the project's impact on energy, would the project:

- 1) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?
- 2) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

⁵² California Department of Tax and Fee Administration. "Net Taxable Gasoline Gallons." Accessed August 23, 2019. http://www.cdtfa.ca.gov/taxes-and-fees/MVF_10_Year_Report.pdf.

⁵³ United States Environmental Protection Agency. "The 2018 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975." March 2019.

⁵⁴ United States Department of Energy. *Energy Independence & Security Act of 2007*. Accessed August 23, 2019. <http://www.afdc.energy.gov/laws/eisa>.

⁵⁵ Public Law 110-140—December 19, 2007. *Energy Independence & Security Act of 2007*. Accessed August 23, 2019. <http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf>.

3.5.2.1 Project Impacts

Impact EN-1: The project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation.
(Less than Significant Impact)

Operational Energy Demand

The proposed project would demolish the two existing residential structures on-site and construct 1.04 million square feet of flexible industrial and commercial uses, approximately 50,000 square feet of commercial/retail space, approximately 45,000 square feet of industrial office, and a maximum of 319 residential units on the 89-acre site. The proposed project would intensify use of the site by introducing industrial, commercial, and residential uses and increasing the size and scale of development relative to the existing use of the site. In doing so, the project would increase the demand for electricity and natural gas at the project site and in the City as a whole. Operation of the project would consume energy (in the form of electricity and natural gas) primarily for building heating and cooling, lighting, cooking, and water heating. Energy would also be consumed in the form of gasoline from residential and employee vehicle trips, as well as customer trips to/from the commercial center. Table 3.5-1 below shows the estimated annual energy use of the proposed project.

Table 3.5-1: Estimated Annual Energy Use of Proposed Development ¹			
Development	Size	Electricity Use (kWh)	Natural Gas Use (kBtu)
Morgan Hill Technology Center			
General Light Industry	1,044,600 sf	8,628,400	2,755,650
Parking Lot	1,435 spaces	200,900	0
Industrial Office ('Not a Part' Parcel)			
General Light Industry	45,000 sf	371,700	1,187,000
Parking Lot	32	4,480	0
Cochrane Road Commercial			
Strip Mall	50,000	534,500	118,500
Residential			
Single-Family Housing	319 units	2,580,890	0
Total:	-	12,320,870	4,061,150
Notes: ¹ Illingworth & Rodkin, Inc. <i>Morgan Hill Fry's Site Master Plan Air Quality and Greenhouse Gas Emissions Assessment</i> . August 12, 2019.			

The above table does not take into account the gasoline use of the proposed project. Using the U.S. EPA fuel economy estimates and estimated vehicle miles traveled (VMT) of the project⁵⁶, the proposed project would result in the consumption of approximately 618,009 gallons of gasoline per year.⁵⁷ The estimates of electricity and natural gas use are conservative and reflect a calculation of gross demand; the actual increase in use would be slightly lower when subtracting out the energy

⁵⁶ Hexagon Transportation Consultants. *Morgan Hill Technology Center – Traffic Impact Analysis*. July 2, 2019.

⁵⁷ 6,657,014 General Light Industrial + 301,252 Industrial Office + 5,341,300 residential + 3,088,861 commercial = 15,388,427 annual vehicle miles traveled/24.9 miles per gallon = 618,009 gallons of gasoline per year

demands of the existing residences on-site, as well as the electricity required to irrigate the tree nursery. Energy use would be increased by the project; however, the project is an infill development and would place less demand on the grid when compared to development of a distant greenfield site in southern Santa Clara County or outside the county. Further, the gross energy use of the project is likely overstated because the estimates for energy use do not take into account the efficiency measures incorporated into the project. The project would be built to the most recent CALGreen requirements and Title 24 energy efficiency standards, which would improve the efficiency of the overall project. Additionally, the community owned SVCE is the electricity provider for the City of Morgan Hill.⁵⁸ SVCE sources the electricity and the Pacific Gas and Electric Company delivers it to customers over their existing utility lines. Customers are automatically enrolled in the GreenStart plan, which generates its electricity from 100 percent carbon free sources (50 percent from solar).

Due to population increases, it is estimated that future demand in California for electricity will grow at approximately one percent each year through 2027, and that 319,256 GWh of electricity would be utilized in the State in 2027.⁵⁹ The proposed project would result in an annual electricity use of approximately 6,376,036 kWh and would not result in a substantial increase in demand on electrical energy resources relative to forecasted statewide increases.

In 2018, California used approximately 2,136,907 million cubic feet⁶⁰ (2,136,907,000 kBtu) of natural gas.⁶¹ Based on the natural gas demand of the project (4,061,150 kBtu annually), the proposed project would not result in a substantial increase in natural gas demand relative to projected supplies.

The project would generate 10,265 daily vehicle trips and consequently increase gasoline consumption. New automobiles purchased by future occupants and employees of the proposed project would be subject to fuel economy and efficiency standards applied throughout the State of California.

The project site is served by transit services, including one local bus route (Community Bus Route 16), and there are two express lines providing service from the project area (Cochrane Road west of US 101) to the Morgan Hill Caltrain Station during PM commute periods. The availability of transit would allow for a small number of future occupants and employees of the project to reduce automobile use and gasoline consumption. Additionally, placing the proposed employment, commercial, and housing uses near each other allows for opportunities for residents to work near their jobs and to shop while traveling to/from their homes. The location of the large industrial buildings at the northern area of Morgan Hill allows for shorter trips to San José, greater Silicon Valley, and the Bay Area than if the facility were located further south in Santa Clara County, in an adjacent county (e.g. San Benito) or in the Central Valley, so the location of the proposed use serves

⁵⁸ SVCE. "Frequently Asked Questions". Accessed September 6, 2019. <https://www.svcleanenergy.org/faqs>.

⁵⁹ California Energy Commission. California Energy Demand Updated Forecast, 2017-2027. Accessed: September 6, 2019. Available at: http://docketpublic.energy.ca.gov/PublicDocuments/16-IEPR05/TN214635_20161205T142341_California_Energy_Demand_Updated_Forecast.pdf.

⁶⁰ U.S. EIA. "Natural Gas." Accessed: September 6, 2019. Available at: https://www.eia.gov/dnav/ng/ng_sum_lsum_dc_u_sca_a.htm.

⁶¹ Kyle's Converter. "Convert Cubic Feet of Natural Gas to British Thermal Units." Accessed: September 6, 2019. Available at: <http://www.kylesconverter.com/energy,-work,-and-heat/cubic-feet-of-natural-gas-to-british-thermal-units#2110829>

to reduce fuel consumption compared to other regional location options. Therefore, the proposed project would not result in a substantial increase on transportation-related energy uses. This is consistent with the General Plan EIR finding, which concluded that implementation of relevant General Plan policies would ensure energy impacts from transportation would be less than significant.

Energy Efficiency

Construction

It is assumed that the project would be built out over a period of five years, beginning in 2021 with the industrial/commercial component of the project being built over a couple years and the housing over approximately five, and ending in April of 2027. The project would require demolition, site preparation, grading, trenching, building construction, paving, and building interior. The overall construction schedule and process is designed to be efficient in order to avoid excess monetary costs. That is, equipment and fuel would not be used wastefully on the site because of the added expense associated with renting, maintaining, and fueling equipment. Therefore, the opportunities for future efficiency gains during construction are limited. The project does, however, include several measures that would improve the efficiency of the construction process. Implementation of the mitigation measures detailed in *Section 3.2, Air Quality*, would restrict equipment idling times to five minutes or less and would require the applicant to post signs on the project site reminding workers to shut off idle equipment.

Energy is consumed during construction because the use of fuels and building materials are fundamental to construction of new buildings. However, energy would not be wasted or used inefficiently by construction equipment and waste from idling would be further reduced with implementation of the Mitigation Measures AIR-2 outlined in *Section 3.2, Air Quality*. The project would be required to achieve a 65 percent construction and demolition waste diversion rate and may be required to prepare a Construction Waste Management Plan or utilize a waste management company to recycle, reduce and/or reuse construction waste (CALGreen Code Sections 4.408 and 5.408). Adherence to CALGreen Code would further reduce energy expenditures during the construction phase. Therefore, construction of the proposed project would not consume energy in a manner that is wasteful, inefficient, or unnecessary.

Operation

The project would be required to comply with Title 24 of the State Building Code (Building Energy Efficiency Standards for Residential and Nonresidential Buildings), including the mandatory measures set forth in the 2019 CALGreen Code for planning and design, water conservation, energy efficiency, and environmental quality (Title 24, Part 11). By meeting these mandatory measures, the project's operational energy use would be minimized.

The project would include bicycle parking spaces and would have access to transit. These facets of the project could reduce its fuel consumption. The project would include landscaping comprised of large shade trees in the parking lot and trees along the site perimeter and throughout the site interior. This will have the effect of providing shade and reducing the heat island effect of the project, thus reducing the energy demand required to cool the proposed buildings.

Overall, operation of the proposed project would not consume energy in a manner that is wasteful, inefficient, or unnecessary. **(Less than Significant Impact)**

Impact EN-2: The project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. **(Less than Significant Impact)**

Electricity for the proposed project would be provided by Silicon Valley Clean Energy. SVCE sources the electricity and Pacific Gas and Electric Company delivers it to customers over their existing utility lines. Customers are automatically enrolled in the GreenStart plan, which generates its electricity from 100 percent carbon free sources; with 50 percent from solar and wind sources, and 50 percent from hydroelectric. Customers have the option to enroll in the GreenPrime plan, which generates its electricity from 100 percent renewable sources, such as wind and solar. The proposed development would be completed in compliance with the current energy efficiency standards set forth in Title 24, CALGreen, and the City's Municipal Code. For these reasons, the project would not conflict with or obstruct state or local plans for renewable energy or energy efficiency. **(Less than Significant Impact)**

3.5.2.2 Cumulative Impacts

Impact EN-C: The project would not result in a cumulatively considerable contribution to a significant energy impact. **(Less than Significant Cumulative Impact)**

Cumulative projects in the City would result in an increase in energy use relative to existing development. The proposed project would contribute to the expected citywide increase in energy use, although its contribution would not be substantial. Implementation of energy efficiency requirements in adopted building codes, such as Title 24 and CALGreen, and implementation of various sustainability and conservation policies in the General Plan would ensure that cumulative development in the City does not result in a significant energy impact. This conclusion is consistent with the finding of the General Plan EIR, which concluded that General Plan implementation would result in a substantial increase in natural gas and electrical service demands, but would use appropriate energy conservation and efficiency measures, and would not require new energy supply facilities and distribution infrastructure or capacity enhancing alterations to existing facilities. Therefore, the project would not result in a cumulatively considerable contribution to a significant energy impact. **(Less than Significant Cumulative Impact)**

3.6 GREENHOUSE GAS EMISSIONS

The following discussion is based, in part, on a greenhouse gas assessment prepared by *Illingworth & Rodkin, Inc.* in May 2020. A copy of the report is included in Appendix C of this DEIR.

3.6.1 Environmental Setting

3.6.1.1 *Background Information*

Gases that trap heat in the atmosphere, GHGs, regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. In GHG emission inventories, the weight of each gas is multiplied by its global warming potential (GWP) and is measured in units of CO₂ equivalents (CO₂e). The most common GHGs are carbon dioxide (CO₂) and water vapor but there are also several others, most importantly methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). These are released into the earth's atmosphere through a variety of natural processes and human activities. Sources of GHGs are generally as follows:

- CO₂ and N₂O are byproducts of fossil fuel combustion.
- N₂O is associated with agricultural operations such as fertilization of crops.
- CH₄ is commonly created by off-gassing from agricultural practices (e.g., keeping livestock) and landfill operations.
- Chlorofluorocarbons (CFCs) were widely used as refrigerants, propellants, and cleaning solvents, but their production has been stopped by international treaty.
- HFCs are now used as a substitute for CFCs in refrigeration and cooling.
- PFCs and SF₆ emissions are commonly created by industries such as aluminum production and semiconductor manufacturing.

An expanding body of scientific research supports the theory that global climate change is currently causing changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it will increasingly do so in the future. The climate and several naturally occurring resources within California are adversely affected by the global warming trend. Increased precipitation and sea level rise will increase coastal flooding, saltwater intrusion, and degradation of wetlands. Mass migration and/or loss of plant and animal species could also occur. Potential effects of global climate change that could adversely affect human health include more extreme heat waves and heat-related stress; an increase in climate-sensitive diseases; more frequent and intense natural disasters such as flooding, hurricanes and drought; and increased levels of air pollution.

3.6.1.2 *Regulatory Framework*

State

Assembly Bill 32

Under the California Global Warming Solutions Act, also known as AB 32, CARB established a statewide GHG emissions cap for 2020, adopted mandatory reporting rules for significant sources of GHGs, and adopted a comprehensive plan, known as the Climate Change Scoping Plan, identifying how emission reductions would be achieved from significant GHG sources. The GHG reduction goals of AB 32 were guided by Executive Order S-3-05, which was signed in 2005 and set reduction targets for 2010, 2020, and 2050. Executive Order S-3-05 sets a long-term GHG reduction goal of 80 percent below 1990 levels by 2050.

In 2016, SB 32 was signed into law, amending the California Global Warming Solution Act. SB 32, and accompanying Executive Order B-30-15, require CARB to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. CARB updated its Climate Change Scoping Plan in December of 2017 to express the 2030 statewide target in terms of million metric tons of CO₂E (MMTCO₂e). Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 MMTCO₂e.

Senate Bill 375

SB 375, known as the Sustainable Communities Strategy and Climate Protection Act, was signed into law in September 2008. SB 375 builds upon AB 32 by requiring CARB to develop regional GHG reduction targets for automobile and light truck sectors for 2020 and 2035. The per-capita GHG emissions reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.

Consistent with the requirements of SB 375, the Metropolitan Transportation Commission (MTC) partnered with the Association of Bay Area Governments (ABAG), BAAQMD, and the Bay Conservation and Development Commission to prepare the region's Sustainable Communities Strategy (SCS) as part of the Regional Transportation Plan process. The SCS is referred to as Plan Bay Area 2040.

Regional and Local

2017 Clean Air Plan

To protect the climate, the 2017 CAP (prepared by BAAQMD) includes control measures designed to reduce emissions of methane and other super-GHGs that are potent climate pollutants in the near-term, and to decrease emissions of carbon dioxide by reducing fossil fuel combustion.

CEQA Air Quality Guidelines

The BAAQMD CEQA Air Quality Guidelines are intended to serve as a guide for those who prepare or evaluate air quality impact analyses for projects and plans in the San Francisco Bay Area. The jurisdictions in the San Francisco Bay Area Air Basin utilize the thresholds and methodology for assessing GHG impacts developed by BAAQMD within the CEQA Air Quality Guidelines. The

guidelines include information on legal requirements, BAAQMD rules, methods of analyzing impacts, and recommended mitigation measures.

Post 2020 Impact Thresholds

BAAQMD established GHG thresholds for projects in an effort to ensure the state GHG emissions were reduced to 1990 levels by 2020. The BAAQMD GHG 2020 thresholds were an annual emissions of less than 1,100 metric tons per year (MT/yr) of CO₂e or 4.6 MT CO₂e/service population (sp)/yr emissions for projects that will be constructed and operational by 2020. BAAQMD has yet to publish a quantified GHG efficiency threshold for 2030 (for projects to be constructed and operational after 2020 and prior to 2031). GHG emissions resulting from operation of the project at maximum build out were compared to the state goals, detailed in SB 32 and EO B-30-15, to reduce GHG emissions by 40 percent below 1990 levels by 2030. A Substantial Progress efficiency threshold of 2.8 MT CO₂e/sp/yr threshold, which is a 40 percent reduction from the BAAQMD 2020 service population emissions target of 4.6 MT CO₂e/sp/yr, is utilized in this EIR. The efficiency threshold was calculated based on the GHG reduction goals of SB32 and EO B-30-15.⁶²

City of Morgan Hill 2035 General Plan

The following GHG goal and policy is applicable to the proposed project:

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

Policy NRE-15.1: **Greenhouse Gas Emission Reduction Targets.** Maintain a greenhouse gas reduction trajectory that is consistent with the greenhouse gas reduction targets of Executive Orders B-30-15 (40 percent below 1990 levels by 2030) and S-03-05 (80 percent below 1990 levels by 2050) to ensure the City is consistent with statewide efforts to reduce greenhouse gas emissions.

3.6.1.3 Existing Conditions

Unlike emissions of criteria and toxic air pollutants, which have regional and local impacts, emissions of GHGs have a broader, global impact. Global warming is a process whereby GHGs accumulating in the upper atmosphere contribute to an increase in the temperature of the earth and changes in weather patterns.

In its existing state, the project site contributes minimally to the City's GHG emissions portfolio. Emissions are primarily generated by vehicle travel to and from the site, emissions related to irrigation, and operation of agricultural equipment.

⁶² Personal Communications: Reyff, James, Illingworth & Rodkin, Inc. (air quality consultant). March 4, 2020.

3.6.2 Impact Discussion

For the purpose of determining the significance of the project's impact on greenhouse gas emissions, would the project:

- 1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- 2) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

3.6.2.1 *Project Impacts*

Impact GHG-1: The project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. **(Less than Significant Impact with Mitigation Incorporated)**

GHG emissions associated with development of the proposed project would occur over the short-term from construction activities, consisting primarily of emissions from equipment exhaust and worker and vendor trips. There would also be long-term operational emissions associated with vehicular traffic within the project vicinity, energy and water usage, and solid waste disposal. Emissions for the proposed project were analyzed using the California Emissions Estimator Model (CalEEMod) and the methodology recommended in the BAAQMD CEQA Air Quality Guidelines.

CalEEMod was used to predict GHG emissions from project operations (including non-truck traffic emissions) assuming full-build out of the project. Emissions from operational truck travel were estimated using the CARB EMFAC2017 model. The project land use types and size and other project-specific information were input to the model, as described in *Section 3.2, Air Quality*. Two adjustments were included in the CalEEMod and EMFAC 2017 modeling for the GHG assessment:

1. Since SVCE is the default electricity provider in Morgan Hill, the project was assumed to use their carbon-free electricity. However, 10 percent of the electricity was assumed to be provided by PG&E for those customers that could opt out of SCVE service.⁶³
2. The average vehicle trip length associated with the project would be 5.86 miles per new trip per the TIA. The VMT per trip was applied to CalEEMod as the trip length for automobiles. Vehicle emissions rates from the CARB EMFAC2017 model were applied to the truck travel estimates. Truck trips were assumed to be 18 miles per trip. Since specific trip lengths were assigned, all trip types were assumed to be primary trips (i.e., no passby or diverted trips were assumed).

⁶³ The 10 percent participation in utilizing PG&E as an electricity provider is based on participation rates for communities such as Mountain View, Saratoga, and Sunnyvale. Personal Communications: Reyff, James, Illingworth & Rodkin. *RE: Morgan Hill Tech Center AQ/GHG report edits*. March 13, 2020.

Service Population

The project service population efficiency rate is based on the number of future residents and future employees. For this project, the number of future residents was computed using the California Department of Finance estimates for 2019 of 3.15 persons per household; the project would provide 319 units and result in 1,005 residents. The number of future retail employees was based on four workers per thousand sf, or 200 workers from the 50,000-sf commercial development. A projection of 1,300 workers for the industrial uses were provided by the applicant⁶⁴. Based on ratio for industrial uses (approximately one employee per 805 square feet), the number of future industrial office employees would be 56 employees. The total service population would be about 2,560 people, assuming full development with all industrial, commercial, and residential uses. The 2,560 total assumes 1,300 industrial employees. The industrial buildings will likely be occupied by a variety of industrial uses and tenants over their economic lifespans, some will have higher and some lower employment totals, however, an assumption of 1,300 employees for purposes of this analysis is a reasonable estimate. This equates to roughly one employee per 805 sf of industrial building area.

Construction Emissions

GHG emissions associated with construction were computed to be 4,319 MT of CO₂e for the total construction period. These are the emissions from on-site operation of construction equipment, vendor and hauling truck trips, and worker trips. Neither the City nor BAAQMD have an adopted threshold of significance for construction related GHG emissions. However, the City of Morgan Hill General Plan lists several applicable action items to minimize GHG emissions from construction equipment. BAAQMD also encourages the incorporation of best management practices to reduce GHG emissions during construction where feasible and applicable.

Operational Emissions

The CalEEMod model, along with the project vehicle trip generation rates, was used to estimate daily emissions associated with operation of the fully developed site under the proposed project. As shown in Table 3.6-1, the operational year 2025 emissions from the combined project components would exceed the “Substantial Progress” efficiency metric of 2.8 MT CO₂e/year/service population.⁶⁵ To be considered significant, the project must exceed both the GHG significance threshold in metric tons per year and the service population significance threshold. Using an estimated service population of 2,560 combined workers and residents, the project would exceed the per capita threshold in 2025 (at the earliest build-out year). This would constitute a significant GHG emissions impact. The general light industrial, industrial office, and commercial components would each result in a significant GHG impact. Operations of the residential component would be below the GHG per capita emissions threshold of 2.8 MT CO₂e/year.

⁶⁴ Email from Jim Rowe, City of Morgan Hill, dated August 9, 2019

⁶⁵ The operational GHG emissions was modeled for the year 2025. The operational year that the industrial, commercial, and residential components simultaneously would be the year 2027. Operational emissions would be lower in 2027 due to increased efficiencies in technology and changes in state/federal environmental regulations. Therefore, the modeled operational year 2025 provides a conservative estimate for GHG emissions.

Table 3.6-1: Annual Project GHG (CO₂e) Emissions (2025)					
Category	Total	Industrial	Commercial	Industrial Office	Residential
General Light Industrial, Industrial Office, Commercial and Residential					
Area	31	0	-	-	31
Energy	1,725	1,605	14	69	37
Mobile	6,473	2,970	1,239	121	2,143
Industrial trucks	2,351	2,351	-	-	-
Waste	898	651	26	28	193
Water	192	167	3	7	15
Total:	11,670	7,744	1,282	225	2,419
Per Capita Emissions	4.55	5.96	6.41	4.01	2.41
<i>Per Capita Significance Threshold</i>	2.8 to meet 2030 goal	2.8 to meet 2030 goal	2.8 to meet 2030 goal	2.8 to meet 2030 goal	2.8 to meet 2030 goal
<i>Significant?</i>	Yes	Yes	Yes	Yes	No
Notes: Per Capita emissions based on service population of 1,300 employees for general light industrial and warehouse, 56 employees for industrial office, 200 employees for commercial, and 1,005 residents (population plus workers)					

The proposed project buildout would exceed the per capita threshold in 2025, thus resulting in a significant GHG emissions impact.

Mitigation Measures: The following mitigation measures would be implemented by the project to reduce its GHG emissions to below the per capita threshold by its earliest operable year.

MM GHG-1: Develop a GHG reduction plan to reduce GHG emissions in the build-out year by 4,499 MT CO₂e/year. MT CO₂e/year. The following GHG reduction measures should be considered to further reduce GHG emissions from operation of the project and the service population efficiency metric such that the metric would be below the significance threshold. Elements of this reduction plan may include, but would not be limited to, the following:

1. Implementation of mitigation measure MM AQ-3 which includes the development and implementation of a transportation demand management (TDM) program to reduce mobile GHG emissions.
2. Installation of solar power systems or other renewable electric generating systems that provide electricity to power on-site equipment and possibly provide excess electric power.

3. Provide infrastructure for electric vehicle charging in for industrial and commercial parking areas and in residential units (i.e., provide 220 VAC power).
4. Increase water conservation above State average conditions for residential uses by installing low flow water utilities and irrigation.
5. Purchase verifiable carbon emission offsets.

Some of the measures involve project features or operational measures that would serve to reduce project emissions. However, it may not be possible to accomplish the required reduction through the design, construction, and operation of the project, in which case the use of carbon offsets would be required. Carbon offsets, as purchased through a verified registry, are a feasible and appropriate method to reduce a project's GHG emissions and is recognized by BAAQMD and CARB. Because the project would be required to purchase whatever remaining amount of GHG reduction was required, after exhausting on-site reduction options such as #1-#4 above, the project's GHG emissions would be reduced to a level below the applicable threshold. Therefore, implementation of a GHG reduction plan, as set forth in the mitigation measure above, would reduce the project's GHG emissions impact to a less than significant level. **(Less than Significant Impact with Mitigation Incorporated)**

Impact GHG-2: The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs. **(Less than Significant Impact)**

With implementation of MM GHG-1, the proposed project's operational GHG emissions would fall below the efficiency metric of 2.8 MT CO₂e/year/service population, which is based on the statewide GHG emissions reduction targets established by SB 32 and Executive Order B-30-15. Therefore, the project would be consistent with state and local plans and policies pertaining to GHG emission reductions. **(Less than Significant Impact)**

3.6.2.2 Cumulative Impacts

Impact GHG-C: The project would not result in a cumulatively considerable contribution to a GHG emissions impact. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Past, present, and future development projects (including the proposed project and cumulative General Plan buildout) worldwide contribute to global climate change. No single project is sufficient in size to, by itself, change the global average temperature. Therefore, due to the nature of GHG impacts, a significant project impact is a significant cumulative impact. As discussed under Impact GHG-1, with the implementation of mitigation measure MM GHG-1, the project would result in less than significant GHG impact. The project, therefore, would not result in a cumulatively considerable contribution to a significant cumulative GHG impact. **(Less than Significant Cumulative Impact)**

3.7 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based, in part, on a Phase I Environmental Site Assessment (ESA) and Limited Phase II Environmental Investigation prepared by *Haley & Aldrich, Inc.* and a Phase I ESA, Limited Phase II Agricultural Investigation, and Additional Investigation of Lead in Soil prepared by *AEI Consultants*. The Phase I ESA and Limited Phase II Environmental Investigation prepared by *Haley & Aldrich, Inc.*, both dated December 2018, are included in Appendix F1 and F2 of this DEIR, respectively. The AEI reports, dated June 6, September 20, and October 30, 2018, are included as appendices to the Phase I ESA prepared by *Haley & Aldrich, Inc.*

3.7.1 Environmental Setting

3.7.1.1 *Regulatory Framework*

Overview

The storage, use, generation, transport, and disposal of hazardous materials and waste are highly regulated under federal and state laws. Federal regulations and policies related to development include the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund, and the Resource Conservation and Recovery Act. In California, the EPA has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (CalEPA). In turn, local agencies have been granted responsibility for implementation and enforcement of many hazardous materials regulations under the Certified Unified Program Agency (CUPA) program.

Worker health and safety and public safety are key issues when dealing with hazardous materials. Proper handling and disposal of hazardous material is vital if it is disturbed during project construction. Cal/OSHA enforces state worker health and safety regulations related to construction activities. Regulations include exposure limits, requirements for protective clothing, and training requirements to prevent exposure to hazardous materials. Cal/OSHA also enforces occupational health and safety regulations specific to lead and asbestos investigations and abatement.

Federal and State

Federal Aviation Regulations Part 77

Federal Aviation Regulations, Part 77 Objects Affecting Navigable Airspace (FAR Part 77) sets forth standards and review requirements for protecting the airspace for safe aircraft operation, particularly by restricting the height of potential structures and minimizing other potential hazards (such as reflective surfaces, flashing lights, and electronic interference) to aircraft in flight. These regulations require that the Federal Aviation Administration (FAA) be notified of certain proposed construction projects located within an extended zone defined by an imaginary slope radiating outward for several miles from an airport's runways, or which would otherwise stand at least 200 feet in height above the ground.

Government Code Section 65962.5

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by state and local

agencies and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by the Department of Toxic Substances Control (DTSC), State Water Resources Control Board (SWRCB), and Santa Clara County. The project site is not on the Cortese List.⁶⁶

California Accidental Release Prevention Program

The California Accidental Release Prevention (CalARP) Program aims to prevent accidental releases of regulated hazardous materials that represent a potential hazard beyond the boundaries of a property. Facilities that are required to participate in the CalARP Program use or store specified quantities of toxic and flammable substances (hazardous materials) that can have off-site consequences if accidentally released. The Santa Clara County Department of Environmental Health reviews CalARP risk management plans as the CUPA.

Asbestos-Containing Materials

Friable asbestos is any asbestos containing material (ACM) that, when dry, can easily be crumbled or pulverized to a powder by hand, allowing the asbestos particles to become airborne. Common examples of products that have been found to contain friable asbestos include acoustical ceilings, plaster, wallboard, and thermal insulation for water heaters and pipes. Common examples of non-friable ACMs are asphalt roofing shingles, vinyl floor tiles, and transite siding made with cement. The EPA phased out use of friable asbestos products between 1973 and 1978. National Emission Standards for Hazardous Air Pollutants guidelines require that potentially friable ACMs be removed prior to building demolition or remodeling that may disturb the ACMs.

CCR Title 8, Section 1532.1 (Lead-based Paint)

The United States Consumer Product Safety Commission banned the use of lead-based paint in 1978. Removal of older structures with lead-based paint is subject to requirements outlined by Cal/OSHA Lead in Construction Standard, CCR Title 8, Section 1532.1 during demolition activities. Requirements include employee training, employee air monitoring, and dust control. If lead-based paint is peeling, flaking, or blistered, it is required to be removed prior to demolition.

Regional

BAAQMD Rules and Regulations

Naturally Occurring Asbestos ACTM - To reduce public exposure to naturally occurring asbestos, BAAQMD regulates all construction and mining activities that produce dust potentially containing naturally occurring asbestos. The ATCM places requirements on the following activities in areas where naturally occurring asbestos is likely to be found:

- Road construction and maintenance.
- Construction and grading.
- Quarrying and surface mining.

⁶⁶ CalEPA. "Cortese List Data Resources." Accessed August 27, 2019. <https://calepa.ca.gov/sitecleanup/corteselist>.

Construction projects greater than one acre with potential to disturb naturally occurring asbestos must submit an asbestos dust mitigation plan application. The District reviews and evaluates the plan to ensure the appropriate minimization measures are incorporated and may require monitoring if in close proximity to sensitive receptors.

Local

City of Morgan Hill 2035 General Plan

The following goal and policy to reduce the effects of hazardous materials are applicable to the proposed project:

Goal SSI-4: *Avoidance and exposure to hazardous substances.*

Policy SSI-4.16: **Contaminated Site Mitigation.** Require new or expanding development projects in areas contaminated from previous discharges to mitigate their environmental effects.

3.7.1.2 *Existing Conditions*

Historic Use of the Site

Topographic maps, aerial photographs, city directories, Sanborn fire insurance maps, and former site investigations were reviewed to determine the historic land uses on the project site. The project site has historically been occupied by small residential structures and/or farmhouses and used for agricultural purposes.

As shown in aerial photographs from 1963 to 1968, at least eight to 10 small structures occupied the northern and southeastern portions of the proposed industrial/commercial areas of the project site. These structures appeared to be associated with the agricultural use of the land on-site. In aerial photographs from 1974 and 1982, only one structure is visible on the northern portion of the site and eight to 10 structures remain visible on the southeastern portion of the industrial/commercial area. By 1998, the residential structures were removed, and the single structure remained on the northern portion of the site. The single structure appears to be the same structure which is visible from Cochrane Road to the present day. The existing tree nursery is visible in aerial photographs of the site from 2006 on.

The proposed residential area of the site has historically been used for residential and agricultural purposes. One residence has occupied the site since at least the 1950s. This portion of the site has primarily been planted with orchards since at least 1939.

On-Site Environmental Conditions

State, regional, and local environmental databases were reviewed, a site reconnaissance was completed, and key personnel interviews were conducted to identify any potential hazardous

materials concerns on the project site.⁶⁷ The environmental records review found that the project site is listed on the Regional Water Quality Control Board's (RWQCB) GeoTracker database in the Irrigated Lands Regulatory Program. The site is listed as George Chiala Farms, Inc. – Tuscany with the regulatory status reported as “Terminated”. This listing was not found to present an environmental concern to the proposed project. The site was not listed on any other environmental databases. The site was observed to be used for agricultural purposes.

The project site has been the subject of several recent site investigations related to on-site soil contamination; the site investigations are discussed in greater detail below.

89-Acre Project Site

The project site has been used for agricultural purposes from as early as 1939 to the present. To determine any potential soil contamination on-site related to the past and current use of pesticides, herbicides and fertilizers, a Limited Phase II Agricultural Investigation was completed at the 89-acre project site (AEI, 2018). Shallow soil samples were collected at 68 locations throughout the entire 89-acre site and analyzed for organochlorine pesticides (OCPs), lead, and arsenic. The concentrations of these materials in the soils samples was compared to the RWQCB Environmental Screening Levels (ESLs) for a residential land use scenario and arsenic comparison concentrations from USGS Geochemical and Mineralogical Maps for the Coterminous United States.

At the time of the Limited Phase II Agricultural Investigation (AEI, 2018), no OCPs analyzed exceeded their corresponding ESLs for residential and commercial direct contact scenarios. Arsenic was detected at concentrations ranging from 0.91 mg/kg to 10 mg/kg, which is consistent with typical background concentrations (6.0 to 8.4 mg/kg) for the Morgan Hill area.

Lead was found in concentrations above its corresponding residential ESLs in three soil samples, each of which was located in the vicinity of a former residence on-site (AEI, 2018). The presence of lead in soil is typically associated with the use of lead-based paints (LBPs). An Additional Investigation of Lead in Soil was performed to determine the extent of lead in soil on the site (AEI, 2018).

The Additional Investigation of Lead in Soil involved the collection of 34 soil samples in the vicinity of the existing residences (Cochrane Road property and Half Road property) to characterize the nature and extent of elevated lead concentrations on-site. The analysis of the soil samples found lead in concentrations above its corresponding residential ESL in ten samples. Soluble lead was detected above laboratory reporting limits in each of the samples analyzed, at concentrations of 15 and 13 mg/L. This is above the hazardous waste criteria for lead of 5.0 mg/L.

Naturally Occurring Asbestos (NOA) containing serpentine fill was identified during a prior geotechnical investigation of the 89-acre project site (Berlogar Stevens & Associates, 2018). The estimated quantity of serpentine fill was between 65,000 and 70,000 cubic yards, ranging from five to nine feet in depth. The NOA content of 12 samples taken at the site ranged from non-detect to 3.5

⁶⁷ The Phase I ESAs completed for the site (Haley & Aldrich, 2018 and AEI, 2018) and subsequent site investigations did not include the 2.18-acre parcel denoted as “Not a Part” in the Conceptual Site Plan (Figure 2.0-5) because no development proposal was defined for this area. At the time of a specific development proposal for this portion of the site, additional site investigation would be required.

percent. The serpentine fill area is located at the northwest corner of the commercial/industrial area, adjacent to US 101.

58-Acre Commercial/Industrial Portion

In addition, a Limited Phase II Environmental Investigation was completed at the approximately 58-acre area of the site proposed for industrial/commercial development (Haley & Aldrich, 2018). The investigation included collecting and submitting for laboratory analysis 41 soil samples collected from 21 boring locations throughout the commercial/industrial area to determine the potential for OCP, lead, and arsenic contamination in exceedance of RWQCB ESLs.⁶⁸

The Limited Phase II Environmental Investigation (Haley & Aldrich, 2018) also detected OCPs at the site, only one of which (dieldrin) exceeded its Tier 1 ESL. Since the Tier 1 ESL is based on potential concern associated with the theoretic leaching to groundwater that is a current source of drinking water, which is not a concern for the site, the concentrations of dieldrin were also compared against its commercial/industrial ESL, which was not exceeded. Arsenic was detected at concentrations exceeding both its Tier 1 and commercial/industrial ESLs; however, it did not exceed its San Francisco Bay Area natural background concentrations. Lead was not detected in concentrations exceeding its Tier 1 ESLs in the most recent Limited Phase II Environmental Investigation; however, as is discussed above, lead was found in concentrations exceeding residential ESLs in prior site investigations.

Hazardous Building Materials

The buildings on-site were constructed prior to 1978 and likely have materials that include asbestos-containing materials (ACMs) and/or LBPs.

Off-Site Environmental Conditions

The project site was analyzed for potential vapor encroachment/migration risks from off-site sources. A detailed review and analysis of the site-specific environmental database report and/or other reasonably ascertainable records was conducted to assess whether:

1. Off-site properties have documented chlorinated volatile organic compound (CVOC) contamination located within 100 feet of the project site, or;
2. Off-site properties have documented volatile petroleum hydrocarbon contamination within 30 feet of the project site.

Based on the records review, it is unlikely that a potential source of vapor migration currently exists beneath the project site.

⁶⁸ It should be noted that since the time of soil sampling and analysis, the RWQCB has completed a comprehensive update of its ESLs to reflect changes in toxicity values, changes in the understanding of the fate and transport of contaminants, and other developments in environmental risk assessment. The update was released on January 24, 2019 and establishes lower ESLs for several contaminants commonly found in soil and groundwater. Thus, additional analysis would be required to confirm that the levels of contaminants in the soil related to prior agricultural use of the site do not exceed the most recent ESLs.

Prior site investigations (AEI, 2018) found a total of 22 listed sites on various federal, state, tribal, and local environmental databases within the minimum search distance defined by ASTM Standard E1527-13. To determine whether the listed sites are of potential environmental concern to the project site, the following criteria was applied to classify the sites as lower potential environmental concern: 1) the site only holds an operating permit (which does not imply a release), 2) the site's distance from, and/or topographic position relative to, the project site, and/or 3) the site has recently been granted "No Further Action" by the appropriate regulatory agency. Based on this criterion, none of the listed sites are considered an environmental concern to the proposed project.

Wildland Fires

The project site is not located within an identified Very High Fire Hazard Severity Zone in a State Responsibility Area (SRA) or a Local Responsibility (LRA).^{69,70} The project site is not adjacent to any wildlands that could present a fire hazard.

Airport Hazards

The proposed project is located approximately 4.9 miles northwest of the San Martin Airport. The project site is not exposed to any airport hazards due to its distance from the San Martin Airport.

3.7.2 Impact Discussion

For the purpose of determining the significance of the project's impact on hazards and hazardous materials, would the project:

- 1) Create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials?
- 2) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
- 3) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
- 4) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
- 5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, result in a safety hazard or excessive noise for people residing or working in the project area?
- 6) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
- 7) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

⁶⁹ CAL FIRE. *Santa Clara County Fire Hazard Safety Zone Map – State Responsibility Area*. November 2007.

⁷⁰ CAL FIRE. *Santa Clara County Fire Hazard Safety Zone Map – Local Responsibility Area*. October 2008.

3.7.2.1 *Project Impacts*

Impact HAZ-1: The project would not create a significant hazard to the public or the environment through routine transport, use, or disposal of hazardous materials. **(Less than Significant Impact)**

The project proposes 1.04 million square feet of flexible industrial and commercial uses, approximately 50,000 square feet of commercial/retail space, approximately 45,000 square feet of industrial office, and a maximum of 319 residential units. While the exact industrial and commercial uses on-site are yet to be determined and will likely vary over time through the lifespan of the buildings, based on market conditions and the uses allowed to occupy the spaces under the Zoning Code, it is possible that routine transport, use or disposal of hazardous materials occurs during operation of the project. If these activities occur, the site operator would be required to comply with federal, state, and local requirements for managing hazardous materials. These requirements could include the preparation of, implementation of, and training in the plans, programs, and permits prepared for the site, and compliance would be monitored and enforced by the appropriate regulatory agencies, including the County Department of Environmental Health.

No long-term release of hazardous materials into the environment would occur as a result of project implementation. Project construction would require the temporary use of heavy equipment. Construction would also require the use of hazardous materials including petroleum products, lubricants, cleaners, paints, and solvents. These materials would be used in accordance with all federal, state, and local laws. Thus, the project would not create a hazard to the public or the environment through routine transport, use, or disposal of hazardous materials. **(Less than Significant Impact)**

Impact HAZ-2: The project, with incorporated of identified mitigation, would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. **(Less than Significant Impact with Mitigation Incorporated)**

Contaminated Soils

As described previously, the project site contains lead-impacted soils in the vicinity of the existing and former residential structures; these structures are located in both the areas of the site planned for industrial uses (adjacent to Cochrane Road) and for residential uses (adjacent to Half Road). Lead in soils can impact the health of construction workers and adjacent uses when soil disturbance occurs. In addition, low concentrations of agricultural chemicals, including OCPs and arsenic, are present on the site. These chemicals can pose a health hazard to construction workers and adjacent uses when disturbed. Adverse effects to human health and/or the environment would constitute a significant impact.

Mitigation Measures: The project shall implement the following mitigation measures to reduce potential impacts resulting from the disturbance of soils containing LBPs and agricultural chemicals:

MM HAZ-2.1: Prior to the issuance of grading permits, the analytical results of prior soil samples shall be compared against the most recent (2019) RWQCB screening levels by a certified environmental professional to determine if contaminants from previous agricultural operations occur at concentrations above established construction worker safety and environmental screening levels. The result of the analysis shall be provided to the Principal Planner of the City of Morgan Hill Development Services Department for review.

MM HAZ-2.2: If contaminated soils are determined to be present in concentrations above established regulatory environmental screening levels, the project applicant(s) responsible for the area of the site found to be contaminated shall enter into the Santa Clara County Department of Environmental Health's (SCCDEH) Voluntary Cleanup Program (VCP), or equivalent, to formalize regulatory oversight of the mitigation of contaminated soil to ensure the site is safe for construction workers and the public after development. The project applicant responsible for the contaminated area of the site must remove contaminated soil to levels acceptable to the SCCDEH (or equivalent oversight agency). The SCCDEH (or equivalent oversight agency) may also approve leaving in-place some of the contaminated soil if the contaminated soil will be buried under hardscape and/or several feet of clean soil and not at risk of being encountered by future site users.

A Removal Action Plan, Soil Mitigation Plan or other similarly titled report describing the remediation must be prepared and implemented to document the removal and /or capping of contaminated soil. A copy of any reports prepared shall be submitted to the Principal Planner of the City of Morgan Hill Development Services Department. All work and reports produced shall be performed under the regulatory oversight and approval of the SCCDEH (or equivalent oversight agency).

MM HAZ-2.3: The project applicant shall prepare a Site Management Plan (SMP) prior to issuance of any grading permits to reduce or eliminate exposure risk to human health and the environment, specifically, potential risks associated with the presence of organochlorine pesticides and pesticide-based metals. The SMP shall include, but is not limited to, the following elements to mitigate potential risks associated with environmental conditions:

- Procedures for transporting and disposing the waste material generated during removal activities, if such transport and disposal is necessary
- Procedures for stockpiling soil on-site if such stockpiling is necessary
- Provisions for collecting soil samples to prior to grading activities

- Provisions for confirmation soil sampling as appropriate to obtain a “No Further Action” letter (or equivalent) from the state and/or local agency assuming oversight for the site
- Procedures to ensure that fill and cap materials are verified as clean truck routes
- Staging and loading procedures and record keeping requirements

The SMP shall reference the Storm Water Pollution Prevention Plan (SWPPP) required for the project in accordance with the Construction General Permit Order issued by the California State Water Resources Control Board. The SMP shall be submitted to the Santa Clara County Department of Environmental Health (SCCDEH), or equivalent regulatory agency, for review and approval. Copies of the approved SMP shall be provided to the City’s Development Services Department prior to issuance of any grading permits.

MM HAZ-2.4

All contractors and subcontractors at the project site shall develop a health and safety plan (HSP) specific to their scope of work and based upon the known environmental conditions for the site. Each Health and Safety plan shall be implemented under the direction of a Site Safety and Health Officer. The Health and Safety Plan shall include, but not limited to, the following elements, as applicable:

- Provisions for personal protection and monitoring exposure to construction workers
- Procedures to be undertaken in the event that contamination is identified above action levels or previously unknown contamination is discovered
- Procedures for the safe storage, stockpiling, and disposal of contaminated soils
- Provisions for the on-site management and/or treatment of contaminated groundwater during extraction or dewatering activities
- Emergency procedures and responsible personnel.

The HSP shall be submitted to the Santa Clara County Department of Environmental Health (SCCDEH), or equivalent regulatory agency, for review and approval. Copies of the approved HSP shall be provided to the City’s Development Services Department prior to issuance of any grading permits.

The implementation of mitigation measures MM HAZ-2.1 through MM HAZ-2.4 would ensure that hazardous conditions on-site and the transport of contaminated soils would not result in a significant hazard to construction workers, adjacent residences, or the environment. **(Less Than Significant Impact with Mitigation Incorporated)**

Asbestos-Containing Materials and Lead-Based Paint

The two residential structures on-site (one on the commercial portion and the other on the residential portion) were constructed prior to 1978 and likely have materials that include asbestos-containing materials (ACMs) and/or lead-based paint. The project proposes to demolish the existing buildings on-site which could release asbestos particles and expose construction workers and nearby residents to harmful levels of asbestos. This would constitute a significant impact. As a result, an asbestos survey must be conducted under the National Emission Standards for Hazardous Air Pollutants (NESHAP) guidelines. The project would be required to remove all potentially friable ACMs prior to building demolition that may disturb the ACMs.

If lead-based paint is still bonded to the building materials, its removal is not required prior to demolition. The project would be required to follow the requirements outlined by Cal/OSHA Lead in Construction Standard, Title 8, California Code of Regulation (CCR) 1532.1 during demolition activities; these requirements include employee training, employee air monitoring, and dust control. If lead-based paint is peeling, flaking, or blistered, it would be removed prior to demolition. It is assumed that such paint would become separated from the building components during demolition activities and must be managed and disposed of as a separate waste stream. Any debris or soil containing lead paint or coating must be disposed of at landfills that are permitted to accept such waste.

The project is required to conform to the following regulatory programs and to implement the following mitigation measures to reduce impacts due to potential ACMs and lead-based paint:

Mitigation Measures: The following mitigation measures shall be implemented by the project to reduce impacts resulting from disturbance of lead-based paint or ACMs.

MM HAZ-2.5: In conformance with State and local laws, a visual inspection/pre-demolition survey, and possible sampling, shall be conducted prior to the demolition of on-site building(s) to determine the presence of ACMs and/or lead-based paint.

During demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA Lead in Title 8, California Code of Regulations (CCR), Section 1532.1, including employee training, employee air monitoring, and dust control. Any debris or soil containing lead-based paint or coatings shall be disposed of at landfills that meet acceptance criteria for the type of lead being disposed.

All potentially friable asbestos containing materials (ACMs) shall be removed in accordance with National Emission Standards for Air Pollution (NESHAP) guidelines prior to demolition or renovation activities that may disturb ACMs. All demolition activities shall be undertaken in accordance with Cal/OSHA standards contained in Title 8, CCR, Section 1529, to protect workers from asbestos exposure.

A registered asbestos abatement contractor shall be retained to remove and dispose of ACMs identified in the asbestos survey performed for the site in accordance with the standards stated above.

Materials containing more than one-percent asbestos are also subject to Bay Area Air Quality Management District (BAAQMD) regulations. Removal of materials containing more than one-percent asbestos shall be completed in accordance with BAAQMD requirements and notifications.

Based on Cal/OSHA rules and regulations, the following conditions are required to limit impacts to construction workers.

Prior to commencement of demolition activities, a building survey, including sampling and testing, shall be completed to identify and quantify building materials containing lead-based paint.

During demolition activities, all building materials containing lead-based paint shall be removed in accordance with Cal/OSHA Lead in Construction Standard, Title 8, CCR, Section 1532.1, including employee training, employee air monitoring and dust control.

Any debris or soil containing lead-based paint or coatings shall be disposed of at landfills that meet acceptance criteria for the type of waste being disposed.

Conformance with regulatory requirements and the mitigation measures above would result in a less than significant impact from ACMs and lead-based paint. **(Less than Significant Impact with Mitigation Incorporated)**

Naturally Occurring Asbestos

The site contains approximately 65,000 to 70,000 cubic yards of serpentine fill materials. Serpentine rock is a locally mined aggregate material which contains NOA. If disturbed during construction activities and allowed to become airborne, NOA can result in health risks to construction workers, site occupants, and adjacent uses. This would constitute a significant impact requiring mitigation.

Mitigation Measure: The project shall implement the following mitigation measures to reduce potential impacts resulting from the disturbance of soils containing NOA.

MM HAZ-2.6: In accordance with BAAQMD regulations, an Asbestos Dust Mitigation Plan (ADMP) will be prepared for BAAQMD review and approved prior to initiating the grading activities. The ADMP will include an air monitoring plan to be implemented when handling the stockpiled serpentine rock material. The project's construction plans specify the onsite burial of this material for encapsulation beneath permanent site improvements or at depths not to be encountered by future construction activities. The final deposition of

the serpentine rock material will be documented and recorded with BAAQMD. Specially trained and state-certified workers will perform and monitor all construction activities involving this material.

By complying with existing regulations, as specified in MM HAZ-2.6, the proposed project would not result in a hazardous materials impact due to release of NOA. **(Less than Significant Impact with Mitigation Incorporated)**

Impact HAZ-3: The 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. **(No Impact)**

The closest school to the project site is Live Oak High School, located 0.6-mile southeast of the site. The project would, therefore, not emit hazardous emissions or handle hazardous materials/substances within one-quarter mile of a school. **(No Impact)**

Impact HAZ-4: The 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 and, as a result, create a significant hazard to the public or the environment. **(No Impact)**

As described in Section 3.7.1.1 Regulatory Framework, the project site is not included on a list of hazardous materials sites pursuant to Government Code Section 65962.5. **(No Impact)**

Impact HAZ-5: The project would not be 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. The project would not result in a safety hazard or excessive noise for people residing or working in the project area. **(No Impact)**

The project site is located approximately five miles north of the South County Airport. The project site is not located within an Airport Influence Area or Federal Aviation Administration Height Restriction Area; therefore, the project would not result in an airport safety hazard. **(No Impact)**

Impact HAZ-6: The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. **(Less than Significant Impact)**

The project would be constructed in accordance with current building and fire codes to ensure structural stability and safety. In addition, the Morgan Hill Fire Department would review the site development plans to ensure fire protection design features are incorporated and adequate emergency access is provided. For these reasons, the operations of the proposed project would not interfere with

the City-adopted Emergency Operations Plan or any adopted statewide emergency response or evacuation plans.⁷¹ **(Less than Significant Impact)**

Impact HAZ-7: The project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires. **(No Impact)**

As mentioned in Section 3.7.1.2 Existing Conditions, the project site is not located within a designated Very High Fire Hazard Severity Zone. The proposed project is an infill development and would not be located adjacent to any wildlands that could expose people or structures to wildfire risks. **(No Impact)**

3.7.2.2 Cumulative Impacts

Impact HAZ-C: The project would not result in a cumulatively considerable contribution to a significant hazards and hazardous materials impact. **(Less than Significant Cumulative Impact)**

Cumulative projects in the City of Morgan Hill are likely to be proposed on sites that were previously developed with industrial or commercial uses. It is likely that hazardous materials may have been stored and used on, and/or transported to and from some of these properties as part of the use of the sites. Historical or current hazardous materials use could result in residual soil and/or groundwater contamination related to petroleum products, leaking storage tanks, or chemical releases. Contamination on sites proposed for future projects in the City could have impacts on the health and safety of construction workers, adjacent uses, and future site occupants.

In addition, many of the properties in Morgan Hill and surrounding cities were used for agricultural purposes prior to their development for industrial and residential uses and agricultural chemicals such as pesticides and fertilizers may have been used on-site in the past. The use of these chemicals can result in widespread residual soil contamination, sometimes in concentrations that exceed regulatory thresholds. In addition, development and redevelopment of some of the sites would require demolition of existing buildings that may contain ACMs and/or lead paint. Demolition of these structures could expose construction workers or other persons in the vicinity to harmful levels of asbestos or lead.

Based on the above-described conditions, which are present on most project sites to varying degrees, potentially significant environmental impacts could occur under the cumulative development scenario since such conditions can lead to the exposure of residents and/or workers to substances that have been shown to adversely affect health. Each of the cumulative projects under consideration would be required to assess the potential for past or current hazardous site conditions to affect, or be affected by, the proposed project. In accordance with General Plan policies, cumulative projects would include mitigation measures or permit conditions to reduce potential impacts from the project to the health and safety of the public and the environment. Measures would include incorporating the requirements of applicable existing local, state, and federal laws, regulations, and agencies such as

⁷¹ City of Morgan Hill, Office of Emergency Services. *Emergency Operations Plan*. Revision 2.0. January 11, 2018.

DTSC and Cal/OSHA, during all phases of project development. By adhering to federal and state regulations, City policies, and the mitigation measures set forth in this section, the proposed project would not result in a significant hazardous materials impact, nor would it result in a cumulatively considerable contribution to a significant hazards and hazardous materials impact. **(Less than Significant Cumulative Impact)**

3.8 NOISE

The following discussion is based in part on a Noise and Vibration Assessment completed by *Illingworth & Rodkin, Inc.* on March 9, 2020. The report is included in this EIR as Appendix G.

3.8.1 Environmental Setting

3.8.1.1 *Background Information*

Noise

Several factors influence sound as it is perceived by the human ear, including the actual level of sound, the period of exposure to the sound, the frequencies involved, and the fluctuation in the noise level during exposure. Noise is measured on a “decibel” scale which serves as an index of loudness. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Each 10 decibel increase in sound level is perceived as approximately a doubling of loudness over a wide range of intensities. Because the human ear cannot hear all pitches or frequencies, sound levels are frequently adjusted or weighted to correspond to human hearing. This adjusted unit is known as the A-weighted decibel, or dBA.

Since excessive noise levels can adversely affect human activities and human health, federal, state, and local governmental agencies have set forth criteria or planning goals to minimize or avoid these effects. Noise guidelines are almost always expressed using one of several noise averaging methods, such as L_{eq} , DNL, or CNEL.⁷² Using one of these descriptors is a way for a location’s overall noise exposure to be measured, given that there are specific moments when noise levels are higher (e.g., when a jet is taking off from an airport or when a leaf blower is operating) and specific moments when noise levels are lower (e.g., during lulls in traffic flows on freeways or in the middle of the night). L_{max} is the maximum A-weighted noise level during a measurement period.

Vibration

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Vibration amplitude can be quantified using Peak Particle Velocity (PPV), which is defined as the maximum instantaneous positive or negative peak of the vibration wave. Because of the impulsive nature of construction activities, the use of the PPV descriptor has been routinely used to measure and assess ground-borne vibration. Studies have shown that the threshold of perception for average persons is in the range of 0.008 to 0.012 in/sec PPV.

⁷² L_{eq} is a measurement of average energy level intensity of noise over a given period of time. Day-Night Level (DNL) is a 24-hour average of noise levels, with a 10 dB penalty applied to noise occurring between 10:00 PM and 7:00 AM. Community Noise Equivalent Level (CNEL) is similar to the DNL except that there is an additional five dB penalty applied to noise occurring between 7:00 PM and 10:00 PM. Where traffic noise predominates, the CNEL and DNL are typically within two dBA of the peak-hour L_{eq} .

3.8.1.2 *Regulatory Framework*

Local

City of Morgan Hill 2035 General Plan

The following goals and policies related to noise are applicable to the proposed project:

- Policy SSI-8.1:* **Exterior Noise Level Standards.** Require new development projects to be designed and constructed to meet acceptable exterior noise level standards (as shown in Table SSI-1) as follows:
- Apply a maximum exterior noise level of 60 dBA L_{dn} in residential areas where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing a L_{dn} of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, a L_{dn} of 65 dBA may be permitted.
- Policy SSI-8.2:* **Impact Evaluation.** The impact of proposed development project on existing land uses should be evaluated in terms of the potential for adverse community response based on significant increase in existing noise levels, regardless of compatibility guidelines.
- Policy SSI-8.3:* **Commercial and Industrial Noise Level Standards.** Evaluate interior noise levels in commercial and industrial structures on a case-by-case basis based on the use of the space.
- Policy SSI-8.4:* **Office Noise Level Standards.** Interior noise levels in office buildings should be maintained at 45 dBA L_{eq} (hourly average) or less, rather than 45 dBA L_{dn} (daily average).
- Policy SSI-8.5:* **Traffic Noise Level Standards.** Consider noise level increases resulting from traffic associated with new projects significant if: a) the noise level increase is 5 dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn} , or b) the noise level increase is 3 dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater.
- Policy SSI-8.6:* **Stationary Noise Level Standards.** Consider noise levels produced by stationary noise sources associated with new projects significant if they substantially exceed existing ambient noise levels.
- Policy SSI-8.7:* **Other Noise Sources.** Consider noise levels produced by other noise sources (such as ballfields) significant if an acoustical study demonstrates they would substantially exceed ambient noise levels.

- Policy SSI-8.9:* **Site Planning and Design.** Require attention to site planning and design techniques other than sound walls to reduce noise impacts, including: a) installing earth berms, b) increasing the distance between the noise source and the receiver; c) using non-sensitive structures such as parking lots, utility areas, and garages to shield noise-sensitive areas; d) orienting buildings to shield outdoor spaces from the noise source; and e) minimizing the noise at its source.
- Goal SSI-9:* Protection from noise associated with motor vehicles and railroad activity.
- Policy SSI-9.1:* **Techniques to Reduce Traffic Noise.** Use roadway design, traffic signalization, and other traffic planning techniques (such as limiting truck traffic in residential areas) to reduce noise caused by speed or acceleration of vehicles.
- Policy SSI-9.3:* **Sound Wall Design.** The maximum height of sound walls shall be eight feet. Residential projects adjacent to the freeway shall be designed to minimize sound wall height through location of a frontage road, use of two sound walls or other applicable measures. Sound wall design and location shall be coordinated for an entire project area and shall meet Caltrans noise attenuation criteria for a projected eight-lane freeway condition. If two sound walls are used, the first shall be located immediately adjacent to the freeway right-of-way and the second shall be located as necessary to meet Caltrans noise requirements for primary outdoor areas. The minimum rear yard setback to the second wall shall be 20 feet.
- Policy SSI-9.5:* **Noise Studies for Private Development:** In order to prevent significant noise impacts on neighborhood residents which are related to roadway extensions or construction of new roadways, require completion of a detailed noise study during project-level design to quantify noise levels generated by projects such as the Murphy Avenue extension to Mission View Drive and the Walnut Grove Extension to Diana Avenue. The study limits should include noise sensitive land uses adjacent to the project alignment as well as those along existing segments that would be connected to new segments. A significant impact would be identified where traffic noise levels would exceed the “normally acceptable” noise level standard for residential land uses and/or where ambient noise levels would be substantially increased with the project. Project specific mitigation measures could include, but not be limited to, considering the location of the planned roadway alignment relative to existing receivers in the vicinity, evaluating the use of noise barriers to attenuate project-generated traffic noise, and/or evaluating the use of “quiet pavement” to minimize traffic noise levels at the source. Mitigation should be designed to reduce noise levels into compliance with “normally acceptable” levels for residential noise and land use compatibility.
- Policy SSI-9.6:* **Earth Berms.** Allow and encourage earth berms in new development projects as an alternative to sound walls if adequate space is available.

Policy SSI-9.7: **Sound Barrier Design.** Require non-earthen sound barriers to be landscaped, vegetated, or otherwise designed and/or obscured to improve aesthetics and discourage graffiti and other vandalism.

Morgan Hill Municipal Code

The City of Morgan Hill's Municipal Code Chapter 8.28 states that "It is unlawful and a misdemeanor for any person to make or continue, or cause to be made or continued, any loud, disturbing, unnecessary or unusual noise or any noise which annoys, disturbs, injures or endangers the comfort, health, repose, peace or safety of other persons within the city." The following sections of the code would be applicable to the project:

- C. Blowers, Fans, and Combustion Engines. The operation of any noise-creating blower, power fan or internal combustion engine, the operation of which causes noise due to the explosion of operating gases or fluids, unless the noise from such blower or fan is muffled and such engine is equipped with a muffler device to deaden such noise;
- D. 1. Construction activities as limited below. "Construction activities" are defined as including but not limited to excavation, grading, paving, demolition, construction, alteration or repair of any building, site, street or highway, delivery or removal of construction material to a site, or movement of construction materials on a site. Construction activities are prohibited other than between the hours of 7:00 AM and 8:00 PM, Monday through Friday and between the hours of 9:00 AM to 6:00 PM on Saturday. Construction activities may not occur on Sundays or federal holidays. No third person, including but not limited to landowners, construction company owners, contractors, subcontractors, or employers, shall permit or allow any person working on construction activities which are under their ownership, control, or direction to violate this provision. Construction activities may occur in the following cases without violation of this provision:
 - a. In the event of urgent necessity in the interests of the public health and safety, and then only with a permit from the chief building official, which permit may be granted for a period of not to exceed three days or less while the emergency continues and which permit may be renewed for periods of three days or less while the emergency continues.
 - b. If the chief building official determines that the public health and safety will not be impaired by the construction activities between the hours of 8:00 PM and 7:00 AM, and that loss or inconvenience would result to any party in interest, the chief building official may grant permission for such work to be done between the hours of eight p.m. and seven a.m. upon an application being made at the time the permit for the work is issued or during the progress of the work.
 - c. The city council finds that construction by the resident of a single residence does not have the same magnitude or frequency of noise impacts as a larger construction project. Therefore, the resident of a single residence may perform

construction activities on that home during the hours in this subsection, as well as on Sundays and federal holidays from nine a.m. to six p.m., provided that such activities are limited to the improvement or maintenance undertaken by the resident on a personal basis.

- d. Public work projects are exempt from this section and the public works director shall determine the hours of construction for public works projects.
 - e. Until November 30, 1998, construction activities shall be permitted between the hours of 10:00 AM to 6:00 PM on Sundays, subject to the following conditions. No power-driven vehicles, equipment or tools may be used during construction activities, except on the interior of a building or other structure which is enclosed by exterior siding (including windows and doors) and roofing, and which windows and doors are closed during construction activities. Construction activities must be situated at least one hundred fifty feet from the nearest occupied dwelling. No delivery or removal of construction material to a site, or movement of construction materials on a site, is permitted. No activity, including but not limited to the playing of radios, tape players, compact disc players or other devices, which creates a loud or unusual noise which offends, disturbs or harasses the peace and quiet of the persons of ordinary sensibilities beyond the confines of the property from which the sound emanates is allowed.
2. If it is determined necessary in order to ensure compliance with this section, the chief building official may require fences, gates or other barriers prohibiting access to a construction site by construction crews during hours in which construction is prohibited by this subsection. The project manager of each project shall be responsible for ensuring the fences, gates or barriers are locked and/or in place during hours in which no construction is allowed. This subsection shall apply to construction sites other than public works projects or single dwelling units which are not a part of larger projects.
- G. Loading or Unloading Vehicles and Opening Boxes. The creation of loud and excessive noise in connection with loading or unloading any vehicle or the opening and destruction of bales, boxes, crates, and containers;
- J. Pile Drivers, Hammers and Similar Equipment. The operation, between the hours of eight p.m. and seven a.m. of any pile driver, steam shovel, pneumatic hammer, derrick, steam or electric hoist or other appliance, the use of which is attended by loud or unusual noise.

Chapter 18.76.090 of the Municipal Code establishes quantitative noise performance standards:

- No land use or activity may produce a noise level in excess of the standards shown in Table 3.8-1.

Table 3.8-1: Maximum Noise Levels at Adjacent Land Uses	
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
Note: Above noise standards 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).	

3.8.1.3 *Existing Conditions*

Project Site

The approximately 89-acre project site is comprised of 10 contiguous parcels in a mixed urban and rural setting. The site is bounded by Cochrane Road to the north; Mission View Drive to the east, Half Road to the south; and US 101 to the west. DePaul Drive bisects the site. The project site is predominantly covered by a mix of undeveloped field consisting of non-native grassland and orchards, and a tree nursery. A single-family home and storage structures are located on the southern portion of the site. A single-story building is located within the tree nursery on the northern portion of the site, at the Cochrane Road frontage.

Surrounding Uses

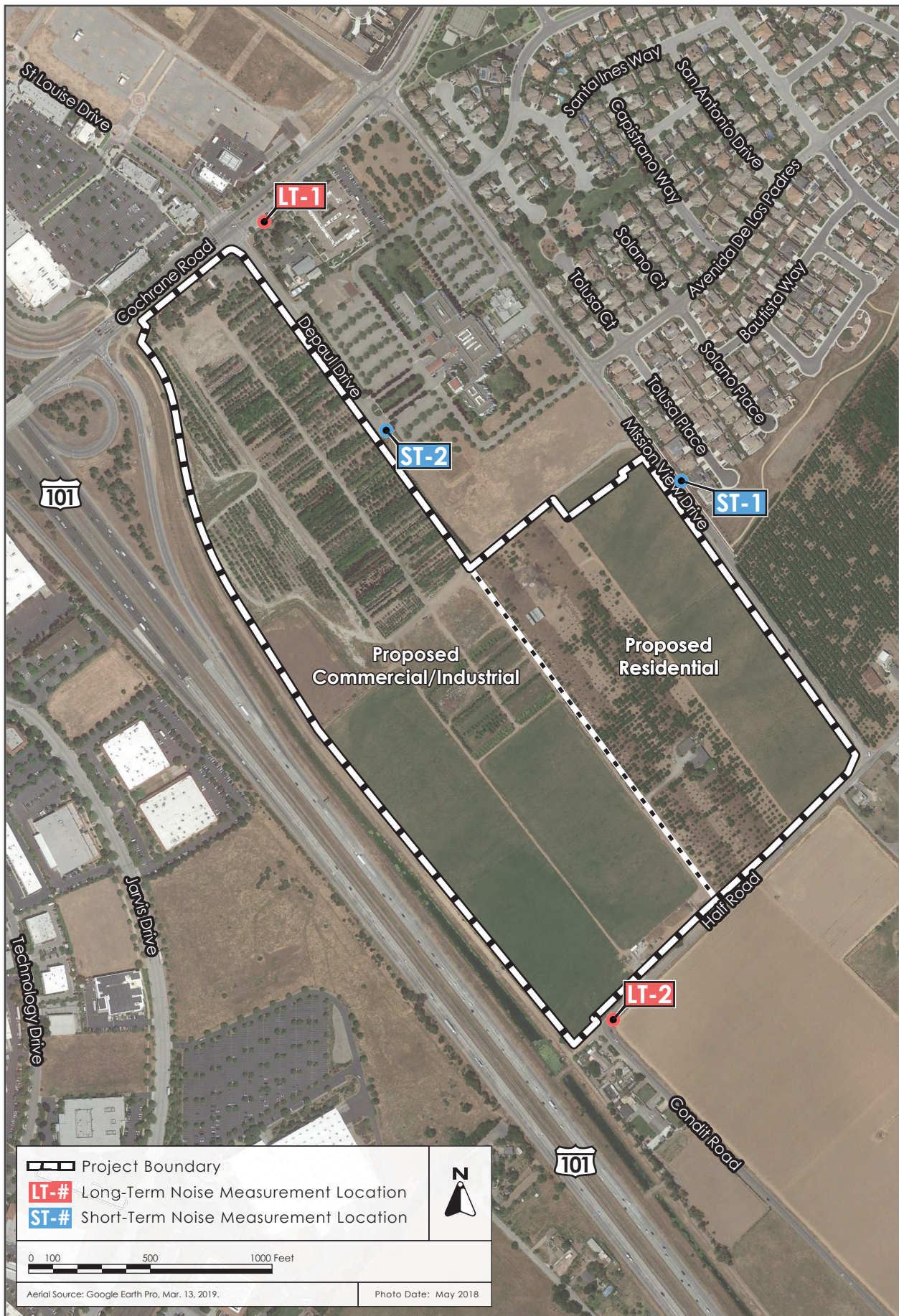
Surrounding uses include the De Paul Health Center and a senior living center (northeast of the project site), a single-family residential subdivision (east of the site, opposite Mission View Drive), various commercial uses (north of the site, opposite Cochrane Road), single-family residences and vacant land (south of the site, opposite Half Road), and Live Oak High School (southeast of the site, opposite Half Road and Mission View Drive).

Noise and Vibration Environment

The noise environment at the site results primarily from vehicular traffic along US 101. Local traffic along Cochrane Road, Mission View Drive, and Half Road also contribute to the existing noise environment. In addition, occasional aircraft flyovers associated with the nearby San Martin Airport and San José International Airport contribute to the noise environment.

A noise monitoring survey was completed to quantify the existing noise environment. Two long-term (LT-1 and LT-2) and two short-term (ST-1 and ST-2) noise measurements were made at the site between April 9, 2019 and April 11, 2019. The noise measurement locations are shown on Figure 3.8-1 on the following page.

Hourly average noise levels at LT-1 ranged from 66 to 72 dBA L_{eq} during daytime hours (7:00 a.m. and 10:00 p.m.) and from 55 to 68 dBA L_{eq} during nighttime hours (10:00 p.m. and 7:00 a.m.). The day-night average noise level on Wednesday, April 10, 2019 was 71 dBA L_{dn} .



EXISTING NOISE MEASUREMENT LOCATIONS

FIGURE 3.8-1

Hourly average noise levels at LT-2 typically ranged from 66 to 71 dBA L_{eq} during daytime hours and from 61 to 71 dBA L_{eq} during nighttime hours. The day-night average noise level on April 10, 2019 was 73 dBA L_{dn} .

Short-term noise measurements were made on April 9, 2019 between 10:30 a.m. and 11:10 a.m. ST-1 was made in a single 10-minute interval, while ST-2 was made in two consecutive 10-minute intervals. Passenger cars generated the majority of the noise at the short-term measurement locations, with aircraft flyovers contributing to short-term noise levels. An emergency vehicle contaminated the initial short-term measurements made at ST-2; a second measurement was taken immediately after the initial measurement to more accurately characterize the noise environment at that location. The results of the measurements are summarized in Table 3.8-2.

Table 3.8-2: Summary of Short-Term Noise Measurements (dBA)							
Noise Measurement Location	Date, Time	Measured Noise Level, dBA					
		L_{max}	$L_{(1)}$	$L_{(10)}$	$L_{(50)}$	$L_{(90)}$	$L_{eq(10-min)}$
ST-1: ~35 feet east of the centerline of Mission View Drive	4/9/2019, 10:30 am-10:40 am	74	73	69	59	55	64
ST-2: End of De Paul Drive	4/9/2019, 10:50 am-11:00 am	76	75	62	58	56	62
	4/9/2019, 11:00 am-11:10 am	64	61	59	57	55	58
Notes: L_{max} = The maximum A-weighted noise level during the measurement period. $L_{(1)}$, $L_{(10)}$, $L_{(50)}$, $L_{(90)}$ = The A-weighted noise levels that are exceeded one percent, 10 percent, 50 percent, and 90 percent of the time during the measurement period. $L_{eq(10-min)}$ = The average A-weighted noise level during the measurement period (10-minute interval).							

Common vibration sources include, but are not limited to, railroads, airport runways, and heavy earth-moving equipment. There are no sources of vibration on or near the project site.

3.8.2 Impact Discussion

For the purpose of determining the significance of the project's impact on noise, would the project result in:

- 1) 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?
- 2) Generation of excessive groundborne vibration or groundborne noise levels?
- 3) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

3.8.2.1 *Significance Thresholds*

The following criteria were used to evaluate the significance of environmental noise resulting from the project:

- A significant noise impact would be identified if the project would generate a substantial temporary or permanent noise level increase over ambient noise levels at existing noise-sensitive receptors surrounding the project site and that would exceed applicable noise standards presented in the General Plan or Municipal Code at existing noise-sensitive receptors surrounding the project site.
 - Hourly average noise levels during construction that would exceed 60 dBA L_{eq} at residential land uses or exceed 70 dBA L_{eq} at commercial land uses and exceed the ambient noise environment by at least five dBA L_{eq} for a period of more than one year would constitute a significant temporary noise increase in the project vicinity.
 - A significant permanent noise level increase would occur if project-generated traffic would result in: a) a noise level increase of more than three dBA L_{dn} and the total day-night average noise level exceeding the “normally acceptable” category at an existing noise environment meeting the “normally acceptable” threshold; b) a noise level increase of more than five dBA L_{dn} and the total day-night average noise level remains “normally acceptable” at an existing noise environment meeting the “normally acceptable” threshold; c) a noise level increase of more than three dBA L_{dn} at a “conditionally acceptable” existing noise environment; or d) a noise level increase of more than three dBA L_{dn} at an “unacceptable” existing noise environment.
 - A significant noise impact would be identified if the project would expose persons to or generate noise levels that would exceed applicable noise standards presented in the General Plan or Municipal Code.
- A significant impact would be identified if the construction of the project would generate excessive vibration levels surrounding receptors. Groundborne vibration levels exceeding 0.3 in/sec PPV would have the potential to result in cosmetic damage to normal buildings.
- A significant noise impact would be identified if the project would expose people residing or working in the project area to excessive noise levels.

3.8.2.2 *Project Impacts*

Impact NOI-1:	The project would not result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. (Less than Significant Impact with Mitigation Incorporated)
----------------------	---

The proposed industrial/commercial and residential development would generate temporary noise increases from project construction and permanent noise increases from increased traffic volumes and operation of building mechanical equipment. The various noise-generating components of the project are discussed below.

Temporary Noise Increases

Construction

The project proposes to construct approximately 1,044,600 square feet of general light industrial space, an additional approximately 45,000 square feet of industrial/office space, approximately 50,000 square feet of commercial space, 319 attached residential units, and associated surface parking, landscape, and roadway improvements.

Noise impacts resulting from construction depend upon the noise generated by various pieces of construction equipment, the timing and duration of noise-generating activities, and the distance between construction noise sources and noise-sensitive areas. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (i.e. early morning, evening, or nighttime hours), the construction occurs in areas immediately adjoining noise-sensitive land uses, or when construction lasts over extended periods of time.

The proposed project would not require pile driving, which can cause excessive noise. Construction of the project would occur during the hours allowed by Chapter 8.28 of the City of Morgan Hill's Municipal Code. The Municipal Code states that a project would result in a temporary construction noise impact if project construction activities produced noise levels exceeding 60 dBA L_{eq} at residential land uses or 70 dBA L_{eq} at commercial land uses, and increases the ambient noise environment by five dBA L_{eq} or more for a period longer than one year at surrounding receptors.

For the residences located to the east of the project site, opposite Mission View Drive, and southeast of the site, opposite Mission View Drive and Half Road, daytime ambient noise levels would be represented by ST-1, which was 64 dBA L_{eq} . The ambient noise environment for the existing residences along US 101 to the south of the site, opposite Half Road, would be represented by measurements made at LT-2, which range from 66 to 71 dBA L_{eq} during daytime hours. LT-1 would represent the ambient noise environment for the medical facility adjacent to the site and the commercial uses north of the site, opposite Cochrane Road. The daytime ambient noise levels at these uses would range from 66 to 72 dBA L_{eq} .

A detailed list of equipment expected to be used for the proposed project construction and phasing information were not available at the time of the noise assessment. However, the soil conditions at

the project site would not require pile driving. Due to the size of the proposed project and the multiple components, total project construction across the 89-acre site is expected to last from 2021 to 2027. Using construction equipment noise estimates and typical ranges of construction noise levels, the noise levels generated by construction of the individual project components at nearby receptors was estimated.

Table 3.8-3 below shows the estimated construction noise levels at nearby land uses during the construction of the six proposed industrial buildings (Morgan Hill Technology Center). It was assumed that construction of the Morgan Hill Technology Center component of the project would begin in January 2021 and last through April 2022. Table 3.8-4 below shows the estimated construction noise levels at nearby land uses during the construction of the residential component of the project. The residential component of the project would be constructed in October 2021 through April 2027. Table 3.8-5 below shows the estimated construction noise levels at nearby land uses during the construction of the commercial use fronting Cochrane Road. The commercial component would be constructed from March 2021 to August 2021. The total construction period for the project would be January 2021 through April 2027.

Table 3.8-3: Estimated Noise Levels at Nearby Land Uses from Construction of General Light Industrial Buildings A-F, dBA L_{eq}						
Proposed Project Construction	Medical Facility and Cochrane Rd. Residential (365 feet)	Project Residential (500 feet)	North Commercial (725 feet)	South Residence (845 feet)	Southeast Residence (1,285 feet)	East Residential (1,325 feet)
Site Preparation	67	64	61	62	56	55
Grading	66	64	60	64	55	55
Trenching	61	58	55	61	50	50
Building Exterior	65	62	59	63	54	53
Building Interior	57	55	51	65	47	46
Paving	65	63	59	64	54	54

Table 3.8-4: Estimated Noise Levels at Nearby Land Uses during the Construction of the Residential Development, dBA L_{eq}				
Proposed Project Construction	East Residential (625 feet)	Southeast Residence (875 feet)	Medical Facility and Cochrane Rd. Residential (1,145 feet)	South Residential (1,555 feet)
Site Preparation	62	59	57	54
Grading	65	62	60	57
Trenching	60	57	54	52
Building Exterior	61	58	56	53
Building Interior	53	50	48	45
Paving	60	57	55	52

Table 3.8-5: Estimated Construction Noise Levels at Nearby Land Uses during the Construction of the Commercial Use Fronting Cochrane Road					
Proposed Project Construction	North Commercial (275 feet)	East Commercial (385 feet)	Medical Facility and Cochrane Rd. Residential (420 feet)	Northeast Commercial (500 feet)	Project Residential (1,450 Feet)
Site Preparation	69	67	66	64	55
Grading	70	67	66	65	56
Trenching	64	61	60	58	49
Building Exterior	68	65	64	63	54
Building Interior	60	57	56	55	45
Paving	68	65	65	63	54

Construction noise levels would potentially exceed 60 dBA L_{eq} at nearby residences or 70 dBA L_{eq} at nearby commercial uses and exceed existing ambient conditions by five dBA L_{eq} or more. Due to the large size of the project site (approximately 89 acres), construction activities would be distributed and would not expose any individual noise-sensitive receptor to excessive construction noise for a period of more than one consecutive year. Further, the nearest existing receptors which would be the residence and medical facility at the corner of Cochrane Road and DePaul Drive, and the residence at the corner of Half Road and Condit Road, are exposed to existing ambient noise levels ranging from 66 to 72 dBA L_{eq} during typical daytime hours. Construction noise levels during project construction would not exceed ambient conditions by more than five dBA L_{eq} during most of project construction (refer to Tables 3.8-3 through 3.8-5). All other noise-sensitive receptors would be located more than 500 feet from most construction activities. Therefore, the nearest noise-sensitive receptors would not have extended exposure to excessive construction noise for extended periods.

Regulation of the construction hours, as well as regulation of the arrival and operation of heavy equipment and the delivery of construction material, are necessary to protect the health and safety of persons, promote the general welfare of the community, and maintain the quality of life. Construction activities would be conducted in accordance with the provisions of the City's General Plan and the Municipal Code, which limits temporary construction work to between the hours of 7:00 AM and 8:00 PM Monday through Friday and between 9:00 AM to 6:00 PM on Saturday. Construction is prohibited on Sundays and federal holidays. Additionally, the following construction best management practices will be required to reduce construction noise coming from the site and minimize disruption and annoyance at existing noise-sensitive receptors in the project vicinity.

Standard Measures:

Develop a construction noise control plan, including, but not limited to, the following construction best management controls:

- Equipment and trucks used for construction shall use the best available noise control techniques

(e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds);

- Impact tools (e.g., jackhammers, pavement breakers, and rock drills) used for construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools; and
- Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or include other measures.
- Construct temporary noise barriers, where feasible, to screen stationary noise-generating equipment. Temporary noise barrier fences would provide a 5 dBA noise reduction if the noise barrier interrupts the line-of-sight between the noise source and receptor and if the barrier is constructed in a manner that eliminates any cracks or gaps.
- Unnecessary idling of internal combustion engines should be strictly prohibited.
- Construction staging areas shall be established at locations that will create the greatest distance between the construction-related noise sources and noise-sensitive receptors nearest the project site during all project construction. Locate material stockpiles, as well as maintenance/equipment staging and parking areas, as far as feasible from residential receptors.
- Control noise from construction workers' radios to a point where they are not audible at existing residences bordering the project site.
- Where feasible, temporary power service from local utility companies should be used instead of portable generators.
- Locate cranes as far from adjoining noise-sensitive receptors as possible.
- During final grading, substitute graders for bulldozers, where feasible. Wheeled heavy equipment are quieter than track equipment and should be used where feasible.
- Substitute nail guns for manual hammering, where feasible.
- Avoid the use of circular saws, miter/chop saws, and radial arm saws near the adjoining noise-sensitive receptors. Where feasible, shield saws with a solid screen with material having a minimum surface density of two pounds per square foot (e.g., such as 0.75-inch plywood).
- Maintain smooth vehicle pathways for trucks and equipment accessing the site and avoid local residential neighborhoods as much as possible.
- During interior construction, the exterior windows facing noise-sensitive receptors should be closed.

- During interior construction, locate noise-generating equipment within the building to break the line-of-sight to the adjoining receptors.
- The contractor shall prepare a detailed construction schedule for major noise-generating construction activities. The construction plan shall identify a procedure for coordination with adjacent residential land uses so that construction activities can be scheduled to minimize noise disturbance.
- Designate a "disturbance coordinator" who would be responsible for responding to any complaints about construction noise. The disturbance coordinator will determine the cause of the noise complaint (e.g., bad muffler, etc.) and will require that reasonable measures be implemented to correct the problem. Conspicuously post a telephone number for the disturbance coordinator at the construction site and include in it the notice sent to neighbors regarding the construction schedule.

The implementation of the reasonable and feasible controls outlined above would reduce construction noise levels emanating from the site by up to five dBA, minimizing disruption and annoyance. With the implementation of these standard measures, as well as the Municipal Code limits on allowable construction hours, and recognizing that construction is temporary, construction noise impacts would be less than significant. (**Less than Significant Impact**)

Permanent Noise Increases

A significant permanent noise increase would occur if the project would substantially increase noise levels at existing sensitive receptors in the project vicinity. Based on General Plan Policy SSI-8.5, a substantial increase would occur if: a) the noise level increase is five dBA L_{dn} or greater, with a future noise level of less than 60 dBA L_{dn} at residences; or b) the noise level increase is three dBA L_{dn} or greater, with a future noise level of 60 dBA L_{dn} or greater at residences. According to the 2035 noise contours included in the Morgan Hill 2035 Draft Environmental Impact Report, the surrounding residences would have future noise levels exceeding 60 dBA L_{dn}. Therefore, a significant impact would occur if traffic due to the proposed project would permanently increase ambient levels by three dBA L_{dn}. A three dBA L_{dn} noise increase would be expected if the project would double existing traffic volumes along a roadway.⁷³

Traffic Noise

The noise assessment reviewed peak hour turning movements for the 41 study intersections analyzed in the project's traffic study. A traffic noise increase of two dBA L_{dn} or less was calculated along most roadway segments in the project study area. A three dBA L_{dn} traffic noise increase was calculated along Half Road, west of Mission View Drive; along Half Road, east and west of the future DePaul Drive extension; and along Condit Road, north of Main Avenue. These segments are located adjacent to US 101, which is the dominant noise source in the vicinity. Ambient noise levels were measured at the corner of Half Road and Condit Road (LT-2), and the peak hourly average

⁷³ California Department of Transportation, Division of Environmental Analysis. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013. Accessed March 13, 2020. http://ab900balboa.com/EIR_References/2013_0901_caltrans_technicalnoisesupplement.pdf.

noise level at LT-2 was measured to be 71 dBA L_{eq} , with a day-night average noise level of 73 dBA L_{dn} . In comparison to the high traffic volumes along U.S. 101, the existing and existing plus project traffic volumes along Half Road, between Mission View Drive and Condit Road, and along Condit Road, north of Main Avenue, would not be significant. Therefore, even with a doubling of the traffic along the local roadways near US 101 under existing plus project conditions, the overall noise level increase would be less than three dBA L_{dn} due to the substantially higher existing and future traffic volumes along U.S. 101. The project-generated traffic noise would not result in a substantial permanent noise level increase at noise-sensitive receptors. **(Less than Significant Impact)**

Mechanical Equipment

Under the City of Morgan Hill's Noise Element and Municipal Code, noise levels produced by the operation of mechanical equipment would be considered significant if noise levels substantially exceed existing ambient noise levels.

Various mechanical equipment for heating, ventilation and cooling purposes, exhaust fans, emergency generators, and other similar equipment could produce noise levels exceeding ambient levels when located near existing or proposed land uses. Based on the expected use of the general light industrial buildings, mechanical equipment such as heating, ventilation, air conditioning systems, exhaust fans, and chillers would be included. While mechanical equipment is typically located on building rooftops, a nearby warehouse building in Morgan Hill include chillers in the loading dock area along the building façade; this equipment generated noise levels ranging from 61 to 62 dBA at a distance of 20 feet. The project's mechanical equipment noise was estimated assuming the equipment would be located near the dock doors nearest the surrounding receptors. This approach represents a conservative estimate of mechanical equipment noise.

Assuming no shielding effects, the existing residences south of the site would potentially be exposed to mechanical equipment noise at or below 35 dBA L_{eq} . The existing residences east of the project site would be exposed to mechanical equipment noise below 30 dBA L_{eq} , and the medical facility would be exposed to mechanical equipment noise at or below 38 dBA L_{eq} . The future residences proposed at the parcel west of Mission View Drive and north of Half Road would also be exposed to mechanical equipment noise generated at the site. The nearest equipment to the property line of the future residential site would be approximately 200 feet, and at this distance, mechanical equipment noise would reach levels at or below 40 dBA L_{eq} . Considering the ambient conditions of the project site, which would be above 50 dBA L_{eq} during daytime and nighttime hours according to the ambient noise measurements discussed above, mechanical equipment noise from the industrial buildings is not expected to result in a significant impact at on- or off-site receptors.

Additionally, mechanical equipment will be located at the commercial site fronting Cochrane Road and the future industrial office building on the 'Not a Part' parcel between Buildings B and D; mechanical equipment could also potentially be located at the future residential development. The following mitigation measures are proposed to reduce the mechanical noise impact of the proposed project.

Mitigation Measures: The following mitigation measures shall be implemented by the proposed project to reduce mechanical noise impacts to adjacent sensitive receptors:

MM NOI-1.1: The individual buildings included in the proposed project shall be reviewed once design details are available to ensure that ambient noise environment at noise-sensitive receptors on- and off-site would not be exceeded by mechanical equipment noise. Design planning should take into account the ambient noise environment when selecting equipment for the proposed buildings and utilize site planning to locate equipment in less noise-sensitive areas. Other noise controls could include, but shall not be limited to, fan silencers, enclosures, screen walls, and interior wall treatments. A qualified acoustical consultant shall be retained to review mechanical equipment systems during final design of the proposed project. The consultant shall review selected equipment and determine specific noise reduction measures necessary to reduce noise to comply with the City's noise level requirements.

The measures recommended by the acoustical consultant to ensure compliance with the City's requirements would be implemented as project mitigation measures, and therefore, the project would result in a less than significant permanent noise increase due to mechanical equipment. **(Less than Significant Impact with Mitigation Incorporated)**

Truck Deliveries

The City's Municipal Code states that the creation of loud and excessive noise in connection with loading or unloading any vehicle is unlawful. Specific noise level thresholds for these activities, however, have not been established. Therefore, the estimated future noise levels due to truck trips were compared to existing ambient noise levels at existing noise-sensitive receptors in the project vicinity. For the project's future residences, the noise levels estimated for truck deliveries were compared to the exterior noise thresholds provided by the City of Morgan Hill in Table SSI-1 of the General Plan. For single-family residences, exterior noise levels must be at or below 60 dBA L_{dn} to be considered normally acceptable.

Truck delivery noise includes both maneuvering activities that would occur at the loading docks and truck pass-by activities that would occur at driveways and along roadways, specifically the future DePaul Drive extension. Trucks maneuvering would generate a combination of engine, exhaust, and tire noise, as well as the intermittent sounds of back-up alarms and releases of compressed air associated with truck/trailer air brakes. Heavy trucks used for incoming deliveries typically generate maximum instantaneous noise levels of 70 to 75 dBA L_{max} at a distance of 50 feet. The noise level of backup alarms can vary depending on the type and directivity of the sound, but maximum noise levels are typically in the range of 65 to 75 dBA L_{max} at a distance of 50 feet. To estimate the pass-by noise levels for heavy trucks traveling at speeds of 15 to 35 miles per hour, the Federal Highway Administration's Traffic Noise Model (FHWA TNM), version 2.5, was used to model various hourly scenarios for truck traffic.

Deliveries for the proposed project would occur 24 hours a day. One hundred twenty-four loading docks are proposed, with an estimated 248 daily truck trips. The following analysis discusses the noise due to truck deliveries.

The Morgan Hill Technology Center site plan (refer to Figure 2.0-6) shows the proposed six light industrial buildings. All buildings show the loading docks on the western, northern, or southern building façades. From these configurations, all existing and future noise-sensitive receptors would be shielded from truck maneuvering activities at the loading docks. The nearest existing or future receptor would be approximately 200 feet from the nearest loading dock. At this distance and assuming a conservative 10 dBA reduction, the maximum instantaneous noise levels due to intervening buildings would be at or below 50 dBA L_{max} . These levels would be below ambient maximum instantaneous noise levels at surrounding receptors (refer to Table 3.8-6 below).

Table 3.8-6: Existing Ambient Maximum Instantaneous Noise Levels			
Receptor	Distance from Site	Ambient Noise Levels, dBA	
		Daytime L_{max}	Nighttime L_{max}
Existing Residence & Medical Facility along DePaul Drive	30 feet	78 to 89 dBA	68 to 76 dBA
Existing Residence southwest of Mission View Drive/Half Road intersection	665 feet	56 to 75 dBA	55 to 63 dBA
Existing Residences east of Mission View Drive	895 feet	55 to 74 dBA	54 to 62 dBA
Existing Residences southwest of Condit Road/Half Road intersection	30 feet	68 to 87 dBA	67 to 75 dBA

All daily truck trips were calculated assuming the nearest possible route to the surrounding residences. The project (general light industrial component on the west side of DePaul Drive) would generate 248 daily truck trips, with 35 peak AM truck trips and 31 peak PM truck trips. These peak hour trips were also modeled in FHWA TNM, as well as the estimated hourly trips for the remaining 22 hours, which was calculated to be eight trucks per hour assuming an even distribution of trucks. Trucks traveling 15 to 35 miles per hour would result in hourly average noise levels ranging from 58 to 63 dBA L_{eq} at a distance of 30 feet. Assuming the peak AM and PM truck trips would occur between 7:00 AM and 10:00 PM, the day-night average noise level generated by project truck trips would be up to 64 dBA L_{dn} at a distance of 30 feet.

Table 3.8-7 summarizes the ambient noise levels and noise levels due to truck pass-bys for each of the surrounding noise-sensitive receptors. A one dBA L_{dn} increase would occur at the existing residence and medical facility along DePaul Drive and at the residence southwest of the Condit Road/Half Road intersection.

Table 3.8-7: Estimated Noise Levels Due to Truck Pass-bys for Existing Noise-Sensitive Receptors						
Receptor	Distance	Ambient Noise Levels, dBA			Estimated Noise Level, dBA	
		Daytime L_{eq}	Nighttime L_{eq}	L_{dn}	L_{eq}	L_{dn}
Existing Residence and Medical Facility along DePaul Drive	30 feet	66 to 72 dBA	55 to 67 dBA	71 dBA	58 to 63 dBA	72 dBA
Existing Residence southwest of Mission View Drive/Half Road intersection	665 feet	54 to 58 dBA	48 to 58 dBA	61 dBA	44 to 50 dBA	61 dBA
Existing Residences east of Mission View Drive	895 feet	53 to 57 dBA	47 to 58 dBA	60 dBA	33 to 39 dBA ^a	60 dBA
Existing Residences southwest of Condit Road/Half Road intersection	30 feet	66 to 71 dBA	61 to 71 dBA	73 dBA	58 to 63 dBA	74 dBA
Notes:						
^a Estimations include a conservative 10 dBA reduction due to the intervening buildings.						

The future residences proposed to be located east of DePaul Drive would have the same 30-foot setback from the centerline of the roadway. At this distance, the future residences would be exposed to hourly average noise levels ranging from 58 to 63 dBA L_{eq}. The day-night average noise level associated with project truck noise would be 67 dBA L_{dn}, when combined with existing day-night average noise levels estimated from long-term noise measurement LT-2.

Hourly average noise levels and maximum instantaneous noise levels would not exceed ambient conditions at existing noise-sensitive receptors, and the day-night average noise levels at these receptors would not result in a significant permanent noise level increase. However, the future noise environment at the proposed on-site residences would exceed acceptable noise levels established in Table SSI-1 of the City's General Plan (60 dBA L_{dn} is considered normally acceptable).

Mitigation Measures: The following mitigation measures would be implemented by the City to reduce noise impacts related to truck deliveries generated by the general light industrial use:

MM NOI-1.2: Truck entrance driveways along DePaul Drive would potentially result in a future noise level exceedance over the City's 60 dBA L_{dn} threshold by seven dBA at future on-site residences. Trucks shall be rerouted along the western side of the industrial buildings, adjacent to US 101, to avoid increased heavy truck pass-by noise along the future DePaul Drive extension. Implementing this western access roadway for truck deliveries would reduce the impact to future on-site residences to a less than significant level.

MM NOI-1.3: If a western access driveway is not feasible, pursuant to MM NOI-1.2, an alternative to reduce exterior noise levels at future on-site residences is to construct a sound wall or a specially-designed barrier (along the eastern side of DePaul Drive) capable of reducing noise levels by up to seven dBA. The

sound wall or specially designed barrier would need to break the line-of-sight from the outdoor use areas to the heavy truck noise sources. An eight-foot sound wall or specially designed fence would be required. The sound wall shall be solid and continuous from grade to top, with no cracks or gaps. This barrier shall consist of a minimum surface density of three pounds per square feet (e.g., one-inch thick marine-grade plywood, one half-inch laminated glass, or concrete masonry units (CMU)).

MM NOI-1.4: Another alternative to the western access roadway would be to increase the setback of the residential property lines, a combination of increased setbacks and sound walls, etc. The final recommendations shall be confirmed when detailed site plans for the residential and industrial/warehouse developments are available.

With the implementation of the above mitigation, including rerouting the truck driveway entrances along the western side of the proposed industrial development, increasing residential setback distances, and/or constructing a sound barrier, noise levels associated with truck deliveries would be at or below the City's exterior noise thresholds which would result in a less than significant impact to nearby residences. **(Less than Significant Impact with Mitigation Incorporated)**

Impact NOI-2: The project would not result in generation of, excessive groundborne vibration or groundborne noise levels. **(Less than Significant Impact)**

The construction of the project may generate perceptible vibration when heavy equipment or impact tools (e.g. jackhammers, hoe rams) are used. While equipment and phasing information was not available at the time of this study, the proposed project would not require pile driving, which can cause excessive vibration.

Construction vibration would be considered to result in a significant impact if it would exceed the conservative 0.3 in/sec PPV limit at the existing residential and commercial buildings in the site vicinity. The typical vibration levels that could be expected from construction equipment at a distance of 25 feet and at the nearby existing commercial, residential, and medical facility uses and future residential uses is presented in Table 3.8-8. Construction activities such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment may generate substantial vibration in the immediate vicinity. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

Table 3.8-8: Vibration Levels at Nearest Surrounding Building Façades									
Equipment	PPV at 25 ft. (in/sec)	North Comm. (155 ft)	East Res., opp. De Paul Dr. (65 ft)	Medical Facility (315 ft)	East Res., opp. Mission View Dr. (100 ft)	South Res., opp. Half Rd. (65 ft)	South Res. (50 ft)	West Comm. (515 ft)	Future East Res. (70 ft)
Clam shovel drop	0.202	0.027	0.071	0.012	0.044	0.071	0.094	0.007	0.0065
Hydromill (slurry wall)	in soil	0.008	0.001	0.003	0.0005	0.002	0.002	0.004	0.0003
	in rock	0.017	0.002	0.006	0.001	0.004	0.004	0.008	0.001
Vibratory Roller	0.210	0.028	0.073	0.013	0.046	0.073	0.098	0.008	0.068
Hoe Ram	0.089	0.012	0.031	0.005	0.019	0.031	0.042	0.003	0.029
Large bulldozer	0.089	0.012	0.031	0.005	0.019	0.031	0.042	0.003	0.029
Caisson drilling	0.089	0.012	0.031	0.005	0.019	0.031	0.042	0.003	0.029
Loaded trucks	0.076	0.010	0.027	0.005	0.017	0.027	0.035	0.003	0.024
Jackhammer	0.035	0.005	0.012	0.002	0.008	0.012	0.016	0.001	0.011
Small bulldozer	0.003	0.0004	0.001	0.0002	0.0007	0.001	0.001	0.0001	0.001

As shown in Table 3.8-7, vibration levels from construction activities would not exceed the 0.3 in/sec PPV threshold for damage to buildings of conventional construction. The nearest existing building to the project site would be the residence to the south near LT-2; vibration at this location would be 0.098 in/sec PPV. All other buildings would experience vibration levels of 0.073 in/sec PPV or less. Therefore, construction of the project would result in a less than significant vibration impact. **(Less than Significant Impact)**

Impact NOI-3: The project would not be 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. The project would not expose people residing or working in the project area to excessive noise levels. **(Less than Significant Impact)**

The proposed project is located approximately 4.9 miles northwest of the San Martin Airport. According to the Santa Clara County ALUC CLUP for this airport, the project site is outside the 2022 55 dBA CNEL noise contour. Aircraft flyovers would be audible at the project site but would not result in future exterior noise levels of 60 dBA L_{dn}/CNEL or more; therefore, future residents and workers at the project site would not be exposed to excessive noise levels due to airport activities. **(Less than Significant Impact)**

3.8.2.3 Cumulative Impacts

Impact NOI-C: The project would result in a cumulatively considerable contribution to a significant noise impact. **(Significant and Unavoidable Cumulative Impact)**

Cumulative noise impacts would include either cumulative traffic noise increases under future conditions or temporary construction noise from cumulative construction projects.

Cumulative Operational Noise Impacts

A significant cumulative traffic noise increase would occur if two criteria are met: 1) if the cumulative traffic noise level increase was three dBA L_{dn} or greater for future levels exceeding 60 dBA L_{dn} or was five dBA L_{dn} or greater for future levels at or below 60 dBA L_{dn} ; and 2) if the project would make a “cumulatively considerable” contribution to the overall traffic noise increase. A “cumulatively considerable” contribution would be defined as an increase of one dBA L_{dn} or more attributable solely to the proposed project.

The traffic study prepared for the proposed project included six future cumulative traffic scenarios (refer to Section 3.9, Transportation); cumulative traffic noise level increases were calculated by comparing the traffic volumes of each of these cumulative scenarios to existing traffic volumes.

Tables 3.8-8 and 3.8-9 provide a summary of roadway segments in the project area that would result in cumulative noise level increases of three dBA or more by 2030 and 2035. Table 3.8-8 summarizes the cumulative traffic noise on roadway segments resulting in a three dBA L_{dn} or more increase by 2030. The results also show the cumulatively considerable contribution attributable to the project. This was calculated by subtracting the increase resulting from project traffic from the increase due to the no project scenario. For all roadway segments resulting in a three dBA L_{dn} or more increase, the project would have a cumulatively considerable contribution of less than one dBA L_{dn} under the cumulative 2030 plus project conditions.⁷⁴

Table 3.8-8: Summary of Roadway Segments with Estimated 2030 Cumulative Noise Level Increases				
Roadway	Segment	Estimated Noise Level Increase from Existing Conditions, dBA		Project Contribution to Overall Cumulative Increase, dBA
		2030 No Project	2030 Plus Project Commercial and Light Industrial	2030 Plus Project Commercial and Light Industrial
Second Street	West of Monterey Rd.	2.6 dBA	2.6 dBA	0 dBA
Church Street	North of Dunne Ave.	0.9 dBA	0.9 dBA	0 dBA
Murphy Avenue	South of Dunne Ave.	3.2 dBA	3.3 dBA	0.1 dBA
	North of Tennant Ave.	3.8 dBA	3.8 dBA	0 dBA
	South of Tennant Ave.	3.5 dBA	3.6 dBA	0.1 dBA
Central Avenue	West of Butterfield Blvd.	2.6 dBA	2.6 dBA	0 dBA

⁷⁴ Year 2030 Cumulative with Project Conditions: Year 2030 cumulative conditions with the addition of project traffic associated with an anticipated 10-year build plan for only the general light industrial and commercial components of the project. This scenario does not include the proposed residential units since there is not a development plan available

Table 3.8-8: Summary of Roadway Segments with Estimated 2030 Cumulative Noise Level Increases				
Roadway	Segment	Estimated Noise Level Increase from Existing Conditions, dBA		Project Contribution to Overall Cumulative Increase, dBA
		2030 No Project	2030 Plus Project Commercial and Light Industrial	2030 Plus Project Commercial and Light Industrial
Jarvis Drive	West of Butterfield Blvd.	4.3 dBA	4.3 dBA	0 dBA
Cochrane Road	East of DePaul Dr.	2.3 dBA	2.9 dBA	0.6 dBA
	West of DePaul Dr.	2.0 dBA	2.7 dBA	0.7 dBA
	West of Mission View Dr.	2.5 dBA	3.0 dBA	0.5 dBA
Mission View Drive	South of Cochrane Rd.	2.7 dBA	3.5 dBA	0.8 dBA
	North of Avenida De Los Padres	2.8 dBA	3.5 dBA	0.7 dBA
	South of Avenida De Los Padres	3.0 dBA	3.7 dBA	0.7 dBA
	North of Half Rd.	2.9 dBA	3.7 dBA	0.8 dBA
Half Road	West of Mission View Dr.	2.0 dBA	2.8 dBA	0.8 dBA
	East of DePaul Dr.	1.9 dBA	2.8 dBA	0.9 dBA
Condit Road	South of Main Ave.	2.4 dBA	2.7 dBA	0.3 dBA
	North of Diana Ave.	2.2 dBA	2.6 dBA	0.4 dBA
	South of Diana Ave.	2.2 dBA	2.6 dBA	0.4 dBA
Diana Avenue	West of Condit Rd.	3.9 dBA	3.9 dBA	0 dBA
Tennant Avenue	East of Condit Rd.	2.6 dBA	2.6 dBA	0 dBA
	East of Murphy Ave.	2.6 dBA	2.6 dBA	0 dBA
	West of Murphy Ave.	2.7 dBA	2.7 dBA	0 dBA

Table 3.8-9 summarizes the cumulative noise level increases from roadway segments for year 2035.⁷⁵

⁷⁵ Year 2035 General Plan with Project Conditions: Year 2035 General Plan No Project traffic conditions with the addition of traffic due to the proposed project (general light industrial, residential, and commercial components) and its associated land use amendment for the project site.

Table 3.8-9: Summary of Roadway Segments with Estimated 2035 Cumulative Noise Level Increases				
Roadway	Segment	Estimated Noise Level Increase from Existing Conditions, dBA		Project Contribution to Overall Cumulative Increase, dBA
		2035 General Plan No Project	2035 Plus Project Light Industrial Buildout	2035 Plus Project Light Industrial Buildout
Old Monterey Road	West of Monterey Rd.	4.3 dBA	4.3 dBA	0 dBA
Murphy Avenue	North of Dunne Ave.	6.6 dBA	6.7 dBA	0.1 dBA
	South of Dunne Ave.	4.0 dBA	4.0 dBA	0 dBA
	North of Diana Ave. ^a	12.8 dBA	12.9 dBA	0.1 dBA
	South of Diana Ave.	8.1 dBA	8.3 dBA	0.2 dBA
	North of Tennant Ave.	4.5 dBA	4.5 dBA	0 dBA
	South of Tennant Ave.	4.4 dBA	4.4 dBA	0 dBA
Central Avenue	West of Butterfield Blvd.	3.1 dBA	3.1 dBA	0 dBA
Cochrane Circle	North of Cochrane Rd.	2.8 dBA	2.8 dBA	0 dBA
Cochrane Road	East of US 101 NB ramps	2.5 dBA	2.7 dBA	0.2 dBA
	West of DePaul Dr.	2.6 dBA	2.8 dBA	0.2 dBA
Main Avenue	East of Condit Rd.	2.4 dBA	2.5 dBA	0.1 dBA
	West of Condit Rd.	2.6 dBA	2.7 dBA	0.1 dBA
	East of Murphy Ave.	2.8 dBA	2.8 dBA	0 dBA
Vista De Lomas	South of Burnett Ave.	2.4 dBA	2.5 dBA	0.1 dBA
Burnett Avenue	West of Vista De Lomas.	2.4 dBA	2.5 dBA	0.1 dBA
Diana Avenue	West of Condit Rd.	4.6 dBA	4.6 dBA	0 dBA
Tennant Avenue	East of Condit Rd.	3.8 dBA	3.7 dBA	-0.1 dBA
	West of Condit Rd.	3.2 dBA	3.2 dBA	0 dBA
	East of Murphy Ave.	3.1 dBA	3.1 dBA	0 dBA
	West of Murphy Ave.	3.8 dBA	3.8 dBA	0 dBA

Table 3.8-9: Summary of Roadway Segments with Estimated 2035 Cumulative Noise Level Increases				
Roadway	Segment	Estimated Noise Level Increase from Existing Conditions, dBA		Project Contribution to Overall Cumulative Increase, dBA
		2035 General Plan No Project	2035 Plus Project Light Industrial Buildout	2035 Plus Project Light Industrial Buildout
Madrone Parkway	East of Monterey Rd.	3.3 dBA	3.4 dBA	0.1 dBA

For all of the roadway segments resulting in a three dBA L_{dn} or more increase estimated for the cumulative 2035 plus project scenario, the project would result in a contribution of less than one dBA L_{dn} . Therefore, the proposed project would not result in a cumulatively considerable contribution to a significant cumulative traffic noise increase. **(Less Than Significant Cumulative Impact)**

Cumulative Construction Noise Impacts

There are no known approved or pending projects surrounding the project site that would be constructed during the same timeframe as the proposed project. Therefore, the noise-sensitive receptors surrounding the project site would not be subject to cumulative construction noise impacts. **(No Cumulative Impact)**

3.8.3 Non-CEQA Effects

Per *California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369 (*BIA v. BAAQMD*), effects of the environment on the project are not considered CEQA impacts. The following discussion is included for informational purposes only because the City of Morgan Hill has policies that address existing noise conditions affecting a proposed project. Policy SSI-8.1 and Table SSI-1 of the City's General Plan states that noise levels at outdoor use areas of residential land uses should be maintained below 60 dBA L_{dn} to be considered normally acceptable; this standard applies to common outdoor use areas but not private decks or balconies. For neighborhood parks and playgrounds, the exterior noise standard is 70 dBA L_{dn} . For commercial and industrial uses, the outdoor use areas should be maintained below 70 and 75 dBA L_{dn} , respectively, to be considered normally acceptable. Interior noise levels should be maintained at 45 dBA L_{dn} for residential interiors. CALGreen requires hourly average noise levels during businesses hours to meet the 50 dBA $L_{eq(1-hr)}$ threshold within nonresidential buildings. Policy SSI-8.4 of the City's General Plan states that interior noise levels in office buildings should be maintained at 45 dBA $L_{eq(1-hr)}$ or less.

The future noise environment at the project site would continue to result from traffic along US 101 and the other surrounding local roadways. The noise assessment used a worst-case traffic scenario from the traffic study, based on cumulative traffic volumes in 2035 with project build-out, to calculate the future exterior noise volumes at the project site. The future noise level increase along

Cochrane Road would be three dBA L_{dn} above existing conditions and the future noise level increase along Mission View Drive would be one dBA L_{dn} above existing conditions.

Peak hour traffic volumes along US 101 were not included in the traffic study; therefore, US 101 peak hour volumes from Caltrans were used to estimate the noise level increase expected by year 2035, assuming a typical one to two percent increase in traffic volumes each year. The future noise increase along US 101 would be up to two dBA L_{dn} by the year 2035.

The projected future traffic volumes were compared to exterior and interior noise standards for the proposed commercial/industrial and residential components of the proposed project. The project's compatibility with noise from increased traffic volumes on surrounding roadways is discussed below.

Future Exterior Noise Environment

Residential Component

While a detailed site plan showing outdoor use areas for the residential component of the project was not available at the time of the noise assessment, the residential component could include common use picnic areas and potential backyard areas. The residential component of the project would be located in the southeast portion of the site, to the north of Half Road between De Paul Drive and Mission View Drive. For the purpose of the analysis, a worst-case scenario was assumed where future residences would have no shielding of noise from US 101.

The setback of the residential parcel from the centerline of the nearest through lane along northbound US 101 would range from approximately 1,025 to 1,860 feet. At these distances and assuming no shielding, from the future light industrial project buildings, the future exterior noise levels would potentially range from 62 to 67 dBA L_{dn} . Future construction of the light industrial buildings on the parcel west of the future residences would provide some shielding from U.S. 101. However, the proposed project would include 24-hour truck trips totaling 248. Based on the analysis under Impact NOI-1 of this EIR, future exterior noise levels at the western boundary of the future residential site, which would be approximately 30 feet from the centerline of the DePaul Drive extension, would be 67 dBA L_{dn} .

Commercial and Industrial Use Component

The six industrial buildings do not show common outdoor use areas in the project site plan. However, future outdoor use areas may be proposed. Noise levels at outdoor use areas included in the commercial parcel fronting Cochrane Road would potentially exceed 70 dBA L_{dn} if direct line-of-sight exists between the outdoor use area and US 101 or Cochrane Road, based on future noise levels at LT-1 and LT-2, which would be 74 and 75 dBA L_{dn} , respectively. Noise control measures may be required to reduce exterior noise levels to meet City standards at this location. For the parcel located between Buildings 1 and 2, the surrounding buildings should provide sufficient shielding to reduce future exterior noise levels below 70 dBA L_{dn} .

Future Interior Noise Environment

Residential Component

Standard residential construction provides approximately 15 dBA of exterior-to-interior noise reduction, assuming the windows are partially open for ventilation. Standard construction with the windows closed provides approximately 20 to 25 dBA of noise reduction in interior spaces. Where exterior noise levels range from 60 to 65 dBA L_{dn} , the inclusion of adequate forced-air mechanical ventilation is often the method selected to reduce interior noise levels to acceptable levels by closing the windows to control noise. Where noise levels exceed 65 dBA L_{dn} , forced-air mechanical ventilation systems and sound-rated construction methods are normally required. Such methods or materials may include a combination of smaller window and door sizes as a percentage of the total building façade facing the noise source, sound-rated windows and doors, sound-rated exterior wall assemblies, and mechanical ventilation so windows may be kept closed at the occupant's discretion.

With minimum setbacks from the centerline of the nearest through lane along northbound US 101 of 1,025 to 1,860 feet, future exterior noise levels would range from 62 to 67 dBA L_{dn} . Assuming a 15 dBA reduction, future interior noise levels would range from 47 to 52 dBA L_{dn} , which would exceed the 45 dBA L_{dn} threshold. Noise insulation features would be required to meet the City's interior noise level standard for residential uses.

Commercial and Industrial Component

Standard construction materials for commercial and industrial buildings would provide at least 20 to 25 dBA of noise reduction in interior spaces. The inclusion of adequate forced-air mechanical ventilation systems is normally required so windows may be kept closed at the occupants' discretion.

The western façades of the proposed industrial buildings would have setbacks from the centerline of the nearest through lane along US 101 of 270 and 305 feet, respectively. Assuming a minimum of 20 dBA of exterior-to-interior noise reduction, the future interior noise levels at the nonresidential buildings adjacent to US 101 would range from 43 to 54 dBA $L_{eq(1-hr)}$ during the daytime hours and from 37 to 55 dBA $L_{eq(1-hr)}$ during nighttime hours. Assuming standard construction materials would be used, the state's interior noise standard of 50 dBA $L_{eq(1-hr)}$ would potentially be exceeded. Measures would be required to reduce exterior noise levels sufficiently to achieve compatible interior noise levels (refer to the conditions of approval on the following page). For interior space located on the eastern building façades, which would be 600 to 950 feet from the centerline of the nearest through lane along U.S. 101, the future interior noise levels would be at or below 45 dBA $L_{eq(1-hr)}$, and therefore are expected to be compatible with the City's interior noise requirements.

For the offices located on the eastern building façades, which would be 790 to 890 feet from the centerline of the nearest through lane along US 101, the future interior noise levels would be at or below 45 dBA $L_{eq(1-hr)}$ and therefore are expected to be compatible with the City's interior noise requirements. Further, the parcel located between Buildings Two and Three is also expected to be compatible with both the City's and the State's interior noise thresholds since the setback of the parcel would be 670 feet or more from centerline of the nearest through lane along US 101 and due to the partial shielding provided by the proposed Buildings Two and Three.

The commercial portion of the project fronting Cochrane Road would be 530 feet or more from the centerline of the nearest through lane along US 101 and would be 65 feet or more from the centerline of Cochrane Road. The future interior noise levels would potentially range from 46 to 52 dBA $L_{eq}(1\text{-hr})$ during daytime hours and from 35 to 48 dBA $L_{eq}(1\text{-hr})$ during nighttime hours. This would potentially exceed the City and State standards of 45 dBA $L_{eq}(1\text{-hr})$ and 50 dBA $L_{eq}(1\text{-hr})$, respectively, and would require noise insulation features to be compatible with the noise environment at the site.

The following conditions of approval would be applied by the City to ensure that the proposed commercial/industrial and residential components meet applicable state and City noise standards and are compatible with the existing noise environment.

Conditions of Approval:

An acoustical study shall be conducted during the application process when project-specific information, such as building elevations, layouts, floor plans, and position of buildings on the site, is known for the residential component of the proposed project and the commercial parcels located along Cochrane Road and between Buildings Two and Three. The studies shall determine compliance with the noise and land use compatibility standards, identify potential noise impacts, and propose site-specific measures to reduce exposure to exterior and interior noise levels that exceed maximum permissible levels.

The following general recommendations shall be considered to reduce exterior noise levels to meet the normally acceptable thresholds of 60 dBA L_{dn} at residential uses and 70 dBA L_{dn} at neighborhood parks and commercial uses near Cochrane Road:

- When developing project site plans, locate noise-sensitive outdoor use areas away from major roadways or other significant sources of noise. Shield noise-sensitive spaces with buildings or noise barriers to reduce exterior noise levels. The final detailed design of the heights and limits of proposed noise barriers shall be completed at the time that the final site and grading plans are submitted.

The following general recommendations shall be considered to reduce interior noise levels to meet the normally acceptable thresholds of 45 dBA L_{dn} at residences and 45 dBA $L_{eq}(1\text{-hr})$ at potential offices or 50 dBA $L_{eq}(1\text{-hr})$ for all other nonresidential uses at the site along Cochrane Road:

- If future exterior noise levels at residential building façades are between 60 and 65 dBA L_{dn} , incorporate adequate forced-air mechanical ventilation to reduce interior noise levels to acceptable levels by closing the windows to control noise.
- If future exterior noise levels at residential building façades exceed 65 dBA L_{dn} , forced-air mechanical ventilation systems and sound-rated construction methods are normally required. Such methods or materials may include a combination of smaller window and door sizes as a percentage of the total building façade facing the noise source, sound-rated windows and doors, sound-rated exterior wall assemblies, and mechanical ventilation so windows may be kept closed at the occupant's discretion.

- If the 45 dBA $L_{eq}(1-hr)$ threshold would not be met at office building interiors or the 50 dBA $L_{eq}(1-hr)$ threshold would not be met at all other nonresidential building interiors, other site-specific measures, such as increasing setbacks of the buildings from the adjacent roadways, using shielding by other buildings or noise barriers to reduce noise levels, implementing additional sound treatments to the building design, etc., shall be considered to reduce interior noise levels to meet the City of Morgan Hill threshold or the Cal Green Code threshold.

The following noise insulation features shall be incorporated into the proposed Buildings Two and Three to reduce interior noise levels to acceptable levels:

- To meet the 50 dBA $L_{eq}(1-hr)$ threshold, incorporate an adequate forced-air mechanical ventilation system in order for windows to be kept shut at the occupants' discretion.
- Locate spaces that require a quieter interior noise environment along the eastern side of the proposed buildings.

3.9 TRANSPORTATION

The following discussion is based, in part, on a Traffic Impact Analysis (TIA) prepared by *Hexagon Transportation Consultants, Inc.* The TIA, dated March 11, 2020, is included in this EIR as Appendix H.

3.9.1 Environmental Setting

3.9.1.1 *Regulatory Framework*

State and Regional

Regional Transportation Planning

The Metropolitan Transportation Commission (MTC) is the transportation planning, coordinating, and financing agency for the nine-county San Francisco Bay Area, including Santa Clara County. MTC is charged with regularly updating the Regional Transportation Plan, a comprehensive blueprint for the development of mass transit, highway, airport, seaport, railroad, bicycle, and pedestrian facilities in the region. MTC and ABAG adopted Plan Bay Area 2040 in July 2017, which includes the region's Sustainable Communities Strategy (integrating transportation, land use, and housing to meet GHG reduction targets set by CARB) and Regional Transportation Plan (including a regional transportation investment strategy for revenues from federal, state, regional and local sources over the next 24 years).

Senate Bill 743

Senate Bill (SB) 743 establishes criteria for determining the significance of transportation impacts using a vehicle-miles traveled (VMT) metric intended to promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. Specifically, SB 743 requires the replacement of automobile delay—as described solely by level of service (LOS) or similar measures of vehicular capacity or traffic congestion—with VMT as the recommended metric for determining the significance of transportation impacts. OPR approved the CEQA Guidelines implementing SB 743 on December 28, 2018. Local jurisdictions are required to evaluate VMT in-lieu of LOS by July 1, 2020.

SB 743 did not authorize OPR to set specific VMT impact thresholds, but it did direct OPR to develop guidelines for jurisdictions to utilize. CEQA Guidelines Section 15064.3(b)(1) describes factors that might indicate whether a development project's VMT may be significant, or not.

Congestion Management Program

The Santa Clara Valley Transportation Authority (VTA) oversees the Congestion Management Program (CMP), which is aimed at reducing regional traffic congestion. The relevant state legislation requires that all urbanized counties in California prepare a CMP in order to obtain each county's share of gas tax revenues. State legislation requires that each CMP define traffic LOS standards, transit service standards, a trip reduction and transportation demand management, a land use impact analysis program, and a capital improvement element. VTA has review responsibility for proposed development projects that are expected to affect CMP designated intersections.

Local

City of Morgan Hill 2035 General Plan

The following transportation goals and policies are applicable to the proposed project:

Goal TR-3: A coordinated, continuous network of streets and roads.

*Policy TR-3.2: **Safe and Complete Improvements.*** Avoid creating incomplete public improvements that create public safety hazards.

*Policy TR-3.4: **Level of Service Standards.*** As the Level of Service (LOS) policy and design criteria for roadway improvements, use a Tiered LOS Standard as follows:

- LOS F in the Downtown at Main/Monterey, along Monterey Road between Main and Fifth Street, and along Depot Street at First through Fifth Streets. This LOS standard in the Downtown recognizes the unique nature of and goals for Downtown Morgan Hill as the transit hub of the City and as a center for shopping, business, entertainment, civic and cultural events, and higher-density, mixed-use living opportunities. This standard does not preclude the City, developers, and property owners from voluntarily implementing improvements and employing operational strategies to improve level of service, especially at the Main/Monterey intersection, if and when land uses redevelop.
- LOS D for intersections and segments elsewhere; except:
 - Allow LOS E for identified freeway ramps/zones, road segments and intersections that (1) provide a transition to and are located on the periphery of downtown; (2) are freeway zone intersections; and/or (3) where achieving LOS D could result in interim intersection improvements which would be “over-built” once the City’s circulation network has been completed, and/or would involve unacceptable impacts on existing buildings or existing or planned transportation facilities, including roads, sidewalks, bicycle and transit facilities; and/or would involve extraordinary costs to acquire land and existing buildings, and build the improvement in relation to benefits achieved; and/or the facility would be widened beyond requirements to serve local traffic, in that the facility accommodates a significant component of peak-hour sub-regional and regional through-traffic.
- In order to reduce the incentive for regional travel to be drawn off the freeway and onto local neighborhood streets, protect neighborhoods, avoid overbuilding intersections, and to create an incentive for using alternate modes of travel, LOS E during peak hours of travel is acceptable for the following identified freeway ramps, road segments, and intersections:

- Main Avenue and Del Monte Avenue
- Main Avenue and Depot Street
- Dunne Avenue and Del Monte Avenue
- Dunne Avenue and Monterey Avenue
- Dunne Avenue and Church Street; also, until closed: Dunne Avenue and Depot Street
- Cochrane Road and Monterey Road
- Tennant Avenue and Monterey Road
- Tennant Avenue and Butterfield Boulevard
- Cochrane Road Freeway Zone: from Madrone Parkway/Cochrane Plaza to Cochrane/DePaul Drive
- Dunne Avenue Freeway Zone: from Walnut Grove/East Dunne to Condit/East Dunne
- Tennant Avenue Freeway Zone: from Butterfield/Tennant to Condit/Tennant Freeway Ramps

Projects shall pay the City's standard traffic impact fees imposed on new developments in accordance with the adopted impact fee schedule.

Morgan Hill LOS Guidelines and Methodology

The City of Morgan Hill level of service methodology is TRAFFIX, which is based on the 2000 Highway Capacity Manual (HCM) method for signalized intersections. TRAFFIX evaluates signalized intersections operations based on average delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersections level of service methodology, the City of Morgan Hill methodology employs the CMP defaults values for the analysis parameters, which include adjusted saturation flow rates to reflect conditions in Santa Clara County. All intersections within the City of Morgan Hill are required to meet the City's LOS standard of LOS D, with the exception of intersections and freeway zones listed in General Plan Policy TR-3.4.

According to the City of Morgan Hill level of service guidelines, a development would create an adverse effect on traffic conditions at a signalized intersection if for either peak hour:

- The level of service at the intersection degrades from an acceptable level (LOS D or LOS E as identified above) under existing conditions to an unacceptable level (LOS E or F) under project conditions, or
- The level of service at the intersection is an unacceptable level (LOS E or F as identified above) under existing conditions and the addition of project trips causes the average critical delay to increase by four (4) or more seconds and the volume-to-capacity ratio (V/C) to increase by 0.01.

An exception to this rule applies when the addition of project traffic reduces the amount of average delay for critical movements (i.e., the change in average delay for critical movements is negative). In this case, the threshold of significance is an increase in the critical V/C value by 0.01 or more.

At the time of preparation of this EIR, the City of Morgan Hill has not adopted a VMT policy pursuant to SB 743. Therefore, the VMT analysis presented in this analysis is for informational purposes only and does not make a determination of significance under CEQA.

3.9.1.2 *Existing Conditions*

Roadway Network

Regional Access

US 101 is a north-south freeway extending northwards to San Francisco and southward through Gilroy. US 101 is an eight-lane freeway (three mixed-flow lanes and one high-occupancy vehicle [HOV] lane in each direction) north of Cochrane Road. South of Cochrane Road, it is a six-lane freeway with no HOV lanes. Existing access to and from the project area is provided via a full interchange at Cochrane Road.

Local Access

Cochrane Road is an east-west divided roadway that runs from Monterey Road to Malaguerra Avenue, east of US 101. Currently, Cochrane Road is a four-lane road between Monterey Road and Sutter Boulevard. Widening of Cochrane Road between Monterey Road and Sutter Boulevard from four lanes to six lanes is planned. Between Sutter Boulevard and US 101, Cochrane Road widens to three-lanes eastbound and two lanes westbound, then narrows back to four lanes east of US 101, and to two lanes east of Mission Avenida. Cochrane Road has a posted speed limit of 40 miles-per-hour (mph). Cochrane Road runs along the northern project frontage and would provide one right-turn only driveway to the proposed commercial/retail uses. Access to other parcels of the commercial/industrial uses and the residential component would be provided via its intersections with DePaul Drive and Mission View Drive.

DePaul Drive is a north-south undivided roadway that intersects Cochrane Road approximately 700 feet east of the US 101 northbound ramps intersection and runs approximately 1,500 feet north and 1,000 feet south of Cochrane Road. DePaul Drive has a posted speed limit of 35 mph. The project proposes to extend DePaul Drive by approximately 2,280 feet south along its frontage to provide direct access to the commercial/industrial uses of the project via full access driveways. The extension also will provide access to the future residential component of the project. As proposed, DePaul Drive will terminate as a cul-de-sac just north of Half Road.

Half Road is an east-west undivided roadway that runs from Condit Road to Peet Road. Half Road runs along the south project frontage and has a posted speed limit of 35 mph. However, Half Road will not provide direct access to the commercial/industrial uses and will not intersect the proposed extension of DePaul Drive. Access to the commercial/industrial uses will be provided via Mission View Drive and Cochrane Avenue.

Main Avenue is a two-lane roadway that runs eastward from its intersection with DeWitt Avenue to Coyote Road at the base of the eastern foothills. The roadway has an overcrossing of US 101, however no access to US 101 is provided. Access to the project site is provided via its intersections with Condit Road and Mission View Drive.

Condit Road is a two-lane north-south roadway that extends from Half Road southward to Tennant Avenue. The posted speed limit on Condit Road is 45 mph.

Existing Bicycle, Pedestrian and Transit Facilities

Bicycle Facilities

Bicycle facilities in the project area include Class I bikeways, Class II bike lanes, and Class III bike routes. Class I bikeways are bike paths that are physically separated from motor vehicles and offer two-way bicycle travel on a separate path. Class II bike lanes are lanes on roadways designated for use by bicycles with special lane markings, pavement legends, and signage. Class III bike routes are existing streets (signed shared roadways) that accommodate bicycles but are not separate from the existing travel lanes.

Bike lanes are currently provided along the length of Cochrane Road, including the northern project frontage. There are also bike lanes along Main Avenue beginning at Live Oak High School and continuing west across US 101 to Peak Avenue. An unpaved bike path, the Madrone Channel Trail, located on the east side of US 101, between Tennant Avenue and Cochrane Road, runs along the western project frontage of the proposed commercial/industrial use of the project. The remaining bicycle facilities in the area are located west of US 101. Bike lanes are currently provided along the following roadways:

- Butterfield Boulevard, along its entire length;
- Sutter Boulevard, from Cochrane Road to Butterfield Boulevard;
- Monterey Road, nearly its entire length within City of Morgan Hill limits, with the exception of the segment that runs through downtown between Dunne Avenue and Main Avenue;
- Burnett Avenue, from Monterey Road to Bauman Court (west of US 101);
- Central Avenue, from Butterfield Boulevard to its termination point west of US 101;
- Dunne Avenue, from Peak Avenue to east of Hill Road;
- Depot Street, along its entire length;
- Peak Avenue, between Dunne Avenue and Wright Avenue
- Murphy Avenue, Dunne Avenue and Kelly Park Circle
- Hale Avenue, between Main Avenue and north of City of Morgan Hill.

Other bicycle facilities in the project vicinity include the following:

- A bike route on Monterey Road, between Dunne Avenue and Main Avenue;
- A paved bike path on east side of Butterfield Boulevard, between San Pedro Avenue and Central Avenue;

Pedestrian Facilities

Pedestrian facilities in the study areas consist primarily of sidewalks, pedestrian push buttons and signal heads at signalized intersections. All of the signalized intersections in the vicinity of the project site have marked crosswalks and pedestrian push buttons and signal heads. However, the project site is located within a primarily undeveloped area where continuous sidewalks along the

surrounding streets are not available. Sidewalks are provided along at least one of the sides of the following roadways in the vicinity of the project site:

Cochrane Road – sidewalks are provided along the north side of the street between Butterfield Boulevard and White Moon Drive. Along the south side of the street, sidewalks are provided from Monterey Road to east of Mission View Drive with the exception of the segments between Woodview Avenue and Sutter Boulevard, US 101 northbound ramps and DePaul Drive (the north project frontage), and a short segment west of Mission View Drive.

Mission View Drive – sidewalks are provided along the east side of the street between the northern end of Mission View Drive (at Eagle View Drive) until approximately 950 feet north of its intersection with Half Road. There are no sidewalks along the west side of Mission View Drive, with the exception of curb ramps located at the northwest and southwest corners of the Mission View Drive and Cochrane Road intersection.

Sidewalks are not provided on either side of DePaul Drive south of Cochrane Road. All other streets in the immediate vicinity of the project site fronting the undeveloped areas have no sidewalks.

Transit Facilities

Existing transit service to the project area is provided by VTA and Caltrain. The nearest bus stops to the project site are located at the DePaul intersection with Cochrane Road. The bus routes serving the project site are described below.

Community Bus Route 16 operates on Cochrane Road in the project area. It runs from Burnett Avenue to the Civic Center (Main and Dewitt) in Morgan Hill with approximately 60-minute headways in the AM and PM commute periods. Route 16 operates between 6:30 AM and 6:00 PM. The nearest Route 16 stops to the project site are located on Cochrane Road, east and west of DePaul Drive.

Express Route 121 operates on Butterfield Boulevard and Cochrane Road on its route between the Gilroy Transit Center and the Lockheed Martin Transit Center. It operates northbound with 15- to 30-minute headways during the AM commute period only and southbound with 15- to 30-minute headways during the PM commute period only. The nearest Route 121 stop to the project site is located at the intersection of Sutter Boulevard and Cochrane Road, approximately 0.5-mile west of the project site.

Express Route 168 operates on Butterfield Boulevard and Cochrane Road on its route between the Gilroy Transit Center and the San José Diridon Transit Center. It operates northbound with 30-minute headways during the AM commute period only and southbound with 30-minute headways during the PM commute period only. The nearest Route 168 stop to the project site is located at the intersection of Sutter Boulevard and Cochrane Road, approximately 0.5-mile west of the project site.

In addition to the bus routes serving the project site, the Morgan Hill Caltrain station is located along Depot Street, approximately two miles from the project site. Caltrain provides commuter rail service between San Francisco and Gilroy. At the Morgan Hill station, Caltrain only provides service in the northbound direction during the AM commute period and in the southbound direction only during the

PM commute period with approximately 30- to 40-minute headways during each of the commute hours.

3.9.2 Impact Discussion

For the purpose of determining the significance of the project's impact on transportation, would the project:

- 1) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities?
- 2) For a land use project, conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?
- 3) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?
- 4) Result in inadequate emergency access?

3.9.2.1 *Project Impacts*

Impact TRN-1:	The project would conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities. (Significant and Unavoidable Impact)
----------------------	--

The City of Morgan Hill does not currently have an adopted VMT policy. The City's adopted transportation policy utilizes LOS as the metric by which the City determines the functionality of the roadway system and the effect of new development on the roadway network. The following discussion of LOS is provided as it pertains to consistency with the City's adopted LOS policy described in the General Plan.

General Plan Level of Service Policy Evaluation

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours of traffic. The weekday AM peak hour of traffic generally falls within the 7:00 to 9:00 AM period and the weekday PM peak hour is typically in the 4:00 to 6:00 PM period. It is during these times that the most congested traffic conditions occur on a typical weekday.

The potential traffic effects related to the proposed development were evaluated following the standards and methodologies set forth by the City of Morgan Hill and the VTA. The methodology used for the traffic assessment is outlined in Section 3.9.1.1 Regulatory Framework. An analysis was completed to evaluate the effects of the project on 28 key signalized intersections, nine unsignalized intersections, two planned future intersections, and 14 directional freeway segments in the vicinity of the project site. In addition to the level of service analysis at all study intersections, a signal warrant analysis was completed at unsignalized intersections. The study intersections are identified in Table 3.9-2 and on Figure 3.9-1.

The traffic effects of the proposed project at the study intersections were evaluated under six different scenarios. The industrial/commercial component of the project was evaluated independently

for each of the scenarios since there is a current plan for its development. Since there is no specific development plan for the residential component, it is evaluated in combination with the industrial/commercial component for each scenario, but not as a separate project component to isolate the effects of the residential trips.

The six scenarios under which the project's traffic impacts were evaluated are described below.

Scenario 1: *Existing Conditions*. Existing conditions represent existing peak-hour traffic volumes on the existing roadway network. Existing peak-hour traffic volumes were obtained from recently completed traffic studies and supplemented with new manual turning-movement counts at all the study intersections.

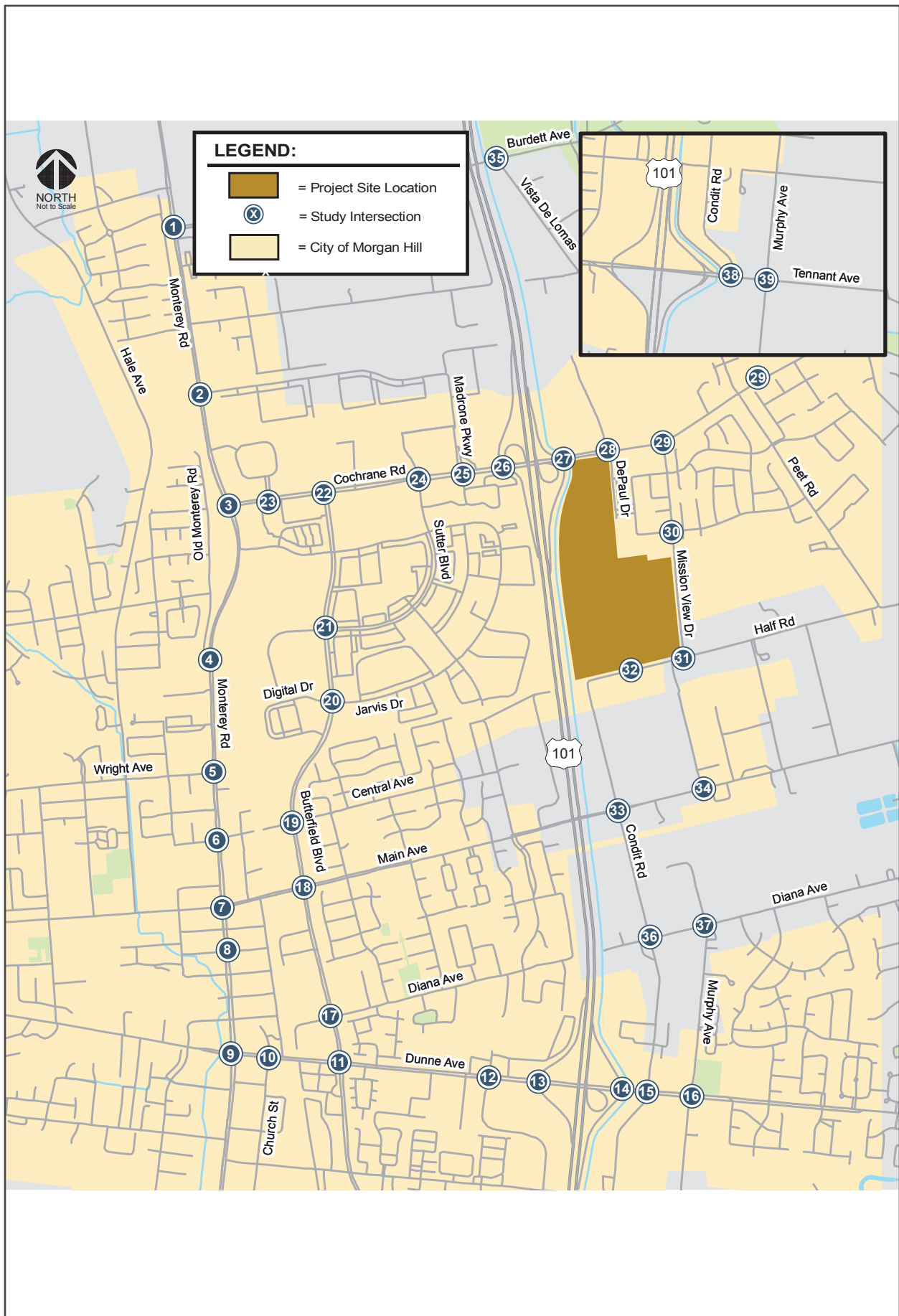
Scenario 2: *Existing Plus Project Conditions*. Project-generated traffic volumes were added to existing traffic volumes to estimate existing plus project conditions. Existing plus project conditions were evaluated relative to existing conditions in order to determine potential project impacts.

Scenario 3: *Year 2030 Cumulative Conditions*. Year 2030 cumulative conditions represent traffic growth projected to occur in the Year 2030 without the proposed project on the existing transportation network. Projected 2030 traffic growth was developed by interpolating the projected Year 2035 traffic growth.

Scenario 4: *Year 2030 Cumulative with Project Conditions*. Year 2030 with project conditions will consist of Year 2030 traffic conditions with the addition of project traffic associated with an anticipated 10-year build plan for the industrial/commercial component of the site.

Scenario 5: *Year 2035 General Plan No Project Conditions*. Year 2035 General Plan No Project conditions represent future traffic volumes on the future transportation network. Year 2035 General Plan No Project conditions include land use growth and transportation improvements associated with buildout of the City's General Plan.

Scenario 6: *Year 2035 General Plan Amendment with Project Conditions*. Year 2035 General Plan Amendment with Project Conditions consist of Year 2035 General Plan traffic conditions with the addition of the additional traffic due to the proposed project and its associated land use amendment for the project site.



SITE LOCATION AND STUDY INTERSECTIONS

FIGURE 3.9-1

Existing Plus Project Conditions

Project Trip Generation Estimates

Trip estimates for the proposed project were developed based on trip generation rates obtained from the Institute of Transportation Engineers' (ITE) *Trip Generation*, Tenth Edition, 2017, and trip reductions which take into account the proposed mixed-use land uses and pass-by-trips for retail land uses. For a detailed discussion of the methodology used when applying trip reductions and estimating trip generation rates, refer to the TIA in Appendix H. Table 3.9-1 below shows the project's trip generation estimates, broken up into the residential and industrial/commercial components of the project.

Table 3.9-1: Project Trip Generation Estimates							
Land Use	AM Peak Hour			PM Peak Hour			Daily Trips
	In	Out	Total	In	Out	Total	Total
General Light Industrial ¹ (Auto Trips only)	640	88	728	85	570	655	5,156
General Light Industrial (Truck Trips only)	31	4	35	4	27	31	248
<i>Subtotal</i>	671	92	763	89	597	686	5,404
Commercial ²	29	18	47	92	99	191	1,888
<i>20 percent pass-by reduction²</i>	0	0	0	-18	-20	-38	-38
<i>Subtotal</i>	700	110	810	163	676	839	7,254
Residential Component ³	59	177	236	199	117	316	3,011
<i>Total</i>	759	287	1,046	362	793	1,155	10,265
Notes: 1. Comprised of approximately 1,089,600 square feet of light industrial space (1,044,600 general light industrial + 45,000 square feet of industrial office space). 2. Comprised of approximately 50,000 square feet of commercial space. Trip generation estimates account for a 20 percent pass-by-trip reduction for retail uses. 3. Comprised of 319 residential units. Source: <i>Hexagon Transportation Consultants, Inc.</i> Morgan Hill Technology Center TIA. March 10, 2020.							

As shown in Table 3.9-1, the proposed project would result in a total of 10,265 daily trips, with 1,046 trips occurring during the AM peak hour and 1,155 trips occurring during the PM peak hour. The estimated peak-hour trips generated by the project for each land use were (1) distributed to the surrounding roadway system based on existing travel patterns, locations of complementary land uses, and the City of Morgan Hill Traffic Demand Forecasting (TDF) Model (trip distribution) and (2) added to the transportation network in accordance with trip distribution patterns (trip assignment). The results of the trip generation, distribution and assignment estimates provide the basis for the intersection level of service analysis.

Existing Plus Project Level of Service Analysis

The results of the intersection level of service analysis under existing plus project conditions (including the industrial, commercial, and residential components), existing plus project level of service results are shown below in Table 3.9-2.

Table 3.9-2: Study Intersections Level of Service – Existing Plus Project Conditions								
No.	Intersection	Peak Hour	Existing		Existing Plus Project (Industrial, Commercial, and Residential Components)			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
1	Monterey Road and Burdett Avenue	AM	15.0	B	14.9	B	-0.1	0.004
		PM	9.7	A	9.8	A	0.1	0.005
2	Monterey Road and Madrone Parkway	AM	9.4	A	9.4	A	0.0	0.004
		PM	9.8	A	10.0	B	0.2	0.006
3	Monterey Road and Cochrane Road	AM	28.1	C	28.5	C	0.5	0.014
		PM	24.0	C	24.7	C	0.8	0.017
4	Monterey Road and Old Monterey Road	AM	10.4	B	10.9	B	0.3	0.012
		PM	13.0	B	13.0	B	0.1	0.003
5	Monterey Road and Wright Avenue	AM	19.1	B	19.1	B	0.0	0.000
		PM	20.4	C	20.4	C	0.0	0.000
6	Monterey Road and Central Avenue*	AM	19.5	C	19.5	C	N/A	N/A
		PM	15.7	C	15.7	C		
7	Monterey Road and Main Avenue	AM	44.2	D	45.5	D	1.5	0.036
		PM	45.1	D	47.0	D	2.4	0.040
8	Monterey Road and Second Street	AM	10.6	B	10.7	B	0.1	0.003
		PM	12.6	B	12.7	B	0.0	0.000
9	Monterey Road and Dunne Avenue	AM	28.9	C	29.1	C	0.1	0.003
		PM	31.4	C	31.9	C	0.7	0.014
10	Church Street and Dunne Avenue	AM	17.8	B	17.8	B	-0.1	0.024
		PM	19.9	B	19.2	B	-0.6	0.022
11	Butterfield Boulevard and Dunne Avenue	AM	35.5	D	36.5	D	1.6	0.032
		PM	31.7	C	32.2	C	0.6	0.017

Table 3.9-2: Study Intersections Level of Service – Existing Plus Project Conditions								
No.	Intersection	Peak Hour	Existing		Existing Plus Project (Industrial, Commercial, and Residential Components)			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
12	Walnut Grove Drive and Dunne Avenue	AM PM	18.4 28.5	B C	18.4 28.3	B C	0.0 -0.1	0.015 0.006
13	US 101 Southbound Ramps and Dunne Avenue	AM PM	20.9 18.8	C B	21.2 18.8	C B	-0.2 0.1	0.000 0.002
14	US 101 Northbound Ramps and Dunne Avenue	AM PM	5.3 11.8	A B	5.2 11.5	A B	-0.1 -0.1	0.006 0.014
15	Condit Road and Dunne Avenue	AM PM	42.4 28.2	D C	46.0 28.6	D C	4.4 0.7	0.054 0.052
16	Murphy Avenue and Dunne Avenue	AM PM	18.9 11.8	B B	19.1 11.7	B B	0.3 -0.1	0.015 0.015
17	Butterfield Boulevard and Diana Avenue	AM PM	21.3 20.4	C C	22.3 21.1	C C	1.4 1.1	0.021 0.021
18	Butterfield Boulevard and Main Avenue	AM PM	27.6 29.8	C C	28.8 31.8	C C	2.0 2.7	0.045 0.049
19	Butterfield Boulevard and East Central Avenue	AM PM	17.1 11.0	B B	17.2 11.1	B B	0.1 0.2	0.022 0.018
20	Butterfield Boulevard and Jarvis Drive	AM PM	11.7 12.8	B B	12.2 12.9	B B	0.6 0.2	0.022 0.022
21	Butterfield Boulevard and Sutter Boulevard	AM PM	6.7 15.6	A B	6.7 16.4	A B	0.1 0.9	0.013 0.032
22	Butterfield Boulevard and Cochrane Road	AM PM	12.3 12.0	B B	12.5 12.1	B B	0.2 0.3	0.016 0.011
23	Cochrane Road and Cochrane Circle	AM PM	10.5 10.9	B B	10.4 11.1	B B	0.0 0.1	0.006 0.008

Table 3.9-2: Study Intersections Level of Service – Existing Plus Project Conditions								
No.	Intersection	Peak Hour	Existing		Existing Plus Project (Industrial, Commercial, and Residential Components)			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
24	Cochrane Road and Sutter Boulevard	AM PM	17.2 17.9	B B	17.3 16.9	B B	0.1 -2.0	0.026 -0.044
25	Cochrane Road and Madrone Parkway/Cochrane Plaza	AM PM	19.1 31.4	B C	18.9 30.9	B C	-3.1 -0.2	0.005 0.012
26	US 101 Southbound Ramps and Cochrane Road	AM PM	12.8 16.5	B B	14.6 18.6	B B	2.9 2.2	0.163 0.093
27	US 101 Northbound Ramps and Cochrane Road	AM PM	8.6 11.3	A B	10.7 11.9	B B	2.9 0.8	0.221 0.086
28	Cochrane Road and DePaul Drive	AM PM	17.7 18.7	B B	28.2 <u>101.0</u>	C <u>F</u>	22.2 <u>117.7</u>	0.366 <u>0.588</u>
29	Cochrane Road and Mission View Drive	AM PM	23.0 15.7	C B	<u>94.6</u> 30.0	<u>F</u> C	<u>112.6</u> 22.2	<u>0.212</u> 0.209
30	Mission View Drive and Avenida de los Padres*	AM PM	13.5 12.5	B B	19.8 17.0	C C	N/A	N/A
31	Mission View Drive and Half Road*	AM PM	13.6 22.6	B C	33.3 <u>136.9</u>	D <u>F</u>	N/A	N/A
32	DePaul Drive Extension and Half Road (future) ¹	AM PM	- -	- -	- -	- -	- -	- -
33	Condit Road and Main Avenue (controlled)	AM PM	27.6 26.1	C C	34.2 39.3	C D	6.6 15.2	0.121 0.205
34	Murphy Avenue and Main Avenue (future) ¹	AM PM	- -	- -	- -	- -	- -	- -
35	Vista De Lomas and Burdett Avenue*	AM PM	8.6 8.6	A A	8.6 8.6	A A	N/A	N/A
36	Condit Road and Diana Avenue*	AM PM	14.7 13.6	B B	17.5 15.4	C C	N/A	N/A

Table 3.9-2: Study Intersections Level of Service – Existing Plus Project Conditions								
No.	Intersection	Peak Hour	Existing		Existing Plus Project (Industrial, Commercial, and Residential Components)			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
37	Murphy Avenue and Diana Avenue*	AM PM	11.4 9.9	B A	11.4 9.9	B A	N/A	N/A
38	Condit Road and Tennant Avenue*	AM PM	14.7 14.6	B B	15.7 15.4	C C	N/A	N/A
39	Murphy Avenue and Tennant Avenue	AM PM	21.3 11.9	C B	22.8 12.2	C B	N/A	N/A
Notes: *Denotes an unsignalized intersection. Bold indicates unacceptable level of service or signal warrant met. Bold and <u>underlined</u> indicates a significant impact. ¹ Does not currently exist and included as part of the planned Year 2035 General Plan buildout.								

Under the existing plus project scenario, three intersections would operate at unacceptable levels following project build-out: #28 Cochrane Road and DePaul Drive (PM Peak Hour), #29 Cochrane Road and Mission View Drive (AM Peak Hour), and #31 Mission View Drive and Half Road (PM Peak Hour). All other study intersections are projected to operate at acceptable levels of service under existing plus project conditions, during each of the peak hours analyzed.

The proposed project would degrade the level of service at the Cochrane Road and DePaul Drive intersection from LOS B to LOS F or worse during the PM peak hour. The project would degrade the level of service at the Cochrane Road and Mission View Drive intersection from LOS C to LOS F during the AM peak hour. Additionally, the project would degrade the level of service at the Mission View Drive and Half Road intersection from LOS C to LOS F during the PM peak hour. The proposed project, therefore, would conflict with the City's LOS policy under existing plus project conditions and require the improvements identified below to restore LOS to acceptable conditions.

Mitigation Measure: The following transportation improvement is recommended to address the deficiencies at the Cochrane Road and DePaul Drive, Mission View Drive and Cochrane Road, and Mission View Drive and Half Road intersections under existing plus project conditions:

Cochrane Road and DePaul Drive

MM TRN-1.1: The project applicant shall add an exclusive northbound left-turn lane and a separate eastbound right-turn lane at the intersection of Cochrane Road and DePaul Drive. The addition of the northbound left-turn lane will require a signal modification (with split-phasing on the north and south approaches) and widening of the south approach (DePaul Drive) of the intersection by removing and reconstructing the curb and gutter along the project's frontage.

The eastbound right-turn lane will require striping of the lane to the right of the existing bicycle lane along Cochrane Road. Implementation of this improvement would improve the intersection's level of service to LOS C during the PM peak hour under existing plus project conditions.

Implementation of MM TRN-1.1 would reduce the project's impact at the Cochrane Road and DePaul Drive intersection to less than significant under existing plus project conditions. The above mitigation would require removal and reconstruction of a curb, gutters, and sidewalk on the southwest corner of the intersection, along the project frontages. However, these improvements would not result in secondary environmental impacts; the improvements would not require tree removal, impact biologically sensitive areas such as riparian corridors, or require significant grading, excavation, or demolition activities. Therefore, with the implementation of the above mitigation, the project would result in less than significant impact under existing plus project conditions at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Mission View Drive and Cochrane Road

MM TRN-1.2: The project applicant shall add a second northbound left-turn lane on Mission View Drive and a cycle length adjustment at the Cochrane Road and Mission View Drive intersection. The addition of the second northbound left-turn lane will require lane striping and signal modification but will fit within the existing curb-to-curb pavement width on Mission View Drive. Implementation of this improvement would improve the intersection's level of service to LOS B during the AM peak hour under existing plus project conditions.

Implementation of MM TRN-1.2 would reduce the project's impact at the Mission View Drive and Cochrane Road intersection to less than significant under existing plus project conditions. The above mitigation measure would not result in significant secondary environmental impacts. Therefore, with the implementation of the above mitigation, the project would result in less than significant impact under existing plus project conditions at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Mission View Drive and Half Road

MM TRN-1.3: The project applicant shall install a traffic signal at the Mission View Drive and Half Road intersection. Implementation of a traffic signal at this intersection would improve the level of service to LOS B during both peak hours under existing plus project conditions.

The eastern portion of Mission View Drive and Half Road intersection is located in the unincorporated area of Santa Clara County and is outside of the City's jurisdiction. Therefore, implementation of the above improvements will require County approval. Given this intersection is not within the City's jurisdiction and there is no current agreement with the County to implement the above mitigation, the timing of implementation of these improvements is outside of the City's control. Therefore, it is not guaranteed that these improvements would be implemented. As a result,

the impact to this intersection would be significant and unavoidable under existing plus project conditions. **(Significant and Unavoidable Impact)**

Freeway Segment Level of Service Analysis

Traffic volumes on the study freeway segments under existing plus project conditions were estimated by adding project trips for each of the project's components to the existing volumes obtained from the 2018 CMP Monitoring and Conformance Report. As it exists, ten directional mixed-flow lanes and one directional HOV lane on the freeway segments analyzed are operating at an unacceptable LOS F during at least one peak hour. The same freeway lanes would operate at unacceptable conditions upon project build out; however, the proposed project would result in an increase in traffic volumes of more than one percent of freeway capacity on ten of the directional mixed-flow lanes and one directional HOV lane, each of which are currently operating at an unacceptable LOS F. The affected freeway segments and peak hours are described below:

- US 101, Northbound from San Martin Avenue to Tennant Avenue (AM Peak Hour)
- US 101, Northbound from Tennant Avenue to East Dunne Avenue (AM Peak Hour)
- US 101, Northbound from East Dunne Avenue to Cochrane Road (AM Peak Hour)
- US 101, Northbound from Cochrane Road to Coyote Creek Golf Drive (AM Peak Hour)
- US 101, Southbound from SR 85 to Bailey Avenue (PM Peak Hour)
- US 101, Southbound from Bailey Avenue to Coyote Creek Golf Drive (PM Peak Hour)
- US 101, Southbound from Coyote Creek Golf Drive to Cochrane Road (PM Peak Hour)
- US 101, Southbound from Cochrane Road to East Dunne Avenue (PM Peak Hour)
- US 101, Southbound from East Dunne Avenue to Tennant Avenue (PM Peak Hour)
- US 101, Southbound from Tennant Avenue to San Martin Avenue (PM Peak Hour)

To address deficiencies on the freeway segments described above, the project would require freeway widening to construct additional through lanes, thereby increasing freeway capacity. Since it is not feasible for an individual development to bear responsibility for implementing such extensive transportation system improvements due to constraints in acquisition and cost of right-of-way, and no comprehensive project to add through lanes has been developed by Caltrans or VTA for individual projects to contribute to, the project would result in a significant and unavoidable deficiencies at the ten mixed-flow lanes and one HOV lane described above. **(Significant and Unavoidable Impact)**

Transit, Pedestrian and Bicycle Facilities

The project site is served by one bus route, local bus (Community Bus Route 16). In addition, three express lines provide service from the project area (Cochrane Road west of US 101) to the Morgan Hill Caltrain Station during PM commute periods. A typical mode split in Morgan Hill would be a three percent transit share. Assuming up to three percent transit mode share for the project equates to no more than 31 transit riders during the AM peak hour and 35 riders during the PM peak hour. The transit ridership demands of the proposed project would not require the expansion of existing transit facilities.

The proposed project would not remove any pedestrian facilities in the site vicinity. The project would provide a sidewalk along its entire frontage which would result in a continuous connection to the existing sidewalk along the southside of Cochrane Road and safe pedestrian flow between the

project site and surrounding land uses in the area. The project would also provide a sidewalk along the De Paul Drive frontage. A controlled crossing of Cochrane Road would be provided at the signalized De Paul Drive and Cochrane Road intersection to provide a connection between the project site and retail uses on the north side of Cochrane Road. Therefore, the proposed project would improve pedestrian safety and circulation throughout the project area.

Bicycle lanes are currently provided along the length of Cochrane Road, including along the northern project frontage. There are also bicycle lanes along Main Avenue beginning at Live Oak High School and continuing west across US-101 to Peak Avenue. An unpaved bicycle path (the Madrone Channel Trail) located on the east side of US 101, between Tennant Avenue and Cochrane Road, runs along the west project frontage of the proposed commercial/industrial use of the project. Bicycle trips would comprise no more than one percent of the total project-generated trips. Thus, the project would potentially generate no more than 12 new bicycle trips during the PM peak hour or 10 new bicycle trips during the AM peak hours.⁷⁶ The demand generated by the proposed project could be accommodated by the existing bicycle facilities in the vicinity of the project site. The project would not result in a significant impact to existing or planned bicycle facilities described in the Bikeways, Trails, Parks and Recreation Master Plan.⁷⁷

For the reasons discussed above, the proposed project would not conflict with a program plan, ordinance or policy addressing transit, pedestrian, and bicycle facilities. **(Less than Significant Impact)**

Impact TRN-2: The project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b). **(No Impact)**

VMT is identified in CEQA Guidelines Section 15064.3 as the most appropriate measure of transportation impacts. Per the CEQA Guidelines Section 15064.3, agencies have until July 1, 2020 to evaluate VMT in-lieu of LOS. Per the Transportation Analysis, the proposed project would result in 65,207 daily VMT, as compared to the 31,062 daily VMT expected with 2035 General Plan buildout of the site. The VMT for the General Plan buildout was estimated using the City's travel demand forecasting (TDF) model. At the time that the General Plan EIR was prepared, it was assumed that the project site would be developed at a low intensity within the 20-year period. The development assumptions for the site included in the City's TDF model are significantly lower than development allowed on-site based on the existing General Plan and zoning designations (refer to Section 7.6.3, No Project/Existing General Plan/Zoning Development Alternative in this EIR). The daily VMT for buildout of the site allowed under the existing General Plan and zoning designations would be higher than 65,207 given more daily trips would be generated (compared to the proposed project) under this scenario. This is included only for information purposes, as neither the City nor County has yet adopted a standard approach or guidelines to evaluate a project's VMT impact. Therefore, the proposed project is not in conflict with CEQA Guidelines Section 15064.3, Subdivision (b). **(No Impact)**

⁷⁶ Project PM Peak hour Trips = 1,155; $1,155 * 0.01 = 11.55$ (12) bicycle trips; Project AM Peak hour Trips = 1,046; $1,046 * 0.01 = 10.46$ (10) bicycle trips. $10,265$ project daily trips $* 0.01 = 103$ daily bicycle trips.

⁷⁷ City of Morgan Hill. Bikeways, Trails, Parks and Recreation Master Plan. Adopted July 20, 2017. Accessed July 9, 2019. <http://www.morganhill.ca.gov/1429/Master-Plan-for-Parks-Trails-and-Bikeway>.

Impact TRN-3: The 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). **(Less than Significant Impact)**

The site plan was reviewed for the commercial/industrial component of the project to determine if adequate site access is provided and to identify any access and circulation issues that should be improved. A detailed review of the residential component of the project was not completed because no specific development plan was available. Access to the residential site is assumed to occur from extended DePaul Drive, from Mission View Drive, and from Half Road.

Site Access

Access to the commercial/industrial components of the proposed project would be provided via eight driveways. One right-in only access point would be located along Cochrane Road and provide direct access to the commercial site. The remaining access points are generally located between each of the six industrial buildings along DePaul Drive. Although all of the driveways proposed along DePaul Drive are shown to be full-access driveways. The following condition of approval is recommended for the northernmost driveway.

Condition of Approval

- The northernmost driveway be restricted to right-in and right-out only operations due to its proximity (approximately 250 feet) to the DePaul Drive and Cochrane Road intersection. This restriction would reduce hazards posed by vehicles entering and exiting the site in relation to the nearby intersection.

On-Site Circulation

The planned internal roadway network provides for mostly continuous vehicular circulation within each of the northern and southern portions of the industrial site.

The proposed project would include continuous pedestrian connections between all proposed land uses on-site and pedestrian walkways along the project site frontages. The proposed pedestrian walkways along the project site frontages would provide a connection to other existing pedestrian facilities (sidewalks, crosswalks, bus stops, etc.) east and west of the project site. Therefore, the project would not result in hazards to pedestrian users of the site and the surrounding areas.

The proposed project would be designed following City of Morgan Hill design standards. Adherence to the City's design standards would ensure the project provides adequate width and turn-radii at and along all drive/parking aisles to allow for two-way circulation and adequate circulation of larger vehicles (such as emergency trucks, garbage trucks, and delivery trucks) throughout the site. During the architectural and site plan review, the project's design will be reviewed to ensure that all applicable design standards are met. The project would implement the above condition of approval for the site's northernmost driveway to reduce hazards posed by vehicles entering and exiting the site. For this reason, and those discussed above, the project would not substantially increase hazards due to a design feature or incompatible use. **(Less than Significant Impact)**

Impact TRN-4: The project would not result in inadequate emergency access. **(No Impact)**

The eight access points to the project site would provide adequate emergency access. By adhering to the City of Morgan Hill's standards and requirements for emergency access, the proposed site access points and layout of the surface parking areas would be adequate to accommodate circulation of both passenger and emergency vehicles. **(No Impact)**

3.9.2.2 Cumulative Impacts

Impact TRN-C: The project, with identified improvements, would not result in a cumulatively considerable contribution to a significant transportation impact. **(Significant and Unavoidable Impact)**

Year 2030 Cumulative Plus Project Conditions

Year 2030 Cumulative No Project Traffic Volumes

Year 2030 Cumulative traffic volumes were developed based on traffic forecasts produced for the City of Morgan Hill 2035 General Plan using the City's TDF model. The Year 2030 cumulative no project traffic volumes were estimated using a growth method that involved adding a proportion (15 years of 75 percent) of the 2035 projected growth, with removal of the trips associated with the adopted General Plan land uses for the project, to existing traffic counts at each of the study intersections.

It is assumed in this analysis that the roadway network and intersection configurations under the Year 2030 Cumulative conditions would be the same as described in Section 3.9.1.2 Existing Conditions, except for the following improvements that would be constructed as part of the project:

Extension of DePaul Drive. As part of the development of the industrial component of the project, DePaul Drive is proposed to be extended by approximately 2,280 feet south along the industrial site's eastern frontage to provide direct access to the commercial/industrial uses of the project via full access driveways. The extension also will provide access to the future residential component of the project. As proposed, DePaul Drive will terminate as a cul-de-sac just north of Half Road.

Year 2030 Project Trip Generation Estimates

The project proposes a General Plan Amendment (File No. GPA2019-0002) to increase the area of the site designated as Commercial/Industrial and reduce the area of the site designated as Commercial. As a result of the proposed General Plan Amendment, the land uses of the proposed industrial/commercial development plan are of greater intensity than those assumed in the General Plan 2035 forecasts and 2030 cumulative traffic volumes. The TIA calculated the net increase in trips generated by the industrial/commercial components of the proposed project to account for the

increase in development intensity when compared to the City's Traffic Demand Forecasting (TDF) model assumptions.⁷⁸

The TIA estimated the industrial/commercial components of the proposed project would result in an additional 699AM peak hour trips and 629 PM peak hour trips. The net daily increase in trips generated by the industrial/commercial components (with the 20 percent pass-by reduction included) would be 4,449 trips. The net increase in trips was distributed to the roadway network and assigned to specific intersections.

Year 2030 Cumulative Plus Project Level of Service Analysis

The results of the intersection level of service analysis under Year 2030 cumulative plus project conditions are shown below in Table 3.9-3.

Table 3.9-3: Study Intersections Level of Service – Year 2030 Cumulative Plus Project Conditions								
No.	Intersection	Peak Hour	Year 2030 No Project		Year 2030 Plus Commercial/Light Industrial Components			
			Average Delay	LOS	Average Delay¹	LOS	Increase in Critical Delay	Increase in Crit. V/C
1	Monterey Road and Burdett Avenue	AM	16.6	B	16.5	B	0.0	0.001
		PM	13.1	B	13.1	B	0.1	0.002
2	Monterey Road and Madrone Parkway	AM	12.2	B	12.1	B	0.1	0.002
		PM	15.8	B	16.1	B	0.3	0.002
3	Monterey Road and Cochrane Road	AM	30.3	C	30.6	C	0.5	0.013
		PM	26.9	C	27.7	C	0.9	0.013
4	Monterey Road and Old Monterey Road	AM	9.8	A	10.1	B	0.5	0.012
		PM	14.8	B	14.8	B	0.0	0.000
5	Monterey Road and Wright Avenue	AM	22.4	C	22.4	C	0.0	0.000
		PM	23.0	C	23.0	C	0.0	0.000
6	Monterey Road and Central Avenue*	AM	67.0	F	67.0	F	N/A	N/A
		PM	27.0	D	27.0	D		
7	Monterey Road and Main Avenue	AM	47.8	D	49.3	D	1.8	0.026
		PM	49.1	D	51.2	D	2.5	0.028

⁷⁸ The residential component of the proposed project was not included in the 2030 cumulative analysis because there is no current development plan for this portion of the project. The residential trips are included in the 2035 General Plan buildout conditions that are presented in the following pages.

Table 3.9-3: Study Intersections Level of Service – Year 2030 Cumulative Plus Project Conditions

No.	Intersection	Peak Hour	Year 2030 No Project		Year 2030 Plus Commercial/Light Industrial Components			
			Average Delay	LOS	Average Delay ¹	LOS	Increase in Critical Delay	Increase in Crit. V/C
8	Monterey Road and Second Street	AM PM	11.5 16.7	B B	11.5 16.7	B B	0.0 0.0	0.001 0.000
9	Monterey Road and Dunne Avenue	AM PM	29.0 33.2	C C	29.2 33.7	C C	0.1 0.7	0.003 0.014
10	Church Street and Dunne Avenue	AM PM	19.5 25.4	B C	19.8 24.7	B C	0.0 -0.5	0.004 0.020
11	Butterfield Boulevard and Dunne Avenue	AM PM	40.9 35.1	D D	42.5 35.5	D D	2.5 0.8	0.031 0.017
12	Walnut Grove Drive and Dunne Avenue	AM PM	18.9 27.8	B C	19.0 27.7	B C	0.2 0.0	0.014 0.003
13	US 101 Southbound Ramps and Dunne Avenue	AM PM	21.9 21.4	C C	22.0 21.3	C C	0.0 0.0	0.000 0.000
14	US 101 Northbound Ramps and Dunne Avenue	AM PM	6.2 11.3	A B	6.1 11.2	A B	0.0 -0.1	0.002 0.007
15	Condit Road and Dunne Avenue	AM PM	64.8 32.8	E C	73.9 33.9	E C	11.5 1.7	0.042 0.035
16	Murphy Avenue and Dunne Avenue	AM PM	20.5 14.4	C B	20.8 14.3	C B	0.4 0.0	0.015 0.013
17	Butterfield Boulevard and Diana Avenue	AM PM	37.5 35.0	D D	44.4 41.1	D D	9.5 9.1	0.020 0.019
18	Butterfield Boulevard and Main Avenue	AM PM	31.1 36.3	C D	32.5 38.6	C D	2.5 3.6	0.035 0.034
19	Butterfield Boulevard and East Central Avenue	AM PM	19.3 12.6	B B	19.6 12.8	B B	0.5 0.3	0.021 0.017

Table 3.9-3: Study Intersections Level of Service – Year 2030 Cumulative Plus Project Conditions

No.	Intersection	Peak Hour	Year 2030 No Project		Year 2030 Plus Commercial/Light Industrial Components			
			Average Delay	LOS	Average Delay ¹	LOS	Increase in Critical Delay	Increase in Crit. V/C
20	Butterfield Boulevard and Jarvis Drive	AM PM	16.0 17.8	B B	17.4 18.5	B B	2.0 1.0	0.020 0.020
21	Butterfield Boulevard and Sutter Boulevard	AM PM	7.4 16.3	A B	7.5 17.4	A B	0.2 1.4	0.013 0.030
22	Butterfield Boulevard and Cochrane Road	AM PM	12.8 14.8	B B	13.0 14.9	B B	0.2 0.5	0.016 0.011
23	Cochrane Road and Cochrane Circle	AM PM	10.4 12.2	B B	10.4 12.2	B B	0.0 0.2	0.003 0.005
24	Cochrane Road and Sutter Boulevard	AM PM	17.8 17.9	B B	18.0 18.3	B B	0.1 0.5	0.023 0.032
25	Cochrane Road and Madrone Parkway/Cochrane Plaza	AM PM	19.1 32.3	B C	19.0 31.9	B C	0.0 0.4	0.000 0.024
26	US 101 Southbound Ramps and Cochrane Road	AM PM	14.5 22.2	B C	18.5 24.2	B C	6.8 2.9	0.144 0.030
27	US 101 Northbound Ramps and Cochrane Road	AM PM	7.5 11.6	A B	10.4 12.3	B B	4.2 0.8	0.169 0.038
28	DePaul Drive and Cochrane Road	AM PM	26.0 23.3	C C	31.4 <u>133.7</u>	C <u>F</u>	8.0 <u>172.5</u>	0.104 <u>0.579</u>
29	Cochrane Road and Mission View Drive	AM PM	148.0 58.1	F E	<u>243.5</u> <u>125.3</u>	<u>F</u> <u>F</u>	<u>143.4</u> <u>98.4</u>	<u>0.168</u> <u>0.159</u>
30	Mission View Drive and Avenida de los Padres*	AM PM	28.6 37.6	D E	<u>48.8</u> 68.5	<u>E</u> F	N/A	N/A
31	Mission View Drive and Half Road*	AM PM	OVFL OVFL	F F	<u>OVFL</u> OVFL	<u>F</u> F	N/A	N/A

Table 3.9-3: Study Intersections Level of Service – Year 2030 Cumulative Plus Project Conditions

No.	Intersection	Peak Hour	Year 2030 No Project		Year 2030 Plus Commercial/Light Industrial Components			
			Average Delay	LOS	Average Delay ¹	LOS	Increase in Critical Delay	Increase in Crit. V/C
32	DePaul Drive Extension and Half Road (future)	AM PM	- -	- -	- -	- -	- -	- -
33	Main Avenue and Condit Road (controlled)	AM PM	51.5 79.8	D E	<u>75.6</u> <u>138.8</u>	<u>E</u> <u>F</u>	<u>21.4</u> <u>69.7</u>	<u>0.081</u> <u>0.168</u>
34	Murphy Avenue and Main Avenue (future)	AM PM	- -	- -	- -	- -	- -	- -
35	Vista De Lomas and Burdett Avenue*	AM PM	8.6 8.6	A A	8.6 8.6	A A	N/A	N/A
36	Condit Road and Diana Avenue*	AM PM	36.8 26.9	E D	<u>56.8</u> 32.3	<u>F</u> <u>D</u>	N/A	N/A
37	Murphy Avenue and Diana Avenue*	AM PM	13.5 11.0	B B	13.5 11.0	B B	N/A	N/A
38	Condit Road and Tennant Avenue*	AM PM	30.5 89.1	D F	33.1 <u>105.7</u>	D <u>F</u>	N/A	N/A
39	Murphy Avenue and Tennant Avenue	AM PM	127.6 117.8	F F	<u>132.8</u> <u>122.9</u>	<u>F</u> <u>F</u>	N/A	N/A

Notes:

¹ The reported delay and corresponding level of service for signalized and all-way stop-controlled intersections represent the average delay for all approaches at the intersection. The reported delay and corresponding level of service for one- and two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay.

*Denotes an unsignalized intersection.

Bold indicates unacceptable level of service or signal warrant met.

Bold and Underlined indicates a significant impact.

OVFL = Overflow (delay is greater than 250 seconds)

As shown in Table 3.9-3 and based on the City's impact criteria, the commercial/industrial components of the proposed project would result in a significant impact to the following eight intersections operating at unacceptable levels:

- #28 Cochrane Road and DePaul Drive (PM Peak Hour)
- #29 Mission View Drive and Cochrane Road (AM and PM Peak Hours)
- #30 Mission View Drive and Avenida De Los Padres (PM Peak Hour)

- #31 Mission View Drive and Half Road (AM and PM Peak Hours)
- #33 Condit Road and Main Avenue (AM and PM Peak Hours)
- #36 Condit Road and Diana Avenue (AM Peak Hour)
- #38 Condit Road and Tennant Avenue (PM Peak Hour)
- #39 Murphy Avenue and Tennant Avenue (AM and PM Peak Hours)

Although the Monterey Road and Central Avenue intersection (#6) would operate at an unacceptable level under Year 2030 cumulative plus project (industrial and commercial components) conditions during the AM peak, the project would not add any trips to this intersection during the AM peak hour. Therefore, the project would not have a significant impact on this intersection under Year 2030 cumulative plus project conditions. All other study intersections would operate at acceptable levels of service under Year 2030 cumulative without and with the industrial and commercial components of the project, during each of the peak hours analyzed.

Mitigation Measures: The proposed project would implement the following mitigation measure to address deficiencies at the intersections described above:

Cochrane Road and DePaul Drive

At the Cochrane Road and DePaul Drive intersection, traffic associated with the general light industrial/commercial components of the project would degrade the intersection level of service from LOS C (under Year 2030 cumulative no project conditions) to LOS F (under Year 2030 cumulative plus project conditions). This constitutes a significant impact to this intersection based on the City's impact criteria.

MM TRN-C-1.1: *Cochrane Road and DePaul Drive.* The project applicant shall implement MM TRN-1.1 (an exclusive northbound left-turn lane and a separate eastbound right-turn lane at the intersection of DePaul Drive and Cochrane Road) which would improve this intersection's level of service to LOS D during the PM peak hour under Year 2030 cumulative plus industrial/commercial project conditions.

Implementation of MM TRN-C-1.1 would reduce the project's cumulatively considerable contribution to a significant traffic impact at the Cochrane Road and DePaul Drive intersection to less than significant under Year 2030 plus project conditions. The above mitigation would require removal and reconstruction of a curb, gutters, and sidewalk on the southwest corner of the intersection, along the project frontages. However, these improvements would not result in secondary environmental impacts; the improvements would not require tree removal, impact biologically sensitive areas such as riparian corridors, or require significant grading, excavation, or demolition activities. Therefore, with the implementation of the above mitigation, the project would result in less than significant impact cumulative impact (under Year 2030 plus project conditions) at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Cochrane Road and Mission View Drive

The Cochrane Road and Mission View Drive would operate at an unacceptable LOS F during the AM peak hour and LOS E during the PM peak hour under Year 2030 cumulative no project conditions. Traffic associated with the proposed general light industrial/commercial components of the project would cause the critical delay to increase by 143.4 seconds (more than four seconds) during the AM and 98.4 seconds during the PM peak hours and the volume-to-capacity ratio (V/C) to increase by 0.168 (more than 0.01) during the AM and 0.159 during the PM peak hours. This constitutes a significant impact to the intersection based on the City's impact criteria.

MM TRN-C-1.2: *Cochrane Road and Mission View Drive.* The project applicant shall implement mitigation measure MM TRN-1.2 (a second northbound left-turn lane on Mission View Drive and a cycle length adjustment at the Mission View Drive and Cochrane Road intersection). This would improve the intersection's level of service to LOS D during both peak hours under Year 2030 cumulative plus project conditions.

Implementation of MM TRN-C-1.2 would reduce the project's cumulatively considerable contribution to a significant traffic impact at the Cochrane Road and Mission View Drive intersection to less than significant under Year 2030 plus project conditions. The project would not result in secondary environmental impacts. Therefore, with the implementation of the above mitigation, the project would result in less than significant impact cumulative impact (under Year 2030 plus project conditions) at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Mission View Drive and Avenida De Los Padres

The Mission View Drive and Avenida De Los Padres intersection would operate at an acceptable LOS D during the AM peak hour under Year 2030 cumulative conditions without the project. Traffic associated with the general light industrial/commercial components of the project would degrade the intersection level of service to LOS E during the AM peak hour. Additionally, the peak hour traffic signal warrant checks show that the intersection would have traffic volumes that meet thresholds that warrant signalization under Year 2030 Cumulative conditions with the general light industrial/commercial components of the project. This constitutes a significant impact to the intersection based on the City's impact criteria.

MM TRN-C-1.3: *Mission View Drive and Avenida De Los Padres.* Implementation of a traffic signal at this intersection would improve the level of service to LOS B during the AM peak hour under Year 2030 cumulative plus project conditions. The project applicant shall make a fair share contribution toward this improvement.

Implementation of MM TRN-C-1.3 would reduce the project's cumulatively considerable contribution to a significant traffic impact at the Mission View Drive and Avenida De Los Padres intersection to less than significant under Year 2030 plus project conditions. A signal may require reconstruction of curbing and sidewalks to minimize pedestrian crossing distances. These improvements, however, would not result in secondary environmental impacts. Therefore, with the

implementation of the above mitigation, the project would result in less than significant impact cumulative impact (under Year 2030 plus project conditions) at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Mission View Drive and Half Road

The Mission View Drive and Half Road intersection would operate at an unacceptable LOS F during both peak hours under Year 2030 Cumulative conditions without and with the general light industrial/commercial components of project. Additionally, this intersection would have traffic volumes that meet thresholds which warrant signalization under Year 2030 cumulative conditions without and with the general light industrial/commercial components of the project. This constitutes a significant impact to the intersection based on the City's impact criteria.

MM TRN-C-1.4: *Mission View Drive and Half Road.* The project applicant shall install a signal at this intersection as required by mitigation measure MM TRN-1.3 under existing plus project conditions. Implementation of a traffic signal at this location would improve the level of service to LOS D during both peak hours under Year 2030 cumulative with the industrial/commercial components of the project.

The eastern portion of Mission View Drive and Half Road intersection is located in the unincorporated area of Santa Clara County and is outside of the City's jurisdiction. Therefore, implementation of the above improvements will require County approval. Given this intersection is not within the City's jurisdiction and there is no current agreement with the County to implement the above mitigation, the timing of implementation of these improvements is outside of the City's control. Therefore, it is not guaranteed that these improvements would be implemented by 2030. As a result, the cumulative impact to this intersection would be significant and unavoidable under Year 2030 cumulative plus project conditions. **(Significant and Unavoidable Impact)**

Main Avenue and Condit Road

The Main Avenue and Condit Road intersection would operate at an unacceptable LOS E during the PM peak hour under Year 2030 Cumulative no project conditions. Traffic associated with the proposed general light industrial/commercial components of the project would cause the critical delay to increase by 21.4 seconds (more than four seconds) during the AM and 69.7 seconds during the PM peak hours and the V/C to increase by 0.081 during the AM and 0.168 during the PM (more than 0.01) peak hours.

Additionally, the proposed general light industrial/commercial components of the project would cause the level of service to degrade from LOS D (under Year 2030 cumulative no project conditions) to LOS E during the AM peak hour under Year 2030 cumulative plus project conditions at this intersection. This constitutes a significant impact to the intersection based on the City's impact criteria.

MM TRN-C-1.5: *Main Avenue and Condit Road.* The project applicant shall make a fair share contribution toward the addition of an exclusive southbound right-turn lane on Condit Road and an exclusive eastbound right-turn lane on Main Avenue.

The addition of the right-turn lanes will require signal modifications and lane striping on the southbound and eastbound approaches. Implementation of this improvement would improve the intersection's level of service to LOS D during both peak hours under Year 2030 cumulative plus project conditions.

The Main Avenue and Condit Road intersection is under the jurisdiction of Santa Clara County. Therefore, implementation of the recommended improvements will require County approval. Given this intersection is not within the City's jurisdiction and there is no current agreement with the County to implement the above improvements, the timing of implementation of these improvements is outside of the City's control. Therefore, it is not guaranteed that these improvements would be implemented by 2030. As a result, the cumulative impact to this intersection would be significant and unavoidable under Year 2030 cumulative plus project conditions. **(Significant and Unavoidable Impact)**

Condit Road and Diana Avenue

The Condit Road and Diana Avenue intersection would operate at an unacceptable level of service LOS E and F during the AM peak hour under Year 2030 cumulative conditions without and with the general light industrial/commercial components of the project, respectively. Additionally, this intersection would have traffic volumes during the AM peak hour under Year 2030 Cumulative conditions without and with the general light industrial/commercial components project conditions that meet thresholds that warrant signalization. This constitutes a significant impact to the intersection based on the City's impact criteria.

MM TRN-C-1.6: *Condit Road and Diana Avenue.* The project applicant shall make a fair share contribution toward the implementation of a traffic signal at the Condit Road and Diana Avenue intersection. This would improve the intersection's level of service to LOS B during the AM peak hour under Year 2030 cumulative plus project conditions.

Implementation of MM TRN-C-1.6 would reduce the project's cumulatively considerable contribution to a significant traffic impact at the Condit Road and Diana Avenue intersection to less than significant under Year 2030 plus project conditions. The project would not result in secondary environmental impacts. Therefore, with the implementation of the above mitigation, the project would result in less than significant impact cumulative impact (under Year 2030 plus project conditions) at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Tennant Avenue and Condit Road

The Tennant Avenue and Condit Road intersection would operate at an unacceptable LOS F during the PM peak hour under Year 2030 cumulative conditions without and with the general light industrial/commercial components of the project. Additionally, this intersection would have traffic volumes during the PM peak hour under Year 2030 cumulative conditions without and with the general light industrial/commercial components project conditions that meet thresholds that warrant signalization. This constitutes a significant impact to the intersection based on the City's impact criteria.

MM TRN-C-1.7: *Tennant Avenue and Condit Road.* The project applicant shall make a fair share contribution toward the implementation of a traffic signal at this intersection. The traffic signal would improve the intersection's level of service to LOS C during the PM peak hour under Year 2030 cumulative plus project conditions.

Implementation of MM TRN-C-1.7 would reduce the project's cumulatively considerable contribution to a significant traffic impact at the Tennant Avenue and Condit Road intersection to less than significant under Year 2030 plus project conditions. The project would not result in secondary environmental impacts. Therefore, with the implementation of the above mitigation, the project would result in less than significant impact cumulative impact (under Year 2030 plus project conditions) at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Tennant Avenue and Murphy Avenue

The Tennant Avenue and Murphy Avenue intersection would operate at an unacceptable level of LOS F during both the AM and PM peak hours under Year 2030 cumulative conditions without and with the general light industrial/commercial components of the project. Additionally, this intersection would have traffic volumes during both peak hours under Year 2030 cumulative without and with the general light industrial/commercial only project conditions that meet thresholds that warrant signalization. This constitutes a significant impact to the intersection based on the City's impact criteria.

MM TRN-C-1.8: *Tennant Avenue and Murphy Avenue.* The project applicant shall make a fair share contribution toward the implementation of a traffic signal at this intersection. The traffic signal would improve the intersection's level of service to LOS C during both peak hours under Year 2030 cumulative plus project conditions.

Implementation of MM TRN-C-1.8 would reduce the project's cumulatively considerable contribution to a significant traffic impact at the Tennant Avenue and Murphy Avenue intersection to less than significant under Year 2030 plus project conditions. The project would not result in secondary environmental impacts. Therefore, with the implementation of the above mitigation, the project would result in less than significant impact cumulative impact (under Year 2030 plus project conditions) at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Year 2035 General Plan Conditions

The current adopted General Plan land use designations for the 61-acre commercial/industrial portion of the site are Commercial and Commercial/Industrial. The project proposes to reduce the area of the site designated as Commercial and increase the area of the site designated as Commercial/Industrial through a General Plan Amendment (File No. GPA2019-0002); and establish a Planned Development (PD) Combining District over the commercial and industrial project area through a Zoning Amendment (File No. ZA2019-0005).

The residential component of the project is approximately 28 acres with an existing General Plan designation of Residential Attached Low. The project's proposed residential land uses are consistent with the current General Plan land use designations; therefore, a General Plan Amendment is not required for the residential component of the project. The TIA evaluated the residential portion of the project at a programmatic level, assuming a maximum build-out of 319 units.

Year 2035 General Plan traffic forecasts include land use growth and transportation improvements associated with build-out of the City's General Plan as identified in the City's 2010 General Plan Circulation Element. Though not planned as part of the City's General Plan roadway network, a full access intersection from the planned DePaul Drive extension to Half Road is assumed under Year 2035 conditions with the proposed project. In addition, the Year 2035 General Plan transportation network includes the planned widening of US 101 to include an HOV lane in both the southbound and northbound directions between Cochrane Road and Monterey Road in Gilroy and the conversion of the HOV lanes along US 101 within Santa Clara County to express lanes, as identified in the Valley Transportation Plan 2040 adopted by VTA in October 2013.

For a detailed description of the assumed roadway improvements and the methodology used to calculate traffic conditions in Year 2035, refer to the TIA in Appendix H.

Year 2035 Project Trip Generation Estimates

The adopted Year 2035 General Plan land uses for the project site (assumed in the City's TDF model) included 76,000 square feet of research and development space, 33,000 square feet of office space, 44,000 square feet of retail space, and 345 residential units. These uses were assumed to generate 366 AM peak hour trips, 552 PM peak hour trips, and 6,062 daily trips.

Full build-out of the project was compared to the baseline traffic volumes under Year 2035 General Plan conditions. It should be noted that the residential components of the project would not deviate from the development capacity allowed by the General Plan; therefore, they would not result in a net increase beyond Year 2035 General Plan conditions. Thus, the calculations for traffic volumes under Year 2035 General Plan conditions account for the build-out of the residential portion of the project under its current General Plan designation. The net increase in traffic volumes beyond Year 2035 General Plan conditions would result only from the commercial/industrial components of the project.

The TIA estimated the proposed project would result in an additional 680 AM peak hour trips and 603 PM peak hour trips in Year 2035 (when compared to trips generated by Year 2035 General Plan conditions without the project). The net daily increase in trips generated by the industrial/commercial components (with the 20 percent pass-by reduction included) would be 4,203 trips.

Year 2035 General Plan Amendment with Project Level of Service Analysis

The results of the intersection level of service analysis under Scenario 6, Year 2035 General Plan Amendment with Project conditions are shown below in Table 3.9-4.

Table 3.9-4: Study Intersections Level of Service – Year 2035 General Plan Conditions								
No.	Intersection	Peak Hour	Year 2035 No Project		Year 2035 Plus Project Buildout			
			Average Delay ¹	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
1	Monterey Road and Burdett Avenue	AM PM	16.0 25.0	B C	15.9 26.1	B C	-0.1 1.5	-0.001 0.005
2a.	Monterey Road and Madrone Parkway (N)	AM PM	19.0 35.2	B D	18.7 36.7	B D	-0.3 2.1	-0.001 0.005
2b.	Monterey Road and Madrone Parkway (E)	AM PM	14.9 14.0	B B	14.8 14.0	B B	0.0 0.0	-0.003 0.002
3	Monterey Road and Cochrane Road	AM PM	26.9 30.8	C C	26.8 31.2	C C	-1.7 0.5	-0.014 0.006
4	Monterey Road and Old Monterey Road	AM PM	14.1 17.7	B B	14.1 17.7	B B	0.0 0.0	0.001 0.004
5	Monterey Road and Wright Avenue	AM PM	27.6 22.3	C C	27.3 22.5	C C	-0.4 0.2	-0.001 0.004
6	Monterey Road and Central Avenue*	AM PM	240.6 39.4	F E	227.2 40.3	F E	N/A	N/A
7	Monterey Road and Main Avenue	AM PM	99.7 51.9	F D	99.9 51.9	F D	0.1 0.1	0.000 -0.001
8	Monterey Road and Second Street	AM PM	10.8 12.5	B B	10.8 12.4	B B	0.0 0.0	-0.002 0.004
9	Monterey Road and Dunne Avenue	AM PM	30.7 36.7	C D	30.6 36.6	C D	0.0 -0.3	-0.001 -0.004
10	Church Street and Dunne Avenue	AM PM	20.8 25.1	C C	20.8 25.0	C C	0.0 -0.1	-0.001 0.001
11	Butterfield Boulevard and Dunne Avenue	AM PM	38.9 34.8	D C	38.9 34.7	D C	-0.5 -0.1	-0.007 0.002
12	Walnut Grove Drive and Dunne Avenue	AM PM	20.3 28.0	C C	20.1 28.1	C C	-0.3 0.1	-0.006 0.000

Table 3.9-4: Study Intersections Level of Service – Year 2035 General Plan Conditions								
No.	Intersection	Peak Hour	Year 2035 No Project		Year 2035 Plus Project Buildout			
			Average Delay ¹	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
13	US 101 Southbound Ramps and Dunne Avenue	AM PM	21.7 22.3	C C	21.7 22.8	C C	-0.1 0.8	-0.004 0.015
14	US 101 Northbound Ramps and Dunne Avenue	AM PM	6.8 10.8	A B	7.4 10.7	A B	0.5 -0.1	-0.007 0.007
15	Condit Road and Dunne Avenue	AM PM	48.4 30.5	D C	49.6 30.6	D C	1.7 0.2	0.012 0.012
16	Murphy Avenue and Dunne Avenue	AM PM	23.1 16.9	C B	23.7 17.1	C B	0.8 0.1	0.013 0.003
17	Butterfield Boulevard and Diana Avenue	AM PM	22.7 23.5	C C	23.0 23.9	C C	0.4 0.6	0.002 0.004
18	Butterfield Boulevard and Main Avenue	AM PM	31.5 35.7	C D	31.6 36.4	C D	0.3 0.9	0.005 0.011
19	Butterfield Boulevard and Central Avenue	AM PM	17.5 11.3	B B	17.5 11.3	B B	0.0 0.0	0.000 0.000
20	Butterfield Boulevard and Jarvis Drive (S) / Digital Drive	AM PM	12.1 13.2	B B	12.0 13.2	B B	0.0 0.0	-0.001 0.001
21	Butterfield Boulevard and Sutter Boulevard	AM PM	16.2 25.7	B C	16.2 25.8	B C	0.0 0.0	-0.003 -0.001
22	Butterfield Boulevard and Cochrane Road	AM PM	18.8 23.1	B C	18.8 23.0	B C	0.0 0.0	-0.001 0.003
23	Cochrane Circle and Cochrane Road	AM PM	10.0 9.9	B A	10.0 10.0	B A	0.0 0.0	-0.003 0.003
24	Sutter Boulevard and Cochrane Road	AM PM	17.6 22.0	B C	17.6 22.2	B C	-0.1 0.3	0.000 0.006

Table 3.9-4: Study Intersections Level of Service – Year 2035 General Plan Conditions

No.	Intersection	Peak Hour	Year 2035 No Project		Year 2035 Plus Project Buildout			
			Average Delay ¹	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
25	Madrone Parkway/Cochrane Plaza and Cochrane Road	AM PM	18.5 29.0	B C	18.4 28.8	B C	0.0 0.0	-0.004 0.004
26	US 101 Southbound Ramps and Cochrane Road	AM PM	15.0 20.6	B C	15.3 21.6	B C	0.6 1.2	0.029 0.029
27	US 101 Northbound Ramps and Cochrane Road	AM PM	9.6 12.1	A B	10.6 12.2	B B	2.1 0.2	0.062 0.019
28	DePaul Drive and Cochrane Road	AM PM	40.2 68.3	D E	67.7 <u>112.5</u>	E <u>F</u>	64.0 <u>92.8</u>	0.144 <u>0.166</u>
29	Mission View Drive and Cochrane Road	AM PM	18.4 17.4	B B	18.4 17.2	B B	0.1 -0.5	0.004 -0.013
30	Mission View Drive and Avenida de los Padres*	AM PM	17.8 18.4	C C	19.6 18.6	C C	N/A	N/A
31	Mission View Drive and Half Road*	AM PM	28.5 19.3	D C	35.3 20.8	E C	N/A	N/A
32	DePaul Drive Extension and Half Road *	AM PM	14.9 61.7	B F	16.3 <u>86.8</u>	C <u>F</u>	N/A	N/A
33	Condit Road and Main Avenue	AM PM	35.5 62.7	D E	38.0 <u>75.8</u>	D <u>E</u>	5.2 <u>15.9</u>	0.034 <u>0.035</u>
34	Murphy Avenue and Main Avenue*	AM PM	209.3 81.5	F F	<u>222.0</u> <u>100.6</u>	<u>F</u> <u>F</u>	N/A	N/A
35	Vista De Lomas and Burdett Avenue*	AM PM	11.0 9.5	B A	11.1 9.5	B A	N/A	N/A
36	Condit Road and Diana Avenue*	AM PM	17.0 15.3	C C	17.5 15.4	C C	N/A	N/A
37	Murphy Avenue and Diana Avenue*	AM PM	OVFL OVFL	F F	<u>OVFL</u> <u>OVFL</u>	<u>F</u> <u>F</u>	N/A	N/A

Table 3.9-4: Study Intersections Level of Service – Year 2035 General Plan Conditions								
No.	Intersection	Peak Hour	Year 2035 No Project		Year 2035 Plus Project Buildout			
			Average Delay ¹	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
38	Condit Road and Tennant Avenue*	AM PM	24.3 75.1	C F	24.2 <u>75.5</u>	C <u>F</u>	N/A	N/A
39	Murphy Avenue and Tennant Avenue*	AM PM	213.7 OVFL	F F	<u>215.8</u> <u>OVFL</u>	<u>F</u> <u>F</u>	N/A	N/A
Notes: ¹ The reported delay and corresponding level of service for signalized and all-way stop-controlled intersections represent the average delay for all approaches at the intersection. The reported delay and corresponding level of service for one- and two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay. *Denotes an unsignalized intersection. Bold indicates unacceptable level of service or signal warrant met. Bold and <u>Underlined</u> indicates a significant impact. OVFL = Overflow (delay is greater than 250 seconds)								

As shown in Table 3.9-4 and based on the City’s impact criteria, the proposed project would result in a significant impact to the following intersections under Year 2035 General Plan plus project conditions:

- #28 Cochrane Road and DePaul Drive (PM Peak Hour)
- #32 DePaul Drive Extension and Half Road (PM Peak Hour)
- #33 Condit Road and Main Avenue (PM Peak Hour)
- #34 Murphy Avenue and Main Avenue (unsignalized) (AM and PM Peak Hours)
- #37 Murphy Avenue and Diana Avenue (unsignalized) (AM and PM Peak Hours)
- #38 Tennant Avenue and Condit Road (unsignalized) (PM Peak Hour)
- #39 Murphy Avenue and Tennant Avenue (unsignalized) (AM and PM Peak Hours)

The above intersections would operate at an unacceptable level of service under Year 2035 General Plan with project conditions. Although the Monterey Road and Central Avenue intersection (#6) would operate LOS F under Year 2035 General Plan with project conditions during the AM peak hour, the project would not add trips to the intersection during AM peak hour. As a result, the project would not result in a significant impact to this intersection.

All other study intersections are projected to operate at acceptable levels of service under Year 2035 General Plan without and with project buildout conditions during each of the peak hours analyzed.

Mitigation Measures: The proposed project would implement the following mitigation measure to address deficiencies at the intersections described below:

Cochrane Road and DePaul Drive

Traffic associated with buildout of the project would degrade the intersection level of service from acceptable LOS E (under Year 2035 General Plan with no project conditions) to LOS F during the PM peak hour at the Cochrane Road and DePaul Drive intersection under Year 2035 General Plan with project conditions. This constitutes a significant impact to the intersection based on the City's impact criteria.

MM C-TRN-2.1: *Cochrane Road and DePaul Drive.* The project applicant shall implement mitigation measure MM TRN-1.1 (an exclusive northbound left-turn lane and a separate eastbound right-turn lane at the intersection of DePaul Drive and Cochrane Road). This would improve this intersection's level of service to LOS C during the PM peak hour under Year 2035 General Plan plus project conditions.

Implementation of MM TRN-C-2.1 would reduce the project's cumulatively considerable contribution to a significant traffic impact at the Cochrane Road and DePaul Drive intersection to less than significant under Year 2035 General Plan plus project conditions. The above mitigation would require removal and reconstruction of a curb, gutters, and sidewalk on the southwest corner of the intersection, along the project frontages. However, these improvements would not result in secondary environmental impacts; the improvements would not require tree removal, impact biologically sensitive areas such as riparian corridors, or require significant grading, excavation, or demolition activities. Therefore, with the implementation of the above mitigation, the project would result in less than significant impact cumulative impact (under Year 2035 General Plan plus project conditions) at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Half Road and DePaul Drive

The Half Road and DePaul Drive intersection would operate at an unacceptable level of service (LOS F) during the PM peak hour under Year 2035 General Plan conditions without and with the buildout of the project. Additionally, the intersection would have traffic volumes under Year 2035 General Plan without and with buildout of the project that meet thresholds that warrant signalization. This constitutes a significant impact to the intersection based on the City's impact criteria.

MM C-TRN-2.2: *Half Road and DePaul Drive.* A full access intersection will be provided at the Half Road and De Paul Drive intersection under Year 2035 General Plan with project conditions (as a General Plan roadway improvement). Turn movements at the De Paul Drive and Half Road intersection shall be restricted to right-turns only. The turn restriction will restrict the use of De Paul Drive and Condit Road as cut-through routes. Implementation of the turn restrictions at the De Paul Drive and Half Road intersection along with a traffic signal at Mission View Drive and Half Road (planned improvement) would result in LOS B conditions during the PM peak hour at the Half Road

and DePaul Drive intersection under Year 2035 General Plan with the project conditions.

Implementation of MM TRN-C-2.2 would reduce the project's cumulatively considerable contribution to a significant traffic impact at the Half Road and DePaul Drive intersection to less than significant under Year 2035 General Plan plus project conditions. The project would not result in secondary environmental impacts. Therefore, with the implementation of the above mitigation, the project would result in less than significant impact cumulative impact (under Year 2035 General Plan plus project conditions) at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Main Avenue and Condit Road

The Main Avenue and Condit Road intersection would operate at an unacceptable LOS E during the PM peak hour under Year 2035 General Plan no project conditions. Traffic associated with the proposed project would cause the critical delay to increase by 15.9 seconds (more than four seconds) and the V/C to increase by 0.035 (more than 0.01) during the PM peak hour.

MM C-TRN-2.3: *Main Avenue and Condit Road.* The project applicant shall make a fair share contribution toward the addition of an exclusive southbound right-turn lane on Condit Road. Implementation of this improvement would improve the intersection's level of service to LOS D during the PM peak hour under Year 2035 General Plan plus project conditions.

The Main Avenue and Condit Road intersection is under the jurisdiction of Santa Clara County. Therefore, implementation of the recommended improvements will require County approval. Given this intersection is not within the City's jurisdiction and there is no current agreement with the County to implement the above improvements, the timing of implementation of these improvements is outside of the City's control. Therefore, it is not guaranteed that these improvements would be implemented by 2035. As a result, the cumulative impact to this intersection would be significant and unavoidable under Year 2035 General Plan plus project conditions. **(Significant and Unavoidable Impact)**

Main Avenue and Murphy Avenue

The Main Avenue and Murphy Avenue intersection would operate at an unacceptable level of service (LOS F) during both peak hours under Year 2035 General Plan conditions without and with buildout of the project. Additionally, this intersection would have traffic volumes under Year 2035 General Plan without and with buildout of the project conditions that meet thresholds that warrant signalization. This constitutes a significant impact to the intersection based on the City's impact criteria.

MM C-TRN-2.4: *Main Avenue and Murphy Avenue.* The signalization of this intersection will be completed concurrently with the planned extension of Murphy Avenue from Diana Avenue to Half Road. The project applicant shall make a fair share toward the installation of a traffic signal at the Main Avenue and Murphy Avenue intersection. With implementation of a traffic signal at this

Main Avenue and Murphy Avenue intersection, the level of service would improve to LOS D and C during the AM and PM peak hours, respectively, under Year 2035 General Plan with the project conditions.

Implementation of MM TRN-C-2.4 would reduce the project's cumulatively considerable contribution to a significant traffic impact at the Main Avenue and Murphy Avenue intersection to less than significant under Year 2035 General Plan plus project conditions. The project would not result in secondary environmental impacts. Therefore, with the implementation of the above mitigation, the project would result in less than significant impact cumulative impact (under Year 2035 General Plan plus project conditions) at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Tennant Avenue and Condit Road

The Tennant Avenue and Condit Road intersection would operate at an unacceptable LOS F during the PM peak hour under Year 2035 General Plan without and with the buildout of the project. Additionally, this intersection would have traffic volumes during the PM peak hour under Year 2035 General Plan conditions without and with the project conditions that meet thresholds that warrant signalization. This constitutes a significant impact to the intersection based on the City's impact criteria.

MM C-TRN-2.5: *Tennant Avenue and Condit Road.* The project applicant shall make a fair share contribution toward the implementation a traffic signal at this intersection. With implementation of this improvement, this intersection would operate at LOS B conditions during the PM peak hour under Year 2035 General Plan plus project conditions.

Implementation of MM TRN-C-2.5 would reduce the project's cumulatively considerable contribution to a significant traffic impact at the Tennant Avenue and Condit Road intersection to less than significant under Year 2035 General Plan plus project conditions. The project would not result in secondary environmental impacts. Therefore, with the implementation of the above mitigation, the project would result in less than significant impact cumulative impact (under Year 2035 General Plan plus project conditions) at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

Tennant Avenue and Murphy Avenue

The Tennant Avenue and Murphy Avenue intersection would operate at an unacceptable level of service (LOS F) during both the AM and PM peak hours under Year 2035 General Plan conditions without and with buildout of the project. Additionally, this intersection would have traffic volumes during both peak hours under Year 2035 General Plan without and with buildout of the project conditions that meet thresholds that warrant signalization. This constitutes a significant impact to the intersection based on the City's impact criteria.

MM C-TRN-2.6: *Tennant Avenue and Murphy Avenue.* The project applicant shall make a fair share contribution toward the implementation of a traffic signal at this intersection. With implementation of this improvement, the level of service

would improve to LOS D during both peak hours under Year 2035 General Plan plus project conditions.

Implementation of MM TRN-C-2.6 would reduce the project's cumulatively considerable contribution to a significant traffic impact at the Tennant Avenue and Murphy Avenue intersection to less than significant under Year 2035 General Plan plus project conditions. The project would not result in secondary environmental impacts. Therefore, with the implementation of the above mitigation, the project would result in less than significant impact cumulative impact (under Year 2035 General Plan plus project conditions) at this intersection. **(Less than Significant Cumulative Impact with Mitigation Incorporated)**

3.10 UTILITIES AND SERVICE SYSTEMS

The following discussion is based, in part, on a Water Supply Assessment (WSA) and a WSA Memorandum prepared for the proposed project by *Todd Groundwater* on August 20, 2019 and February 26, 2020, respectively. The reports are included in Appendix I of this DEIR.

3.10.1 Environmental Setting

3.10.1.1 *Regulatory Framework*

State and Regional

Urban Water Management Plan

Pursuant to the State Water Code, water suppliers providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 acre-feet (approximately 980 million gallons) of water annually must prepare and adopt an urban water management plan (UWMP) and update it every five years. As part of a UWMP, water agencies are required to evaluate and describe their water resource supplies and projected needs over a 20-year planning horizon, water conservation, water service reliability, water recycling, opportunities for water transfers, and contingency plans for drought events. The City of Morgan Hill adopted its most recent UWMP in August 2016.

Wastewater

The South County Regional Wastewater Authority (SCRWA) manages the treatment of wastewater for the Cities of Morgan Hill and Gilroy. Wastewater in Morgan Hill is treated at the SCRWA Wastewater Treatment Plant in Gilroy. Effluent from the Plant is discharged into percolation ponds, and then discharged into the Monterey Bay.⁷⁹

Assembly Bill 939

The California Integrated Waste Management Act of 1989, or Assembly Bill 939 (AB 939), established the Integrated Waste Management Board, required the implementation of integrated waste management plans, and mandated that local jurisdictions divert at least 50 percent of solid waste generated (from 1990 levels), beginning January 1, 2000, and divert at least 75 percent by 2010. Projects that would have an adverse effect on waste diversion goals are required to include waste diversion mitigation measures.

Assembly Bill 341

Assembly Bill (AB) 341 sets forth the requirements of the statewide mandatory commercial recycling program in the Public Resources Code. All businesses that generate four or more cubic yards of garbage per week and multi-family dwellings with five or more units in California are required to recycle. AB 341 sets a statewide goal for 75 percent disposal reduction by the year 2020.

⁷⁹ City of Gilroy. South County Regional Wastewater Authority. Accessed July 12, 2019.
<http://www.ci.gilroy.ca.us/561/South-County-Regional-Wastewater-Authori>.

Senate Bill 1383

Senate Bill (SB) 1383 establishes targets to achieve a 50 percent reduction in the level of the statewide disposal of organic waste from the 2014 level by 2020 and a 75 percent reduction by 2025. The bill grants CalRecycle the regulatory authority required to achieve the organic waste disposal reduction targets and establishes an additional target that not less than 20 percent of currently disposed edible food is recovered for human consumption by 2025.

Senate Bill 610

Senate Bill (SB) 610 requires public water agencies, parties or purveyors that may supply water to certain proposed development projects to prepare a WSA for use by the City in environmental documentation for such projects. Under SB 610, developments that contain more than 650,000 square feet of industrial floor space, provide more than 500 dwelling units, and occupy more than 40 acres of land are required to prepare a WSA. SB 610 requires documentation of water supply sources, quantification of water demands, evaluation of drought impacts, and provision of a comparison of water supply and demand to assess water supply sufficiency. The proposed project meets the requisites described above and the City as the water retailer has prepared a WSA pursuant to SB 610.

Local

City of Morgan Hill 2035 General Plan

The following goal and policies to reduce impacts to utilities are applicable to the proposed project:

- Goal SSI-14:* High quality water resources, managed effectively.
- Policy SSI-14.5:* **Water Supply.** Routinely evaluate the impact of new development proposals in Morgan Hill and require appropriate measures (fees, water supply assessments, etc.) to ensure long-term water supplies are available.
- Policy SSI-14.8:* **Sufficient Supply.** Ensure that new development does not exceed the water supply.
- Goal SSI-16:* Minimized adverse effects on property, natural resources, and ground and surface water quality from stormwater runoff.
- Policy SSI-16.2:* **Drainage System Capacity.** Ensure that the level of detention or retention provided on the site of any new development is compatible with the capacity of the regional storm drainage system.

3.10.1.2 Existing Conditions

Water Service

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, 12 potable water storage tanks, 10 booster stations, and over 180 miles of pressured pipes ranging from two to 14 inches in diameter. The City's water distribution system meets the needs of existing customers. In anticipation of future growth, the City has planned and constructed water projects in conjunction with new street construction. The Main Avenue and Madrone Pipeline Restoration project is underway in the project area and is expected to be completed prior to project implementation. The Restoration project is to restore existing water delivery infrastructure along Main Avenue, Cochrane Road, and Half Road to full operating capacity.

The City of Morgan Hill relies on groundwater as its sole source of supply. The City relies on water imports from the State Water Project and the federal Central Valley Project for the purpose of groundwater recharge of the sub-basins that supply water to the City (Coyote Valley sub-area of the Santa Clara sub-basin and the Llagas sub-basin). The City's 2016 Urban Water Management Plan (UWMP) identified potential shortages which may occur during prolonged years of drought, however, upon implementation of water shortage contingency actions these shortages in supply can be mitigated in dry-year and multiple dry-year scenarios.⁸⁰

The project site is largely undeveloped and consists of an existing orchard, fallowed agricultural fields, a tree nursery, and two rural residential structures (one of which is unoccupied). The existing water demand of the project site is summarized below in Table 3.10-1.

Table 3.10-1: Current On-Site Water Use			
Water Use Category on Project Site	City-Supplied Water Use¹	Private Well Use²	Total Water Use (Acre-Feet per Year)
Two Rural Residences	0.22	0.64	0.86
Agriculture (containerized tree nursery)	-	53.7	53.7
Total Current Water Use	0.22	54.34	54.56
Notes: ¹ City water use is an average of 2010-2018 water deliveries to one residential property on the project site. Data are from City billing records. An additional eight percent was added to include City-wide unaccounted-for water based on 2015 unaccounted-for water in the 2015 UWMP. ² Private well water use provided by property seller and based on Santa Clara Valley Water District water billing records for the past two years for Well 09503E16J005 (non-agricultural) and Well 09503E16Q001 (agricultural). Water use has reportedly been steady for the last 10 years.			

As shown in the above table, total current water use at the project site is 54.56 AFY, with the majority coming from agricultural irrigation supplied by private wells. The City of Morgan Hill supplies water to the residential property on Cochrane Road. The existing water utilities in the project area include 12-inch diameter pipes in Cochrane Road and De Paul Drive, 10- and 12-inch diameter pipes in Half Road, and eight- and 10-inch pipes in Mission View Drive.⁸¹

⁸⁰ City of Morgan Hill. *2015 Urban Water Management Plan*. August 2016.

⁸¹ City of Morgan Hill. *Water System Master Plan*. Figure ES.2. October 2017.

Wastewater

The City of Morgan Hill sewer collection system consists of approximately 160 miles of four-inch through 30-inch diameter sewers, three miles of force mains, and 14 sewage lift stations. The “backbone” of the system consists of the trunk sewers, generally 12-inches in diameter and larger, that convey the collected wastewater flows south to the South County Regional Wastewater Authority (SCRWA) Wastewater Treatment Plant.^{82,83} The treatment plant provides service to the cities of Morgan Hill and Gilroy. The treatment plant has capacity to treat an average dry weather flow (ADWF) of 8.5 million gallons per day (mgd) and is currently permitted by the Central Coast RWQCB to treat up to 8.5 mgd.⁸⁴ Currently, Morgan Hill is allocated 42 percent of the treatment plant’s 8.5 mgd capacity, amounting to 3.6 mgd. In 2016, the ADFW in the City was 2.8 mgd, leaving approximately 0.8 mgd of allowable growth within the City’s General Plan before capacity at the plant is reached.⁸⁵ Existing sewer utilities in the project area consist of 10-inch diameter gravity pipes in Cochrane Road and gravity pipes in De Paul Drive and Mission View Drive.⁸⁶

Using data through 2016, the SCRWA estimated in 2017 that the Wastewater Treatment Plant will reach capacity in 2025, using anticipated permit issuances/associated wastewater allocations and projected population data for the cities of Morgan Hill and Gilroy.⁸⁷ The SCRWA recommends that a fully commissioned plant expansion be completed by 2024 to ensure that the treatment plan has adequate capacity to service both cities. Following completion of the design process, appropriate project-level CEQA review would be completed by SCRWA.

The City of Morgan Hill has recently completed significant capital upgrades to increase the capacity of the existing sewer system and reduce overflows. The City completed construction of the Highland Avenue Sewer Upgrade project to provide additional trunk capacity near the intersection of Harding and Highland Avenues in 2018. The City is facilitating infiltration and inflow reduction projects to reduce the amount of rainwater infiltrating the sewer collection system. In addition, a second trunk sewer line is planned to extend from the Highland/Harding intersection in Morgan Hill to Rentz Road in Gilroy, which would allow for additional wastewater deliveries to the SCRWA Wastewater Treatment Plant. The trunk sewer line is under design review.⁸⁸

Storm Drainage

The City of Morgan Hill is divided into several hydrologically distinct drainage areas. Each drainage area has a system of curb and gutter facilities, inlets, conveyance facilities, pumps, and detention

⁸² City of Morgan Hill. *Sewer System Master Plan*. October 2017.

⁸³ City of Morgan Hill. *City Council State Report 2163: Accept Report Regarding Wastewater System Needs and Rate Study Schedule*. May 18, 2019.

⁸⁴ Santa Clara Valley Water District. *US Bureau of Reclamation WaterSMART Title XVI Water Reclamation and Reuse Program Funding FY 2017, FOA BOR-DO-17-F002. South Santa Clara County Recycled Water Project (Phases 1B and 2A)*. December 15, 2016. Accessed July 12, 2019.
<https://www.usbr.gov/watersmart/title/docs/applications/authorized/2017/F002-007santaclara.pdf>

⁸⁵ City of Morgan Hill. *Sewer System Management Plan*. Page 53. February 2018.

⁸⁶ City of Morgan Hill. *Sewer System Master Plan*. Figure ES.3. October 2017.

⁸⁷ California Regional Water Quality Control Board. *Waste Discharge Requirements for the South County Wastewater Authority South County Regional Wastewater Treatment and Reclamation*. Order No. R3-2017-0028, NPDES No. CA0049964. Accessed July 15, 2019.
https://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2017/2017_0028_permit.pdf.

⁸⁸ City of Morgan Hill. City Council Staff Report 2163. February 6, 2019.

basins to collect and dispose of runoff. The stormwater runoff from these areas is ultimately discharged into creeks that flow through the City and are tributary to either Monterey Bay or San Francisco Bay. The drainage areas include Coyote Creek, Fisher Creek, Tennant Creek, Madrone Channel, Butterfield Channel, West Little Llagas Creek, and Llagas Creek.

The project site is located in the Madrone Channel drainage basin.⁸⁹ The Madrone Channel (managed by the Santa Clara Valley Water District) is located along the western perimeter of the site, parallel to the US 101. The Madrone Channel carries stormwater runoff from the area and also functions as a groundwater recharge basin. Any water that does not infiltrate locally is conveyed from the site via stormwater pipes in Mission View Drive, De Paul Drive, and Cochrane Road to the Madrone Channel, where it is then transported to detention basins and ultimately, the Monterey Bay.

Solid Waste

Recology South Valley provides solid waste and recycling services to the residents and businesses of the City. Recology South Valley is contracted with the Salinas Valley Solid Waste Authority for the disposal of municipal solid waste at Johnson Canyon Sanitary Landfill. Johnson Canyon Sanitary Landfill is expected to reach capacity in 2055.⁹⁰ There is a negligible amount of solid waste currently generated at the project site.

Other Utilities

The project site is largely vacant and electricity, natural gas, and/or telecommunication facilities serving the site are limited to the two residential buildings on-site (one of which is vacant). Electricity is also used to irrigate the tree farm in the northern portion of the site. Pacific Gas & Electric Company supplies the electricity and natural gas to the residential, commercial, and industrial developments in the project area. Refer to Section 3.5, Energy for a discussion of electricity and natural gas use of the proposed project.

3.10.2 Impact Discussion

For the purpose of determining the significance of the project's impact on utilities and service systems, would the project:

- 1) Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
- 2) Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
- 3) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

⁸⁹ City of Morgan Hill. *Storm Drainage Master Plan*. Figure 4.1. September 2018.

⁹⁰ CalRecycle. *SWIS Facility Detail: Johnson Canyon Sanitary Landfill (27-AA-0005)*. Accessed July 12, 2019. <https://www2.calrecycle.ca.gov/swfacilities/Directory/27-AA-0005>.

- 4) 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?
- 5) Negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals?
- 6) Be noncompliant with federal, state, and local management and reduction statutes and regulations related to solid waste?

3.10.2.1 *Project Impacts*

Impact UTL-1:	The project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. (Less than Significant Impact)
----------------------	--

The proposed project would install new on-site storm drains, water lines, and sanitary sewer lines that would connect to existing utility lines in the adjacent roadways. The project would establish new utility connections for electric power, natural gas lines, and telecommunications facilities that would connect to existing utility lines in the project area.

Water Facilities

The proposed project would abandon the existing agricultural wells on-site and connect to existing water lines in the surrounding roadways. The water main along De Paul Drive would be extended, with private domestic water and fire protection services extended into the site to serve the proposed buildings. The construction of lateral connections would occur during grading and would result in minimal impacts. As is discussed under Impact UTL-2, the City has sufficient water supply with existing commitments to meet the demands of the proposed project. Therefore, the proposed project would not result in significant environmental impacts due to the construction of additional facilities to meet project demand. **(Less than Significant Impact)**

Sanitary Sewer and Wastewater Treatment

The proposed project would connect to an existing eight-inch sanitary sewer stub south of Cochrane Road that is at a depth sufficient to provide service to the project. The construction of lateral connections would occur during grading and would result in minimal impacts. An alternate design would be to extend sanitary sewer from East Main Ave northerly along Condit Road and Half Road if the needs of the future residential development dictate a main extension coming from the south. This alternate design would undergo supplemental environmental review at the time the residential development entitlements are processed if the alternate design is determined necessary. The design of the utility system serving the project would be reviewed by the Public Works Department to ensure that all sewer lines have adequate capacity to meet the demands of the various project components. Additionally, extending sewer service from East Main Avenue would not result in secondary environmental impacts, such as tree removal or removal of prime agricultural land. Any future sewer extensions necessitated by the residential project would be evaluated at the time of a specific development proposal and the project applicant may be required to make a fair share contribution to

such upgrades. The SCWRA Wastewater Treatment Plant would not need to be expanded or relocated to accommodate the increase in wastewater created by the proposed development (refer to Impact UTL-3). Therefore, the project would have a less than significant impact related to the relocation or construction of new wastewater treatment facilities. **(Less than Significant Impact)**

Storm Drainage

The proposed industrial project includes stormwater treatment and detention areas on the edges of the site to capture surface runoff from the increased impervious surface areas. Stormwater runoff would be treated on-site and conveyed to the City's system via public storm drains in Cochrane Road and Half Road. The commercial project on Cochrane Road would utilize existing storm drain lines in Cochrane Road to convey runoff to the Madrone Channel. The Madrone Channel would accept runoff generated on-site from three existing outfalls and would not require expansion or relocation to accommodate the industrial/commercial component of the project. The future residential project would establish its own stormwater drainage system which would likely convey stormwater runoff to City's drainage system via existing storm drain lines in Half Road. At the time of a specific development proposal for the residential portion of the site, it will be reviewed for compliance with Provision C.3 of the MRP and the City's Stormwater Management Guidance Manual for Low Impact Development and Post-Construction Requirements. This would ensure that the project does not place a substantial new demand on the City's drainage system, as stormwater runoff from new impervious surfaces would be reduced or retained on-site.

The project would be consistent with the City's Stormwater Management Guidance Manual for Low Impact Development and Post-Construction Requirements and Storm Drainage Master Plan. The proposed project would not require expansion of the City's existing storm drainage system. The final drainage system design for the project would be subject to review and approval by the City's Public Works Department, who would confirm that the proposed project would not result in an exceedance of existing capacity. **(Less Than Significant Impact)**

Electric Power, Natural Gas, and Telecommunications

The project would connect to existing electric power, natural gas, and telecommunication lines in the project area. Gas and electric utilities would be extended along with De Paul Drive in coordination with PG&E. The proposed buildings would connect to existing electrical lines along Half Road. Other utilities such as fiber optic, telephone, and cable would also be extended along Half Road and into the site to service the buildings. The project would not result in a significant environmental effect from the construction or relocation of natural gas, electricity, or telecommunication utilities. **(Less than Significant Impact)**

Impact UTL-2: The project would not have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years. **(Less than Significant Impact)**

Project Water Demand

The WSA memorandum prepared for the project assumed a maximum development of approximately 1,139,600 square feet of industrial and commercial space and 319 residential units. Water demand factors were based on (1) the City of Morgan Hill Water System Master Plan (2017), which accounts for the use of water-conserving fixtures and drought tolerant landscaping in new development, and (2) typical factors based on number of units or building areas.⁹¹ The overall water demand of the project was calculated by averaging the values based on the two sets of demand factors. Table 3.10-2 below shows the estimated water demand of the proposed project.

Table 3.10-2: Project Water Demands				
Parcel	Area (Acres)	Land Use	Water Demand based on Water System Master Plan net area ¹ (AF)	Water Demand based on units or building area ² (AF)
<i>Commercial</i>				
Commercial	2.92	50,000 sf.	4.42	7.25
<i>Industrial</i>				
Industrial Lot 1 (Building A)	12.19	212,100 sf	15.29	30.75
Industrial Lot 2 (Building B)	10.89	219,600 sf	13.66	31.84
Industrial Lot 3 (Building C)	4.80	79,900 sf	6.02	11.59
Industrial Lot 4 (Building D)	9.16	193,000 sf	11.49	27.99
Industrial Lot 5 (Building E)	8.53	173,000 sf	10.70	25.09
Industrial Lot 6 (Building F)	9.16	167,000 sf	11.49	24.22
Industrial Lot 7	2.31	45,000 sf	2.90	6.53
Other	1.13	Parking, landscaping, stormwater treatment	2.13	Included in rates above

⁹¹ The Water Supply Assessment (dated August 20, 2019) was based on 1,105,000 industrial/warehouse (including the 45,000 industrial office space), 50,000 square foot of commercial space, and 319 residential units. The proposed general light industrial space would be approximately 1,089,600 square feet (assumed in the WSA memorandum dated February 26, 2020) and would generate less water demand than what was analyzed in the Water Supply Assessment. The industrial/warehouse and general light industrial water demand factors are the same. Personal Communications: White, Katie, PE, Todd Groundwater. *Re: Morgan Hill Technology Center Water Supply Assessment*. November 26, 2019.

Table 3.10-2: Project Water Demands				
Parcel	Area (Acres)	Land Use	Water Demand based on Water System Master Plan net area ¹ (AF)	Water Demand based on units or building area ² (AF)
Residential				
Detached	7.00	80 units	13.33	16.00
Attached	21.00	239 units	44.70	47.80
Total Project Water Use	89.00	1,139,600 sf + 319 units	136.13	229.06
Average			182.60	
Notes:				
AF =acre-feet Sf = square feet				
1. Demand factors based on net area are included in the City’s Water System Master Plan Table 3.4 column entitled: Recommended Factor. Used Residential Detached Medium, Residential Attached Low, Commercial, Commercial/Industrial, and Landscape Irrigation factors.				
1.254 SF/acre (equivalent to 1,120 gallons per day/net acre) was used to calculate water demand (for industrial use), 1.512 AF/acre for commercial, 1.904 AF/acre (1,700 gpd/net acre) for detached residential units, and 2.128 AF/acre (1,900 gpd/net acre) for attached units.				
2. 0.000145 AF/sf industrial/commercial water use rate (which was used to calculate the project water demand based on units or building area) from Mountain View, CA – Preliminary Water Demand Estimates for Planned Projects with the City of Mountain View. 0.20 AF/unit from Paso Robles 2015 UWMP for single-family homes. City demand factors based on units or building area were not available and therefore demand factors for representative projects from similar communities were utilized.				

As shown in Table 3.10-2, the proposed project would result in a gross water demand of 182.60 acre-feet per year (AFY), or approximately 59.5 million gallons per year.⁹² When taking into account the existing water use on-site which is 54.56 AFY, the project would result in a net increase of 128.04 AFY, or 41.72 million gallons per year. It is assumed that full buildout of the project would be completed by 2030.

Total water use in the City of Morgan Hill is expected to increase to 8,549 AFY in 2020, 9,155 AFY in 2025, and 9,760 AFY in 2030. Estimates of water use increases are based on expected population growth in the City. The population increases and water demand projections of the proposed project were compared to those of the UWMP to determine if the water demand of the project is included in the UWMP planning projections. Assuming an average of 3.15 occupants per residential unit, the project would result in 1,005 new residents. The UWMP expects a population increase of 6,800 persons to occur between 2020 and 2030; therefore, the project’s population increase is accounted for in UWMP population projections. The UWMP expects an increase of 1,706 AFY for single-family and multi-family development water demand between 2020 and 2040. The project would use

⁹²1 acre-foot = 325,851.43 gallons

approximately 61 AFY (four percent) of the water demand allotted for single-family plus multi-family growth set forth in the UWMP. The UWMP expects an increase of 238 AFY in commercial/industrial/institutional water demand citywide between 2020 and 2040. The proposed project would use 122 AFY (approximately 51 percent) of the projected demand set forth for these land uses in the UWMP. The project proposes a General Plan Amendment to reduce the area of land designated Commercial and increase the area of land designated Commercial/ Industrial; this would allow for greater industrial development on-site as compared to the existing General Plan designations.

The City's General Plan assumed development of 344 multi-family residential units, 41,160 square feet of commercial/retail space, and 75,520 square feet of industrial space across the 89-acre site.

Water Supply Reliability

The WSA compared supply and demand during normal, single-dry, and multiple-dry years for a 20-year projection. On an annual basis, the City has been able to provide sufficient supplies to meet demand during normal, single-dry, and multiple-dry year periods. The proposed project is included within the population and water demand projections included in the UWMP. The proposed General Plan Amendment would allow for increased industrial uses on the site; this would marginally reduce expected water demand relative to the UWMP assumptions, which are based on General Plan buildout. In addition, the proposed residential uses are consistent with allowable density under the current General Plan designation. Therefore, the project is included as part of the expected citywide demand increases through 2040. The UWMP found that the City will continue to adequately meet increased demands within its jurisdiction for normal, single-dry and multiple-dry year scenarios through 2040. Thus, the estimated net increase in demand on the site of 128.04 AFY⁹³ would be adequately supplied by existing sources.

The City's sole source of water supply, groundwater from the Llagas and Santa Clara subbasins, is a shared resource managed by Valley Water through the Sustainable Groundwater Management Act (SGMA) process. The 2018 Water Year Report for SGMA reporting concluded that Valley Water's comprehensive recharge programs continue to support a balanced long-term water budget for the two subbasins. The ongoing, active management of these Llagas and Santa Clara subbasins will ensure that there is reliable long-term supply of water for the proposed project. **(Less than Significant Impact)**

Impact UTL-3: The project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. **(Less than Significant Impact)**

The proposed project would generate approximately 138,562 gallons (or 0.139 million gallons) of wastewater per day.⁹⁴ As discussed in Section 3.10.1.2, the SCRWA Wastewater Treatment Plant,

⁹³ 182.60 AFY (water demand for proposed development) – 54.56 AFY (existing water demand) = 128.04 AFY

⁹⁴ 182.60 AFY = 59,500,472 gallons per year/365 days = 163,015 gallons of water per day). 1 AF = 325,851.43 gallons. Based on 85 percent of water demand, wastewater generated by the project would be approximately 136,916 gallons per day.

which serves the Cities of Morgan Hill and Gilroy, has approximately 0.8 mgd of remaining capacity allocated for the City of Morgan Hill. The project's wastewater flows would not cause the Plant to exceed capacity. While the project would deviate from the General Plan land use designations used to calculate expected wastewater increases, the increased industrial area proposed by the project would not substantially increase demand beyond what is expected in the General Plan and Sanitary Sewer System Master Plan. The project would not result in a determination by the SCRWA that it does not have adequate capacity to serve the wastewater treatment demands of the project. **(Less than Significant Impact)**

Impact UTL-4: The project would not generate solid waste in excess of state or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. **(Less than Significant Impact)**

The City of Morgan Hill has contracted with Recology South Valley to provide solid waste disposal and recycling service within the City. Recology South Valley will dispose of solid waste from the City at Johnson Canyon Sanitary Landfill which has a projected permitted capacity of approximately 13,830,000 cubic yards (3,734,100 tons) and is expected to remain open through 2055.⁹⁵ The project would generate approximately 1,790 tons of solid waste per year.⁹⁶ The proposed project would increase the rate of solid waste generated at the site but would not result in an exceedance of the capacity of local infrastructure. **(Less than Significant Impact)**

Impact UTL-5: The project would not negatively impact the provision of solid waste services or impair the attainment of solid waste reduction goals. **(Less than Significant Impact)**

The proposed project would be consistent with the state's solid waste reduction goal 75 percent by 2025. The proposed project uses would be required to direct and recycle waste consistent with federal, state, and local requirements. Thus, the project would not impair the attainment of solid waste reduction goals. **(Less than Significant Impact)**

Impact UTL-6: The project would not be noncompliant with federal, state, and local management and reduction statutes and regulations related to solid waste. **(No Impact)**

As discussed under Impact UTL-5, the project would comply with local, state, and federal regulations related to solid waste. **(No Impact)**

⁹⁵ CalRecycle. *SWIS Facility Detail: Johnson Canyon Sanitary Landfill (27-AA-0005)*. Accessed July 16, 2019. <https://www2.calrecycle.ca.gov/swfacilities/Directory/27-AA-0005>.

⁹⁶ 1 cubic yard = 0.27 tons.

CalEEMod Results. Morgan Hill Technology Center. February 2020. 1.295.3 tons generated by light industrial + 383.04 tons for residential + 52.5 tons by commercial + 55.8 tons for industrial office = 1,787 tons per year.

3.10.2.2 *Cumulative Impacts*

Impact UTL-C: The project would not result in a cumulatively considerable contribution to a significant utilities and service systems impact. **(Less than Significant Cumulative Impact)**

The individual impacts of the project on utilities and service systems have all been evaluated with respect to the cumulative conditions of the City's water, wastewater, stormwater, and solid waste infrastructure upon General Plan buildout. It was determined that the proposed project, in combination with expected development in the City, would not result in significant impacts to utilities. Cumulative projects in the City will be evaluated at a project-level to ensure compliance with level of service standards for the utilities discussed above; necessary improvements to utility service systems will be made to ensure that the City's overall system is not impacted by the combined effects of growth. For these reasons, the proposed project would not result in a cumulatively considerable contribution to a significant utilities and service systems impact. **(Less than Significant Cumulative Impact)**

SECTION 4.0 GROWTH-INDUCING IMPACTS

As stated in the CEQA Guidelines, Section 15126.2(d), a project is considered growth-inducing if it would:

- Directly or indirectly foster economic or population growth, or the construction of additional housing in the surrounding environment.
- Remove obstacles to population growth or tax community service facilities to the extent that the construction of new facilities would be necessary.
- Encourage or facilitate other activities that would cause significant environmental effects.

The project site is located within the incorporated limits of the City of Morgan Hill and the development of the project site would not result in an expansion of urban services or the pressure to expand beyond the City's existing Sphere of Influence.

The project would result in employment growth in the City. The project applicant estimates that the proposed buildings, when fully occupied, could contain approximately 1,500 employees. The project would also include a residential component (319 units) that is consistent with the existing General Plan and Zoning designations. The project would not open additional undeveloped land to further growth or provide expanded utility capacity that would be available to serve future unplanned development. For these reasons, the project would not result in a significant growth-inducing impact.

SECTION 5.0 SIGNIFICANT AND IRREVERSIBLE ENVIRONMENTAL CHANGES

This section was prepared pursuant to CEQA Guidelines Section 15126.2(c), which requires a discussion of the significant irreversible changes that would result from the implementation of a proposed project. Significant irreversible changes include the use of nonrenewable resources, the commitment of future generations to similar use, irreversible damage resulting from environmental accidents associated with the project, and irretrievable commitments of resources.

5.1 USE OF NONRENEWABLE RESOURCES

The demolition of the existing structures on the project site and construction of the proposed project (the industrial, commercial, and residential components) would require the use and consumption of nonrenewable resources. Nonrenewable resources include fossil fuels and metals that cannot be regenerated over time.

As discussed in Section 3.5, *Energy*, energy would be consumed during both the construction and operational phases of the project. The demolition and construction phase would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., demolition of the existing buildings and grading), and the actual construction of the buildings. The operation of the proposed uses would consume energy (in the form of electricity and natural gas) for building heating and cooling, lighting, water heating, and the operation of appliances, electronic equipment, and commercial machinery. Operational energy would also be consumed during each vehicle trip associated with the project.

5.2 CHANGE IN LAND USE

The development on the site would serve several purposes, including utilization of underutilized land and efficient use of existing roadways and infrastructure within the City limits.

Although the project would commit future generations to a more development on this site, the project would benefit the City and the region by providing a well-planned industrial, commercial, and residential development with proximity to regional transportation systems.

5.3 IRREVERSIBLE DAMAGE FROM ENVIRONMENTAL ACCIDENTS

Implementation of the project would result in the development of a previously developed tree nursery and potentially usable agricultural property. Associated irreversible environmental changes associated with the modification of the project site also include the installation of utility and roadway infrastructure. Although it is unlikely that a major hazardous waste release would occur as a result of implementation of the project, such a release would also constitute a significant irreversible change from an environmental action. The mitigation measures outlined in this Draft EIR would reduce all such irreversible or nearly irreversible effects to less than significant levels.

SECTION 6.0 SIGNIFICANT AND UNAVOIDABLE IMPACTS

The project would result in the significant unavoidable impacts discussed below. All other impacts of the proposed project would be mitigated to a less than significant level with incorporation of applicable project-level mitigation measures identified in this EIR.

The project would result in the significant unavoidable impacts discussed below. All other impacts of the proposed project would be mitigated to a less than significant level with incorporation of applicable project-level mitigation measures identified in this EIR.

Impact AG-1:	The project would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use. (Significant and Unavoidable Impact)
---------------------	--

The City of Morgan Hill adopted its Agricultural Lands Preservation Program (Preservation Program) in November 2014 to preserve potential agricultural land subject to development. Lands classified as *Prime Farmland*, *Farmland of Statewide Importance*, *Unique Farmland*, *Farmland of Local Importance*, or *Grazing Land* under the California Department of Conservation Farmland Mapping Program are covered under the Preservation Program. As mentioned, the project site is designated as *Prime Farmland*, *Unique Farmland*, and *Farmland of Statewide Importance*. The project proposes to develop the site with industrial, commercial, and residential uses. Conversion of the above-mentioned farmland types to industrial, commercial, and residential uses would constitute a significant impact to agricultural resources.

Please refer to Section 3.1, *Agriculture and Forestry Resources* for analysis and mitigation measures.

Impact AIR-2:	The project would 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. (Significant and Unavoidable Impact)
----------------------	--

Impact AIR-C:	The project would result in a cumulatively considerable contribution to a significant air quality impact. (Significant Unavoidable Cumulative Impact)
----------------------	--

The project would include diesel truck traffic, approximately 248 daily truck trips per day as discussed in Section 3.9, Transportation. A combination of 50 percent Medium Heavy-Duty trucks and 50-percent Heavy-Duty trucks were assumed. Truck trips were assumed to be 18 miles per trip on average. The project would result in a significant and unavoidable regional air quality impact due to NO_x emissions from operational truck activities. Because the proposed project would result in a significant operational NO_x emissions (which would be above BAAQMD cumulative threshold), the project would result in a cumulatively considerable contribution toward regional NO_x emissions.

Please refer to *Section 3.2, Air Quality* for analysis and mitigation measures.

Impact TRN-1: The project would conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities. **(Significant and Unavoidable Impact)**

The City of Morgan Hill does not currently have an adopted vehicle miles traveled (VMT) policy. The City's adopted transportation policy utilizes LOS as the metric by which the City determines the functionality of the roadway system and the effect of new development on the roadway network. The discussion of LOS is provided as it pertains to consistency with the City's adopted LOS policy described in the General Plan. The proposed project would result in significant and unavoidable impacts to 10 freeway segments. The impacted freeway segments are listed below:

- US 101, Northbound from San Martin Avenue to Tennant Avenue (AM Peak Hour)
- US 101, Northbound from Tennant Avenue to East Dunne Avenue (AM Peak Hour)
- US 101, Northbound from East Dunne Avenue to Cochrane Road (AM Peak Hour)
- US 101, Northbound from Cochrane Road to Coyote Creek Golf Drive (AM Peak Hour)
- US 101, Southbound from SR 85 to Bailey Avenue (PM Peak Hour)
- US 101, Southbound from Bailey Avenue to Coyote Creek Golf Drive (PM Peak Hour)
- US 101, Southbound from Coyote Creek Golf Drive to Cochrane Road (PM Peak Hour)
- US 101, Southbound from Cochrane Road to East Dunne Avenue (PM Peak Hour)
- US 101, Southbound from East Dunne Avenue to Tennant Avenue (PM Peak Hour)
- US 101, Southbound from Tennant Avenue to San Martin Avenue (PM Peak Hour)

For additional analysis refer to *Section 3.9, Transportation* for analysis and mitigation measures.

SECTION 7.0 ALTERNATIVES

7.1 INTRODUCTION

The CEQA Guidelines give extensive direction on identifying and evaluating EIR alternatives to a proposed project (Section 15126.6). The purpose of analyzing alternatives in an EIR is to identify ways to substantially lessen or avoid the significant effects a proposed project may have on the environment. The range of alternatives selected for analysis is governed by the “rule of reason,” which requires the EIR to discuss only those alternatives necessary to permit a reasoned choice. Although the alternatives do not have to meet every goal and objective set for the proposed project, they should “feasibly attain most of the basic objectives of the project.”

The CEQA Guidelines (Section 15126.6) do not require that all possible alternatives be evaluated, only that a range of feasible alternatives be discussed so as to encourage both meaningful public participation and informed decision making. In selecting alternatives to be evaluated, consideration may be given to their potential for reducing significant unavoidable impacts, reducing significant impacts that are mitigated by the project to less than significant levels, and further reducing less than significant impacts.

The three critical factors to consider in selecting and evaluating alternatives are, therefore: (1) the significant impacts from the proposed project which could be reduced or avoided by an alternative, (2) the project’s objectives, and (3) the feasibility of the alternatives available. Each of these factors is described below.

7.2 SIGNIFICANT IMPACTS OF THE PROJECT

As mentioned above, the CEQA Guidelines advise that the alternatives analysis in an EIR should be limited to alternatives that would avoid or substantially lessen any of the significant effects of the project and would achieve most of the project objectives. As discussed previously in this EIR, the project would result in significant, unavoidable impacts to the following topic areas:

- Agricultural Resources: Loss of Prime Farmland, Unique Farmland, and Farmland of Statewide Importance
- Air Quality: Operational criteria pollutant (i.e., NO_x) emissions
- Transportation:
 - One intersection under existing plus project conditions (Mission View Drive and Half Road) if the County does not agree to implement the proposed improvement
 - Two intersections under Year 2030 cumulative plus project conditions (Mission View Drive and Half Road and Main Avenue and Condit Road) if the County does not agree to implement the proposed improvements
 - One intersection under Year 2035 General Plan plus project conditions (Main Avenue and Condit Road) if the County does not agree to implement the proposed improvement
 - Ten freeway segments under all project scenarios.

Alternatives may also be considered if they would further reduce impacts that are already less than significant because of required or proposed mitigation. Impacts that would be significant, and for which the project includes mitigation to reduce them to less than significant levels include:

- Temporary construction emissions and operational ROG emissions related to Air Quality.
- Greenhouse gas emissions: Operational
- Impacts of mechanical equipment noise on nearby noise-sensitive uses.
- Temporary construction noise impacts.
- Operational Noise: Truck Deliveries generated by general light industrial use.
- Impacts of project traffic at two local intersections under existing plus project conditions (DePaul Drive and Cochrane Road and Mission View Drive and Cochrane Road), six intersections under Year 2030 cumulative plus project conditions, and five intersections under Year 2035 General Plan plus project conditions).

7.3 PROJECT OBJECTIVES

Pursuant to CEQA Guidelines Section 15124, the EIR must include a statement of the objectives sought by the proposed project.

The stated primary objectives of the project applicant are:

- To efficiently cluster large-scale development allowing for:
 - Efficient use of existing infrastructure (including roads, utility lines, transit, etc.);
 - Increased cost-sharing of building and landscape maintenance costs.
- Adding approximately 1,500 needed jobs (1,300 industrial and 200 commercial) to Morgan Hill.
- Creating buildings sizeable enough to attract large-company tenants to Morgan Hill.
- Attract companies to contribute to the City's tax and job base and provide flexibility to support companies to grow.
- Meet CALGreen standards optimizing efficient use of energy, water, and building materials.
- Locate near existing transit corridors, bicycle infrastructure, and traffic arterials.
- Ensure a sustainable demolition and construction operation.
- Establish pedestrian- and bicycle-oriented connections within the area.
- Utilize on-site amenities to minimize impact on community infrastructure and provide flexibility of work environment.

Project objectives as proposed by the City include:

- To develop an industrial business center on the site in conformance with the applicable goals, objectives and policies of the City's General Plan;
- To develop a business center that will accommodate light manufacturing/ warehouse/ distribution tenants with access to freeways and regional transportation corridors, thereby minimizing truck traffic on local streets and reducing vehicles miles traveled in the region;
- Create opportunities for business-to-business interaction between various on-site tenants, promoting economic development;

- To develop a business center on the site in a manner that is economically viable and provides long term fiscal benefits to the property owner and City;
- To attract new businesses and jobs to the City, thereby improving the jobs/housing balance both in the City and the region;
- Attract high-quality businesses by providing a development with a range of facility options, such as varying structure sizes and building configurations;
- To develop a high-quality business center on the site with architectural design, landscaping, signage, and operational characteristics that are compatible with existing and planned development in the immediate vicinity;
- To construct a business center that incorporates energy efficiency and low water use principles in order to promote the City’s environmental goals
- Implement a comprehensive and cohesive plan for the physical and economic development of the project site.

7.4 FEASIBILITY OF ALTERNATIVES

CEQA, the CEQA Guidelines, and case law on the subject have found that feasibility can be based on a wide range of factors and influences. The Guidelines advise that such factors *can* include (but are not necessarily limited to) the suitability of an alternate site, economic viability, availability of infrastructure, consistency with a general plan or with other plans or regulatory limitations, jurisdictional boundaries, and whether the project proponent can “reasonably acquire, control or otherwise have access to the alternative site” [Section 15126.6(f)(1)].

7.5 SELECTION OF ALTERNATIVES

In addition to the “No Project Alternative,” the CEQA Guidelines advise that the range of alternatives discussed in the EIR should be limited to those that “would avoid or substantially lessen any of the significant impacts of the project, or in the case of the proposed project, would further reduce impacts that are considered less than significant with the incorporation of identified mitigation [§15126.6(f)].

The discussion below addresses several alternatives which could reduce project impacts. The components of these alternatives are described below, followed by a discussion of their impacts and how they will differ from those of the proposed project.

7.5.1.1 *Alternatives Considered But Rejected*

Location Alternative

The CEQA Guidelines encourage consideration of an alternative site when significant effects of the project might be avoided or substantially lessened (Section 15126.6(f)(2)(A)). Only locations that would avoid or substantially lessen any of the significant impacts of the project and meet most of the project objectives need be considered for inclusion in the EIR. However, there is no requirement that an EIR must include evaluation of a location alternative, “An EIR shall describe a reasonable range of alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project...” (Section 15126.6(a)).

The project proposes a development of approximately 89 acres and, accordingly, an alternative site would need to be at least of comparable size, within an area of Morgan Hill close to the US Highway 101 and have adequate transit access, roadway access, and utility capacity to serve the development proposed.

In order to identify an alternative site that might be reasonably considered to “feasibly accomplish most of the basic purposes” of the project, and would also reduce significant impacts, it was assumed that such a site would ideally have the following characteristics:

- Approximately 90 acres in size;
- Located near freeways and/or major roadways;
- Served by available infrastructure;
- Available for development;

Any project of this size and intensity within Morgan Hill would be expected to have similar operational impacts as well as impacts associated with project construction. Therefore, since no suitable alternative site was found that could meet the basic objectives of the project, and where significant impacts would be reduced, a feasible location alternative was not identified, and it is not evaluated further.

7.6 PROJECT ALTERNATIVES

7.6.1 No Project Alternative

The CEQA Guidelines stipulate that an EIR specifically include a “No Project” alternative. The purpose in including a No Project Alternative is to allow decision-makers to compare the impacts of approving the project with the impacts of not approving the project. The Guidelines specifically advise that the No Project Alternative is “what would be reasonably expected to occur in the foreseeable future if the project is not approved, based on current plans and consistent with available infrastructure and community services.” The Guidelines emphasize that an EIR should take a practical approach, and not “...create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment [Section 15126.6(e)(3)(B)].”

Currently, the project site is largely undeveloped. The northern portion of the site contains a tree nursery and a small single-story building. The southern/eastern portions of the site contain fallowed agricultural fields, an orchard, and a vacant single-family house. Under the No Project Alternative, the project site could remain as is or it could be developed with industrial, commercial, and residential uses consistent with the site’s General Plan designation and zoning. For these reasons, there are two possible No Project alternatives for the project: 1) a No Project/No Development Alternative and 2) a No Project/Existing Plan Development Alternative.

7.6.2 No Project/No Development Alternative

The No Project – No Development Alternative assumes that the project site will remain as it is today, largely undeveloped with a vacant single-family residence.

Comparison of Environmental Impacts

The No Project/No Development Alternative will leave the site as is, thereby maintaining the environmental baseline conditions described throughout this EIR and avoiding all project impacts (construction and operational) associated with the proposed project.

Relationship to Project Objectives

The No Project Alternative scenario does not meet any of the objectives of the project.

Conclusion

The No Project Alternative would avoid the project's significant impacts to air quality, agricultural resources, and local intersection and freeway impacts. The No Project Alternative would also avoid the other less than significant (with mitigation incorporated) noise and air quality impacts of the proposed project. However, the No Project Alternative would not meet any of the project's primary objectives.

7.6.3 No Project/Existing General Plan/Zoning Development Alternative

The General Plan EIR assumes that the project site will be developed in conformance with the existing General Plan designations of Commercial, Commercial/Industrial, and Residential Attached Low (6-16 du/ac) and zoning of PUD (CH), CO, PUD (IL), and Residential Attached Low Density. The General Plan provided a 20-year projection for development within the City (including the project site). The General Plan EIR assumed the site would be developed with approximately 76,000 square feet of industrial/research and development space, 33,000 square feet of general office uses, and 44,000 square feet of retail uses, and 345 multi-family units. At the time that the General Plan EIR was prepared, it was assumed that the project site would be developed at a low intensity within the 20-year period. The development assumptions for the site included in the City's TDF model are significantly lower than development allowed on-site based on the existing General Plan and zoning designations. The assumptions included in the TDF model were based on development projected to happen within the 20-year timeframe of the General Plan planning horizon and were not reflective of the maximum allowed uses under the existing General Plan designations and zoning districts.

For the purpose of this analysis, if the proposed project is not developed on the project site, the site would be developed with a maximum 585,000 square feet of general light industrial space, 305,965 square feet of general office space, 218,000 square feet of commercial/retail space, and 319 residential units based on the allowed General Plan designation and zoning at the site. For the commercial/retail, industrial, and general office space, a 0.43 FAR was applied to calculate the building square footage. A 50 percent maximum building coverage was assumed for the office space which accounted for surface parking, landscape areas and stormwater detention areas. For the residential component, it was assumed that this alternative would construct approximately 75 percent of the residences allowed under the General Plan.⁹⁷

⁹⁷ Personal Communications: Rowe, Jim, *City of Morgan Hill. RE; Morgan Hill Technology Center*. March 13, 2020.

The Table 7.6-1 provides a trip generation comparison between the allowed uses at the site (without the project) and the proposed project.

Table 7.6-1: Project Trip Generation Comparison							
Land Use	AM Peak Hour			PM Peak Hour			Daily Trips
	In	Out	Total	In	Out	Total	Total
General Plan Land Uses Allowed at the Site							
General Light Industrial ¹	361	49	410	48	321	369	2,902
General Office Building ²	305	50	355	56	296	352	2,980
<i>Subtotal</i>	666	99	765	104	617	721	5,882
Commercial ³	127	78	205	399	432	831	8,230
<i>20 percent pass-by reduction⁴</i>				-80	-86	-166	-166
<i>Subtotal</i>	793	177	970	423	963	1,386	13,946
Residential component ⁵	59	177	236	199	117	316	3,011
<i>Total Allowable Uses under General Plan</i>	852	354	1,206	622	1,080	1,702	16,957
Proposed Project Land Uses							
General Light Industrial ⁶ (Auto Trips only)	640	88	728	85	570	655	5,156
General Light Industrial (Truck Trips only)	31	4	35	4	27	31	248
<i>Subtotal</i>	671	92	763	89	597	686	5,404
Commercial ⁷	29	18	47	92	99	191	1,888
<i>20 percent pass-by reduction</i>	0	0	0	-18	-20	-38	-38
<i>Subtotal</i>	700	110	810	163	676	839	7,254
Residential Component ⁸	59	177	236	199	117	316	3,011
<i>Total</i>	759	287	1,046	362	793	1,155	10,265
<i>Difference (Proposed Project – General Plan Allowable Land Uses without Project)</i>	-93	-67	-160	-260	-287	-547	-6,692
Notes:							
1. 585,000 square feet of general light industrial space. 2. 305,965 square feet of general office building 3. 218,000 square feet of commercial/retail space 4. A 20 percent pass-by reduction is typically applied for retail development within the City of Morgan Hill. 5. Single-family detached housing (319 units)							

Table 7.6-1: Project Trip Generation Comparison							
Land Use	AM Peak Hour			PM Peak Hour			Daily Trips
	In	Out	Total	In	Out	Total	Total
6. Comprised of approximately 1,089,600 square feet of light industrial space (1,044,600 general light industrial + 45,000 square feet of industrial office space).							
7. Comprised of approximately 50,000 square feet of commercial space. Trip generation estimates account for a 20 percent pass-by-trip reduction for retail uses.							
8. Comprised of 319 single-family residential units.							
Source: <i>Hexagon Transportation Consultants, Inc.</i> Morgan Hill Technology Center TIA and Trip Generation Comparison Table. March 10, 2020.							

Comparison of Environmental Impacts

Assuming the site is developed according to the existing General Plan land use designations, the No Project/Existing General Plan/Zoning alternative would result in 16,957 daily trips with 1,206 trips during the AM peak hour and 1,702 during the PM peak hour.

When compared to the proposed project, the No Project/Existing Plan alternative would result in 6,692 more daily trips, 160 more AM peak hour trips, and 547 more PM peak hour trips than the proposed project.⁹⁸ This increase in trips is a result of the higher traffic generating commercial development which would occur if the commercial/industrial portion of the site is built in accordance with the existing General Plan designation and Zoning Code. As the No Project/Existing General Plan/zoning alternative would result in a substantial increase in trips, this alternative would result in increased traffic impacts to local intersections. Due to the increase in vehicular trips, this alternative would result in a substantial increase in greenhouse gas emissions, and operational criteria air pollutants emissions. The No Project/Existing Plan alternative would increase roadway traffic noise. This alternative could increase truck trips assuming the commercial/retail and office space would require truck deliveries, which would increase the noise impacts to existing and future residences. This alternative would increase the number of employees by approximately 700 compared to the proposed project. As a result, this alternative more impact on water, sanitary sewer, and solid waste facilities.

Similar to the proposed project, the No Project/Existing General Plan/Zoning Alternative would still likely entail development activity across the majority of the project site and result in similar site disturbance. Therefore, the No Project/Existing Plan Alternative will have impacts similar to the proposed project related to aesthetics, farmland conversion, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, and tribal cultural resources.

Relationship to Project Objectives

The No Project/Existing General Plan/Zoning Alternative would allow most of the project objectives to be met, such as attracting companies to Morgan Hill to attract large company tenants and support the City's tax and job base. However, the alternative is estimated to add approximately 2,090 jobs

⁹⁸ Excluding the residential component, the proposed project would result in 7,031 daily trips, 778 trips in the AM peak hour and 811 trips in the PM peak hour.

compared to approximately 1,500 jobs expected with the project; the job increase is primarily attributed to the additional commercial/retail space.

Conclusion

The No Project/Existing Plan Alternative would meet most of the project's objectives, but would not be environmentally superior, and would increase the severity of most operational impacts.

7.6.4 Reduced Intensity Alternative

As described in this EIR, the proposed project would result in significant and unavoidable impacts to agricultural resources, operational air quality emissions, and transportation (freeway segments) and significant but mitigable impacts from construction period air quality emissions, operational greenhouse gas emissions, biological resources during construction, hazardous materials, operational and construction noise, and traffic on local intersections. The purpose of the reduced scale alternative is to identify the amount of development that could be placed on the site while reducing identified impacts to below relevant thresholds.

As described in Section 3.9 Transportation, the proposed project would impact three local intersections under existing plus project conditions, eight intersections (under Year 2035 plus project conditions) and a total of 10 freeway segments under existing plus project conditions. In order to reduce the impacts to local intersections, the size of all project components would need to be reduced by approximately 70 percent.⁹⁹ The general light industrial buildings would need to be reduced from 1,044,600 square feet to 313,380 square feet, the industrial office building would need to be reduced from 45,000 square feet to 13,500 square feet, the commercial uses would need to be reduced from 50,000 square feet to 15,000 square feet, and the residential units would need to be reduced from 319 units to 96 units. Reducing the size of the project by 70 percent would reduce all impacts to local intersections to a less than significant level.

In order to reduce the impacts to freeway segments, the size of all project components would need to be reduced by approximately 65 percent.¹⁰⁰ The general light industrial buildings would need to be reduced from 1,044,600 square feet to 365,610, the industrial office building would need to be reduced from 45,000 square feet to 15,750 square feet, the commercial uses would need to be reduced from 50,000 square feet to 17,500 square feet, and the residential units would need to be reduced from 319 units to 112 units. Reducing the size of the project by 65 percent would reduce all impacts to freeway segments to a less than significant level.

As described in Section 3.2 Air Quality, the proposed project would result in a significant and unavoidable air quality impact related to generation of NO_x emissions during project operation. In order to reduce this impact to below BAAQMD significance thresholds, the size of all project components would need to be reduced by approximately 20 percent.¹⁰¹ The general light industrial buildings (Building A through F) would need to be reduced from a total of 1,044,600 square feet to 835,680 square feet, the industrial office building ('Not a Part' parcel) would need to be reduced from 45,000 square feet to 36,000 square feet, the commercial uses would need to be reduced from

⁹⁹ Hexagon Transportation Consultants. Personal communication. February 14, 2020.

¹⁰⁰ Ibid.

¹⁰¹ Illingworth & Rodkin. Personal communication. February 14, 2020.

50,000 square feet to 40,000 square feet, and the residential units would need to be reduced from 319 units to 255 units. Reducing the size of the project by 20 percent would reduce operational NO_x emissions to a less than significant level.

With the Reduced Scale Alternative, noise impacts from truck deliveries to nearby residences would be reduced, however, mitigation such as an alternate driveway access and soundwalls would still be necessary to reduce these impacts to less than significant.

Comparison of Impacts

Reducing the scale of the project by 70 percent would avoid all transportation impacts including freeway segment impacts and impacts to local intersections. This alternative would also avoid significant operational air quality and greenhouse gas impacts.

The Reduced Intensity Alternative will involve smaller building footprints than the proposed project. However, the Alternative would still likely entail development activity across the majority of the project site and result in similar site disturbance. This alternative would have a significant unavoidable impact on agricultural resources, similar to the proposed project. The Reduced Intensity Alternative would have impacts similar to the proposed project related to aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, tribal cultural resources, and utilities.

Relationship to Project Objectives

Development of the project site under any of the reduced intensity alternatives described above would allow for similar land uses as the proposed project, but at a lower intensity. The Reduced Intensity Alternative would meet some, but not all, of the project's objectives. In particular, it is not likely that the Reduced Intensity Alternative would allow for the creation of 1,300 jobs at the project site since the building square footage for the industrial and residential components would be reduced by 70 percent. Furthermore, substantially reducing the size of the project would likely not provide sufficient commercial/industrial space for large-scale tenants, which is a stated objective of the project.

Conclusion

The Reduced Intensity Alternative would avoid the project's significant and unavoidable operational air quality impact when the scale of development is reduced by 20 percent. To avoid the project's significant and avoidable impact on freeway segments, the scale of development would need to be reduced by 65 percent and reduced by 70 percent to avoid local intersection impacts. This alternative would meet some of the project objectives, with the 20 percent reduction to avoid air quality impacts coming the closest but would not meet the objective to add 1,500 jobs to Morgan Hill.

7.6.5 Industrial Warehouse Alternative

The proposed General Plan Amendment (to increase the size of the Commercial/Industrial designation) and rezoning (to establish a Planned Development Combining District) would allow for flexibility in permitted land uses on the approximately 61-acre commercial/industrial area of the project site. Permitted land uses under the proposed zoning would include light industrial,

manufacturing, warehousing and distribution, and research and development uses. An alternative project scenario, consisting of 1,105,000 square feet of warehouse uses instead of light industrial uses, is being analyzed to determine differences in impacts resulting from the change in permitted land uses. The 50,000 square feet of commercial space at the Cochrane Road frontage and the 319 residential units adjacent to Mission View Drive and Half Road would remain the same under both scenarios.

Comparison of Environmental Impacts

Warehouse uses typically have a lower auto trip generation rate and a higher truck trip generation rate than light industrial uses (based on ITE Trip Generation rates). Therefore, by proposing the same scale of development but modifying the land use to warehouse uses there would be differences in trip generation rates between the two scenarios, which has implications for project impacts to the intersections studied. Table 7.6-1 below shows a comparison of the trip generation rates between the two scenarios. The number of trips from commercial and residential land uses are the same between the two scenarios; therefore, trips generated from these land uses are not shown in the table.

Table 7.6-1: Project Trip Generation Comparison							
Land Use	AM Peak Hour			PM Peak Hour			Daily Trips
	In	Out	Total	In	Out	Total	Total
General Light Industrial Scenario (Proposed Project)							
General Light Industrial ¹ (Auto Trips only)	640	88	728	85	570	655	5,156
General Light Industrial (Truck Trips only)	31	4	35	4	27	31	248
<i>Subtotal</i>	671	92	763	89	597	686	5,404
Commercial ²	29	18	47	92	99	191	1,888
<i>20 percent pass-by reduction²</i>	0	0	0	-18	-20	-38	-38
<i>Subtotal</i>	700	110	810	163	676	839	7,254
Residential Component ³	59	177	236	199	117	316	3,011
<i>Total</i>	<i>759</i>	<i>287</i>	<i>1,046</i>	<i>362</i>	<i>793</i>	<i>1,155</i>	<i>10,265</i>
Warehouse Scenario							
Warehouse ⁴ (Auto Trips only)	116	34	150	46	122	168	1,538
Warehouse (Truck Trips only)	29	9	38	11	31	42	385
<i>Subtotal</i>	145	43	188	57	153	210	1,923
Commercial ²	29	18	47	92	99	191	1,888
<i>20 percent pass-by reduction²</i>	0	0	0	-18	-20	-38	-38
<i>Subtotal</i>	174	61	235	131	232	363	3,773
Residential Component ³	59	177	236	199	117	316	3,011

Table 7.6-1: Project Trip Generation Comparison							
Land Use	AM Peak Hour			PM Peak Hour			Daily Trips
	In	Out	Total	In	Out	Total	Total
<i>Total</i>	233	238	471	330	349	679	6,784
<i>Difference (Warehouse Scenario Trips – Project Trips)</i>	-526	-49	-575	-32	-444	-476	-3,481
Notes: 1. Comprised of approximately 1,089,600 square feet of light industrial space (1,044,600 general light industrial + 45,000 square feet of industrial office space). 2. Comprised of approximately 50,000 square feet of commercial space. Trip generation estimates account for a 20 percent pass-by-trip reduction for retail uses. 3. Comprised of 319 residential units. 4. Comprised of 1,105,000 square feet of warehouse and industrial office (1,060,000 square feet of warehouse use + 45,000 square feet of industrial office)							
Source: Hexagon Transportation Consultants, Inc. Morgan Hill Technology Center TIA. March 10, 2020.							

As shown in the table above, the warehouse alternative would result in substantially less trips than the proposed project.

The transportation impacts of the warehouse alternative were determined using the same methodology and analyzed under the same scenarios as was described in Section 3.9, Transportation. The results of the level of service analysis is shown below for Existing Plus Project (Table 7.6-2), Year 2030 Cumulative Plus Project (Table 7.6-3), and Year 2035 General Plan Plus Project conditions (Table 7.6-4).

Existing Plus Project (Warehouse Alternative)

The level of service analysis for the warehouse alternative under existing plus project conditions is shown below in Table 7.6-2.

Table 7.6-2: Study Intersections Level of Service – Existing Plus Project Conditions (Warehouse Alternative)								
No.	Intersection	Peak Hour	Existing		Existing Plus Project			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
1	Monterey Road and Burdett Avenue	AM	15.0	B	15.0	B	0.0	0.001
		PM	9.7	A	9.8	A	0.0	0.002
2	Monterey Road and Madrone Parkway	AM	9.4	A	9.4	A	0.0	0.001
		PM	9.8	A	9.9	A	0.1	0.002
3	Monterey Road and Cochrane Road	AM	28.1	C	28.2	C	0.1	0.003
		PM	24.0	C	24.2	C	0.3	0.005

**Table 7.6-2: Study Intersections Level of Service – Existing Plus Project Conditions
(Warehouse Alternative)**

No.	Intersection	Peak Hour	Existing		Existing Plus Project			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
4	Monterey Road and Old Monterey Road	AM PM	10.4 13.0	B B	10.4 13.0	B B	0.0 0.1	0.003 0.002
5	Monterey Road and Wright Avenue	AM PM	19.1 20.4	B C	19.1 20.4	B C	0.0 0.0	0.000 0.001
6	Monterey Road and Central Avenue*	AM PM	19.5 15.7	C C	19.5 15.7	B B	N/A	N/A
7	Monterey Road and Main Avenue	AM PM	44.2 45.1	D D	44.5 45.6	D D	0.3 0.7	0.007 0.011
8	Monterey Road and Second Street	AM PM	10.6 12.6	B B	10.6 12.6	B B	0.0 0.0	0.001 0.000
9	Monterey Road and Dunne Avenue	AM PM	28.9 31.4	C C	29.0 31.6	C C	0.1 0.2	0.002 0.004
10	Church Street and Dunne Avenue	AM PM	17.8 19.9	B B	17.8 19.7	B B	-0.1 -0.2	0.005 0.006
11	Butterfield Boulevard and Dunne Avenue	AM PM	35.5 31.7	D C	35.6 31.8	D C	0.4 0.1	0.011 0.005
12	Walnut Grove Drive and Dunne Avenue	AM PM	18.4 28.5	B C	18.4 28.4	B C	0.0 0.0	0.003 0.002
13	US 101 Southbound Ramps and Dunne Avenue	AM PM	20.9 18.8	C B	20.9 18.8	C B	0.0 0.0	0.000 0.000
14	US 101 Northbound Ramps and Dunne Avenue	AM PM	5.3 11.8	A B	5.3 11.7	A B	0.0 0.0	0.001 0.004
15	Condit Road and Dunne Avenue	AM PM	42.4 28.2	D C	43.0 28.3	D C	0.7 0.1	0.010 0.015
16	Murphy Avenue and Dunne Avenue	AM PM	18.9 11.8	B B	18.9 11.8	B B	0.0 0.0	0.003 0.004

**Table 7.6-2: Study Intersections Level of Service – Existing Plus Project Conditions
(Warehouse Alternative)**

No.	Intersection	Peak Hour	Existing		Existing Plus Project			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
17	Butterfield Boulevard and Diana Avenue	AM PM	21.3 20.4	C C	21.5 20.5	C C	0.3 0.3	0.004 0.006
18	Butterfield Boulevard and Main Avenue	AM PM	27.6 29.8	C C	27.8 30.3	C C	0.3 0.6	0.009 0.013
19	Butterfield Boulevard and Central Avenue	AM PM	17.1 11.0	B B	17.1 11.1	B B	0.0 0.0	0.004 0.005
20	Butterfield Boulevard and Jarvis Drive	AM PM	11.7 12.8	B B	11.8 12.8	B B	0.1 0.0	0.004 0.006
21	Butterfield Boulevard and Sutter Boulevard	AM PM	6.7 15.6	A B	6.7 15.8	A B	0.1 0.3	0.004 0.009
22	Butterfield Boulevard and Cochrane Road	AM PM	12.3 12.0	B B	12.4 12.0	B B	0.1 0.1	0.004 0.003
23	Cochrane Circle and Cochrane Road	AM PM	10.5 10.9	B B	10.4 11.0	B B	0.0 0.1	0.002 0.004
24	Sutter Boulevard and Cochrane Road	AM PM	17.2 17.9	B B	17.2 18.1	B B	0.0 0.1	0.006 0.008
25	Madrone Parkway/Cochrane Plaza and Cochrane Road	AM PM	19.1 31.4	B C	19.1 31.2	B C	0.0 -0.1	0.000 0.005
26	US 101 Southbound Ramps and Cochrane Road	AM PM	12.8 16.5	B B	13.3 17.1	B B	0.7 0.7	0.053 0.030
27	US 101 Northbound Ramps and Cochrane Road	AM PM	8.6 11.3	A B	9.1 11.6	A B	0.9 0.4	0.094 0.039
28	DePaul Drive and Cochrane Road	AM PM	17.7 18.7	B B	18.2 22.8	B C	0.3 2.8	0.048 0.188

**Table 7.6-2: Study Intersections Level of Service – Existing Plus Project Conditions
(Warehouse Alternative)**

No.	Intersection	Peak Hour	Existing		Existing Plus Project			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
29	Mission View Drive and Cochrane Road*	AM PM	23.0 15.7	C B	27.3 17.2	C B	7.1 2.2	0.038 0.049
30	Mission View Drive and Avenida de los Padres*	AM PM	13.5 12.5	B B	14.3 13.6	B B	N/A	N/A
31	Mission View Drive and Half Road*	AM PM	13.6 22.6	B C	14.9 <u>35.9</u>	C <u>E</u>	N/A	N/A
32	DePaul Drive Extension and Half Road (future) ¹	AM PM	- -	- -	- -	- -	- -	- -
33	Condit Road and Main Avenue	AM PM	27.6 26.1	C C	28.5 28.4	C C	1.1 2.5	0.025 0.058
34	Murphy Avenue and Main Avenue (future) ¹	AM PM	- -	- -	- -	- -	- -	- -
35	Vista De Lomas and Burdett Avenue*	AM PM	8.6 8.6	A A	8.6 8.6	A A	N/A	N/A
36	Condit Road and Diana Avenue	AM PM	14.7 13.6	B B	15.2 14.2	C B	N/A	N/A
37	Murphy Avenue and Diana Avenue	AM PM	11.4 9.9	B A	11.4 9.9	B A	N/A	N/A
38	Condit Road and Tennant Avenue	AM PM	14.7 14.6	B B	15.2 14.8	C B	N/A	N/A
39	Murphy Avenue and Tennant Avenue	AM PM	21.3 11.9	C B	21.5 12.0	C B	N/A	N/A

Notes:

¹ Does not currently exist and included as part of the planned Year 2035 General Plan buildout.

*Denotes an unsignalized intersection.

Bold indicates unacceptable level of service or signal warrant met.

Bold and underlined indicates a significant impact.

As shown in Table 7.6-2 above, the warehouse alternative would result in a significant impact to one intersection under existing plus project conditions: #31 Mission View Drive and Half Road. The improvements to add a traffic signal identified in mitigation measure MM TRN-1.3 described in Section 3.9, Transportation would reduce this impact to a less than significant level. However, given that the eastern portion of Mission View Drive and Half Road intersection is located in the unincorporated area of Santa Clara County and is outside of the City's jurisdiction, implementation of the traffic signal will require County approval. Given this intersection is not within the City's jurisdiction and there is no current agreement with the County to implement the mitigation, the timing of implementation of this improvement is outside of the City's control. Therefore, it is not guaranteed the improvement would be implemented. As a result, the impact to this intersection would be significant and unavoidable under existing plus project conditions, which is the same impact for the proposed project impact.

Freeway Segment Level of Service Analysis (Warehouse Alternative)

Traffic volumes on the study freeway segments under existing plus project (warehouse) conditions were estimated by adding warehouse trips for each of the warehouse alternative's components (i.e., warehouse, commercial, and residential) to the existing volumes obtained from the 2018 CMP Monitoring and Conformance Report. As it exists, 10 directional mixed-flow lanes and one directional HOV lane on the freeway segments analyzed are operating at an unacceptable LOS F during at least one peak hour. The same freeway lanes would operate at unacceptable conditions upon the warehouse alternative build out; however, the warehouse alternative would result in an increase in traffic volumes of more than one percent of freeway capacity on four of the directional mixed-flow lanes and one directional HOV lane, each of which are currently operating at an unacceptable LOS F. The affected freeway segments and peak hours are described below:

- US 101, Northbound from Cochrane Road to Coyote Creek Golf Drive (AM Peak Hour)
- US 101, Southbound from SR 85 to Bailey Avenue (PM Peak Hour)
- US 101, Southbound from Bailey Avenue to Coyote Creek Golf Drive (PM Peak Hour)
- US 101, Southbound from Coyote Creek Golf Drive to Cochrane Road (PM Peak Hour)

The warehouse alternative would result in impacts to six fewer freeway segments than the general light industrial alternative. Consistent with the proposed project, to address deficiencies on the freeway segments described above, the warehouse alternative would require freeway widening to construct additional through lanes, thereby increasing freeway capacity. Since it is not feasible for an individual development to bear responsibility for implementing such extensive transportation system improvements due to constraints in acquisition and cost of right-of-way, and no comprehensive project to add through lanes has been developed by Caltrans or VTA for individual projects to contribute to, the warehouse alternative would result in a significant and unavoidable deficiencies at the four mixed-flow lanes and one HOV lane described above (consistent with the conclusions for the proposed project's impact to freeway segments, albeit this alternative would result in fewer segment impacts overall). **(Significant and Unavoidable Impact)**

Year 2030 Cumulative Plus Project (Warehouse Alternative)

The level of service analysis for the warehouse alternative under Year 2030 cumulative plus project conditions is shown below in Table 7.6-3.

Table 7.6-3: Study Intersections Level of Service – Year 2030 Cumulative Plus Project Conditions (Warehouse Alternative)

No.	Intersection	Peak Hour	Year 2030		Year 2030 Plus Commercial/Industrial Components			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
1	Monterey Road and Burdett Avenue	AM PM	16.6 13.1	B B	16.6 13.1	B B	0.0 0.1	0.001 0.002
2	Monterey Road and Madrone Parkway	AM PM	12.2 15.8	B B	12.2 16.0	B B	0.0 0.2	0.001 0.002
3	Monterey Road and Cochrane Road	AM PM	30.3 26.9	C C	30.4 27.2	C C	0.1 0.3	0.003 0.005
4	Monterey Road and Old Monterey Road	AM PM	9.8 14.8	A B	9.8 14.9	A B	0.1 0.0	0.003 0.000
5	Monterey Road and Wright Avenue	AM PM	22.4 23.0	C C	22.4 23.0	C C	0.0 0.0	0.000 0.000
6	Monterey Road and Central Avenue*	AM PM	67.0 27.0	F D	67.0 27.0	F C	N/A	N/A
7	Monterey Road and Main Avenue	AM PM	47.8 49.1	D D	48.2 49.9	D D	0.5 1.0	0.007 0.011
8	Monterey Road and Second Street	AM PM	11.5 16.7	B B	11.5 16.7	B B	0.0 0.0	0.001 0.000
9	Monterey Road and Dunne Avenue	AM PM	29.0 33.2	C C	29.1 33.3	C C	0.1 0.3	0.002 0.005
10	East Dunne Avenue and Church Street	AM PM	19.5 25.4	B C	19.5 25.2	B C	0.0 -0.2	0.002 0.006
11	Butterfield Boulevard and Dunne Avenue	AM PM	40.9 35.1	D D	41.2 35.3	D D	0.6 0.4	0.007 0.008
12	Walnut Grove Drive and Dunne Avenue	AM PM	18.9 27.8	B C	18.9 27.8	B C	0.0 0.0	0.003 0.002

Table 7.6-3: Study Intersections Level of Service – Year 2030 Cumulative Plus Project Conditions (Warehouse Alternative)

No.	Intersection	Peak Hour	Year 2030		Year 2030 Plus Commercial/Industrial Components			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
13	US 101 Southbound Ramps and Dunne Avenue	AM PM	21.9 21.4	C C	21.9 21.4	C C	0.0 0.0	0.000 0.000
14	US 101 Northbound Ramps and Dunne Avenue	AM PM	6.2 11.3	A B	6.2 11.3	A B	0.0 0.0	0.001 0.001
15	Condit Road and Dunne Avenue	AM PM	64.8 32.8	E C	67.0 33.2	E C	2.8 0.7	0.010 0.015
16	Murphy Avenue and Dunne Avenue	AM PM	20.5 14.4	C B	20.5 14.4	C B	0.1 0.0	0.003 0.004
17	Butterfield Boulevard and Diana Avenue	AM PM	37.5 35.0	D D	38.8 36.7	D D	1.8 2.6	0.004 0.006
18	Butterfield Boulevard and Main Avenue	AM PM	31.1 36.3	C D	31.5 37.1	C D	0.6 1.3	0.009 0.013
19	Butterfield Boulevard and Central Avenue	AM PM	19.3 12.6	B B	19.4 12.6	B B	0.1 0.1	0.004 0.006
20	Butterfield Boulevard and Jarvis Drive	AM PM	16.0 17.8	B B	16.2 18.0	B B	0.4 0.3	0.004 0.006
21	Butterfield Boulevard and Sutter Boulevard	AM PM	7.4 16.3	A B	7.5 16.6	A B	0.1 0.4	0.004 0.009
22	Butterfield Boulevard and Cochrane Road	AM PM	12.8 14.8	B B	12.9 14.8	B B	0.1 0.2	0.004 0.003
23	Cochrane Circle and Cochrane Road	AM PM	10.4 12.2	B B	10.4 12.2	B B	0.0 0.1	0.002 0.004
24	Sutter Boulevard and Cochrane Road	AM PM	17.8 17.9	B B	17.8 18.1	B B	0.0 0.1	0.006 0.010

Table 7.6-3: Study Intersections Level of Service – Year 2030 Cumulative Plus Project Conditions (Warehouse Alternative)

No.	Intersection	Peak Hour	Year 2030		Year 2030 Plus Commercial/Industrial Components			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
25	Madrone Parkway/Cochrane Plaza and Cochrane Road	AM PM	19.1 32.3	B C	19.1 32.2	B C	0.0 -0.1	0.000 0.005
26	US 101 Southbound Ramps and Cochrane Road	AM PM	14.5 22.2	B C	15.5 24.1	B C	1.6 2.9	0.053 0.030
27	US 101 Northbound Ramps and Cochrane Road	AM PM	7.5 11.6	A B	8.3 12.2	A B	1.8 0.8	0.096 0.039
28	DePaul Drive and Cochrane Road	AM PM	26.0 23.3	C C	25.8 30.7	C C	-0.3 13.0	0.048 0.251
29	Mission View Drive and Cochrane Road*	AM PM	148.0 58.1	F E	<u>167.1</u> <u>77.5</u>	<u>F</u> <u>E</u>	<u>30.1</u> <u>28.3</u>	<u>0.038</u> <u>0.049</u>
30	Mission View Drive and Avenida de los Padres*	AM PM	28.6 37.6	D E	31.9 46.8	D E	N/A	N/A
31	Mission View Drive and Half Road*	AM PM	OVFL OVFL	F F	<u>OVFL</u> <u>OVFL</u>	<u>F</u> <u>F</u>	N/A	N/A
32	DePaul Drive Extension and Half Road (future)	AM PM	- -	- -	- -	- -	- -	- -
33	Condit Road and Main Avenue	AM PM	51.5 79.8	D E	<u>56.8</u> <u>98.5</u>	<u>E</u> <u>F</u>	<u>6.4</u> <u>22.6</u>	<u>0.025</u> <u>0.058</u>
34	Murphy Avenue and Main Avenue (future)	AM PM	- -	- -	- -	- -	- -	- -
35	Vista De Lomas and Burdett Avenue*	AM PM	8.6 8.6	A A	8.6 8.6	A A	N/A	N/A
36	Condit Road and Diana Avenue*	AM PM	36.8 26.9	E D	<u>40.5</u> 29.0	<u>E</u> D	N/A	N/A

Table 7.6-3: Study Intersections Level of Service – Year 2030 Cumulative Plus Project Conditions (Warehouse Alternative)								
No.	Intersection	Peak Hour	Year 2030		Year 2030 Plus Commercial/Industrial Components			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
37	Murphy Avenue and Diana Avenue*	AM PM	13.5 11.0	B B	13.5 11.0	B B	N/A	N/A
38	Condit Road and Tennant Avenue*	AM PM	30.5 89.1	D F	32.9 <u>94.5</u>	D <u>F</u>	N/A	N/A
39	Murphy Avenue and Tennant Avenue	AM PM	127.6 117.8	F F	<u>128.8</u> <u>119.6</u>	<u>F</u> <u>F</u>	N/A	N/A
*Denotes an unsignalized intersection. Bold indicates unacceptable level of service or signal warrant met. Bold and <u>Underlined</u> indicates a significant impact.								

As shown in Table 7.6-3, the warehouse alternative would result in significant impacts to the following six intersections under Year 2030 plus project conditions: #29 Mission View Drive and Cochrane Road (AM and PM peak hours), #31 Mission View Drive and Half Road (AM and PM peak hours), #33 Condit Road and Main Avenue (AM and PM peak hours), #36 Condit Road and Diana Avenue (AM peak hour), #38 Condit Road and Tennant Avenue (PM peak hour), and #39 Murphy Avenue and Tennant Avenue (AM and PM peak hours). The improvements identified in mitigation measures, MM TRN-C-1.2, MM TRN-C-1.4, MM TRN-C-1.5, MM TRN-C-1.6, MM TRN-C-1.7 and MM TRN-C-1.8, respectively (listed in Section 3.9, Transportation) would reduce the impacts at these intersections to a less than significant level.

Although mitigation measures MM TRN-C-1.4 and MM TRN-C-1.5 would reduce impacts at the Mission View Drive and Half Road and Main Avenue and Condit Road intersections, respectively, the intersections are under the jurisdiction of Santa Clara County. Therefore, implementation of the recommended improvements will require County approval. Since the intersections are not within the City's jurisdiction and there is no current agreement with the County to implement the above improvements, the timing of implementation of these improvements is outside of the City's control. Therefore, it is not guaranteed that these improvements would be implemented by 2030. As a result, the cumulative impact to these intersections would be significant and unavoidable under Year 2030 cumulative plus project conditions, which is the same impact at these intersections for the proposed project.

Year 2035 General Plan Plus Project (Warehouse Alternative)

The level of service analysis for the warehouse alternative under Year 2035 General Plan plus project conditions is shown below in Table 7.6-4. As before, the analysis focuses on the additional trips generated by the proposed commercial/industrial portions of the project, which are more intense than

what is expected under General Plan build out. The warehouse/commercial development plan would result in an additional 124 AM peak hour trips and 153 PM peak hour trips beyond expected General Plan traffic levels at the project site.

Table 7.6-4: Study Intersections Level of Service – Year 2035 General Plan Conditions (Warehouse Alternative)								
No.	Intersection	Peak Hour	Year 2035 No Project		Year 2035 Plus Project Buildout			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
1	Monterey Road and Burdett Avenue	AM PM	16.0 25.0	B C	15.9 25.4	B C	-0.1 0.5	-0.003 0.001
2a.	Monterey Road and Madrone Parkway (N)	AM PM	19.0 35.2	B D	18.5 35.6	B D	-0.6 0.6	-0.004 0.001
2b.	Monterey Road and Madrone Parkway (E)	AM PM	14.9 14.0	B B	14.8 14.0	B B	0.0 0.0	-0.002 0.000
3	Monterey Road and Cochrane Road	AM PM	26.9 30.8	C C	27.0 30.9	C C	-1.9 0.1	-0.016 0.001
4	Monterey Road and Old Monterey Road	AM PM	14.1 17.7	B B	14.1 17.7	B B	0.0 0.0	-0.002 0.002
5	Monterey Road and Wright Avenue	AM PM	27.6 22.3	C C	27.3 22.4	C C	-0.4 0.1	-0.001 0.002
6	Monterey Road and Central Avenue*	AM PM	240.6 39.4	F E	229.4 39.8	F E	N/A	N/A
7	Monterey Road and Main Avenue	AM PM	99.7 51.9	F D	99.2 51.9	F D	-0.8 0.0	-0.002 0.000
8	Monterey Road and Second Street	AM PM	10.8 12.5	B B	10.8 12.4	B B	0.0 0.0	-0.002 0.002
9	Monterey Road and Dunne Avenue	AM PM	30.7 36.7	C D	30.7 36.6	C D	0.0 -0.2	-0.001 -0.004
10	Church Street and Dunne Avenue	AM PM	20.8 25.1	C C	20.8 25.1	C C	0.0 0.0	-0.001 0.001

**Table 7.6-4: Study Intersections Level of Service – Year 2035 General Plan Conditions
(Warehouse Alternative)**

No.	Intersection	Peak Hour	Year 2035 No Project		Year 2035 Plus Project Buildout			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
11	Butterfield Boulevard and Dunne Avenue	AM PM	38.9 34.8	D C	38.9 34.8	D C	-0.1 0.0	-0.002 0.001
12	Walnut Grove Drive and Dunne Avenue	AM PM	20.3 28.0	C C	20.2 28.0	C C	0.0 0.0	-0.001 0.001
13	US 101 Southbound Ramps and Dunne Avenue	AM PM	21.7 22.3	C C	21.7 22.6	C C	-0.1 0.4	-0.001 0.007
14	US 101 Northbound Ramps and Dunne Avenue	AM PM	6.8 10.8	A B	7.0 10.7	A B	0.2 -0.1	-0.002 0.003
15	Condit Road and Dunne Avenue	AM PM	48.4 30.5	D C	48.4 30.4	D C	0.1 -0.1	0.001 0.001
16	Murphy Avenue and Dunne Avenue	AM PM	23.1 16.9	C B	23.3 17.1	C B	0.3 0.0	0.005 -0.002
17	Butterfield Boulevard and Diana Avenue	AM PM	22.7 23.5	C C	22.7 23.6	C C	0.0 0.2	0.000 0.002
18	Butterfield Boulevard and Main Avenue	AM PM	31.5 35.7	C D	31.5 35.9	C D	0.1 0.2	0.001 0.003
19	Butterfield Boulevard and Central Avenue	AM PM	17.5 11.3	B B	17.5 11.3	B B	0.0 0.0	0.000 0.000
20	Butterfield Boulevard and Jarvis Drive (S) / Digital Drive	AM PM	12.1 13.2	B B	12.1 13.2	B B	0.0 0.0	0.000 0.001
21	Butterfield Boulevard and Sutter Boulevard	AM PM	16.2 25.7	B C	16.2 25.8	B C	0.0 0.1	-0.001 0.000
22	Butterfield Boulevard and Cochrane Road	AM PM	18.8 23.1	B C	18.8 23.1	B C	0.0 0.0	0.000 0.002

**Table 7.6-4: Study Intersections Level of Service – Year 2035 General Plan Conditions
(Warehouse Alternative)**

No.	Intersection	Peak Hour	Year 2035 No Project		Year 2035 Plus Project Buildout			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
23	Cochrane Circle and Cochrane Road	AM PM	10.0 9.9	B A	10.0 10.0	B A	0.0 0.0	-0.003 0.001
24	Sutter Boulevard and Cochrane Road	AM PM	17.6 22.0	B C	17.6 22.1	B C	0.0 0.2	-0.001 0.005
25	Madrone Parkway/Cochrane Plaza and Cochrane Road	AM PM	18.5 29.0	B C	18.5 28.9	B C	0.0 0.0	-0.002 0.003
26	US 101 Southbound Ramps and Cochrane Road	AM PM	15.0 20.6	B C	15.1 21.1	B C	0.2 0.6	0.009 0.014
27	US 101 Northbound Ramps and Cochrane Road	AM PM	9.6 12.1	A B	10.0 12.2	A B	0.8 0.2	0.027 0.013
28	DePaul Drive and Cochrane Road	AM PM	40.2 68.3	D E	50.4 80.2	D F	23.5 25.9	0.059 0.052
29	Mission View Drive and Cochrane Road	AM PM	18.4 17.4	B B	18.5 17.4	B B	0.1 -0.1	0.007 -0.003
30	Mission View Drive and Avenida de los Padres*	AM PM	17.8 18.4	C C	18.7 18.3	C C	N/A	N/A
31	Mission View Drive and Half Road*	AM PM	28.5 19.3	D C	29.2 19.7	D C	N/A	N/A
32	DePaul Drive Extension and Half Road *	AM PM	14.9 61.7	B F	14.1 41.9	B E	N/A	N/A
33	Condit Road and Main Avenue	AM PM	35.5 62.7	D E	35.6 65.7	D E	1.3 3.5	0.004 0.002
34	Murphy Avenue and Main Avenue*	AM PM	209.3 81.5	F F	218.0 93.6	F F	N/A	N/A

Table 7.6-4: Study Intersections Level of Service – Year 2035 General Plan Conditions (Warehouse Alternative)								
No.	Intersection	Peak Hour	Year 2035 No Project		Year 2035 Plus Project Buildout			
			Average Delay	LOS	Average Delay	LOS	Increase in Critical Delay	Increase in Crit. V/C
35	Vista De Lomas and Burdett Avenue*	AM PM	11.0 9.5	B A	11.0 9.5	B A	N/A	N/A
36	Condit Road and Diana Avenue*	AM PM	17.0 15.3	C C	17.0 14.9	C B	N/A	N/A
37	Murphy Avenue and Diana Avenue*	AM PM	OVFL OVFL	F F	<u>OVFL</u> <u>OVFL</u>	<u>F</u> <u>F</u>	N/A	N/A
38	Condit Road and Tennant Avenue*	AM PM	24.3 75.1	C F	24.4 <u>75.8</u>	C <u>F</u>	N/A	N/A
39	Murphy Avenue and Tennant Avenue*	AM PM	213.7 OVFL	F F	<u>214.7</u> <u>OVFL</u>	<u>F</u> <u>F</u>	N/A	N/A
*Denotes an unsignalized intersection. Bold indicates unacceptable level of service or signal warrant met. <u>Underlined</u> indicates a significant impact. OVFL = Overflow (delay is greater than 250 seconds)								

Level of Service Comparison

As shown in Table 7.6-4 above, the warehouse alternative would result in significant impacts to the following five intersections under Year 2035 General Plan plus project conditions: #28 DePaul Drive and Cochrane Road (PM peak hour), #34 Murphy Avenue and Main Avenue (AM and PM peak hours), #37 Murphy Avenue and Diana Avenue (AM and PM peak hours), #38 Condit Road and Tennant Avenue (PM peak hour) and #39 Murphy Avenue and Tennant Avenue (AM and PM peak hours). Improvements identified in mitigation measures MM-CRN-2.1, MM C-TRN-2.4, for Murphy Avenue and Diana Avenue (which include signalization at this intersection identified in the TIA), MM C-TRN-2.5, MM C-TRN-2.6, respectively, would reduce the impacts at this intersection to a less than significant level.

When considering the proposed project and the warehouse scenarios, the warehouse alternative would result in impacts to a total of nine intersections, while the proposed project would impact a total of 11 intersections. The two additional intersections impacted by the proposed project would be Mission View Drive and Avenida De Los Padres, which would be mitigated by installation of a traffic signal, and the DePaul Drive Extension and Half Road, which would be mitigated by restricting left turns (refer to the discussion in Section 3.9 Transportation). The required mitigations for the intersections impacts resulting from both the warehouse alternative and the proposed project were the same at all impacted intersections but one (Main Avenue and Condit Road under Year 2035 General Plan plus project conditions), at which additional intersection improvements (i.e., providing

an exclusive eastbound right-turn lane) would be required to mitigate the proposed project's impacts. While the proposed project would generate greater vehicle trips than the warehouse alternative, only two additional intersections would be impacted.

Air Quality and Greenhouse Gas Emissions

A comparison of operational criteria air pollutant emissions between the proposed project and the warehouse alternative is shown below in Table 7.6-5.

Table 7.6-5: Operation Criteria Air Pollutant Emissions Comparison				
Scenario	ROG	NO_x	Total PM₁₀	Total PM_{2.5}
Full Build Out (Warehouse Alternative) Operational Emissions (2025)				
Total operational emissions (tons) Unmitigated	9.27	12.46	7.09	1.83
<i>BAAQMD Thresholds (tons/year)</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>10</i>
Average daily emissions (pounds/day) ¹ Unmitigated	51	68	39	10
<i>BAAQMD Thresholds (pounds/day)</i>	<i>54 lbs.</i>	<i>54 lbs.</i>	<i>82 lbs.</i>	<i>54 lbs.</i>
<i>Exceed Threshold?</i>	No	Yes	No	No
Full Build Out (General Light Industrial) Operational Emissions (2025)				
Total operational emissions (tons) Unmitigated	9.91	11.70	9.21	2.52
<i>BAAQMD Thresholds (tons/year)</i>	<i>10</i>	<i>10</i>	<i>15</i>	<i>10</i>
Average daily emissions (pounds/day) ¹ Unmitigated	54	64	50	14
<i>BAAQMD Thresholds (pounds/day)</i>	<i>54 lbs.</i>	<i>54 lbs.</i>	<i>82 lbs.</i>	<i>54 lbs.</i>
<i>Exceed Threshold?</i>	Yes	Yes	No	No
Notes: ¹ Assumes 365 days of operation.				

As shown above in Table 7.6-5, the buildout of both the warehouse and general light industrial projects (including the residential and commercial components) would result in significant and unavoidable operational NO_x emissions due to diesel truck activity. Both projects would also result in significant construction NO_x emissions. However, with the implementation of mitigation requiring Tier 4 equipment, the NO_x emissions would be reduced to a less than significant impact for both scenarios. This mitigation would also reduce the significant cancer risk impacts to off-site receptors to a less than significant level.

The proposed project would result in significant operational ROG emissions. With the implementation of mitigation that requires a TDM Plan and low VOC emitting architectural coatings, the ROG emissions would be reduced to 51 to 52 pounds per day which is below the BAAQMD threshold. The Warehouse Alternative would not result in significant ROG emissions, and therefore, would not require mitigation to reduce these emissions to a less than significant level.

The Warehouse Alternative would result in a significant and unavoidable greenhouse emissions impact, similar to the proposed general light industrial project, as shown in Table 7.6-6.

Table 7.6-6: Annual Project GHG (CO₂e) Emissions (2025)					
Category	Total	Industrial	Commercial	Industrial Office	Residential
Industrial Warehouse Scenario					
Area	31	0	-	-	31
Energy	372	252	14	69	37
Mobile	4,468	904	1,261	123	2,180
Industrial trucks	3,649	3,649	-	-	-
Waste	748	501	26	28	193
Water	194	169	3	7	15
Total:	9,462	5,475	1,304	227	2,456
Per Capita Emissions	3.64	4.21	6.52	4.05	2.44
General Light Industrial, Industrial Office, Commercial and Residential					
Area	31	0	-	-	31
Energy	1,725	1,605	14	69	37
Mobile	6,473	2,970	1,239	121	2,143
Industrial trucks	2,351	2,351	-	-	-
Waste	898	651	26	28	193
Water	192	167	3	7	15
Total:	11,670	7,744	1,282	225	2,419
Per Capita Emissions	4.55	5.96	6.41	4.01	2.41
<i>Per Capita Significance Threshold</i>	2.8 to meet 2030 goal	2.8 to meet 2030 goal	2.8 to meet 2030 goal	2.8 to meet 2030 goal	2.8 to meet 2030 goal
<i>Significant?</i>	Yes	Yes	Yes	Yes	No
Notes: Per Capita emissions based on service population of 1,300 employees for general light industrial and warehouse, 200 employees for commercial, 56 for industrial office, and 1,005 residents (population plus workers)					

Although the Warehouse Alternative would have slightly lower operational GHG emissions when compared to the proposed project, both project's industrial and commercial components would result in GHG emissions above the per capita significant threshold. Mitigation such as implementation of a TDM Plan, limiting idling times, and electrifying loading docks would be required for this alternative and the proposed project. With mitigation, the alternative and the project would result in a less than significant GHG impact.

Noise

Construction-related noise associated with the Warehouse Alternative would be similar to the proposed project given the similar size of the project and construction period. The Warehouse Alternative would slightly increase operational noise impacts due to increased truck activity to nearby residences. The number of truck trips estimated per day is 385 truck trips per day for the Warehouse Alternative and 248 truck trips per day for the general light industrial project. Mitigation such as alternative truck routes and soundwalls between the site and adjacent residences would be required for this alternative and the proposed project.

Relationship to Project Objectives

Development of the project site with warehouse uses instead of light industrial uses at the same scale would still allow for the creation of 1,500 jobs at the site. The Warehouse Alternative would allow for large-scale tenants to occupy the site and provide for an increase of the job and tax base in Morgan Hill. Additionally, the Warehouse Alternative would cluster large-scale development within the site and allow for the efficient use of existing infrastructure. The Warehouse Alternative would support development in the same areas of the project site as the proposed project and would still provide for a project which is located near existing transit corridors, bicycle infrastructure, and traffic arterials. The project Warehouse Alternative would not permit the same variety of uses such as advanced manufacturing (which is permitted under the General Light Industrial Alternative). Limited industrial uses allowed would affect the applicant's ability attract a variety companies to contribute to the City's job base. The two scenarios would have similar impacts related to agricultural resources (significant and unavoidable impact) biological resources, construction-related noise and air quality, cultural resources, hazards and hazardous materials, and hydrology and water quality. The Warehouse Alternative would have a similar impact to utilities, with slightly higher water demand due to a larger industrial building space (15,100 square feet more than the proposed project). The Warehouse Alternative would meet most of the project objectives.

Conclusion

The Warehouse Alternative would reduce the number of local intersections impacted from 11 intersections to nine intersections. The Warehouse Alternative would reduce the amount of operational emissions from the project but not to a level that is less than significant; significant operational criteria pollutant emissions impacts would occur under both scenarios. Overall, the Warehouse Alternative would slightly improve the environmental impacts (with the exception of operational noise and utility impacts) of the proposed project while still meeting most of the project objectives.

7.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE(S)

The *CEQA Guidelines* state than an EIR shall identify an environmentally superior alternative. If the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (Section 15126.6(e)(2)).

Table 7.7-1 summarizes the level of impact for the proposed project and each project alternative.

Table 7.7-1: Comparison of Impacts from Alternatives to the Proposed Project				
Significant Impacts of the Proposed Project	Level of Impact			
	No Project – No Development	No Project - Existing General Plan/Zoning Alternative	Reduced Intensity Alternative	Warehouse Alternative
Agricultural Resources	Avoided	Same	Same	Same
Air Quality	Avoided	Greater	Avoided	Less
Biological Resources	Avoided	Same	Same	Same
Cultural Resources	Avoided	Same	Same	Similar
Greenhouse Gas Emissions	Avoided	Greater	Less	Similar
Hazards/Hazardous Materials	Avoided	Same	Same	Same
Noise	Avoided	Greater	Less	Greater
Transportation Traffic	Avoided	Greater	Less	Less
Meets Project Objectives	No	Mostly	Partially	Partially
Environmentally Superior Alternative	Yes	No	Yes	No
Similar: Similar to the proposed project. Less: Substantial impact reduction compared to the proposed project, but not to a less than significant level. Greater: Substantially greater impact than proposed project.				

As shown in Table 7.7-1, the environmentally superior alternative would be the Reduced Intensity Alternative; however, it would only partially meet project objectives. A reduction of 20 percent would avoid operational NO_x impacts, a 65 percent reduction would avoid impacts to freeway segments, and 70 percent reduction would avoid local intersection impacts.

SECTION 8.0 REFERENCES

The analysis in this Environmental Impact Report is based on the professional judgement and expertise of the environmental specialists preparing this document, based upon review of the site, surrounding conditions, site plans, and the following references:

BAAQMD, Meteorology and Measurement Division. 2017 Air Monitoring Plan. July 1, 2018. Accessed March 12, 2019. http://www.baaqmd.gov/~media/files/technical-services/2017_network_plan_20180701-pdf.pdf?la=en.

BAAQMD. Final 2017 Clean Air Plan. April 19, 2017. Accessed August 13, 2019. <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>.

Basin Research and Associates. Archaeological Resources Assessment Report – Morgan Hill Technology and Mixed-Use Residential Project. June 2019.

Basin Research Associates. *Archaeological Resources Assessment Report – Morgan Hill Technology and Mixed-Use Residential Project – City of Morgan Hill, Santa Clara County*. June 2019.

Cal Fire. FRAP. Accessed May 21, 2019. <http://frap.fire.ca.gov/>.

CAL FIRE. Santa Clara County Fire Hazard Safety Zone Map – Local Responsibility Area. October 2008.

CAL FIRE. Santa Clara County Fire Hazard Safety Zone Map – State Responsibility Area. November 2007.

CalEPA. “Cortese List Data Resources.” Accessed August 27, 2019. <https://calepa.ca.gov/sitecleanup/corteselist>.

California Air Resources Board. 2017 Scoping Plan. Appendix I: Green Buildings Strategy. November 2017. Accessed May 3, 2020. https://ww3.arb.ca.gov/cc/scopingplan/2030sp_appi_greenbuildings_final.pdf.

California Air Resources Board. “Overview: Diesel Exhaust and Health.” Accessed August 16, 2019. <https://www.arb.ca.gov/research/diesel/diesel-health.htm>.

California Building Standards Commission. “2019 California Green Building Standards Code,” Accessed May 3, 2020. <https://www.dgs.ca.gov/BSC/Resources/Page-Content/Building-Standards-Commission-Resources-List-Folder/CALGreen>.

California Building Standards Commission. “California Building Standards Code: 2019 Triennial Edition of Title 24.” Accessed May 3, 2020. <https://www.dgs.ca.gov/BSC/Codes>.

California Department of Conservation. Farmland Mapping and Monitoring Program. Accessed May 21, 2019. <http://www.conservation.ca.gov/dlrp/fmmp/Pages/Index.aspx>.

California Department of Conservation. Williamson Act. Accessed May 21, 2019.
<http://www.conservation.ca.gov/dlrp/lca>.

California Department of Tax and Fee Administration. “Net Taxable Gasoline Gallons.” Accessed August 23, 2019. http://www.cdtfa.ca.gov/taxes-and-fees/MVF_10_Year_Report.pdf.

California Energy Commission. “Natural Gas Consumption by County.” Accessed February 21, 2019. <http://ecdms.energy.ca.gov/gasbycounty.aspx>.

California Energy Commission. California Energy Demand Updated Forecast, 2017-2027. Accessed: September 6, 2019. Available at: http://docketpublic.energy.ca.gov/PublicDocuments/16-IEPR05/TN214635_20161205T142341_California_Energy_Demand_Updated_Forecast.pdf.

California Energy Commission. Energy Consumption Data Management System. “Electricity Consumption by County.” Accessed March 15, 2019. <http://ecdms.energy.ca.gov/elecbycounty.aspx>.

California Gas and Electric Utilities. 2019 California Gas Report. Accessed August 27, 2019.
https://www.eia.gov/dnav/ng/ng_sum_lsum_dcu_SCA_a.htm.
https://www.socalgas.com/regulatory/documents/cgr/2019_CGR_Supplement_7-1-19.pdf.

California Regional Water Quality Control Board. Waste Discharge Requirements for the South County Wastewater Authority South County Regional Wastewater Treatment and Reclamation. Order No. R3-2017-0028, NPDES No. CA0049964. Accessed July 15, 2019.
https://www.waterboards.ca.gov/centralcoast/board_decisions/adopted_orders/2017/2017_0028_permit.pdf.

CalRecycle. SWIS Facility Detail: Johnson Canyon Sanitary Landfill (27-AA-0005). Accessed July 16, 2019. <https://www2.calrecycle.ca.gov/swfacilities/Directory/27-AA-0005>.

CEQA Guidelines Section 15064.5(a)(3) and California Office of Historic Preservation Technical Assistance Series #6. March 14, 2006.

City of Gilroy. South County Regional Wastewater Authority. Accessed July 12, 2019.
<http://www.ci.gilroy.ca.us/561/South-County-Regional-Wastewater-Authori>

City of Morgan Hill, Office of Emergency Services. Emergency Operations Plan. Revision 2.0. January 11, 2018.

City of Morgan Hill. “Chapter 8 Natural Resources and Environment.” City of Morgan Hill 2035 General Plan. Accessed May 8, 2019. <https://www.morganhill.ca.gov/DocumentCenter/View/22839/MH2035-General-Plan---December-2017?bidId>

City of Morgan Hill. 2015 Urban Water Management Plan. August 2016.

City of Morgan Hill. Bikeways, Trails, Parks and Recreation Master Plan. Adopted July 20, 2017. Accessed July 9, 2019. <http://www.morganhill.ca.gov/1429/Master-Plan-for-Parks-Trails-and-Bikeway>.

City of Morgan Hill. City Council Staff Report 2163. February 6, 2019.

City of Morgan Hill. City Council State Report 2163: Accept Report Regarding Wastewater System Needs and Rate Study Schedule. May 18, 2019.

City of Morgan Hill. City of Morgan Hill 2035 General Plan DEIR. Figures 4.4-2 and 4.4-4. January 2016.

City of Morgan Hill. City of Morgan Hill 2035 General Plan DEIR. January 2016.

City of Morgan Hill. City of Morgan Hill 2035 General Plan. Chapter 8 Natural Resources and Environment. Adopted July 27, 2016.

City of Morgan Hill. Municipal Code Chapter 18.60 – Historic Resources.

City of Morgan Hill. Sewer System Management Plan. Page 53. February 2018.

City of Morgan Hill. Sewer System Master Plan. Figure ES.3. October 2017.

City of Morgan Hill. Sewer System Master Plan. October 2017.

City of Morgan Hill. Storm Drainage Master Plan. September 2018.

City of Morgan Hill. Water System Master Plan. Figure ES.2. October 2017.

County of Santa Clara – Department of Planning and Development. Historic Context Statement. December 2004. Revised February 2012.

County of Santa Clara Department of Planning and Development. “Williamson Act Properties”. <https://www.sccgov.org/sites/dpd/programs/wa/pages/wa.aspx>. Accessed September 20, 2019.

Farmland Mapping and Monitoring Program. Santa Clara County Important Farmland 2016. September 2018.

Haley & Aldrich, Inc. *ASTM Phase I Environmental Site Assessment 1040 Cochrane Road and 1065 Half Road – Morgan Hill, California*. December 16, 2018.

Haley & Aldrich, Inc. *Results of Limited Phase II Environmental Investigation – Assessor Parcel Numbers 728-30-006, -009; 728-31-014, -015, and -016 – Morgan Hill, California*. December 21, 2018.

Hexagon Transportation Consultants. *Morgan Hill Technology Center – Traffic Impact Analysis*. March 11, 2020.

Illingworth & Rodkin, Inc. *Morgan Hill Fry’s Site Master Plan Air Quality and Greenhouse Gas Emissions Assessment*. May 4, 2020.

Illingworth & Rodkin, Inc. *Morgan Hill Technology Center and Mixed-Use Residential Project Noise and Vibration Assessment*. March 9, 2020.

James P. Allen & Associates. *Tree Resource Evaluation/Construction Impact Assessment/Tree Protection Plan*. March 12, 2019.

Kyle's Converter. "Convert Cubic Feet of Natural Gas to British Thermal Units." Accessed: September 6, 2019. Available at: <http://www.kylesconverter.com/energy,-work,-and-heat/cubic-feet-of-natural-gas-to-british-thermal-units#2110829>

Public Law 110–140—December 19, 2007. Energy Independence & Security Act of 2007. Accessed August 23, 2019. <http://www.gpo.gov/fdsys/pkg/PLAW-110publ140/pdf/PLAW-110publ140.pdf>.

Santa Clara Valley Habitat Agency. Habitat Agency Geobrowser. Accessed July 18, 2019. <http://www.hcpmaps.com/habitat/>.

Santa Clara Valley Water District. US Bureau of Reclamation WaterSMART Title XVI Water Reclamation and Reuse Program Funding FY 2017, FOA BOR-DO-17-F002. South Santa Clara County Recycled Water Project (Phases 1B and 2A). December 15, 2016. Accessed July 12, 2019. <https://www.usbr.gov/watersmart/title/docs/applications/authorized/2017/F002-007santaclara.pdf>

SVCE. "Frequently Asked Questions". Accessed September 6, 2019. <https://www.svcleanenergy.org/faqs>.

TODD Groundwater. *Water Supply Assessment – Morgan Hill Technology and Mixed-Use Residential Project – City of Morgan Hill*. August 20, 2019.

U.S. Department of the Interior. M-37050. The Migratory Bird Treaty Act Does Not Prohibit Incidental Take. <https://www.doi.gov/sites/doi.gov/files/uploads/m-37050.pdf>.

U.S. EIA. "Natural Gas." Accessed: September 6, 2019. Available at: United States Department of Energy. Energy Independence & Security Act of 2007. Accessed August 23, 2019. <http://www.afdc.energy.gov/laws/eisa>.

United States Energy Information Administration. "State Profile and Energy Estimates, 2017." Accessed August 1, 2019. <https://www.eia.gov/state/?sid=CA#tabs-2>.

United States Energy Information Administration. "State Profile and Energy Estimates, 2017." Accessed August 1, 2019. <https://www.eia.gov/state/?sid=CA#tabs-2>.

United States Environmental Protection Agency. "The 2018 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology since 1975." March 2019.

Urban Programmers. *Department of Parks and Recreation Form – 1105 Half Road*. March 2020.

Urban Programmers. *Department of Parks and Recreation Form – Cochrane Road Property*. March 2020.

SECTION 9.0 LEAD AGENCY AND CONSULTANTS

9.1 LEAD AGENCY

City of Morgan Hill

Jennifer Carman, Development Services Director
Jim Rowe, Senior Project Manager
Adam Paszkowski, Principal Planner

9.2 CONSULTANTS

David J. Powers & Associates, Inc.

Environmental Consultants and Planners

Akoni Daniels, Principal Project Manager
Amber Sharpe, Project Manager
Danny DeBrito, Associate Project Manager
Ryan Osako, Graphic Artist

Hexagon Transportation Consultants

Robert Del Rio, Vice President & Principal Associate

Illingworth & Rodkin, Inc.

James Reyff, Air Quality Consultant
Michael Thill, Noise Consultant
Mimi McNamara, Air Quality Consultant

James P. Allen & Associates

Consulting Arborists

TODD Groundwater

Water Supply Consultants

Haley & Aldrich, Inc.

Hazardous Materials Consultants