

Addendum
to the Fall 2014 General Plan Amendments Initial Study

Monterey-KB Home Residential Project

File Nos. SD-14-10, DA-14-09, ZA-14-20, EA14-20



August 2015

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SECTION 1.0 INTRODUCTION AND PURPOSE

1.1 BACKGROUND INFORMATION

In 2014, the Morgan Hill City Council adopted a Mitigated Negative Declaration for which an Initial Study was prepared for the Fall 2014 General Plan Amendments in accordance with the California Environmental Quality Act (CEQA). The Fall 2014 General Plan Amendments IS/MND (IS/MND) evaluated General Plan Amendments (GPAs) for four sites in the City of Morgan Hill including the proposed project site (APN 726-25-004; GPA-14-03). The IS/MND provided a program-level CEQA analysis by assuming the project site would be developed with approximately 60 residential units.

The Monterey-KB Home Residential Project (currently proposed project) would develop 52 single-family attached townhouses and six single-family detached residences on the approximately 4.37-acre site. The project also includes public and private roadways and open space areas for future residents.

The adopted IS/MND evaluated the proposed project site at a program-level. This Addendum to the IS/MND has been prepared to provide project-level CEQA analysis for the development of the project site and to account for project-specific details that were not previously available. The Addendum would provide environmental clearance for the construction of the proposed 58 residential units and a GPA to allow for the proposed building heights. The City proposed GPA would remove the Maximum Building Height column from General Plan Table 2 since height requirements are detailed in the City's Zoning Ordinance. The Municipal Code Section 18.16.050.G would also be amended to allow building heights of three stories or 40 feet in the *R-3 Medium Density Residential District*. This Addendum is focused solely on the effects of the proposed development on the subject site, as the City has separately evaluated the potential for the regulatory changes to result in environmental effects as applied to other properties in the City.

1.2 PURPOSE OF ADDENDUM

The California Environmental Quality Act (CEQA) recognizes that between the date an environmental document is completed and the date the project is fully implemented, one or more of the following changes may occur: 1) the project may change; 2) the environmental setting in which the project is located may change; 3) laws, regulations, or policies may change in ways that impact the environment; and/or 4) previously unknown information can arise. Before proceeding with a project, CEQA requires the Lead Agency to evaluate these changes to determine whether or not they affect the conclusions in the environmental document.

The purpose of this Addendum is to provide a project-level CEQA analysis of the proposed project, which would allow for the development of 58 single-family residences on a site previously analyzed for 60 single-family residences as part of the adopted IS/MND for the Fall 2014 General Plan Amendments..

The CEQA Guidelines §15162 state that when a negative declaration has been adopted for a project, no subsequent EIR or negative declaration shall be prepared for that project unless the lead agency

determines, on the basis of substantial evidence in light of the whole record, one or more of the following:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
 - a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
 - b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
 - c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
 - d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR or negative declaration would substantially reduce one or more significant effects on the environment, but the project proponents decline to adopt the mitigation measure or alternative.

CEQA Guidelines §15164(b) state that an addendum to an adopted negative declaration may be prepared if only minor technical changes or additions are necessary or none of the conditions described in §15162 calling for the preparation of a subsequent EIR or negative declaration have occurred.

Based on the proposed project description, knowledge of the project site, the environmental review prepared for the IS/MND, and the attached analysis, the City has concluded that the currently proposed project is consistent with the project description and future development evaluated in the 2014 IS/MND and would not result in any new significant impacts not previously disclosed in the IS/MND, nor would it result in a substantial increase in the magnitude of any significant environmental impact previously identified in the IS/MND. For these reasons, an addendum to the adopted Initial Study/Mitigated Negative Declaration for the Fall 2014 GPAs has been prepared and a supplemental or subsequent EIR or IS/MND is not required for the proposed project.

This Addendum will not be circulated for public review, but will be attached to the previously adopted Initial Study/Mitigated Negative Declaration prepared for the General Plan Amendment on the project site (Fall 2014), pursuant to CEQA Guidelines §15164(c).

All documents referenced in this Addendum are available for public review in the Community Development Agency, Planning Division at the City of Morgan Hill, 17575 Peak Avenue, during normal business hours.

SECTION 2.0 PROJECT INFORMATION

2.1 PROJECT TITLE

Monterey – KB Home Residential Project

2.2 PROJECT LOCATION

The 4.37-acre project site (APN 726-25-004) is located on Monterey Road, approximately 600 feet south of the Old Monterey Road and Monterey Road intersection between Monterey Road and the Union Pacific Railroad (UPRR) tracks in the City of Morgan Hill. The project site is located in an area with a mix of residential, commercial, and public facilities. A regional map, vicinity map, and aerial photograph of the project sites are provided on Figures 2.2-1, 2.2-2, and 2.2-3, respectively.

2.3 LEAD AGENCY CONTACT

City of Morgan Hill
Gina Paolini, Senior Planner
Community Development Department
17575 Peak Avenue
Morgan Hill, CA 95037

2.4 PROPERTY OWNER/PROJECT APPLICANT

KB Homes
Michelle Fisk
5000 Executive Pkwy., Suite 125
San Ramon, Ca 94583

2.5 ASSESSOR'S PARCEL NUMBER

726-25-004

2.6 ZONING DISTRICT AND GENERAL PLAN DESIGNATIONS

Existing Zoning District: *Light Commercial/Residential (CL/R)*
Proposed Zoning District: *R-3 Residential Planned Development (PD)*

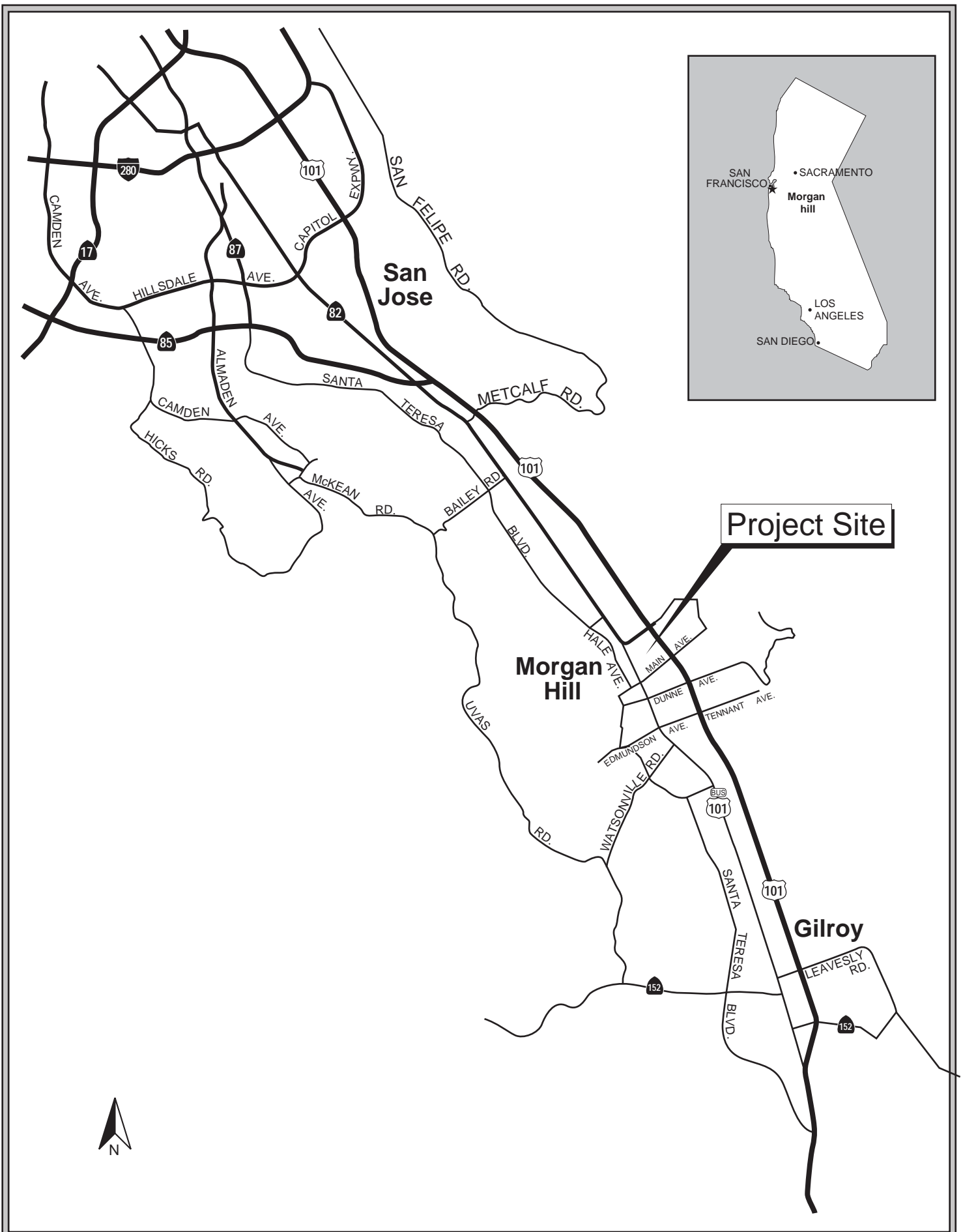
Existing General Plan Designation: *Multi-Family Medium (14-21 du/ac)*
Proposed General Plan Designation: *No change*

2.7 PROJECT-RELATED APPROVALS, AGREEMENTS AND PERMITS

- General Plan Amendment (building heights)
- Rezoning
- Tentative Map
- Development Agreement

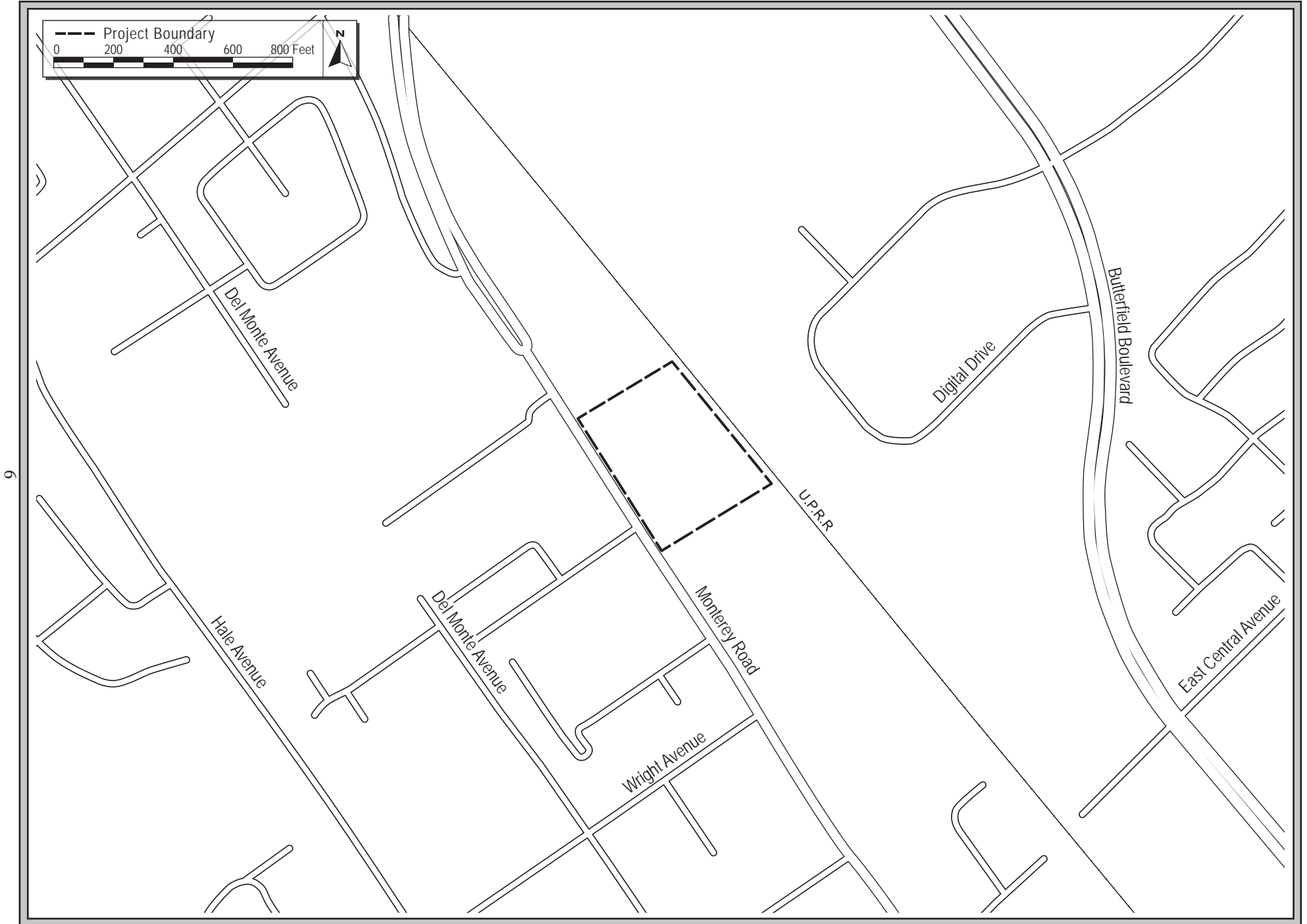
2.8 HABITAT PLAN DESIGNATION

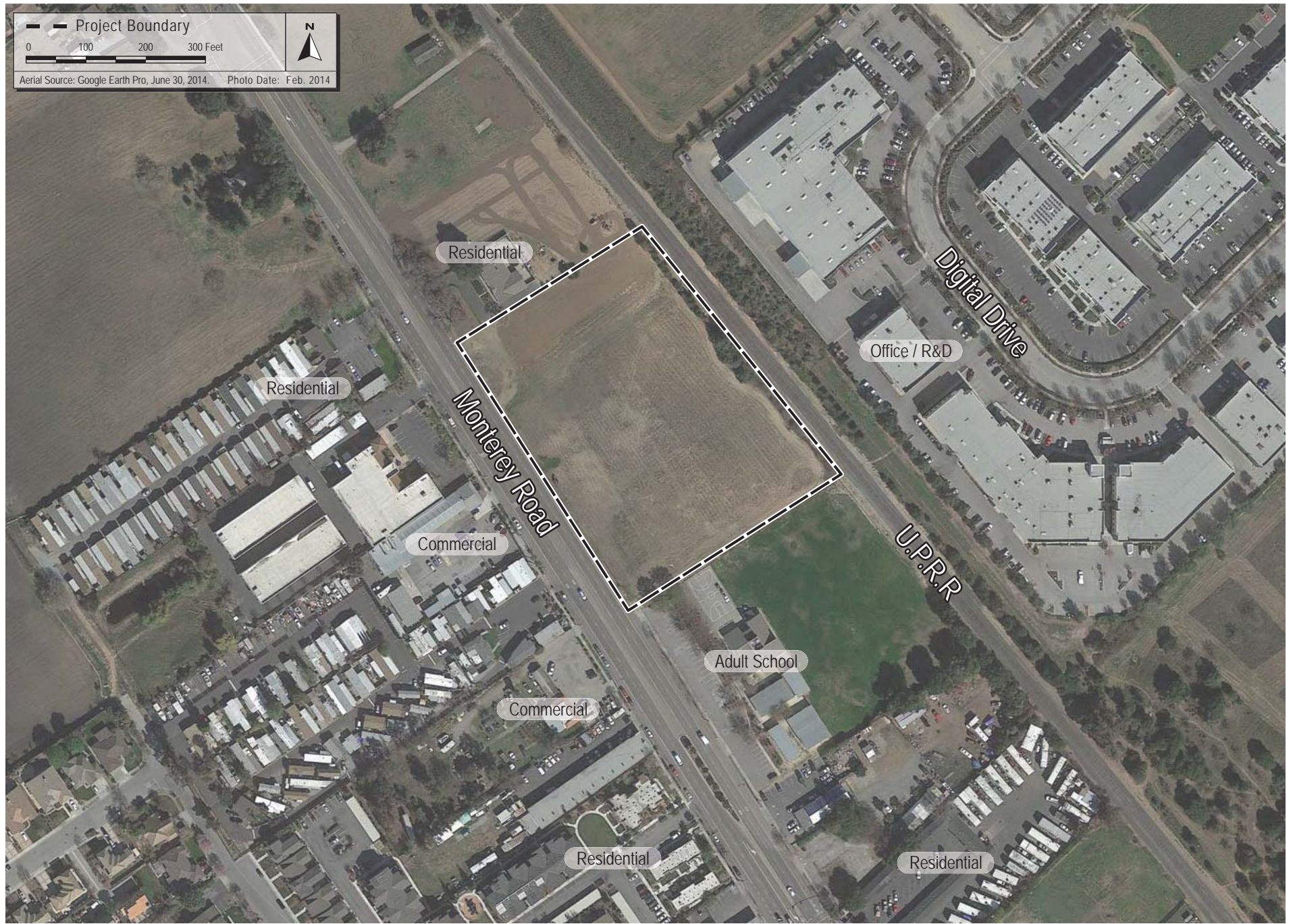
Land Cover Designation: Grain, Row-crop, Hay and Pasture, Disked / Short-term Fallowed
Development Zone: Urban Development Greater Than Two Acres Covered
Fee Zone: B – Agricultural and Valley Floor Lands
Owl Conservation Zone: N/A



REGIONAL MAP

FIGURE 2.2-1





AERIAL PHOTOGRAPH AND SURROUNDING LAND USES

FIGURE 2.2-3

SECTION 3.0 PROJECT DESCRIPTION

3.1 OVERVIEW

The 4.37-acre project site is comprised of a single parcel (APN 726-25-004) located approximately 600 feet south of the Old Monterey Road and Monterey Road intersection and on the west side of the UPRR tracks in the City of Morgan Hill. The project site is designated *Multi-Family Medium (14-21du/ac)* in the City's General Plan and zoned *CL-R – Light Commercial-Residential*.

The project site is currently vacant and accessible from Monterey Road and properties north, east, and south of the site. Landscaping consists of trees and shrubs along the eastern property line and ruderal vegetation throughout the site. There are no sidewalks along the boundaries of the project site.

3.2 PROPOSED DEVELOPMENT

The project proposes R-3 Residential Planned Development Zoning to develop 52 single-family attached townhouses, six (6) single-family detached residences, public and private streets, and open space areas on the site (see Figure 3.2-1 Site Plan). Each housing unit would be three-stories tall and include a two-car garage. The proposed residences would be three- and four-bedroom units and would vary in size ranging from approximately 1,600 to 2,400 square feet.

The proposed 3-story units would be approximately 30 feet in height to the top of the third floor with roof heights of up to 40 feet (see Figure 3.2-2 Conceptual Elevations). The housing units would have a minimum setback of 16 feet from Monterey Road, 50 feet from the northern property line, 69 feet from the eastern property line, and 50 feet from the southern property line.

3.2.1 Access and Parking

A 28-foot wide public roadway is proposed along the northern boundary of the site which would connect to Monterey Road on west and a 36-foot wide private roadway along the eastern boundary of the site. The southern boundary of the site would have a 28-foot private roadway also connecting with Monterey Road in the west and a private roadway on the site to the east. Private alleys (approximately 26 feet wide) would provide access to the garages and surface parking on-site. The network of public and private roadways on the site would have five access points to the private alleys. The public/private roadway network would be accessible to residents, visitors, and emergency vehicles while the alleys would be for residents and visitors.

The project would provide a total of 116 residential parking spaces in the garages, 12 spaces in driveway aprons and 52 street parking spaces for a total of 180 parking spaces on-site. Sidewalks (approximately five feet wide) are proposed along all four street frontages of the proposed development.

3.2.2 *Landscaping and Open Space*

The project proposes one centrally-located open space area on-site. New landscaping would consist of trees, shrubs, and groundcover along the proposed sidewalks, street frontages, and building fronts and open spaces. Open space on the site would total approximately 0.70 acres.

3.2.3 *Stormwater Treatment*

The project site would include stormwater bioretention basins in all open space areas of the project site. A vegetated swale is proposed along the eastern property boundary of the site, adjacent to the UPRR corridor. Bioretention areas are also proposed in landscaped areas of the site frontage on Monterey Road.

3.2.4 *Grading and Construction*

The project would take approximately 22 months to construct. The grading and building construction phases of the project would require the export of approximately 2,000 cubic yards of soil resulting in approximately 167 truck trips to and from the site.



Source: RJA, June 2015.

PROPOSED SITE PLAN

FIGURE 3.2-1



Source: SDG Architects, June 2015.

SECTION 4.0 ENVIRONMENTAL SETTING, CHECKLIST AND DISCUSSION OF IMPACTS

This section describes the existing environmental conditions on and near the project area, as well as environmental impacts associated with the proposed project. The environmental checklist, as recommended in the California Environmental Quality Act (CEQA) Guidelines, identifies environmental impacts that could occur if the proposed project is implemented.

The right-hand column in the checklist lists the source(s) for the answer to each question. The sources cited are identified at the end of this section. Mitigation measures are identified for all significant project impacts. “Mitigation Measures” are measures that will minimize, avoid, or eliminate a significant impact (CEQA Guidelines §15370).

4.1 AESTHETICS

4.1.1 Setting

Visual Character of the Project Site and Surrounding Area

The project site is undeveloped with non-native grasses covering the majority of the site. A row of shrubs and trees is located along the eastern property boundary adjacent to the UPRR tracks (refer to *Section 4.4 Biological Resources*). A single-story former high school (now an adult education facility) with associated turf fields, a basketball court, and parking lot is located south of the site. A one-story, ranch-style residence is located north of the project site (refer to Photos 1 and 2). The adjacent four-lane Monterey Road is located west of the project site.

Scenic Views

The project site is flat with views of the foothill areas to the east and west. The project site is not located within any scenic view corridors, nor is it visible from a designated scenic highway. The closest scenic highway to the site is State Route 9 in Los Gatos.



PHOTO 1: View of the Monterey-KB Home site looking northeast from the west side of Monterey Road.



PHOTO 2: View of the adjacent single-family residence looking north from Monterey Road.

4.1.1.2 Regulatory Framework**City of Morgan Hill General Plan**

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating visual and aesthetics impacts resulting from development within the City. All development is subject to City plans and policies, including those listed below.

Neighborhoods Policy 8a - Maintain distinct boundaries between commercial uses and residential neighborhood. (This does not preclude residential uses within commercial areas as part of mixed-use projects, or in designated mixed use areas.)

Neighborhoods Policy 8e - Design residential neighborhoods so they are distinct and separated from conflicting non-residential uses.

Built Environment Policy 12a - Avoid monotony in the appearance of residential development.

Built Environment Policy 12e - Minimize the use of sound walls.

Built Environment Policy 12g - Ensure adequate maintenance of streetscape improvements.

Plants and Wildlife Policy 6c - Preserve outstanding natural features, such as the skyline of a prominent hill, rock outcroppings, and native and/or historically significant trees.

Water Quality Policy 6h - Preserve and protect mature, healthy trees whenever feasible, particularly native 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.

Other applicable City policies and guidelines that address aesthetics include the following:

- *Architectural Review Handbook*
- Significant Tree provisions of the Morgan Hill Municipal Code (Chapter 12.32)

4.1.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
1. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
2. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
3. Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
4. Create a new source of substantial light or glare which will adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

4.1.2.1 *Scenic Resources and Vistas*

The project site is flat and surrounded by suburban uses. Given the amount of suburban development surrounding the project site, there are no scenic vistas on or viewed from the project site that would be significantly impacted through residential development on the site. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.1.2.2 *Changes in Visual Character*

The proposed project would convert an existing vacant grassland parcel to suburban use. As described in Section 4.4, the site contains several trees and shrubbery adjacent to the UPRR tracks. The landscape vegetation on the site is of poor structural and visual quality; therefore, its loss would not result in a significant visual resource impact. The development of residential uses adjacent to a former school and existing single-family residence, although it would alter the character of the site, would not substantially degrade the quality of the site or its surroundings. The proposed residences would be three-stories in height (up to 40 feet) and set back approximately 16 feet from Monterey Road. The City is considering a General Plan Amendment that would eliminate the height limitations in Table 2 of the General Plan. The City is also proposing to amend the Zoning Ordinance in the *R-3 Medium Density Residential District* from allowed building heights of three stories or 30 feet to three stories or 40 feet. The proposed project height of up to 40 feet would not significantly increase the impact of the project on the visual character of the project area given the substantial setbacks from adjacent land uses and public spaces.

Sidewalks would be constructed along the entire project frontage on Monterey Road. A proposed public street on the north and private streets on the east and south sides of the site would have sidewalks adjacent to all residences. Landscaping would be planted between the proposed sidewalks on Monterey Road, the new public and private roadways, and proposed residences. The provision of appropriate public facilities and landscaping on the project site would ensure the project does not substantially degrade the visual character of the site. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.1.2.3 *Light and Glare*

Development on the project site would incrementally increase light and glare due to the new building surfaces, vehicles travelling to and from the development, and lighted buildings and streets. The light and glare created by the proposed residential development would be consistent with the light and glare currently emitted by residential, commercial, and industrial development surrounding the project site which is typical of a suburban area, and is not considered substantial. The project would be reviewed during the City's design permit process for consistency with the City's design guidelines including the appropriate use of lighting and avoidance of glare. Development of the project site, therefore, would not result in a significant new source of light or glare. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.1.3 Conclusion

The proposed project would comply with applicable General Plan policies and the City's design review process and would not result in significant adverse visual or aesthetic impacts. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.2 AGRICULTURAL AND FOREST RESOURCES

4.2.1 Setting

The project site is not designated by the California Resources Agency as farmland of any type and is not the subject of a Williamson Act contract¹ (a statewide agricultural land protection program).

The *Santa Clara County Important Farmland 2012 Map*² designates the project site as *Urban and Built-Up Land* which is defined as land that is occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. The site is currently undeveloped and is not currently used for agricultural purposes. The site was formerly used for hay production. No land adjacent to the project site is designated or used as farmland. There is no forest land on or adjacent to the project site.

4.2.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,4
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,5

¹ California Department of Conservation, Division of Land Resource Protection. *Santa Clara County Williamson Act FY 2013/2014*. Map. 2013. ftp://ftp.consrv.ca.gov/pub/dlrp/wa/SantaClara_13_14_WA.pdf Accessed March 18, 2015.

² California Department of Conservation, Division of Land Resources Protection. *Santa Clara County Important Farmland 2012*. 2014. <<ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/sc112.pdf>>. Accessed February 11, 2015.

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
4. Result in a loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

4.2.2.1 *Agricultural and Forest Impacts from the Proposed Project*

The project site is not used for agriculture or forestry production. The site is planned for urban uses, as indicated by the current General Plan land use designation and zoning on the site (refer to Section 2.6, *Zoning District and General Plan Land Use Designation*). The site is not designated by the Department of Conservation as farmland of any type and is not the subject of a Williamson Act contract. None of the properties adjacent to the project site are used for agriculture or forestry. For these reasons, the proposed project would not impact agricultural or forest resources or result in the loss of designated agricultural or forest land. **(Less Than Significant Impact [Same as Approved Project])**

4.2.3 Conclusion

The proposed development on the project site would not result in a significant impact related to agricultural or forest resources. **(Less Than Significant Impact [Same as Approved Project])**

4.3 AIR QUALITY

The following discussion is based in part on a Community Risk Assessment prepared by *Illingworth & Rodkin* in February 2015 and is included as Appendix A of this Addendum.

4.3.1 Setting

4.3.1.1 *Local and Regional Air Quality*

Background

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 determinations of transport and dilution are wind, atmospheric stability, terrain, and for photochemical pollutants, sunlight.

The project site is located in the southern portion of Santa Clara County, which is in the San Francisco Bay Area Air Basin. The Bay Area Air Quality Management District (BAAQMD) is the regional agency tasked with managing air quality in the region. The California Air Resources Board (CARB) oversees regional air district activities and regulates air quality at the State level. The BAAQMD recently published CEQA Air Quality Guidelines that are used in this assessment to evaluate air quality impacts of projects.³

Air Quality Standards

Ambient air quality standards have been established at both the State and federal level. The Bay Area meets all ambient air quality standards with the exception of ground-level ozone, respirable particulate matter (PM₁₀) and fine particulate matter (PM_{2.5}).

Ozone

High ozone levels are caused by the cumulative emissions of reactive organic gases (ROG) and nitrogen oxides (NO_x). These precursor pollutants react under certain meteorological conditions to form high ozone levels. Controlling the emissions of these precursor pollutants is the focus of the BAAQMD's attempt to reduce ozone levels. The highest ozone levels in the Bay Area occur in the eastern and southern inland valleys that are downwind of air pollutant sources. High ozone levels aggravate respiratory and cardiovascular diseases, reduce lung function, and increase coughing and chest discomfort.

Particulate Matter

Particulate matter is another problematic air pollutant in the Bay Area. Particulate matter is assessed and measured in terms of respirable particulate matter. These are particles that have a diameter of 10 micrometers or less (PM₁₀) and fine particulate matter where particles have a diameter of 2.5

³ Bay Area Air Quality Management District. *BAAQMD CEQA Air Quality Guidelines*. May 2011.

micrometers or less (PM_{2.5}). Elevated concentrations of PM₁₀ and PM_{2.5} are the result of both region-wide (or cumulative) emissions and localized emissions. High particulate matter levels aggravate respiratory and cardiovascular diseases, reduce lung function, increase mortality (e.g., lung cancer), and reduce lung function growth in children.

Toxic Air Contaminants

Toxic air contaminants (TACs) are a broad class of compounds known to cause morbidity or mortality (usually because they cause cancer) and include, but are not limited to, the criteria air pollutants listed above (NO_x, ROG, PM₁₀, and PM_{2.5}). TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, 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 near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, State, and federal level.

Diesel exhaust (or diesel particulate matter – DPM) is the predominant TAC in urban air and is estimated to represent about three-quarters of the cancer risk from TACs (based on the Bay Area average). According to the CARB, diesel exhaust is a complex mixture of gases, vapors, and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some of the chemicals in diesel exhaust, such as benzene and formaldehyde, were previously identified as TACs by the CARB, and are listed as carcinogens either under the State's Proposition 65 or under the Federal Hazardous Air Pollutants programs.

The CARB adopted and implemented a number of regulations for stationary and mobile sources to reduce emissions of DPM. Several of these regulatory programs affect medium and heavy duty diesel trucks that represent the bulk of DPM emissions from California highways. These regulations include the solid waste collection vehicle (SWCV) rule, in-use public and utility fleets, and the heavy-duty diesel truck and bus regulations. In 2008, the CARB approved a new regulation to reduce emissions of DPM and nitrogen oxides from existing on-road heavy-duty diesel fueled vehicles.⁴ The regulation requires affected vehicles to meet specific performance requirements between 2011 and 2023, with all affected diesel vehicles required to have 2010 model-year engines or equivalent by 2023. These requirements are phased in over the compliance period and depend on the model year of the vehicle.

4.3.1.2 Existing Air Pollutant Emissions near the Project Site

Existing sources of air pollutant emissions near the project site include Monterey Road and the UPRR tracks. The project site fronts Monterey Road. Busy roadways, such as Monterey Road, are a source of TAC emissions. The UPRR tracks are located adjacent to the eastern boundary of the project site. Diesel locomotives are a source of diesel particulate matter (DPM) and PM_{2.5} emissions. There is a gas station located approximately 550 feet south of the site at 17905 Monterey Road; this is the only known stationary source of air pollutant emissions located near the project site.⁵

⁴ <http://www.arb.ca.gov/msprog/onrdiesel/onrdiesel.htm>

⁵ Illingworth and Rodkin. *Spring 2014 General Plan Amendments Draft TAC and GHG Emissions Assessment*. August 14, 2014.

4.3.1.3 *Existing Sensitive Receptors*

BAAQMD defines sensitive receptors as facilities where sensitive receptor population groups (children, the elderly, the acutely ill and the chronically ill) are likely to be located. These land uses include residences, school playgrounds, child-care centers, retirement homes, convalescent homes, hospitals and medical clinics. For cancer risk assessments, children are the most sensitive receptors, since they are more susceptible to cancer causing TACs. Existing sensitive receptors near the project site include the residential uses to the north and west of the project site and adult education facilities located at the former high school to the south.

4.3.1.4 *Local Policies and Regulations*

City of Morgan Hill Standard Measure

In accordance with the City of Morgan Hill Standard Conditions of approval, prior to issuance of a grading permit, the owner shall submit to the Planning Division for approval, a management plan detailing strategies for control of dust during construction of the project. The intent of this condition is to minimize construction related disturbance of the adjacent residential properties.

4.3.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
1. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,6
2. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,7
3. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is classified as non-attainment under an applicable federal or state ambient air quality standard including releasing emissions which exceed quantitative thresholds for ozone precursors?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,7
4. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,8

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
5. Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

4.3.2.1 *Thresholds of Significance*

Thresholds that measure a project’s significant air quality impacts were prepared and adopted by BAAQMD in May 2011, and became the subject of a lawsuit by the California Building Industry Association (BIA).⁶ In March 2012 the Alameda County Superior Court judged that the BAAQMD had failed to comply with CEQA because the adoption of the CEQA thresholds should have been evaluated as a project under CEQA. The court ordered BAAQMD to set aside the thresholds until BAAQMD complies with CEQA.

BAAQMD has appealed the Alameda County Superior Court’s decision. The appeal is currently pending before the Supreme Court. Pending resolution of the case, BAAQMD no longer recommends that the thresholds be used as a generally applicable measure of a project’s significant air quality impacts. It is up to lead agencies to determine appropriate air quality thresholds of significance based on substantial evidence in the record. The City has carefully considered the thresholds prepared by BAAQMD in May 2011 and regards these thresholds to be based on the best information available for the San Francisco Bay Area Air Basin. Evidence supporting these thresholds has been presented in the following documents:

- BAAQMD. *CEQA Air Quality Guidelines*. Updated May 2011 and May 2012.
- BAAQMD. *Revised Draft Options and Justification Report California Environmental Quality Act Thresholds of Significance*. October 2009.
- California Air Pollution Control Officers Association. *Health Risk Assessments for Proposed Land Use Projects*. July 2009.
- California Environmental Protection Agency, California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. 2005.

The analysis in this Addendum is based upon the general methodologies in the most recent May 2012 BAAQMD CEQA Air Quality Guidelines and numeric thresholds identified for the San Francisco Bay Area Air Basin in the May 2011 BAAQMD CEQA Air Quality Guidelines (Air Quality Guidelines), as shown in Table 4.3-1.

⁶ *California Building Industry Association v. Bay Area Air Quality Management District*, Alameda County Superior Court Case No. RG10548693.

Table 4.3-1 Thresholds of Significance Used in Air Quality Analyses			
Pollutant	Construction	Operation-Related	
	Average Daily Emissions (pounds/day)	Average Daily Emissions (pounds/day)	Maximum Annual Emissions (tons/year)
ROG, NO _x	54	54	10
PM ₁₀	82 (exhaust)	82	15
PM _{2.5}	54 (exhaust)	54	10
Fugitive Dust (PM ₁₀ /PM _{2.5})	Best Management Practices	None	None
Risk and Hazards for New Sources and Receptors (Project)	Same as Operational Threshold	<ul style="list-style-type: none">Increased cancer risk of >10.0 in one millionIncreased non-cancer risk of > 1.0 Hazard Index (chronic or acute)Ambient PM_{2.5} increase: > 0.3 μ/m³ [Zone of influence: 1,000-foot radius from property line of source or receptor]	
Risk and Hazards for New Sources and Receptors (Cumulative)	Same as Operational Threshold	<ul style="list-style-type: none">Increased cancer risk of >100 in one millionIncreased non-cancer risk of > 10.0 Hazard Index (chronic or acute)Ambient PM_{2.5} increase: > 0.8 μ/m³ [Zone of influence: 1,000-foot radius from property line of source or receptor]	
Source: Bay Area Air Quality Management District CEQA Guidelines (updated May 2011) and BAAQMD. Revised Draft Options and Justification Report California Environmental Quality Act Thresholds of Significance. October 2009.			

4.3.2.2 Consistency with Clean Air Plan

The proposed project would not conflict with the latest Clean Air planning efforts since; (1) the project's operational emissions would be well below the BAAQMD thresholds of significance for air pollutants as discussed below in Section 4.3.2.3; (2) development of the project site would be considered urban "infill"; and (3) development would occur near employment centers. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.3.2.3 Impacts to Non-attainment Criteria Pollutant Levels

The Bay Area is considered a non-attainment area for ground-level ozone and fine particulate matter (PM_{2.5}) under both the federal Clean Air Act and the California Clean Air Act. The area is also considered non-attainment for respirable particulates or particulate matter with a diameter of less than 10 micrometers (PM₁₀) under the California Clean Air Act, but not the federal act. The area has attained both State and federal ambient air quality standards for carbon monoxide. As part of an effort to attain and maintain ambient air quality standards for ozone and PM₁₀, the BAAQMD has established thresholds of significance for air pollutants. These thresholds are for ozone precursor

pollutants (ROG and NO_x), PM₁₀ and PM_{2.5}, and apply to both construction and operation period impacts.

Operational Emissions

The proposed project would construct a 58-unit residential development on the 4.37-acre site. BAAQMD's screening thresholds for operational-related criteria pollutants for a townhouse-style development project has a screening size of 451 dwelling units. The proposed project is well below BAAQMD's screening threshold and would result in a less than significant operational emissions impact. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.3.2.4 *Air Quality Violations*

As discussed above, criteria pollutant emissions under the proposed project would be less than the significance thresholds adopted by BAAQMD. Therefore, the project would not contribute substantially to existing or projected violations of those standards. Carbon monoxide emissions from project-generated traffic would be the pollutant of greatest concern at the local level. Congested intersections with a large volume of traffic have the greatest potential to cause high-localized concentrations of carbon monoxide. Intersection volumes under project conditions, however, are well below the BAAQMD carbon monoxide screening level. Pursuant to the BAAQMD CEQA Guidelines, project carbon monoxide impacts are less than significant if project traffic projections indicate traffic levels would not increase at any affected intersection to more than 44,000 vehicles per hour. Intersection volumes in the project area with the addition of project-generated traffic are well below 44,000 vehicles per hour. Based on the trip generation rates in *Section 4.16, Transportation*, the project would generate approximately 24 AM peak hour and 30 PM peak hour trips and would not increase any intersection to more than 44,000 vehicles per hour. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.3.2.5 *Exposure to Substantial Pollutant Concentrations*

The proposed residential development at the project site (58 residential units) would generate localized construction period emissions that could expose sensitive receptors, the single-family house approximately 25 feet north of the project site, to unhealthy air pollutant levels.⁷ Construction activities on the project site would generate dust and equipment exhaust on a temporary basis (a 22-month period). Existing mobile sources of air pollutant emissions near the project site that may affect future residents on the site include Monterey Road and the UPRR tracks.

Construction Activity

Due to the relatively small size of the proposed project, construction period emissions are expected to be less than significant. The BAAQMD *CEQA Air Quality Guidelines* (May 2011) identify the size of construction projects that could result in significant criteria air pollutant emissions, which includes multi-family residential projects exceeding 240 units in size. Since the proposed project would only

⁷ The project site is also located north of the former Central High School campus which currently holds adult education classes in the evening and would not be significantly affected by daytime construction work.

construct 58 residential units, the construction emissions of criteria air pollutants would be less than significant. Nearby sensitive receptors, however, could be adversely affected by dust generated and diesel exhaust emissions during construction of the project. Implementation of the City's standard conditions and mitigation measure MM AQ-1 (see below), would reduce the impacts of construction-related emissions to a less than significant level.

Dust Emissions

Construction activity is anticipated to include grading, building construction, paving and application of architectural coatings. During grading and construction activities, dust would be generated. Most of the dust would result during grading activities. The amount of dust generated would be highly variable and is dependent on the size of the area disturbed at any given time, amount of activity, and soil and meteorological conditions. Typical winds during late spring through summer are from the north. The nearest sensitive land use to the site is the single-family residence located to the north. This nearby receptor could be adversely affected by dust generated during construction activities.

The BAAQMD CEQA Air Quality Guidelines consider these impacts to be less than significant if best management practices are employed to reduce these emissions. With the implementation of the standard condition below, exposure of sensitive receptors to dust generated during construction would be reduced to a less than significant level.

The BAAQMD has identified feasible construction dust control measures (best management practices). These measures are listed in the BAAQMD CEQA Guidelines and presented below. In accordance with the City's Standard Conditions of Approval, these measures would be required as project conditions to reduce short-term air quality impacts during construction to a less than significant level.

Implementation of the measures recommended by the BAAQMD and listed below would reduce the air quality impacts associated with grading and new construction to a less than significant level.

Standard Condition SITE DEVELOPMENT MANAGEMENT PLAN: A management plan detailing strategies for control of noise, dust and vibration, and storage of hazardous materials during construction of the project shall be on all site development and grading plans. The intent of this condition is to minimize construction related disturbance of residents of the nearby or adjacent properties (**MHMC 18.48.005**). The plan must include, and the contractor shall implement, the following "Basic Construction Mitigation Measures" per BAAQMD:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- 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.
- All vehicle speeds on unpaved roads shall be limited to 15 miles per hour.

- 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.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 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.
- 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.
- 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. **(Less Than Significant Impact with Mitigation [Same Impact as Approved Project])**

TAC Emissions

Construction equipment and associated heavy-duty truck traffic generates diesel exhaust, which is a known toxic air contaminant (TAC), and can generate PM_{2.5} emissions. The closest sensitive receptor to the project site is a single-family residence north of the site. To quantify the effects of DPM on the nearest adjacent sensitive receptor, construction period exhaust emissions were computed using the CalEEMod model. The U.S. EPA ISCST3 dispersion model was used to predict concentrations of DPM at existing residences in the vicinity of the project site. The analysis was based on a 22-month construction period.

The total annual PM_{2.5} emissions for the off-road construction equipment and on-road vehicles (i.e., haul trucks, vendor trucks, and worker trucks) would be 0.0887 tons or 177 pounds per year. Fugitive PM_{2.5} dust emissions were calculated to be 8.6 pounds over the length of the entire construction period.

The maximum incremental residential child cancer risk was calculated to be 16.9 cancer cases per million. The maximum residential adult cancer risk is 0.9 in one million. For students at the nearby high school, the maximum cancer risk is 5.3 cases per million.⁸ Only the residential child cancer risk for the adjacent single-family residence exceeded the significance threshold.

Non-cancer community risks from annual and chronic exposure to DPM were also analyzed. The threshold for exposure to annual PM_{2.5} concentrations is 0.3 µ/m³. The proposed project would result in a maximum annual PM_{2.5} concentration of 0.16 µ/m³ for the nearest residence and 0.17 µ/m³ for the nearby school which are below the threshold. The threshold for chronic inhalation reference exposure level (REL) for DPM is five micrograms per cubic meter (µ/m³) and for Hazard Index (HI) is greater than one. The maximum annual non-cancer DPM concentration from construction activities would be 0.142 µ/m³ which is below the REL for DPM. The project's HI score is 0.03, which is well below the threshold for significant impact.

⁸ While the high school is for adult students, the air quality assessment conservatively uses child exposure estimates.

Impact AQ-1: Implementation of the proposed project could result in locally-elevated TAC concentrations resulting from diesel-generated construction equipment.
(Significant Impact)

Mitigation Measures: Implementation of the following mitigation measure would reduce the impacts of diesel-generated construction emissions on nearby sensitive receptors to a less than significant level.

MM AQ-1: The project proponent shall implement the following measures to ensure cancer risk during construction does not exceed BAAQMD's threshold of 10 in one million excess cancer cases. Equipment shall be selected during demolition, grading, and trenching construction phases to minimize emissions. Such equipment shall include the following:

- Large construction equipment (i.e., over 50 horsepower) working for more than two days continuously on the site shall be meet U.S. EPA particulate matter emissions standards for Tier 2 engines or equivalent; and
- Minimize the number of hours that equipment will operate including the use of idling restrictions.

With the implementation of these measures, the maximum increased residential child cancer risk for construction would be eight in one million which is below the BAAQMD significance threshold of ten in one million. **(Less Than Significant Impact with Mitigation [Same Impact as Approved Project])**

Proposed Roadway

The proposed project's new public and private roadways would be extended along the north, east, and south side of the project boundary and would connect to Monterey Road. The new extended street would remain a small neighborhood street and would not carry over 10,000 ADT (BAAQMD's screening threshold for mobile TAC sources). Based on BAAQMD's screening methodology for mobile TAC sources, sensitive receptors would not be significantly impacted from chronic exposure to TACs or excessive lifetime cancer risks. The location of proposed project's new street adjacent to sensitive receptors north of the project site would not result in significant air quality impacts. **(Less Than Significant Impact [Same Impact as Approved Project])**

Existing Sources of Air Pollution Affecting the Site

Monterey Road

Busy roadways, such as Monterey Road, are a source of TAC emissions that could affect future residents at the project site. According to City's General Plan Circulation Element traffic study⁹, there are 24,300 daily trips (two-way) projected on Monterey Road between Cochrane Road and Old

⁹ Fehr and Peers Transportation Consultants. *City of Morgan Hill General Plan Circulation Element Network & Policy Revisions Traffic Impact Assessment*. 2009.

Monterey Road. This segment of Monterey Road is approximately 600 feet north of the project site and is the nearest evaluated segment to the site.

The BAAQMD provides screening tables that indicate predicted community risk impacts that roadways pose¹⁰. Within Santa Clara County, at 10 feet from a roadway and with up to 30,000 average daily trips, these tables indicate the cancer risk would be less than 6.3 cases per million and PM_{2.5} concentrations would be less than 0.24 µg/m³. Since residences on the project site would be set back approximately 16 feet from Monterey Road, the cancer risk and PM_{2.5} levels would be less than 6.3 cases per million and 0.24 µg/m³, respectively. These levels are also below BAAQMD's thresholds for significant community risk impacts of 10 cases per million and 0.3 µg/m³ for cancer risks and annual PM_{2.5} concentrations, respectively. **(Less Than Significant Impact [Same Impact as Approved Project])**

Stationary Sources

BAAQMD's Stationary Source Risk & Hazard Analysis Tool was used to identify one source of TACs that could affect the project site:

- Plant G11453, which is a gas station located at 17905 N. Monterey Road operated by Morgan Hill Gas about 550 feet south of the project site. At BAAQMD's direction, risk from the source was adjusted for distance based on BAAQMD's Distance Adjustment Multiplier Tool for Gasoline Dispensing Facilities. According to BAAQMD (and adjusted for the 550-foot distance), this facility would result in an excess cancer risk of 7.2 per million, PM_{2.5} concentration of 0.00 and hazard index (HI) of 0.01, all of which would be below BAAQMD thresholds of significance. **(Less Than Significant Impact [Same Impact as Approved Project])**

Railroad Emissions

The UPRR line runs immediately adjacent to the site on the east side. This rail line is used by trains for passenger and freight service. Along this portion of the rail line there are six Caltrain passenger trains during the weekdays that run along this line between 6:00 AM and 8:00 PM. There are also two Amtrak-Coast Starlight daily passenger trains using this line. In addition to the passenger trains, there are up to six UPRR freight trains that also use this rail line on a daily basis.

Diesel particulate matter (DPM) and PM_{2.5} emissions from trains on the UPRR rail line were computed using EPA emission factors for locomotives and CARB adjustment factors to account for fuels used in California. Dispersion modeling of locomotive emissions was conducted using the EPA's ISCST3 dispersion model and five years (2001-2005) of hourly meteorological data from the San Martin Airport obtained from BAAQMD. Locomotive emissions from train travel within about 1,000 feet of the project site were modeled as a line source (series of volume sources) along the track. Concentrations were calculated at receptor locations within the project site area with receptors spaced every 15 meters (about 50 feet) at a height of 1.5 meters (4.9 feet).

¹⁰ BAAQMD Roadway Analysis Tables can be accessed from BAAQMD's website at <http://www.baaqmd.gov/Divisions/Planning-and-Research/CEQA-GUIDELINES/Tools-and-Methodology.aspx>

The analysis concluded that the UPRR TAC source would exceed the BAAQMD single-source significance threshold of ten in one million if residences are located within approximately 75 feet of the center of the rail line. The proposed residences would be set back approximately 96 feet from the center of the rail line. The proposed residences would exceed the required setback of 75 feet to avoid exceedance of the TAC threshold and, therefore, would not be significantly impacted due to TACs from operations on the UPRR tracks. **(Less Than Significant Impact [Less Impact than Approved Project])**

Cumulative TAC Sources

Table 4.3-2 summarizes the TAC sources in the project area and their impact upon sensitive receptors at the project site. BAAQMD significance thresholds for single and cumulative TAC sources are included. As shown in Table 4.3-3, TAC sources in the project area would not exceed the BAAQMD significance thresholds individually or cumulatively. **(Less Than Significant Impact [Same Impact as Approved Project])**

Table 4.3-2 Local Community Risks and Hazards from Mobile and Stationary Sources				
Source	Closest Distance (ft.)	Cancer Risk¹ (at closest new receptor)	PM_{2.5}¹ (µg/m³)	Non-Cancer Hazard Index
UPRR Railroad ²	>75	<10	<0.04	<0.01
Monterey Road ³	10	<6.3	<0.24	<0.03
Morgan Hill Gas (17905 Monterey Road)	550	<7.2	0.00	<0.03
<i>BAAQMD Threshold</i>		<i>10 in one million</i>	<i>>0.3 µg/m³</i>	<i>1.0</i>
<i>Significant?</i>		<i>No</i>	<i>No</i>	<i>No</i>
Sum of All Sources		<23.5	<0.28	<0.07
<i>BAAQMD Cumulative Threshold</i>		<i>100 in one million</i>	<i>0.8</i>	<i>10.0</i>
<i>Significant?</i>		<i>No</i>	<i>No</i>	<i>No</i>
Notes: ¹ The risks reported represent lifetime cancer risks and annual PM _{2.5} concentrations. ² Based on refined modeling. ³ Based on BAAQMD roadway screening tables for north-south roadways and worst-case setback at half the distance from the roadway as the currently proposed project.				

4.3.2.6 Objectionable Odors

The proposed project would not generate odors. The project site is not affected by existing odor sources that would cause odor complaints from new residents. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.3.4 Conclusion

Development on the project site would not result in significant operational regional air quality impacts. **(Less Than Significant Impact [Same Impact as Approved Project])**

Implementation of the standard conditions, including BAAQMD BMPs, and mitigation measure MM AQ-1 listed above would reduce short-term air quality impacts during construction activities on the

project site to a less than significant level. **(Less Than Significant Impact with Mitigation [Same Impact as Approved Project])**

The project site would not be exposed to substantial TAC emissions, since the project site is not located within 75 feet of the UPRR tracks. TAC sources in the project area would not expose future sensitive receptors from the proposed project to substantial pollutant concentrations.

(Less Than Significant Impact [Same Impact as Approved Project])

The proposed project would not generate odors and is not affected by existing odor sources that would cause odor complaints from new residents. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.4 BIOLOGICAL RESOURCES

The following discussion is based in part on an Arborist Report prepared for the project by *Morgan Hill Tree Service* in March 2015. A copy of this report is included as Appendix B in this Addendum.

4.4.1 Setting

4.4.1.1 *Existing Conditions*

Habitat

The project site is currently undeveloped grassland with a row of vegetation along the UPRR tracks on the eastern side of the site containing a mix of trees and shrubs. There are no creeks or waterways on or immediately adjacent to the site and therefore, no wetlands or Waters of the US subject to US Army Corps of Engineers or California Department of Fish and Wildlife (CDFW) jurisdiction. The habitat provided by the sites is common in the project area. A number of locally occurring wildlife species may occur on the project site. Due to the urban development within the vicinity of the site and the disturbed nature of the site, the habitat provided by the site provides limited value for wildlife.

Special-Status Species

Special-status species are not expected to occur on the project site because the habitat necessary to support special-status species does not exist on the project site (e.g., serpentine soils or waterways). Suitable habitat (i.e., grassland and ground squirrel burrows) for the burrowing owl (*Athene cunicularia*) is present on the project site.

4.4.1.2 *Mature Trees*

There are 11 trees on and adjacent to the project site ranging in condition from poor to good. Trees that may be affected by the project include five coast live oaks, three cypress, two zelkovas on the adjacent school property line and one myoporum on the adjacent residential property line. Only the coast live oaks are native to Morgan Hill and none of these trees is sufficiently sized to warrant protection under the City of Morgan Hill Tree Removal Controls.

City of Morgan Hill Tree Removal Controls

The City of Morgan Hill defines a tree as “any live woody plant rising above the ground with a single stem or trunk of a circumference of 40 inches or more for non-indigenous species, and 18 inches or more for indigenous species measured at four and one-half feet vertically above the ground or immediately below the lowest branch, whichever is lower.”

Prior to the removal of any tree protected under the City of Morgan Hill Tree Removal Controls, a tree removal permit would be required from the Community Development Director. The tree

removal permit includes a description of the tree replacement program and identifies any conditions imposed by the City.

Based on the City's Municipal Code Section 12.32.080, native trees shall be planted to replace native trees removed unless practical reasons preclude this option. All non-native trees must be replaced with plantings acceptable to the Community Development Director.

4.4.1.3 *Applicable Plans, Policies, and Regulations*

Federal Migratory Bird Treaty Act

The federal Migratory Bird Treaty (MBTA; 16 U.S.C., Section 703, Supplement I, 1989) prohibits the killing, possessing, or trading of migratory birds except in accordance with regulations prescribed by the Secretary of the Interior. The trustee agency that addresses issues related to the MBTA is the U.S. Fish and Wildlife Service (USFWS). Migratory birds protected under this law include all native birds and certain game birds (e.g., turkeys and pheasants). This act encompasses whole birds, parts of birds, and bird nests and eggs. The MBTA protects active nests (i.e., contains eggs or fledglings) from destruction and all nests of species protected by the MBTA. All native bird species occurring in the City of Morgan Hill are protected by the MBTA.

California Fish and Game Code

All native bird species that occur on the project site are protected by the Fish and Game Code. The California Fish and Game Code protects native birds, including their nests and eggs, from all forms of take, which includes disturbance that causes nest abandonment and/or loss of the reproductive effort. Raptors (i.e., eagles, hawks, falcons, and owls) and their nests are specifically protected in California under Fish and Game Code Section 3503.5. Section 3503.5 states that it is “unlawful to take, possess, or destroy any birds in the order of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided in this code or regulation adopted pursuant thereto.” The project would be required to include measures to avoid impacts to nesting birds.

Santa Clara Valley Habitat Plan

The project site is located within the Santa Clara Valley Habitat Plan (Habitat Plan) area. The Habitat Plan was developed by the County of Santa Clara, the Cities of San Jose, Gilroy and Morgan Hill, the Santa Clara Valley Water District, and the Santa Clara Valley Transportation Authority (collectively the “local partners”) under the guidance of the USFWS and the CDFW. The Habitat Plan provides ‘take’ authorization (pursuant to the Federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA) for 18 listed and non-listed species (i.e. covered species). The Habitat Plan also includes conservation measures to protect all 18 species and a conservation strategy designed to mitigate impacts on covered species and to contribute to the recovery of these species in the study area.

City of Morgan Hill Burrowing Owl Habitat Mitigation Plan

Development on the project site would be required to implement measures described in the City's Burrowing Owl Habitat Mitigation Plan to avoid direct impacts to burrowing owls. Implementation of the Burrowing Owl Habitat Mitigation Plan, in conjunction with Burrowing Owl avoidance measures described under Condition 15 of the Habitat Plan, would avoid or reduce significant impacts to burrowing owls and their habitat. Both the Morgan Hill Burrowing Owl Habitat Mitigation Plan and the Habitat Plan Condition 15 include completion of pre-construction surveys, and requirements in the event that a burrowing owl is found on-site.

City of Morgan Hill General Plan

Various policies in the City's General Plan were adopted for the purpose of avoiding or mitigating impacts to biological resources resulting from planned development within the City. All development is subject to General Plan policies, including the following, which would reduce or avoid impacts to biological resources:

Plants and Wildlife Policy 6a – Preserve all fish and wildlife habitats in their natural state whenever possible. Consider development impacts upon wildlife and utilize actions to mitigate those environmental impacts.

Plants and Wildlife Policy 6b – Minimize impacts upon wildlife when considering extending annexations, urban service areas, and other governmental actions that permit urban development of previously undeveloped property.

Plants and Wildlife Policy 6c – Preserve outstanding natural features, such as the skyline of a prominent hill, rock outcroppings, and native and/or historically significant trees.

Plants and Wildlife Policy 6e – Identify and protect wildlife, rare and endangered plants and animals and heritage resources from loss and destruction.

Plants and Wildlife Policy 6g – Encourage use of native plants, especially drought-resistant species in landscaping to the extent possible.

Water Quality Policy 6h – Preserve and protect mature, healthy trees whenever feasible, particularly native trees and other trees which are of significant size or of significant aesthetic value to immediate vicinity or to the community as a whole.

4.4.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
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 or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,9
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 California Department of Fish and Wildlife or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,9
3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
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, impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2,3,10
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,9

4.4.2.1 *Habitat Plan*

The project site is covered by the Habitat Plan and would be required to pay development-related fees. The project site is in an area defined by the Habitat Plan as Fee Zone B which imposes fees on development in areas comprising agricultural and/or valley floor lands. The fee amount is calculated based on the exact acreages of resources impacted, which is the total area that would be graded. Exact fees required to comply with the Habitat Plan would be calculated and imposed prior to issuance of development permits on the site. The project would also be required to pay impact fees related to nitrogen deposition. Urban development 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. The project would pay the required fees for indirect impacts to Agricultural and/or Valley Floor lands and impacts related to nitrogen deposition on serpentine habitat. Development on the project site would not conflict with the applicable Habitat Plan. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.4.2.2 *Impacts to Nesting Birds*

Construction on the project site could result in vegetation removals that could directly destroy nests, eggs, and habitat for birds, including protected species such as migrating songbirds. Measures shall be implemented to protect eggs and nestlings from construction disturbances and to make the project compliant with the MBTA and California Fish and Game Code.

Impact BIO – 1: Construction activities on the project site could result in the incidental loss of eggs or nestlings, either directly through the destruction or disturbance of active nests or indirectly by causing the abandonment of nests. **(Significant Impact)**

Mitigation Measures: Implementation of the following measure would reduce impacts to nesting birds to a less than significant level:

MM BIO – 1.1: Vegetation removal shall occur outside of the breeding season, which is typically between February 1st and August 31st.

If it is not possible to schedule construction activities between September 1st and January 31st, a nesting bird survey on the project site shall be completed by a qualified ornithologist 72 hours prior to the removal of vegetation and/or construction to determine absence or presence of nesting bird species. If the survey does not identify any nesting special-status bird species in the area potentially affected by the proposed activity, no further mitigation is required. If nest sites or young are located, a no-disturbance buffer shall be established around the active nest. The biologist shall consult with California

Department of Fish and Wildlife (CDFW) to determine the size of the no-disturbance buffer, which is typically between 150 to 200 feet. The above shall be implemented in conjunction with measures described under Condition No. 1 of the Santa Clara Valley Habitat Plan which addresses species covered under the Federal Migratory Bird Treaty Act (MBTA).
(Less Than Significant Impact with Mitigation [Same Impact as Approved Project])

4.4.2.3 *Burrowing Owls*

The project site is undeveloped grassland and could be occupied by burrowing owls prior to project grading and construction. If owls were to move onto the site, construction during the nesting season could disturb or destroy occupied nests, resulting in the loss of eggs or young birds. In compliance with applicable federal and state laws protecting all raptors, pre-construction surveys are required prior to any development activity on the project site. In addition the project would be required to participate in the Citywide Burrowing Owl Habitat Management Plan which includes a fee program that funds setting aside or managing Preserve Land to provide habitat for burrowing owls. Providing habitat for burrowing owls elsewhere offsets indirect and cumulative impacts from the loss of foraging and nesting habitat in the City during the current General Plan planning horizon.

Impact BIO – 2: Development of the project site could result in the loss of burrowing owl eggs or nestlings, either directly by destroying an active nest or indirectly by disturbing and causing the abandonment of an active nest. **(Significant Impact)**

Mitigation Measures: The following mitigation measure shall be implemented to minimize potential adverse impacts on western burrowing owls:

MM BIO – 2.1: In conformance with the City of Morgan Hill Burrowing Owl Habitat Mitigation Plan, the following shall be implemented as part of the project to avoid direct impacts to burrowing owls and to offset impacts to their grassland habitat.

- Burrowing owl pre-construction surveys shall be completed to determine if burrowing owls are present within the footprint of the proposed grading area, no more than seven (7) days prior to the initiation of site clearing or construction activities.
- Should burrowing owls be found on the site during breeding season (February 1 through August 31), exclusion zones with a 250-foot radius from occupied burrows, shall be established. All project-related activities shall occur outside the exclusion area until the young have fledged.
- If pre-construction surveys are completed during the non-breeding season and burrowing owls are observed on the site, the owls may be relocated upon approval of the California Department of Fish and Wildlife once mitigation has been provided.

- A final report on burrowing owls, including any protection measures, shall be submitted to the Director of Community Development prior to grading. **(Less Than Significant Impact with Mitigation [Same Impact as Approved Project])**

4.4.2.3 *Mature Trees*

The project site contains approximately eight trees and other shrubs along the eastern property line. Two of these trees are coast live oaks in fair condition that could be relocated on the site as part of the landscaping plan; however, they are not large enough to be protected under the City's Tree Removal Controls. None of the trees on-site is sufficiently sized to warrant protection under the City of Morgan Hill Tree Removal Controls. Additionally, there are three trees adjacent to the site that could be impacted by construction activity on the project site.

Impact BIO – 3: The proposed project could result in impacts to trees on the adjacent residential and school properties. **(Significant Impact)**

Mitigation Measures: The following mitigation measure shall be implemented to minimize impacts to trees retained during construction:

MM BIO – 3.1: The project shall implement the following tree protection guidelines during project construction to protect trees proposed for retention adjacent to the site:

- Locate structures, grade changes, etc. as far as feasible from the 'dripline' area of the tree.
- Avoid root damage through grading, trenching, compaction, etc., at least within an area 1.5 times the 'drip line' area of trees. Where root damage cannot be avoided, roots encountered (over 1" diameter) should be exposed approximately 12" beyond the area to be disturbed (towards tree stem), by hand excavation, or with specialized hydraulic or pneumatic equipment, cut cleanly with hand pruners or power saw, and immediately back-filled with soil. Avoid tearing, or otherwise disturbing that portion of the root(s) to remain.
- Construct a temporary fence as far from the tree stem (trunk) as possible, completely surrounding the tree, and 6-8 feet in height. Post no parking or storage signs on fencing. Do not attach posting to the main stem of the tree.
- Do not allow vehicles, equipment, pedestrian traffic; building materials or debris storage; or disposal of toxic or other materials inside of the fenced off area.
- Avoid pruning immediately before, during, or immediately after construction impact. Perform only that pruning which is unavoidable due to conflicts with proposed development. Aesthetic pruning should not be performed for at least 1-2 years following completion of construction.

- Trees that would be impacted by construction may benefit from fertilization, ideally performed in the fall, and preferably prior to any construction activities, with not more than 6 lbs. of actual nitrogen per 1,000 square feet of accessible ‘drip line’ area or beyond.
- Mulch ‘rooting’ area with an acidic, organic compost or mulch.
- Arrange for periodic (Biannual/Quarterly) inspection of tree’s condition, and treatment of damaging conditions (insects, diseases, nutrient deficiencies, etc.) as they occur, or as appropriate.
- Individual trees likely to suffer significant impacts based on the final site design may require specific, more extensive efforts and/or a more detailed specification provided by a certified arborist. **(Less Than Significant Impact with Mitigation [Same Impact as Approved Project])**

4.4.3 Conclusion

Implementation of the City’s Municipal Code and mitigation measures MM BIO-1.1 through MM BIO-3.1 would reduce impacts to biological resources from the project to a less than significant level. **(Less Than Significant Impact with Mitigation [Same Impact as Approved Project])**

4.5 CULTURAL RESOURCES

The following discussion is based in part on an Archaeological Literature Review prepared by *Holman & Associates* in March 2015. A copy of this report is on file with the City of Morgan Hill.

4.5.1 Setting

The project site consists of vacant land with no structures. Based on the Archaeological Sensitivity Map prepared for the City of Morgan Hill General Plan, the site is considered to be ‘sensitive’ for archaeological resources.¹¹ The project site is archaeologically sensitive due to its association with the former location of the J.H. Ballard residence (circa 1876), which was south of Cochrane Road between Monterey Road and the railroad tracks.

An archaeological literature review was completed for the project site. Previous surveys in the project area were completed in 2002 as part of the Caltrain electrification project and did not identify any historic structures within the project site. A visual inspection of the site was previously completed in June 2013 and no evidence of historic and/or prehistoric cultural resources were found.

4.5.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
1. Cause a substantial adverse change in the significance of an historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,11
2. Cause a substantial adverse change in the significance of an archaeological resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,11
3. Directly or indirectly destroy a unique paleontological resource or site, or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
4. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,11

4.5.2.1 *Impacts to Archaeological Resources*

Based on the archaeological literature review and previous site survey, there is a very low potential for the discovery of significant historic and/or prehistoric archaeological resources on the project site.

¹¹ City of Morgan Hill. *Archaeological Sensitivity Map*. April 2000. Map.

Nonetheless, this project may adversely impact undocumented human remains or unintentionally discover significant historic or archaeological materials. In accordance with the City's Standard Conditions of Approval, these measures would be required as project conditions to reduce potential impacts to unknown buried cultural resources to a less than significant level:

Standard Condition ARCHAEOLOGICALLY SENSITIVE SITE (2): In the unlikely event cultural materials are found during site grading or excavation, the following standard measures would be implemented, in accordance with Section 18.75.110 of the Morgan Hill Municipal Code:

- If human remains are encountered they shall be treated with dignity and respect as due to them. Discovery of Native American remains is a very sensitive issue and serious concern. Information about such a discovery shall be held in confidence by all project personnel on a need to know basis. The rights of Native Americans to practice ceremonial observances on sites, in labs and around artifacts shall be upheld.
 - Remains should not be held by human hands. Surgical gloves should be worn if remains need to be handled.
 - Surgical mask should 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. 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. Ground-disturbing project activities may continue in other areas that are outside the discovery locale.
- An "exclusion zone" where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area plus a reasonable buffer zone by the Contractor Foreman or authorized representative, or party who made the discovery and initiated these protocols, or if on-site at the time of discovery, by the Monitoring Archaeologist (typically 25-50ft for single burial or archaeological find).
- The discovery locale shall be secured (e.g., 24 hour surveillance) as directed by the City or County if considered prudent to avoid further disturbances.
- The Contractor Foreman or authorized representative, or party who made the discovery and initiated these protocols shall be responsible for immediately contacting by telephone the parties listed below to report the find and initiate the consultation process for treatment and disposition:
 - The City of Morgan Hill Community Development Director (408) 779-7247
 - The Contractor's Point(s) of Contact
 - The Coroner of the County of Santa Clara (if human remains found) (408) 793-1900
 - The Native American Heritage Commission (NAHC) in Sacramento (916) 653-4082
 - The Amah Mutsun Tribal Band (916) 481-5785 (H) or (916) 743-5833 (C)

- The Coroner has two working days to examine the remains after being notified of the discovery. If the remains are Native American the Coroner has 24 hours to notify the NAHC.
- 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.

Implementation of these standard measures would avoid potentially significant impacts to unidentified buried human remains. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.5.3 Conclusion

The proposed project, with the implementation of standard conditions of approval, would result in less than significant cultural resource impacts. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.6 GEOLOGY AND SOILS

The following discussion evaluates the geologic and soil impacts of the proposed project. The discussion is based on information from the following documents:

- California Department of Conservation. *Special Studies Zones (Alquist-Priolo Earthquake Fault Zones Act)*. Morgan Hill. Revised Official Map. January 1982.
- City of Morgan Hill/Pacific Geotechnical Engineering. *Geologic Map Folio*. December 1991.
- County of Santa Clara. *County Geologic Hazards Zones*. Map 53, Morgan Hill. October 2004.

4.6.1 Setting

4.6.1.1 *On-Site Geologic Conditions*

Soils and Topography

The project site is located in the southern Santa Clara Valley. The Santa Clara Valley is bounded by the Santa Cruz Mountains to the west and the Diablo Mountain Range to the east. Alluvial materials from these mountains have been deposited on the valley floor, which overlies bedrock.

Based on the City of Morgan Hill's *Geology, Geologic, and Geological Hazards Maps* (1991), the project site is underlain by Old Alluvium (Qoa), which consists of poorly consolidated to well consolidated deposits of gravel, sand, silt and clay. Native soils on the site and in the immediate vicinity of the site is described as unconsolidated colluvium, valley floor alluvium, or terrace deposits on flat or nearly flat ground. Soils are typically expansive due to the presence of swelling clay minerals. Since the soil content on the site includes clay, the soils likely have expansion potential.

The potential for erosion and landslides in the project areas is low, due to the flat slope of the project site. The project site is not located within a landslide hazard zone.¹²

Seismicity

The San Francisco Bay Area is one of the most seismically active regions in the United States. An earthquake of moderate to high magnitude generated within the San Francisco Bay region could cause considerable ground shaking at the project site. The degree of shaking is dependent on the magnitude of the event, the distance to its zone of rupture and local geologic conditions.

¹² County of Santa Clara. *County Geologic Hazard Zones*. Map 53, Morgan Hill. October 2004.

The two major faults near the project site are the San Andreas Fault and the Calaveras Fault, located approximately 10 miles southwest and four (4) miles northeast of the project site, respectively.¹³ The project site is not located within an Alquist-Priolo Earthquake Fault Zone.¹⁴

Liquefaction and Lateral Spreading

Soil liquefaction is a condition where saturated granular soils near the ground surface undergo a substantial loss of strength during seismic events. Loose, water-saturated soils are transformed from a solid to a liquid state during ground shaking. Soils most susceptible to liquefaction are loose, uniformly graded, saturated, fine-grained sands that lie close to the ground surface.

Lateral spreading is a type of ground failure related to liquefaction. It consists of the horizontal displacement of flat-lying alluvial material toward an open area, such as a steep bank of a stream channel. Since no open channels or steep banks are present on the site there is low potential for lateral spreading.

Based on the County of Santa Clara's Geologic Hazard Zones Map and ABAG's Liquefaction Susceptibility and Official California Seismic Hazards Zone Maps, the project site's susceptibility to liquefaction ranges from low in the northeastern section to moderate susceptibility in the southwestern section of the site.¹⁵

4.6.1.2 *Applicable Plans, Policies, and Regulations*

Various policies in the City's General Plan have been adopted for the purpose of avoiding or mitigating geology and soils impacts resulting from planned development within the City. All development on the site will be in conformance with adopted City policies, including those listed below.

Environmental Hazards Policy 1d - Known or potential geologic, fire, and flood hazards should be reported as part of every real estate transaction, as well as recordation on documents to be reported for building permits, subdivisions and land development reports. Mitigation of hazards should be noted in the same manner.

Environmental Hazards Policy 1g - New development should avoid hazardous and sensitive areas, and should occur only where it can be built without risking health and safety. New habitable structures should not be allowed in areas of highest hazard such as floodways, active landslides, active fault traces, and airport safety zones. In areas of less risk, development should be limited and designed to reduce risks to an acceptable level.

Environmental Hazards Policy 1h: Prohibit development on known active landslides and limit development in areas where such development might initiate sliding or be affected by sliding on adjacent parcels.

¹³ US Geological Survey. *The San Andreas and Other Bay Area Faults*. Available at: <http://earthquake.usgs.gov/regional/nca/virtualtour/bayarea.php>. Accessed June 13, 2014.

¹⁴ California Department of Conservation. *Alquist-Priolo Maps*. Available at: <http://www.conservation.ca.gov/cgs/rghm/ap/Pages/index.aspx>. Accessed August 11, 2014.

¹⁵ Association of Bay Area Governments. *Earthquake and Hazard Zones Program. Liquefaction*. Available at: <http://quake.abag.ca.gov/earthquakes/>. Accessed June 9, 2014.

4.6.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:						
a. Rupture of a known earthquake fault, as described on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
b. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
c. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
d. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
2. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
3. Be located on a geologic unit or soil that is unstable, or that will become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
4. Be located on expansive soil, as defined in Section 1802.3.2 of the California Building Code (2007), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
5. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

4.6.3.1 *On-Site Geologic and Soil Impacts*

The project site is not within an Alquist-Priolo Earthquake Fault Zone¹⁶; however, the project site is located in a seismically active region and strong ground shaking would likely occur at the project site during the life of the project. The project site has low to moderate susceptibility to liquefaction. Soils at the site most likely have expansion potential due to the presence of clay.

To avoid or minimize potential damage from seismic shaking, the project would be constructed in accordance with standard engineering and seismic safety design techniques. The project would conform to the recommendations of a project-specific design-level geotechnical investigation (which would be included in a report to the City) and City-adopted Building and Fire codes. The structural designs for the proposed developments would account for repeatable horizontal ground accelerations. The report would be reviewed and approved by the City of Morgan Hill Building Division as part of the building permit review and issuance process. In compliance with the City's Building Code, future development on the project site would be designed to withstand soil hazards (including expansive soils and soils that are susceptible to liquefaction) which would reduce the risk to life and property to the extent feasible. **(Less Than Significant Impact [Same Impact as Approved Project])**

The project would connect to existing sanitary sewer lines in Monterey Road (refer to *Section 4.17 Utilities and Service Systems*). The project would not include septic tanks or alternative wastewater disposal systems. **(No Impact [Same Impact as Approved Project])**

The proposed project would include grading during construction activities which could result in significant amounts of soil erosion if managed improperly. In accordance with the City's Standard Conditions of Approval, the project shall implement the following standard condition to avoid soil erosion during construction.

Standard Condition STORM DRAIN SYSTEM (D): Prior to final map approval or issuance of a grading permit the applicant shall complete the following to the satisfaction of the Director of Public Works.

1. Storm drain calculations to determine detention pond sizing and operations.
2. Plan describing how material excavated during construction will be controlled to prevent this material from entering the storm drain system.
3. Water Pollution Control Drawings (WPCD) for Sediment and Erosion Control.

Standard Condition STORM DRAIN SYSTEM (F): As required by the State Water Resources Control Board (SWRCB) Order No. 99-08-DWQ, construction activity resulting in a land disturbance of one (1) acre or more of soil, or whose projects are part of a larger common plan of development that in total disturbs more than one (1) acre, are required to obtain coverage under the National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 for Discharges of Storm Water Associated with Construction Activity (General Permit). To be permitted with the SWRCB under the General Permit, owners must file a complete Notice of Intent (NOI)

¹⁶ California Geological Survey. *Regional Geologic Hazards Mapping Program*. AP. Available at: <http://www.conservation.ca.gov/cgs/rghm/ap/Pages/index.aspx>. Accessed April 25, 2014.

package and develop a Storm Water Pollution Prevention Plan (SWPPP) Manual in accordance with Section A, B, and C of the General Permit prior to the commencement of soil disturbing activities. A NOI Receipt Letter assigning a Waste Discharger Identification (WDID) number to the construction site will be issued after the SWRCB receives a complete NOI package (original signed NOI application, vicinity map, and permit fee); copies of the NOI Receipt Letter and SWPPP shall be forwarded to the Building and Public Works Department review. SWPPP shall be made a part of the improvement plans. **(SWRCB NPDES General Permit CA000002)**
(Less Than Significant Impact [Same Impact as Approved Project])

4.6.3 Conclusion

With implementation of standard conditions of approval, the project would result in less than significant geology and soil impacts. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.7 GREENHOUSE GAS EMISSIONS

4.7.1 Setting

4.7.1.1 *Background Information*

Greenhouse Gases

Gases that trap heat in the atmosphere, greenhouse gases (GHGs), regulate the earth's temperature. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate. 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 include the following:

- 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 sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semi-conductor manufacturing.

Each GHG has its own potency and effect upon the earth's energy balance. This is expressed in terms of a global warming potential (GWP), with CO₂ being assigned a value of one and sulfur hexafluoride being several orders of magnitude stronger with a GWP of 23,900 (one hundred year). Methane and nitrous oxide have GWPs of 21 and 310, respectively. In GHG emission inventories, the weight of each gas is multiplied by its GWP and is measured in units of equivalent CO₂ (CO₂e).

An expanding body of scientific research supports the theory that global warming is currently affecting changes in weather patterns, average sea level, ocean acidification, chemical reaction rates, and precipitation rates, and that it would increasingly do so in the future. The climate and several naturally occurring resources within California could be adversely affected by the global warming trend. Increased precipitation and sea level rise could 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.

4.7.1.2 *Existing Conditions*

The project site is currently undeveloped. The site, therefore, generates minimal GHG emissions from human activity. Indirect emissions are generated from the burning of fuel required for site maintenance (e.g., infrequent disking and/or mowing to control fire hazards, etc.).

4.7.1.3 *Applicable Plans, Policies, and Regulations*

State of California

AB 32 and Related Executive Orders and Regulations

The Global Warming Solutions Act (also known as “Assembly Bill (AB) 32”) sets the State of California’s 2020 GHG emissions reduction goal into law. The Act requires that the GHG emissions in California be reduced to 1990 levels by 2020. Prior to the adoption of AB 32, the Governor of California also signed Executive Order S-3-05 which identified the California Environmental Protection Agency (CalEPA) as the lead coordinating State agency for establishing climate change emission reduction targets in California. Under Executive Order S-3-05, the State plans to reduce GHG emissions to 80 percent below 1990 levels by 2050 and Executive Order B-16-2012 established benchmarks for increased use of zero emission vehicles and zero emission vehicle infrastructure by 2020 and 2025. Additional State law and regulations related to the reduction of GHG emissions includes SB 375, the Sustainable Communities and Climate Protection Act (see discussion below), the State’s Renewables Portfolio Standard for Energy Standard (Senate Bill 2X) and fleet-wide passenger car standards (Pavley Regulations).

In December 2008, the CARB approved the Climate Change Scoping Plan, which proposes a comprehensive set of actions designed to reduce California’s dependence on oil, diversify energy sources, save energy, and enhance public health, among other goals. Pursuant to AB 32, the Scoping Plan must be updated every five years to evaluate the mix of AB 32 policies to ensure that California is on track to achieve the 2020 GHG reduction goal. In May 2014, CARB approved the First Update to the Climate Change Scoping Plan.¹⁷ The 2014 First Update defines CARB’s climate change priorities for the next five years and lays the groundwork to start the transition to the post-2020 goals set forth in Executive Orders S-3-05 and B-16-2012. The 2014 First Update highlights California’s progress toward meeting the “near-term” 2020 GHG emission reduction goals defined in the 2008 Scoping Plan and evaluates how to align the State’s longer-term GHG reduction strategies with other State policy priorities, such as for water, waste, natural resources, agriculture, clean energy, and transportation and land use.

CEQA

The California Natural Resources Agency, as required under State law (Public Resources Code Section 21083.05), amended the State CEQA Guidelines to address the analysis and mitigation of GHG emissions. In these changes to the CEQA Guidelines, Lead Agencies, such as the City of

¹⁷California Air Resources Board. *First Update First Update to the AB 32 Scoping Plan*. May 2014. Available at <<http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm>>. Accessed August 13, 2014.

Morgan Hill, retain discretion to determine the significance of impacts from GHG emissions based upon individual circumstances. A Lead Agency may describe, calculate or estimate GHG emissions resulting from a project and use a model and/or qualitative analysis or performance based standards to assess impacts.

Senate Bill 375

Senate Bill 375 (SB 375), known as the Sustainability Communities Strategy and Climate Protection Act, was signed into law in September 2008. It builds on AB 32 by requiring CARB to develop regional GHG reduction targets to be achieved from the automobile and light truck sectors for 2020 and 2035 when compared to emissions in 2005. The per capita reduction targets for passenger vehicles in the San Francisco Bay Area include a seven percent reduction by 2020 and a 15 percent reduction by 2035.¹⁸ The four major requirements of SB 375 are:

1. Metropolitan Planning Organizations (MPOs) must meet GHG emission reduction targets for automobiles and light trucks through land use and transportation strategies.
2. MPOs must create a Sustainable Communities Strategy (SCS), to provide and integrate land use/transportation plan for meeting regional targets, consistent with the Regional Transportation Plan (RTP).
3. Regional housing elements and transportation plans must be synchronized on eight-year schedules, with Regional Housing Needs Assessment (RHNA) allocation numbers conforming to the SCS.
4. MPOs must use transportation and air emissions modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC).

Consistent with the requirements of SB 375, the Metropolitan Transportation Commission (MTC) has partnered with the Association of Bay Area Governments (ABAG), BAAQMD, and the Bay Conservation and Development Commission (BCDC) to prepare the region's SCS as part of the RTP process.¹⁹ The SCS is referred to as *Plan Bay Area*.

MTC and ABAG adopted *Plan Bay Area* in July 2013, and it was approved by CARB in spring 2014. The strategies in the plan are intended to promote compact, mixed-use development close to public transit, jobs, schools, shopping, parks, recreation, and other amenities, particularly within Priority Development Areas (PDAs) identified by local jurisdictions. The area around the Morgan Hill Caltrain Station is identified as a PDA; the PDA is approximately 1,700 feet south of the project site.

¹⁸ The emission reduction targets are for those associated with land use and transportation strategies, only. Emission reductions due to the California Low Carbon Fuel Standards or Pavley emission control standards are not included in the targets.

¹⁹ ABAG, BAAQMD, BCDC, and MTC. *One Bay Area Frequently Asked Questions*. Available at: <http://onebayarea.org/about/faq.html#UQceKR2_DAk> Accessed June 4, 2013.

2.5.1.4 Regional and Local Plans, Policies and Regulations

Bay Area 2010 Clean Air Plan

The 2010 CAP is a multi-pollutant plan that addresses GHG emissions along with other air emissions in the San Francisco Bay Area Air Basin. One of the key objectives in the 2010 CAP is climate protection. The 2010 CAP includes emission control measures in five categories: Stationary Source Measures, Mobile Source Measures, Transportation Control Measures, Land Use and Local Impact Measures, and Energy and Climate Measures. Consistency of a project with current control measures is one measure of its consistency with the 2010 CAP. The current 2010 CAP also includes performance objectives, consistent with the State’s climate protection goals under AB 32 and SB 375, designed to reduce emissions of GHG to 1990 levels by 2020 and 40 percent below 1990 levels by 2035.

Morgan Hill General Plan

Various policies in the City’s General Plan have been adopted for the purpose of avoiding or mitigating GHG emissions impacts resulting from the planned development within the City. The project would be required to be in conformance with adopted City plans and policies, including those listed below.

Conservation Policy 7a - New development should be designed to exceed State standards for the use of water and energy.

Conservation Policy 7b - Promote energy conservation techniques and energy efficiency in building design, orientation and construction.

Conservation Policy 7g - The landscaping plans for new development should address the planting of trees and shrubs that will provide shade to reduce the need for cooling systems and allow for winter daylighting.

Conservation Policy 7j - The incorporation of renewable energy generating features, like solar panels, should be encouraged in the design of new development and in existing development.

Conservation Policy 7k - Promote water conservation and efficient water use in all public and private development projects and landscaping plans.

Conservation Policy 7l - Encourage use of non-potable water for landscape irrigation.

Level of Service Policy 8b - Promote walking as an alternate transportation mode for its contribution to health and the reduction of energy consumption and pollution.

Morgan Hill Municipal Code

Sustainable Building Regulations

Chapter 15.65 of the City’s Municipal Code lists Sustainable Building Regulations. The purpose of this chapter is to assure that commercial and residential development is consistent with the City’s

Environmental Agenda (see below) and General Plan conservation policies 7a and 7b (listed above) to create a more sustainable community by incorporating sustainable building measures into the design, construction, and maintenance of new and existing buildings. The sustainable building provisions referenced in this chapter are designed to achieve the following objectives:

- Increase energy efficiency in buildings.
- Encourage water and resource conservation.
- Reduce waste generated by construction projects.
- Provide durable buildings that are efficient and economical to own and operate.
- Promote healthy and productive indoor environments for residents, workers and visitors to the City.
- Recognize and conserve the energy embodied in existing buildings.

Chapter 15.65 of the City's Municipal Code also includes details on the process of document submission, design review, sustainable building compliance, exceptions, appeal, and enforcement.

Title 24

The City of Morgan Hill Municipal Code requires all buildings to conform to the energy conservation requirements of California Administrative Code Title 24. In addition, the 2013 California Green Building Standards (CALGreen) Code, which includes requirements for energy and water conservation in new construction, became effective statewide on January 1, 2014.

Water Conserving Landscapes Ordinance

The City of Morgan Hill Municipal Code Chapter 18.73 includes requirements for water conservation for new and existing development within the City. These measures include the Water Conserving Landscapes Ordinance adopted in February 2006.²⁰ This ordinance regulates landscape design, construction, and maintenance. It promotes efficient water use and management of peak season water demands.

City of Morgan Hill Environmental Agenda

In 2007, the City Council adopted an Environmental Agenda to enhance the long-term sustainability of Morgan Hill by reducing environmental impacts, increasing community health, and protecting environmental resources for future generations. Progress on environmental goals is assessed on a yearly basis.

To promote and provide opportunities for residents to reduce GHG emissions, the City of Morgan Hill has taken the following steps:

²⁰ City of Morgan Hill. *Water Supply Assessment for the Southeast Quadrant Area. Final Draft (Revised)*. December 2013.

- Posting a carbon calculator on the City’s website that is specifically designed for Morgan Hill residents to help conceptualize their contribution to global warming and to provide strategies for reducing emissions;
- Promoting bicycling and walking to City of Morgan Hill events through giveaways;
- Requiring green building checklists to be filled out with building permits, and updating residential development control system criteria to strengthen green building incentives;
- Researching programs that would allow residents to purchase local carbon offsets that would directly benefit the community;
- Implementing programs to reduce the cost of installing solar systems;
- Arranging free bus service for VTA community bus route 16 on Earth Day;
- Providing educational material with utility bills; and
- The Sustainable Buildings Ordinance was adopted on December 16, 2009, which established “green building” requirements for both residential and non-residential development.

4.7.2 **Environmental Checklist and Discussion of Impacts**

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12
2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	12

4.7.2.1 ***GHG Impact Criteria***

GHG emissions worldwide contribute, on a cumulative basis, to the significant adverse environmental impacts of global climate change. No single land use project could generate sufficient GHG emissions on its own to noticeably change the global average temperature. The combination of GHG emissions from past, present, and future projects in Morgan Hill, the entire State of California, and across the nation and around the world, contribute cumulatively to global climate change and its associated environmental impacts.

The following discussion focuses on whether project emissions represent a cumulatively considerable contribution to climate change as determined by consistency with the City of Morgan Hill and Statewide efforts to curb GHG emissions.

BAAQMD Threshold of Significance

The City of Morgan Hill and other jurisdictions in the San Francisco Bay Area Air Basin have used the thresholds and methodology for assessing air emissions and/or health effects in the BAAQMD CEQA Air Quality Guidelines (May 2011), which are based upon scientific and factual data prepared by BAAQMD in developing the thresholds.

The City of Morgan Hill considers the BAAQMD thresholds to be based on the best information available for the San Francisco Bay Area Air Basin. Under the BAAQMD CEQA Air Quality Guidelines, if a project would result in operational-related GHG emissions of 1,100 metric tons (also referred to as the “brightline” threshold) or 4.6 metric tons per service population²¹ of CO₂e per year or more, the project would make a cumulatively considerable contribution to GHG emissions and result in a significant impact to global climate change.

4.7.2.2 Project GHG Emissions

As recommended by BAAQMD, the California Emissions Estimator Model (CalEEMod) version 2013.2.2 was used to predict GHG emissions from operation of the project site assuming development of 60 residential units under the current General Plan land use designation.²² CalEEMod provides emissions for transportation, areas sources, electricity consumption, natural gas combustion, electricity usage associated with water usage and wastewater discharge, and solid waste land filling and transport. The BAAQMD thresholds are the basis for determining whether a project provides a cumulatively considerable contribution to the cumulative impact of global climate change.

As shown in Table 4.7-1, in 2017, annual emissions resulting from operation of the proposed project are predicted to be 460 MT of CO₂e.²³ These emissions would not exceed the BAAQMD threshold of 1,100 MT of CO₂e/yr. **(Less Than Significant Impact [Same Impact as Approved Project])**

Table 4.7-1 Project Annual GHG Emissions in Metric Tons (Monterey-KB Home)		
Scenario	2017 GHG Emissions	2020 GHG Emissions
Area	4	4
Energy	87	80
Mobile	348	316
Waste	13	13
Water	8	8
Total emissions	460	421
<i>BAAQMD Thresholds</i>	<i>1,100</i>	<i>1,100</i>

²¹ Service population is defined as the sum of the number of residents and the number of employees at a proposed development.

²² Illingworth & Rodkin, Inc. *Spring 2014 General Plan Amendments Draft TAC and GHG Emissions Assessment*. August 14, 2014.

²³ Ibid.

Construction Emissions

Neither the City of Morgan Hill nor the BAAQMD have quantified thresholds for GHG emissions emitted during construction activities. BAAQMD encourages the incorporation of best management practices (BMPs) to reduce GHG emissions during construction where feasible and applicable. The project would implement BMPs for dust control during construction of the project and would be required to use Tier 2 engines to reduce diesel particulate matter emissions (refer to *Section 4.3 Air Quality*). **(Less Than Significant Impact [Same Impact as Approved Project])**

4.7.2.3 Consistency with Applicable Plans, Policies, and Regulations

Climate Change Scoping Plan

As previously discussed, most of the measures identified in the Climate Change Scoping Plan would be regulated at a Statewide, rather than a local level. These measures include regulations for vehicle emissions and the California cap and trade program. Statewide measures are not discussed further as they are outside the City's control.

City policies and programs that address energy efficiency in buildings, use of alternative modes of travel, reducing vehicle miles travelled, waste reduction, and water use efficiency are consistent with elements of the Climate Change Scoping Plan. The proposed project would be consistent with applicable General Plan policies and would not conflict with policies designed to reduce GHG emissions.

Bay Area 2010 Clean Air Plan

As discussed in Air Quality, Section 4.3.2.2, the proposed project would be consistent with the 2010 CAP for the following reasons: (1) development of the project site would comply with a BAAQMD-approved CAP following adoption, (2) the project would be required to incorporate all air quality plan control measures, to the extent feasible, and (3) the proposed project would not disrupt, delay, or hinder implementation of an air quality plan control measure.

The proposed project would not conflict with applicable plans, policies, or regulations adopted for the purpose of reducing GHG emissions. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.7.3 Conclusion

Construction of the project in compliance with the City's General Plan policies and Municipal Code, would not conflict with applicable GHG reduction plans (including AB 32 California Global Warming Solutions Act of 2006), policies, and regulations and would not result in the generation of GHG emissions that would have a significant impact on the environment. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.8 HAZARDS AND HAZARDOUS MATERIALS

The following discussion is based on a Phase I Environmental Site Assessment prepared by *Cornerstone Earth Group* in April 2014. A copy of this report was included as Appendix D-3 in the Fall 2014 General Plan Amendments IS/MND and is on file with the City of Morgan Hill.

4.8.1 Setting

4.8.1.1 *On-Site Hazardous Material Conditions*

Located on the east side of Monterey Road immediately north of the former Central High School property, the 4.37-acre project site (APN 726-25-004) consists of fallow agricultural land dominated by grasses and weeds. There is a light industrial business park beyond the UPRR tracks to the east and a mix of commercial and residential uses to the west across Monterey Road. With the exception of a single-family residence and a small outbuilding, land to the north is mostly vacant and undeveloped. Based on aerial photographs and interviews with the property owner, the site was used for hay cultivation and other agricultural uses at least from the late 1930s to 2012. Multiple photographs indicate that the site was frequently left uncultivated during that time, however.

There are no structures on the project site and, therefore, there is no potential for lead-based paint and asbestos-containing building materials on the site. Based on the Phase I ESA, polychlorinated biphenyls (PCBs) were not found to be a concern for the property. Previous site investigations in 2007 and 2013 included soil sampling from the project site to determine concentrations of organochlorine pesticides (e.g. DDT) and heavy metals including arsenic, lead, and mercury. Of the 17 samples taken, none found organochlorine pesticides in concentrations exceeding residential RSLs and CHHSLs.²⁴ Arsenic and mercury were detected in concentrations ranging from 2.6-6.8 mg/kg and 0.056-0.14 mg/kg respectively, both of which are consistent with background (i.e. naturally-occurring) concentrations in the San Francisco Bay Area and Santa Clara Valley. Lead, however, was detected in one of the nine 2013 soil samples at 89 mg/kg, which exceeds the residential CHHSL for lead of 80 mg/kg.

In order to estimate the average concentration of lead on the site, the 95 percent upper confidence limit (UCL)²⁵ of the arithmetic mean is calculated to provide reasonable confidence that the average concentration is not underestimated. A chemical contaminant is not considered to be present at levels of concern if the calculated 95 percent UCL is less than its respective CHHSL and RSL. The calculated 95 percent UCL for lead in the 2013 soil samples was approximately 60 mg/kg, which is less than the residential CHHSL for lead. If the 2007 results were included in the calculation, the 95 percent UCL would be lower than 60 mg/kg.

²⁴ California Human Health Screening Levels (CHHSLs) and Regional Screening Levels (RSLs) were developed by the California Environmental Protection Agency (CalEPA) and U.S. EPA Region 9. These Screening Levels represent the concentration below which an environmental contaminant can be assumed not to pose a significant risk to human health. An exceedance of a Screening Level does not necessarily indicate adverse health effects, but suggests that further evaluation of the contamination is warranted.

²⁵ The 95 percent UCL of a mean is defined as a value that, when calculated repeatedly for randomly drawn subsets of site data, equals or exceeds the true mean 95 percent of the time.

4.8.1.2 *Off-Site Hazardous Materials Conditions*

Groundwater beneath the site has been reported at depths ranging from 20-30 feet below ground surface and likely flows toward the southeast, though flow direction may vary. Federal, State, and local databases were searched to determine if any nearby spills or contamination (e.g., a leaking underground fuel storage tank) in the project area could affect the soil, soil vapor, or groundwater beneath the project site. Although there are some listed sites in the project vicinity, based on the regulatory agency status and/or location of these facilities relative to the project site (e.g., cross- or downgradient), these sites do not have the potential to impact the project site.²⁶

4.8.1.3 *Other Hazards*

The project site is not located in a wildfire hazard zone.²⁷ The site is not located within the Santa Clara County Airport Land Use Commission (ALUC) jurisdiction, and there are no private airstrips located in the vicinity.

4.8.1.4 *Applicable Plans, Policies and Regulations*

Government Code Section 65962.5 (Cortese List)

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act by providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. The Cortese List includes lists maintained by the Department of Toxic Substances Control (DTSC), the State Water Resources Control Board (SWRCB), and the California Integrated Waste Management Board (CIWMB).²⁸ The project site is not listed by the DTSC, SWRCB, or CIWMB as a hazardous materials site.

California Health and Safety Code, Emergency Response Plans

Calif. Health and Safety Code Chap. 6.95, Hazardous Materials Release Response Plans and Inventory, Division 20, Sections 25500 - 25519) contain requirements for emergency response plans. The purpose of these plans is to assist local agencies in preparing for a hazardous material spill. Emergency plans identify the potential for accidents in a community, define a chain of command in the event of an emergency, outline escape routes if necessary, and provide other emergency procedures. Each responsible agency maintains detailed operation procedures for responses to hazardous material spills.

²⁶ Cornerstone Earth Group. *Phase I Environmental Site Assessment, Gippetti Property, Monterey Road, Morgan Hill, California*. April 10, 2014. Page 7.

²⁷ Cal FIRE. *Very High Fire Hazard Severity Zones in LRA*. October 8, 2008. And, Cal FIRE. *Fire Hazard Severity Zones in LRA*. November 7, 2007.

²⁸ The DTSC, SWRCB, and CIWMB hazardous material sites lists are available online at http://www.dtsc.ca.gov/SiteCleanup/Cortese_List.cfm, <http://www.ciwmb.ca.gov/Swis/search.aspx>, and <http://geotracker.waterboards.ca.gov/>, respectively.

City of Morgan Hill General Plan

Many of the policies in the City’s General Plan were adopted for the purpose of avoiding or mitigating potential environmental effects that could result from planned development within the City. The project would be subject to General Plan policies, including the following, which would ensure hazardous materials impacts are less than significant:

Hazardous Materials Policy 3b – Continue a program of regular inspections and monitoring to ensure compliance with local, State, and Federal regulations, in order to reduce the risks associated with the use and handling of hazardous materials and wastes. (SCJAP 9.00)

Hazardous Materials Policy 3c – Continue to implement the Joint Powers Pretreatment Program for industrial and commercial hazardous material users and/or hazardous waste generators, and coordinate as appropriate with MOU inspections, Hazardous Materials Storage Ordinance (HMSO) regulations, and implementation of applicable State laws. (SCJAP 9.01)

Hazardous Materials Policy 3d - Continue to inspect regularly activities that store and/or use hazardous materials, including above-ground and underground storage tanks and related equipment, to ensure compliance with the City's Hazardous Materials Storage Ordinance (HMSO). (SCJAP 9.02)

Hazardous Materials Policy 3d – Continue to inspect regularly activities that store and/or use hazardous materials, including above-ground and underground storage tanks and related equipment, to ensure compliance with the City’s Hazardous Materials Storage Ordinance (HMSO). (SCJAP 9.02)

Hazardous Materials Policy 3e – Regularly inspect those facilities which store hazardous waste on site for less than 90 days (a time period for which a hazardous materials storage permit is not required). (SCJAP 9.03)

Hazardous Materials Policy 3p – Periodic household hazardous waste collection programs and other related activities should occur on a regular basis in order to limit the types and amounts of hazardous waste entering the ordinary waste stream.

Hazardous Materials Policy 3q – The Santa Clara County Hazardous Waste Management Plan is herewith incorporated in this General Plan by reference. It is a City policy to restrict off-site hazardous materials operations (Hazardous Materials Reprocessing uses as defined by the Zoning Ordinance) to industrially-zoned sites which have received Conditional Use Permits and which comply with the Santa Clara County Hazardous Waste management Plan or a City-designated equivalent.

Hazardous Materials Policy 3t - Provide mitigation to remedy the effects of new or expanding development over areas with environmental contamination of any and all unauthorized discharges.

City of Morgan Hill Emergency Response Plan

The City of Morgan Hill Office of Emergency Services (OES) maintains the City’s Emergency Operations Plan in accordance with the State of California’s Standardized Emergency Management System (SEMS). The project site is not an integral component of the City’s Emergency Operations Plan, does not provide services in the event of an emergency, and does not provide emergency access to the surrounding areas.

4.8.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
1. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,13
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,13
3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,13
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, will it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,13
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, will the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
6. For a project within the vicinity of a private airstrip, will the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
7. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
8. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

4.8.2.1 Hazardous Materials Use and Potential for Contamination

As detailed in *Section 4.8.1.4*, the average concentrations of heavy metals and organochlorine pesticides on the project site are consistent with background concentrations. Although concentrations in some samples exceeded CHHSLs and RSLs, remediation is not required because the concentrations are naturally-occurring (i.e. not the product of human activity). In addition, the 95 percent UCL of the mean lead concentration is below the residential CHHSL and RSL for lead. Therefore, the proposed project would not result in significant hazards to the health of residents on the site. **(Less Than Significant Impact [Same Impact as Approved Project])**

Groundwater Contamination

Based on the findings of the Phase I Environmental Site Assessment prepared for the project site, there are no hazardous waste sites or past hazardous waste incidents in the project area that would be likely to contaminate groundwater and impact the project site. **(No Impact [Same Impact as Approved Project])**

Hazardous Materials Use

Residents of the site could store materials such as paints, cleaning products, landscape maintenance materials (e.g. pesticides and fertilizers), and cooking fuels on their property. The use and storage of hazardous materials in the City of Morgan Hill is regulated by Santa Clara County Department of Environmental Health Hazardous Materials Compliance Division (SCCDEH). Construction of the project would conform to the requirements of the SCCDEH, where applicable. For these reasons, the storage and handling of hazardous materials on the project site would not result in a significant hazard. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.8.2.2 *Other Hazards*

The project site is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Cortese List). The site is not located within an area subject to wildland fires, and there are no buildings on the site that could contain hazardous building materials. The site is not identified in an emergency response plan or emergency evacuation plan, and development of the site would not otherwise affect such plans. The project site is not located within the Santa Clara County ALUC jurisdiction, nor are there any private airstrips located near the site. **(No Impact [Same Impact as Approved Project])**

4.8.3 Conclusion

The project site does not contain contaminated soils and future use of hazardous materials for residential purposes on the site would result in less than significant hazardous materials impacts. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.9 HYDROLOGY AND WATER QUALITY

4.9.1 Setting

4.9.1.1 *Drainage and Flooding*

The project site is within the West Little Llagas Creek drainage area, which generally drains the western portion of the City.²⁹ West Little Llagas Creek merges with Llagas Creek, a tributary to the Pajaro River, which eventually drains into Monterey Bay.

According to the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Map (FIRM), the project site located in Flood Zone X, which is used to designate areas of 0.2 percent annual chance flood (the 500-year flood), areas of one percent annual chance flood with average depths of less than one foot or with drainage areas less than one square mile, and areas protected by levees from the one percent annual chance flood (the 100-year flood).³⁰

4.9.1.2 *Surface Water*

The water quality of ponds, creeks, streams, and other surface waterbodies can be greatly affected by pollution carried in contaminated surface runoff. Pollutants from unidentified, distributed, sources, known as “non-point” source pollutants, are washed from streets, construction sites, parking lots, and other exposed surfaces into storm drains. Stormwater runoff often contains contaminants such as oil and grease, plant and animal debris (e.g., leaves, dust, animal feces, etc.), pesticides, litter, and heavy metals. In sufficient concentrations, these pollutants have been found to adversely affect the aquatic habitats to which they drain. Due to the lack of development on the site, the primary non-point source pollutant from the site is currently sediment and plant debris.

4.9.1.3 *Groundwater*

The City of Morgan Hill currently relies on local groundwater as its sole water supply source. The groundwater basin underlying the City is part of the Santa Clara Valley groundwater basin and managed by the Santa Clara Valley Water District (SCVWD). The groundwater basin is divided into three interconnected subbasins consisting of the Santa Clara Valley Subbasin and the Coyote Subbasin to the north, and the Llagas Subbasin to the south. The City's water supply comes from the Coyote and Llagas Subbasins. The project site is located within the Llagas Subbasin.

4.9.1.4 *Dam Failure*

ABAG has compiled dam failure inundation hazard maps submitted to the State Office of Emergency Services by dam owners throughout the Bay Area. The maps for the City of Morgan Hill show the project site is within the dam failure inundation hazard zone for Anderson Reservoir, with maximum

²⁹ Sowers, J.M. & Henkle, J.E, William Lettis & Associates, Inc. *Creek and Watershed Map of Morgan Hill & Gilroy*. 2009.

³⁰ Federal Emergency Management Agency. *Flood Insurance Rate Map, Community Panel #06085C0443H and #06085C0444H*. May 18, 2009. Available at: <https://msc.fema.gov/portal>

flood depths ranging from 20-35 feet in the event of a catastrophic failure.³¹ The dams in Santa Clara County are managed by the SCVWD. The dams are inspected twice each year, they are continuously monitored for seepage and settling, and they are inspected immediately following significant earthquakes. For these reasons, the likelihood of catastrophic dam failure that would impact the project site is considered low.³²

4.9.1.5 *Seiches, Tsunamis, and Mudflows*

A seiche is defined as a wave generated by rapid displacement of water within a reservoir or lake, typically due to an earthquake that triggers land movement within the waterbody or landslides into or beneath the waterbody. The project site is not located near a waterbody that is susceptible to seiche hazard.

A tsunami is a series of water waves caused by the displacement of a large volume of a body of water, such as an ocean or a large lake. Due to the immense volumes of water and energy involved, tsunamis can devastate coastal regions. The project site is not within a tsunami inundation hazard area.³³

A mudflow is the rapid movement of a large mass of mud formed from loose soil and water. The project site is relatively flat and is not susceptible to mudflows.³⁴

4.9.1.6 *Applicable Plans, Policies, and Regulations*

Federal and State Water Quality Acts

The Federal Clean Water Act and California's Porter-Cologne Water Quality Control Act are the primary laws regulating water quality. Regulations set forth by the U.S. Environmental Protection Agency (EPA) and the State Water Resources Control Board (SWRCB) have been developed to fulfill the requirements of this legislation. The EPA's regulations include the National Pollutant Discharge Elimination System (NPDES) permit program, which controls sources that discharge pollutants into waters of the United States. These regulations are implemented at the regional level by water quality control boards, which for the areas in the City of Morgan Hill south of Cochrane Road is the Central Coast Regional Water Quality Control Board (RWQCB). The Central Coast RWQCB issues and enforces NPDES permits for discharges to water bodies in the portion of Santa Clara County that drains into Monterey Bay. The Central Coast RWQCB is also tasked with preparation and revision of a regional Water Quality Control Plan, also known as a Basin Plan. The

³¹ Santa Clara Valley Water District. *Anderson Dam EAP 2009 Flood Inundation Maps*. June 2009.

<http://www.valleywater.org/Services/AndersonDamAndReservoir.aspx>

³² Santa Clara Valley Water District. *Reservoirs*. 2014. Available at:

<http://www.valleywater.org/Services/Reservoirs.aspx>

³³ California Emergency Management Agency. *Santa Clara County Tsunami Inundation USGS 24K Quads*. 2013. Available at:

http://www.consrv.ca.gov/cgs/geologic_hazards/Tsunami/Inundation_Maps/Documents/Tsunami_Inundation_SanFranciscoBayArea300.pdf

³⁴ Santa Clara County Ordinance NS 1100.106 defines a mudslide or mudflow prone area as "an area with land surfaces and slopes of unconsolidated material where the history, geology, and climate indicate a potential for mudflow."

RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to control water quality and protect beneficial uses.

NPDES Municipal Stormwater Permit

The City of Morgan Hill has adopted and prepared a Storm Water Management Plan (SWMP) and has been issued the NPDES Small Municipal Separate Storm Sewer Systems General Permit by the Central Coast RWQCB (Order Number 2003-0005-DWQ, Waste Discharge Identification Number 3-43MS03020). The City's SWMP outlines a comprehensive five year plan to establish Best Management Practices (BMPs) through six Minimum Control Measures to help reduce the discharge of pollutants into waterways caused by stormwater and urban runoff and to protect local water quality.

Statewide Construction General Permit

The SWRCB implemented an NPDES Construction General Permit (CGP) for the State. Construction activity subject to this permit includes clearing, grading, and ground disturbances such as stockpiling or excavation. For projects disturbing one acre or more of soil, a Notice of Intent (NOI) and Storm Water Pollution Prevention Plan (SWPPP) must be prepared prior to commencement of construction.³⁵

Impaired Waterbodies

Under Section 303(d) of the Clean Water Act, States are required to identify impaired surface water bodies and develop total maximum daily loads (TMDLs) for contaminants of concern. The TMDL is the quantity of a pollutant that can be assimilated by a waterbody without violating water quality standards. The intent of listing a water body as impaired is to identify the waterbody as requiring future development of a TMDL to maintain water quality and reduce the potential for future water quality degradation. The Llagas Creek watershed is listed as an impaired waterbody for chloride, the insecticide chlorpyrifos, electrical conductivity, *Escherichia coli* (*E. coli*), fecal coliform, low dissolved oxygen, nutrients, sedimentation/siltation, sodium, turbidity, and total dissolved solids.³⁶ Llagas Creek is also listed on the 303(d) list as impaired for pH (acidity), however the SWRCB has determined that it is appropriate to delist Llagas Creek for pH. The Butterfield Channel is not included on the 303(d) list of impaired water bodies.

City of Morgan Hill General Plan

Many of the policies in the City's General Plan were adopted for the purpose of avoiding or mitigating environmental effects that could result from development planned within the City. The

³⁵ State Water Resources Control Board. *Construction General Permit Fact Sheet*. January 23, 2013. Available at: http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

³⁶ California Environmental Protection Agency, State Water Resources Control Board. *Impaired Water Bodies*. August 5, 2013. Accessed June 23, 2014. Available at: http://www.waterboards.ca.gov/water_issues/programs/tmdl/integrated2010.shtml

project would be subject to General Plan policies, including the following, which would reduce or avoid hydrology and water quality impacts:

Flood Control Policy 4a – Prepare for impacts associated with potential failure of Anderson Dam.

Flood Control Policy 4h – Areas which are developed or planned for development should be protected by the construction of flood control facilities. Development should be managed through advanced planning and design standards to minimize off-site flooding and drainage problems.

Flood Control Policy 4k – Require developers whose proposed projects would induce downstream flooding to provide mitigation to eliminate the flood-inducing impacts of their projects.

Flood Control Policy 4o – Require all local development to provide appropriate mitigation of off-site flooding impacts, including limiting runoff to pre-development levels and/or complete solutions to flooding and local drainage problems in the vicinity of the development, using such methods as detention or retention.

Flood Control Policy 4p – Require careful consideration of the cumulative effects of development which would drain into the upper reaches of Llagas Creek and other creeks, in order to avoid the need for channelization and consequent destruction of its riparian vegetation and natural habitat.

Water Quality Policy 5a – Protect water quality from contamination, and monitor it to assure the present policies and regulations are adequate. Prohibit such uses as waste facilities, septic systems, and industries using toxic chemicals whereby polluting substances may come in contact with groundwater, floodwaters, and creeks, or reservoir waters.

Water Quality Policy 5m – Continue to monitor wells and provide the results to a central agency which would coordinate the data and make it available to all jurisdictions and agencies.

4.9.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
1. Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there will be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells will drop to a level which will not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which will result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
4. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which will result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
5. Create or contribute runoff water which will exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
6. Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
7. Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
8. Place within a 100-year flood hazard area structures which will impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14
9. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	14
10. Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

4.9.2.1 *Drainage Impacts*

The project site is an undeveloped field with pervious surfaces. The project would increase on-site impervious surfaces such as roofs, sidewalks, and pavement, which could also substantially increase the volume of stormwater runoff from the site. The project is required to direct runoff to on-site landscape areas, which are designed to function as bioretention facilities. A bioswale is proposed along the eastern boundary of the project site, adjacent to the UPRR tracks. Additional biotreatment areas are proposed in the central open spaces and landscaped areas of the project site.

In accordance with the City of Morgan Hill Standard Conditions of Approval, a Storm Drainage Study would be submitted to the Director of Public Works for review and approval prior to issuance of a grading permit. The Study would include calculations to ensure that runoff from the project site would not exceed the capacity of existing or planned stormwater drainage systems.³⁷ The project, therefore, would result in less than significant drainage impact. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.9.2.2 *Flooding Impacts*

The project site is not located within a 100-year flood hazard zone and, therefore, would have no impact on 100-year flows or expose people to flood hazards associated with the 100-year flood. **(No Impact [Same Impact as Approved Project])**

The site is not subject to inundation by seiche, tsunami, or mudflow. **(No Impact [Same Impact as Approved Project])**

As discussed in *Section 4.9.1.4*, although the site is located in an identified dam failure inundation area, the likelihood of catastrophic dam failure is extremely low. The proposed project, therefore,

³⁷ Using the City’s requirements for sizing, the project site would be required to provide storage for a 25-year, 24-hour storm with an additional capacity of 25 percent for freeboard.

would not expose people to significant risk of flooding or inundation from dam failure. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.9.2.3 *Water Quality Impacts*

Construction

Construction activity could increase the amount of pollution carried in runoff from the project site. In accordance with the City of Morgan Hill Standard Conditions of Approval and the General NPDES Storm Water Permit for Construction Activities, the project would prepare a SWPPP and an ECP. The plans would be submitted to the Director of Public Works and Central Coast RWQCB for review and approval, prior to issuance of a building permit. The ECP and SWPPP would demonstrate how the project would eliminate or reduce non-stormwater discharges into the stormwater system, how discharges into the stormwater system would be monitored, and what BMPs would be implemented by the project to avoid water quality impacts during construction (e.g., street sweeping, fiber rolls, temporary cover and/or permanent cover) and post-construction periods. In conformance with existing policies, programs, and with implementation of BMPs, the project would not result in significant impacts to water quality or water discharge requirements. **(Less Than Significant Impact [Same Impact as Approved Project])**

Post – Construction

Stormwater runoff from the project can contain metals, pesticides, herbicides, and other contaminants such as oil, grease, lead, and animal waste. The project would conform to the City's SWMP to reduce the discharge of pollutants into waterways and to protect local water quality that could be degraded by stormwater and urban runoff within the corporate limits of Morgan Hill.

In order to meet SWMP requirements, the project is designed to direct all runoff to on-site landscape areas, which would function as bioretention areas. On-site networks of perforated storm drain pipes collect the runoff filtered through the landscape/bioretention areas, maximizing the amount of runoff retained on-site prior to discharging to the public storm drain system. Conformance with the SWMP would minimize the potential for the project to result in post-construction water quality impacts. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.9.2.4 *Groundwater Impacts*

Groundwater depths in Morgan Hill can vary widely depending on location within the City, season, and precipitation. Generally, depths to groundwater in the City tend to range between 25 feet and 40 feet below the ground surface. Groundwater is deep enough that the project would not interfere with groundwater flow or expose any aquifers. The project site is located above the Llagas Subbasin. The project site is not an SCVWD-managed aquifer recharge facility, however, it does contribute to groundwater recharge of the Llagas Subbasins.³⁸ The project is required by City policy to provide on- or off-site retention facilities for a 25-year, 24-hour storm event. Therefore, runoff from new

³⁸ Santa Clara Valley Water District. *Groundwater Management Plan*. 2012. Figure 2-3. Available at: <http://www.valleywater.org/Services/Groundwater.aspx>

impervious surfaces resulting from development of the site would be retained, would contribute to aquifer recharge, and would not substantially interfere with aquifer recharge. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.9.3 Conclusion

With the implementation of the City’s Standard Conditions of Approval, the proposed project would not result in significant impacts to hydrology and water quality. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.10 LAND USE

4.10.1 Setting

The project site (APN 726-25-004) is a vacant 4.37-acre parcel located on the east side of Monterey Road immediately north of the former Central High School. The site was designated for *Multi-Family Medium (14-21du/ac)* use in 2014 and is zoned *CL-R Light Commercial Residential*. The *Multi-Family Medium* land use designation allows for attached units up to 30 feet in height. The City is considering a General Plan Amendment that would eliminate the height limitations from Table 2 of the General Plan. The City is also proposing to amend the Zoning Ordinance in the *R-3 Medium Density Residential District* from allowed building heights of three stories or 30 feet to three stories or 40 feet.

There is a light industrial business park beyond the UPRR tracks adjacent to the eastern site boundary. The former Central High School property (now used as an adult educational facility) is located to the south, and there are a mix of uses to the west including a mobile home development, commercial self-storage building, and a car rental shop. Land to the north is mostly vacant and undeveloped with the exception of a single-family residence and a small outbuilding. There are no sidewalks along the boundaries of the project site.

4.10.1.1 *Santa Clara Valley Habitat Plan*

As discussed in *Section 4.4, Biological Resources*, the project site is located within the boundaries of the Santa Clara Valley Habitat Plan (VHP). The VHP is a regional partnership between six local partners (the County of Santa Clara, Santa Clara Valley Transportation Authority, Santa Clara Valley Water District, and the cities of San Jose, Gilroy, and Morgan Hill) and two wildlife agencies (the CDFW and the U.S. Fish and Wildlife Service). The VHP became effective October 14, 2013. The project site is located in an area planned for urban growth, and does not support protected species or critical habitat.

4.10.1.2 *Applicable Plans, Policies and Regulations*

Morgan Hill General Plan

Many of the policies in the City's General Plan were adopted for the purpose of avoiding or mitigating environmental effects that could result from development planned within the City. The project is subject to General Plan policies, including the following, which would reduce or avoid land use impacts:

Incompatible Uses Policy 6c – Evaluate potential impacts of development projects on adjacent uses in initial environmental assessments and EIRs.

Neighborhoods Policy 8a – Maintain distinct boundaries between commercial uses and residential neighborhoods. (This does not preclude residential uses within commercial areas as part of mixed-use projects, or in designated mixed use areas.)

Neighborhoods Policy 8e – Design residential neighborhoods so they are distinct and separated from conflicting non-residential uses.

4.10.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
1. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-3
2. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1-3
3. Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,9

4.10.2.1 *Land Use Impacts from the Project*

Proposed Development

The project proposes 52 single-family attached townhouses, six (6) single-family detached residences, public and private roadways surrounding the proposed residences, and open space areas on the site. The proposed 3-story units would be 30 feet in height to the top of the third floor with roof heights of approximately 40 feet. The proposed residences would be three- and four-bedroom units with a two-car garage and would vary in size ranging from approximately 1,600 to 2,400 square feet.

The project proposes public and private roadways extending along the northern, eastern, and southern boundary of the site. The roadways would connect to Monterey Road starting from the northwest corner of the site and terminating at southwest corner of the site.

Land Use Conflicts

Land use conflicts can arise from two basic causes: 1) a new development or land use may cause impacts to persons or the physical environment in the vicinity of the project site or elsewhere; or 2) conditions on or near the project site may have impacts on persons or development introduced onto the site by the project. Both of these circumstances are aspects of land use compatibility. Depending on the nature of the incompatibility and its severity, land use conflicts can range from minor irritations and nuisance to significant effects on human health and safety.

General Plan Land Use Designation

The project site is designated *Multi-Family Medium (14-21du/ac)* in the City's General Plan. The project is proposing to dedicate a public roadway on the northern boundary of the site with private roadways on the eastern and southern boundaries of the site. The net density of the proposed project, therefore, would be within the allowed density for this designation. The unit building heights would extend up to 40 feet which would exceed the maximum building heights for this designation. The proposed project height would not significantly increase the impact of the project on surrounding land uses compared to the 30-foot building height considered in the Fall 2014 General Plan Amendments IS/MND given the substantial setbacks from adjacent land uses and public spaces.

Zoning District

The project proposes an *R-3 Residential Planned Development (PD)* zoning district for the site. The project would be generally consistent with the R-3 district standards with slight variations as allowed by the PD zoning. The project proposes building heights of up to 40 feet which would not be consistent with the current 30-foot height limit for the R-3 district; however, the proposed project design contains substantial setback from adjacent land uses and public spaces and would not significantly increase the severity of environmental impacts identified in prior IS/MND.

Land Use Compatibility

The site is surrounded on the east and west sides by commercial and industrial office development, as well as a mobile home community. There is a former high school property adjacent to the south that currently provides adult education in the evening, and land to the north contains one single-family residence and vacant land. There are single-family and multi-family residential communities under construction and planned for the land between Monterey Road and Hale Avenue to the northwest. Developing residential uses on the project site would not conflict with surrounding land uses, particularly because there are existing and planned residential developments along Monterey Road and residential development is compatible with school uses. This land use change would not allow any nuisance land uses, such as those emitting odors or loud noises while in operation. Potential construction-related air quality and noise impacts to surrounding land uses are discussed in *Sections 4.3 Air Quality* and *4.12 Noise* of this Addendum.

Residential Development Control System

Residential growth in Morgan Hill is ultimately controlled by the Residential Development Control System (RDCS) which was adopted for the purpose of mitigating environmental effects of growth in Morgan Hill. The RDCS generally limits development allotments to 250 residential units a year according to a point system based on a variety of factors including provision of public services, site planning, and architectural design considerations.

Given the metering effect of the RDCS, the project would not overwhelm the City's utility systems or induce unplanned residential development in the area that would result in a significant land use impact. With approval of the proposed PD, the project would not conflict with any applicable land use plan, policy, or regulation.

Based on the discussion above, the project would not conflict with land use plans and policies adopted for the purpose of avoiding an environmental impact. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.10.2.2 *Land Use Impacts to the Project*

The proposed project is surrounded by various types of urban development. As discussed in *Sections 4.3 Air Quality* and *4.12 Noise* of this Addendum, the development of residences adjacent to the UPRR line creates potentially incompatible land uses; however, adequate mitigation in the form of setbacks and building design would be incorporated into development on the site to avoid significant noise and air quality impacts to residents of the site. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.10.2.3 *Consistency with the Santa Clara Valley Habitat Plan*

Project consistency with the VHP is discussed in *Section 4.4 Biological Resources*. The proposed project is a covered activity under the VHP and would be required to pay the appropriate development fees. The proposed project would not conflict with the VHP. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.10.3 Conclusion

The proposed project would not physically divide an established community, would be compatible with surrounding land uses, and would not conflict with the Valley Habitat Plan. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.11 MINERAL RESOURCES

4.11.1 Setting

The State of California has protected mineral resource zones by implementing the Surface Mining and Reclamation Act of 1975.³⁹ The state's goals of the act include classifying mineral resources in California and providing local governments with the information needed to protect these resources. Local governments are responsible for designating lands that contain regionally significant mineral resources in local general plans in effort to protect these resources in areas of intensive competing land uses. Based on the City's General Plan, the project site does not consist of known mineral resources or mineral resource production areas.

4.11.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact than "Approved Project"	Checklist Source(s)
Would the project:						
1. Result in the loss of availability of a known mineral resource that will be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
2. Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

4.11.2.1 *Impacts to Mineral Resources*

The project would not result in the loss of availability of known mineral resources of value to the City of Morgan Hill and the residents of the California. The site is not a locally-important mineral resource recovery site delineated in the City's General Plan. **(No Impact [Same Impact as Approved Project])**

4.11.3 Conclusion

The project would not result in a significant impact from the loss of availability of a known mineral resource. **(No Impact [Same Impact as Approved Project])**

³⁹ California Department of Conservation, Office of Mine and Reclamation. *Surface Mining and Reclamation Act and Associated Regulations*. January 2007. Available at: <http://www.conservation.ca.gov/omr/smara/Documents/010107Note26.pdf>. Accessed March 5, 2013.

4.12 NOISE

The following discussion is based on an Environmental Noise Assessment Prepared by *Illingworth & Rodkin* in August 2014. The report was included as Appendix E in the Fall 2014 General Plan Amendments IS/MND and is on file with the City of Morgan Hill.

4.12.1 Setting

4.12.1.1 *Background*

Noise

Noise is defined as unwanted sound. Sound levels are usually measured in decibels (dB) with zero dB corresponding roughly to the threshold of hearing. Most of the sounds which we hear in the environment do not consist of a single frequency, but rather a broad band of frequencies, with each frequency differing in sound level. The intensities of each frequency add together to generate a sound. The method commonly used to quantify environmental sounds consists of evaluating all of the frequencies of a sound in accordance with a weighting that reflects the fact that human hearing is less sensitive at low frequencies and extreme high frequencies than in the frequency mid-range. This is called “A” weighting, and the dB level is measured as the A-weighted sound level (dBA). In practice, the level of a sound is conveniently measured using a sound level meter that includes an electrical filter corresponding to the A-weighting curve.

Although the A-weighted noise level may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most environmental noise includes a conglomeration of noise from distant sources which create a relatively steady background noise in which no particular source is identifiable. To describe the time-varying character of environmental noise, the statistical noise descriptors, L_{01} , L_{10} , L_{50} , and L_{90} , are commonly used. They are the A-weighted noise levels equaled or exceeded during 1, 10, 50, and 90 percent of a stated time period. A single number descriptor called the L_{eq} is also widely used. The L_{eq} is the average A-weighted noise level during a stated period of time.

In determining the daily level of environmental noise, it is important to account for the difference in response of people to daytime and nighttime noises. During the nighttime, exterior background noises are generally lower than daytime levels. Most household noise, however, also decreases at night and exterior noises become more noticeable. Further, most people sleep at night and are very sensitive to noise intrusion. To account for human sensitivity to nighttime noise levels, a descriptor, DNL (day/night average sound level), was developed. The DNL, or L_{dn} divides the 24-hour day into the daytime of 7:00 AM to 10:00 PM and the nighttime of 10:00 PM to 7:00 AM. The nighttime noise level is weighted to 10 dB higher than the daytime noise level to account for the increased noise sensitivity. The Community Noise Equivalent Level (CNEL) is another 24-hour average which includes both an evening and nighttime weighting.

Vibration

Railroad operations are potential sources of substantial ground vibration depending on distance, the type and the speed of trains, and the type of railroad track. Ground vibration from passing trains consists of rapidly fluctuating motions or waves, which are also measured in decibels.⁴⁰ The abbreviation “VdB” is used in this document for vibration decibels to reduce confusion with sound decibels.

Typical background vibration levels in residential areas are usually 50 VdB or lower, well below the threshold of perception for most humans. Perceptible vibration levels inside residences are attributed to the operation of heating and air conditioning systems, door slams and foot traffic. Construction activities, train operations, and street traffic are some of the most common external sources of vibration that can be perceptible inside residences. Table 4.12-1, illustrates some common sources of vibration and the association to human perception or the potential for structural damage.

Table 4.12-1 Typical Levels of Groundborne Vibration		
Human/Structural Response	Velocity Level, VdB (re 1μ inch/sec, RMS)	Typical Events (50 –foot setback)
Threshold, minor cosmetic damage	100	Blasting, pile driving, vibratory compaction equipment Heavy tracked vehicles (Bulldozers, cranes, drill rigs)
Difficulty with tasks such as reading a video or computer screen	90	
Residential annoyance, infrequent events	80	Commuter rail, upper range Rapid transit, upper range
Residential annoyance, frequent events		Commuter rail, typical bus or truck over bump or on rough roads
Approximate human threshold of perception to vibration	70	Rapid transit, typical Buses, trucks and heavy street traffic
	60	Background vibration in residential settings in the absence of activity
Lower limit for equipment ultra-sensitive to vibration	50	
Note: The reference velocity for groundborne vibration is 1×10^{-6} inches per second (1μ inch/sec) RMS, which equals 0 VdB, and 1 in./sec. equals 120 VdB. Source: Illingworth & Rodkin, Inc. and U.S. Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006, FTA-VA-90-1003-06.		

⁴⁰ Decibels of ground vibration refer to peak vertical velocities of the floors of affected structures. In contrast, sound decibels refer to the time-averaged magnitudes of fluctuations in air pressure levels.

4.12.1.2 Existing Conditions

Existing Noise

The project site is located between Monterey Road and the UPRR rail corridor, which are the primary noise sources in the project area. A noise monitoring survey was completed at the site over a 24-hour period beginning on July 17, 2014 and concluding on July 18, 2014. The noise monitoring survey included one long-term noise measurement and one short-term measurement, which are shown in Figure 4.12-1. The UPRR rail corridor is used intermittently (about 12 to 15 trains per day) and generates relatively high noise levels during train passby events. The duration of these high noise level events is normally less than a few minutes during any hour. The closest UPRR street crossing, where train horn blasts would be required, is located on Main Avenue approximately 2,500 feet south of the site. The results of the long-term and short-term noise monitoring survey are summarized in Table 4.12-1.

Existing Vibration

Due to the location of the project site adjacent to the UPRR tracks, vibration measurements were taken on July 17, 2014. As shown in Figure 4.12-1, vibration monitoring location V-1 was approximately 50 feet from the centerline of the UPRR tracks, and V-2 was located approximately 100 feet from the centerline of the UPRR tracks. Vibration monitoring occurred between 8:30 AM and 8:00 PM, and during this time period, three Caltrain passbys were observed (at 5:15 PM, at 6:44 PM, and at 7:26 PM). Each Caltrain passenger train traveled in the southbound direction at approximately 50 to 60 miles per hour and consisted of one engine and 5 to 6 cars. Vibration data is summarized in Table 4.12-2.

Table 4.12-1 Summary of Long-Term and Short-Term Noise Measurements (dBA)								
Noise Measurement Location	Range of Hourly Average Noise Levels, L _{eq}					Day-Night Average, L _{dn}		
	Daytime			Nighttime				
Monterey – KB Home								
LT-1: ~25 feet from UPRR tracks & ~ 405 feet from centerline of Monterey Road.	49-72			38-76			73	
Noise Measurement Location	L _{min}	L _{max}	L ₍₁₎	L ₍₁₀₎	L ₍₅₀₎	L ₍₉₀₎	L _{eq(10)}	L _{dn}
ST-1: ~ 50 feet from centerline of the near lane on Monterey Road.	46	70	68	63	57	49	60	67

Table 4.12-2 Summary of Vibration Measurements		
Vibration Measurement Location	Caltrain Passby	VdB
V-1: ~ 50 feet from centerline of UPRR tracks.	Caltrain 1	79
	Caltrain 2	79
	Caltrain 3	80
V-2: ~ 100 feet from centerline of UPRR tracks.	Caltrain 1	70
	Caltrain 2	71
	Caltrain 3	71



- Project Boundary
- LT-# Long-Term Noise Measurement Location
- ST-# Short-Term Noise Measurement Location
- V-# Vibration Measurement Location

Aerial Source: Google Earth Pro, June 30, 2014.

Photo Date: Feb. 2014

NOISE AND VIBRATION MEASUREMENT LOCATIONS – MONTEREY-KB HOME

FIGURE 4.12-1

4.12.1.3 *Applicable Plans, Policies, and Regulations*

Federal Transit Administration

The City of Morgan Hill has not identified quantifiable vibration limits that can be used to evaluate the compatibility of land uses with vibration levels experienced at a project site. Although there are no local standards that control the allowable vibration in a new residential development, the U.S. Department of Transportation has developed vibration impact assessment criteria for evaluating vibration impacts associated with transit projects. The Federal Transit Administration (FTA) has proposed vibration impact criteria, based on maximum overall levels for a single event. The impact criteria for groundborne vibration are shown in Table 4.12-3. Note that there are criteria for frequent events (more than 70 events of the same source per day), occasional events (30 to 70 vibration events of the same source per day), and infrequent events (less than 30 vibration events of the same source per day).

Table 4.12-3 Groundborne Vibration Impact Criteria			
Land Use Category	Groundborne Vibration Impact Limits (VdB re 1μ inch/sec, RMS)		
	Frequent Events¹	Occasional Events²	Infrequent Events³
Category 1 Buildings where vibration would interfere with interior operations	65 VdB ⁴	65 VdB ⁴	65 VdB ⁴
Category 2 Residences and buildings where people normally sleep	72 VdB	75 VdB	80 VdB
Category 3 Institutional land uses with primarily daytime use	75 VdB	78 VdB	83 VdB
Notes: ¹ “Frequent Events” is defined as more than 70 vibration events per day. Most rapid transit projects fall into this category. ² “Occasional Events” is defined as between 30 and 70 vibration events of the same source per day. Most commuter trunk lines have this many operations. ³ “Infrequent Events” is defined as fewer than 30 vibration events per day. This category includes most commuter rail branch lines. ⁴ This limit is based on levels that acceptable for most moderately sensitive equipment such as optical microscopes. Vibration sensitive manufacturing or research should always require detailed evaluation to define the acceptable vibration limits. Ensuring low vibration levels in a building requires special design of HVAC systems and stiffened floors.			
Source: U.S. Department of Transportation, Federal Transit Administration, Transit Noise and Vibration Impact Assessment, May 2006, FTA-VA-90-1003-06.			

2010 California Building Code

The State of California establishes exterior sound transmission control standards for new hotels, motels, dormitories, apartment houses, and dwellings other than detached single-family dwellings as set forth in the 2010 California Building Code (Chapter 12, Section 1207.11). Interior noise levels attributable to exterior environmental noise sources shall not exceed 45 dBA DNL/CNEL in any habitable room. When exterior noise levels (the higher of existing or future) where residential structures are to be located exceed 60 dBA DNL/CNEL a report must be submitted with the building

plans describing the noise control measures that have been incorporated into the design of the project to meet the noise limit.

Morgan Hill General Plan

The City of Morgan Hill General Plan has established acceptable noise standards which state that the normally acceptable interior noise level for residential uses, which includes hotels, is 45 dBA L_{dn} . As shown below, General Plan Policy 7a states that noise levels in new residential development exposed to an exterior L_{dn} of 60 dBA or greater should be limited to maximum instantaneous noise levels (e.g., trucks on busy streets, train warning whistles) in bedrooms of 50 dBA. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA. The City's standards for acceptable exterior noise levels is 60 dBA L_{dn} in residential areas. General Plan Policy 7a also states that where the City determines that providing an L_{dn} of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, an L_{dn} of 65 dBA may be permitted.

Various policies in the City's General Plan have been adopted for the purpose of avoiding or mitigating noise and vibration impacts resulting from development within the City. The project is required to be in conformance with adopted City plans and policies, including those listed below.

Incompatible Use Policy 6a – Encourage the clustering of residential units to provide open space and recreation areas, and to provide buffer areas between different land uses (e.g., industrial and residential).

Incompatible Use Action 6.1 – Use setbacks, natural and man-made barriers such as streams, park land, and drainage ways, and other mitigation to separate incompatible uses whenever possible.

Noise Policy 7a – New development projects shall be designed and constructed to meet acceptable exterior noise level standards, as follows:

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

Noise Policy 7b – The impact of a proposed development project on existing land uses should be evaluated in terms of the potential for adverse community response based on significant increase in existing noise levels, regardless of compatibility guidelines.

Noise Policy 7e – Noise level increases resulting from traffic associated with new projects shall be considered 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.

Noise Policy 7g – Noise levels produced by other noise sources (such as ballfields) shall be considered significant if an acoustical study demonstrates they will substantially exceed ambient noise levels.

Noise Policy 8a – Roadway design, traffic signalization and other traffic planning techniques (such as limiting truck traffic in residential areas) shall be used to reduce noise caused by speed or acceleration of vehicles.

Noise Policy 8b – If noise barriers are deemed the only effective mitigation for development along major transportation corridors, an acoustical analysis shall be conducted to determine necessary dimensions.

4.12.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project result in:						
1. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,15
2. Exposure of persons to, or generation of, excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,15
3. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15
4. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	15
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, will the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
6. For a project within the vicinity of a private airstrip, will the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

4.12.2.1 *Noise Impacts to the Project*

Exterior Noise

The noise environment on the project site is characterized by traffic along Monterey Road and intermittent UPRR train passbys. Noise levels in outdoor use areas that are affected by ground transportation noise are required to be maintained at or below 60 dBA L_{dn} to be considered acceptable for residential development. In accordance with the City's General Plan, noise levels in outdoor use areas that are affected by railroad noise are required to be maintained at or below 70 dBA L_{dn} to be considered acceptable for residential development.

Based on the noise analysis prepared for the General Plan Amendment on the site, future L_{dn} noise levels at typical setbacks of residential properties (100 feet) along Monterey Road were predicted to be up to 66 dBA L_{dn} . Where exterior noise levels exceed the City's noise level goal of 60 dBA L_{dn} as a result of ground transportation noise sources, mitigation is normally required to provide a compatible exterior noise environment. Achieving the City's noise level goal of 60 dBA L_{dn} may not be possible in all situations, and a somewhat higher acceptability threshold is allowed by the City, provided that the (non-train) noise level in at least one of the outdoor use areas is reduced to 65 dBA L_{dn} , consistent with the residential land use guidelines of the U.S. Department of Housing and Urban Development (HUD) and the U.S. Department of Transportation, Federal Aviation Administration (FAA).

Rail traffic along the conventional railroad line is anticipated to increase slightly, assuming a moderate growth in rail service. The L_{dn} noise level at 100 feet from UPRR tracks would be 67 dBA L_{dn} , below the 70 dBA L_{dn} threshold considered "acceptable" by local guidelines for rail operations.

Impact NOI – 1: The project would be exposed to exterior noise levels greater than 60 dBA L_{dn} , which exceeds the exterior noise and land use compatibility standards of the General Plan. **(Significant Impact)**

Mitigation Measures: Implementation of following mitigation measure would ensure exterior noise for residential users of the site would be reduced to a less than significant level. **(Less Than Significant Impact with Mitigation)**

MM NOI – 1.1: Prior to the issuance of a building permit, an acoustical analysis shall be submitted for review for final design of the proposed residential uses. The exterior open space areas shall be designed to meet an exterior L_{dn} of 60 dBA, if feasible. Based on the location of the project site, noise from trains would be acceptable below the 70 dBA L_{dn} threshold, additional roadway noise shall be reduced to 65 dBA L_{dn} in at least one open space area on the site. Mitigation measures for proposed open spaces uses may include: using the proposed buildings to provide shielding for outdoor use areas including courtyards, rear yards, side yards, etc; constructing sound walls or earth berms; and/or increased setback distances from the roadway. The final details for these measures shall be determined prior to issuance of building

permits. **(Less Than Significant Impact with Mitigation [Same Impact as Approved Project])**

Interior Noise

Noise sensitive land uses affected by the rail corridor would be exposed to high maximum instantaneous noise during train passbys or when warning whistles are sounded. As described above, noise levels on the site are anticipated to be 67 dBA L_{dn} at 100 feet, below the 70 dBA L_{dn} threshold considered “acceptable” by local guidelines for residential development adjacent to rail operations. In buildings of typical residential construction, with the windows partially open, interior noise levels are approximately 15 dBA lower than exterior noise levels. With the windows closed, standard residential construction typically provides 20 to 25 decibels of exterior to interior noise reduction. Noise sensitive land uses proposed in the vicinity of the UPRR would likely require forced-air mechanical ventilation systems and sound-rated construction methods to reduce interior average and maximum noise levels to acceptable levels. In some cases, high-performance noise insulation features such as stucco-sided staggered-stud or double-stud walls and high performance sound rated windows and doors may be required to maintain interior maximum instantaneous noise levels below 50 dBA in bedrooms and 55 dBA in other rooms.

Impact NOI – 2: Interior noise levels would be expected to exceed 45 dBA L_{dn} on the site, assuming standard residential construction methods. **(Significant Impact)**

Mitigation Measures: Implementation of the following mitigation measure to mitigate maximum noise levels from train passbys to a less than significant level:

MM NOI – 2.1: A final detailed acoustical analysis, in conformance with California Noise Insulation Standards in Title 24, Part 2 of the California Code of regulations (California Building Code), shall be required for approval for final design of the proposed residences prior to issuance of a building permit. The project shall also comply with General Plan Policy 7a which requires maximum instantaneous noise levels from railroad trains (L_{max}) to be reduced to 50 dBA in bedrooms and 55 dBA in other habitable rooms. The project shall incorporate sound control treatments, such as forced-air mechanical ventilation systems, sound-rated windows, and building facade treatments to meet an interior L_{dn} of 45 dBA (or 50 dBA as applicable) with the windows closed to the satisfaction of the City Building Official. **(Less Than Significant Impact with Mitigation [Same Impact as Approved Project])**

Groundborne Vibration

A review of the acoustical data recorded on the sound level meter, and additional acoustical data collected at similar sites in Morgan Hill, indicates that approximately 12 to 15 trains currently pass the site per day. The bulk of these trains pass during the evening, night, and early morning hours when people are normally at rest. It is anticipated that conventional rail traffic along the line may increase, but the anticipated increase in the number of trains is not expected to result in an overall

number of trains reaching 70 trains per day. Future conventional train activity would be considered “occasional” with respect to the FTA vibration impact criteria as the total number of trains could range from 30 to 70 events per day. The 75 VdB vibration impact criterion for “occasional events” is used in the evaluation of the proposed project with respect to vibration compatibility.

The results of the vibration measurements conducted on the project site showed that at a distance of 50 feet from the center of the tracks, vibration levels resulting from Caltrain passenger train passbys were approximately 79 to 80 VdB. At a distance of 100 feet, vibration levels resulting from these same passbys were approximately 70 to 71 VdB. Freight trains did not pass the site during the vibration monitoring period from 11:00 AM to 8:00 PM on July 15, 2014. Based on the addition of two VdB to the measured vibration levels from Caltrain passenger trains, this analysis conservatively estimates vibration levels resulting from freight trains. Therefore, at a distance of 50 feet from the center of the tracks, vibration levels resulting from freight trains are estimated to reach 81 to 82 VdB, and at a distance of 100 feet from the tracks, vibration levels would be approximately 72 to 73 VdB. Based on the rate of attenuation due to distance from the source as measured between the two monitoring sites, vibration levels within approximately 85 feet of the center of the railroad tracks would exceed 75 VdB. Therefore, residences proposed within 85 feet of the center of the railroad tracks would result in a significant vibration impact.

The proposed project would construct residences approximately 96 feet from the centerline of the UPRR tracks. Vibration levels at the proposed setback would not exceed 75 Vdb and would result in a less than significant impact to the proposed residences. **(Less Than Significant Impact [Same Impact as Approved Project])**

Traffic-Generated Noise

Traffic along Monterey Road dominates the noise environment in the vicinity of the project site. Peak hour traffic volumes for the project were estimated based on recent similar development in the vicinity of the site.^{41,42} Vehicular traffic generated by the project would not increase noise levels substantially at the sensitive land uses in the vicinity because the project traffic would be a small percentage of the total traffic on local roadways. In order for a significant traffic noise impact to occur, traffic would have to double on a given roadway to result in a three dBA L_{dn} increase in noise levels. Vehicular traffic noise levels would not be expected to increase measurably above existing levels as a result of the project (increase would be less than one dBA L_{dn}). The proposed new roadways on the site, would increase local traffic noise, but the overall noise level increase would be less than three dBA L_{dn} because the major roadways would continue to be the most significant sources of traffic noise. **(Less Than Significant Impact [Same Impact as Approved Project])**

⁴¹ As described in Section 4.16, the Monterey-KB Home project would not generate a sufficient number of peak hour vehicle trips to warrant preparation of a traffic analysis.

⁴² Illingworth & Rodkin, Inc. *Butterfield-Keenan General Plan Amendment Environmental Noise Assessment Morgan Hill, California*. June 2014.

4.12.2.4 *Construction Impacts*

Construction Noise

Construction on the project site would generate noise and temporarily increase noise levels at adjacent land uses. The construction would affect the noise environment at the single-family residence to the north and the former high school property to the south of the project site. Construction activities can generate high noise levels, especially during the construction of project infrastructure when heavy equipment is used. The highest maximum instantaneous noise levels generated by project construction would typically range from about 90 to 95 dBA L_{\max} at a distance of 50 feet from the noise source. Typical hourly average construction generated noise levels are about 81 dBA to 88 dBA L_{eq} , measured at a distance of 50 feet from the center of the site during busy construction periods (e.g., earth moving equipment, impact tools, etc.). Construction-generated noise levels drop off at a rate of about six dBA per doubling of distance between the source and receptor. Shielding by buildings or terrain often result in lower construction noise levels at distant receptors.

Noise impacts resulting from construction depend on the noise generated by various pieces of construction equipment, the timing and duration of noise generating activities, and the distance between construction noise sources and noise sensitive receptors. Construction noise impacts primarily occur when construction activities take place during noise-sensitive times of the day (early morning, evening, or nighttime hours); when construction occurs in areas immediately adjoining noise sensitive land uses; or when construction durations last over extended periods of time. Where noise from construction activities exceeds 60 dBA L_{eq} and exceeds the ambient noise environment by at least five dBA L_{eq} at noise-sensitive uses in the project vicinity for a period of one year or more, the impact would be considered significant. Typically, significant noise impacts do not result when construction noise control measures are enforced at a construction site and when the duration of the noise-generating construction period is limited to one construction season (typically one year) or less.

Impact NOI – 3: Noise generated by site improvements, grading, infrastructure improvements, and the construction of multi-family residences could result in noise levels exceeding 60 dBA L_{eq} and the ambient noise environment by five dBA L_{eq} for a period greater than one year. **(Significant Impact)**

Mitigation Measures: The following measures would reduce construction noise on the project site to a less than significant level:

MM NOI – 3.1: Under the Morgan Hill Municipal Code, allowed hours of construction are limited to avoid substantial impacts to sensitive receptors, such as nearby residents. Construction activities shall be limited to the hours between 7:00 AM to 8:00 PM on weekdays and 9:00 AM to 6:00 PM on Saturdays. There shall be no construction activities on Sundays or Federal holidays (Municipal Code Chapter 8.28.040).

- MM NOI – 3.2:** Implement construction noise control measures to limit noise disturbance to the extent feasible. Measures may include, but would not be limited to the following:
- Equip all internal combustion engine driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
 - Locate stationary noise generating equipment (e.g. rock crushers, compressors) as far as possible from adjacent residential receptors.
 - Acoustically shield stationary equipment located near residential receptors with temporary noise barriers or recycled demolition materials.
 - Utilize “quiet” air compressors and other stationary noise sources where technology exists.
 - The contractor shall prepare a detailed construction plan identifying the 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 shall determine the cause of the noise complaint (e.g., bad muffler, etc.) and shall require that reasonable measures be implemented to correct the problem. **(Less Than Significant Impact with Mitigation [Same Impact as Approved Project])**

Construction Vibration

Construction activities may generate perceptible vibration levels when heavy equipment or impact tools (e.g. jackhammers, hoe rams) are used in close proximity to existing receptors. Construction activities would likely include site preparation work, foundation work, and new building framing and finishing. Pile driving, which can cause excessive vibration, is not anticipated during the construction of improvements at the project site.

For structural damage, the California Department of Transportation recommends a vibration limit of 0.5 in/sec PPV for buildings structurally sound and designed to modern engineering standards, 0.3 in/sec PPV for buildings that are found to be structurally sound but where structural damage is a major concern, and a conservative limit of 0.08 in/sec PPV for ancient buildings or buildings that are documented to be structurally weakened. The buildings in the vicinity of the project site are older buildings, which would require the 0.3 in/sec PPV significance threshold.

Table 4.12-4 presents typical vibration levels that could be expected from construction equipment at a distance of 25 feet. Project construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.), may generate substantial vibration in the immediate vicinity. Jackhammers typically generate vibration levels of 0.035 in/sec PPV and drilling typically generates vibration

levels of 0.09 in/sec PPV at a distance of 25 feet. Vibration levels would vary depending on soil conditions, construction methods, and equipment used.

Table 4.12-4			
Vibration Source Levels for Construction Equipment			
Equipment		PPV at 25 ft. (in/sec)	Approximate L_v 25 ft. (VdB)
Pile Driver (Impact)	Upper range	1.158	112
	Typical	0.644	104
Pile Driver (Sonic)	Upper range	0.734	105
	Typical	0.170	93
Clam shovel drop		0.202	94
Hydromill (slurry wall)	In soil	0.008	66
	In rock	0.017	75
Vibratory Roller		0.210	94
Hoe Ram		0.089	87
Large bulldozer		0.089	87
Caisson drilling		0.089	87
Loaded trucks		0.076	86
Jackhammer		0.035	79
Small bulldozer		0.003	58

In areas where vibration would not be expected to cause structural damage, vibration levels may still be perceptible. As with any type of construction, however, this would be anticipated, and it would not be considered significant given the intermittent and short duration of the phases that have the highest potential of producing vibration (the use of jackhammers and other high power tools). By use of administrative controls, such as notifying nearby residents of scheduled construction activities and scheduling construction activities with the highest potential to produce perceptible vibration in hours with the least potential to affect these uses, perceptible vibration can be kept to a minimum and, as such, would not result in a significant impact with respect to perception. **(Less Than Significant Impact [Same Impact as Approved Project])**

The nearest residence to the project site is located approximately 20 feet from the project's northernmost boundary. The vibration levels expected at this distance would be below 0.3 in/sec PPV. Other mobile home residences are located over 100 feet to the west of the site, opposite Monterey Road, and Central High School is located over 100 feet to the south of the site. At distances over 100 feet, vibration levels would be expected to be 0.1 in/sec PPV or less, below the 0.3 in/sec PPV significance threshold. Vibration generated by construction activities at the project site would at times be perceptible but would not be expected to result in "architectural" damage to these buildings. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.12.3 Conclusion

Implementation of mitigation measures MM NOI-1.1 and NOI-2.1 would reduce interior and exterior noise impacts to a less than significant level. **(Less Than Significant Impact with Mitigation [Same Impact as Approved Project])**

The proposed site plan includes appropriate setback distances from the adjacent UPRR tracks to reduce groundborne vibration impacts to a less than significant level. **(Less Than Significant Impact [Same Impact as Approved Project])**

Construction noise from development of the project site, with the implementation of mitigation measures MM NOI-3.1 and NOI-3.2, would be reduced to a less than significant level. **(Less Than Significant Impact with Mitigation [Same Impact as Approved Project])**

4.13 POPULATION AND HOUSING

4.13.1 Setting

According to California Department of Finance 2014 estimates, the population of Morgan Hill is 41,197, up 2.9 percent from 2013.⁴³ The ABAG projects the population for Morgan Hill, in the absence of any local growth management controls as discussed below, to be 45,800 in 2030.⁴⁴

Residential development within the City of Morgan Hill is controlled by the Residential Development Control System (RDCS). The RDCS generally limits 250 units to be built each year according to a competitive process involving a criteria and point system that address a variety of factors of the proposed project including provision of public services, site planning, and architectural design considerations. In approving Measure C in 2004 and Measure F in 2006, Morgan Hill voters extended the City's RDCS to 2020. The RDCS establishes a population ceiling for the City of 48,000 as of January 1, 2020. The City's Housing Element 2007-2014 was completed in September 2010 to meet the Regional Housing Needs Assessment (RHNA) determined by the ABAG. The Housing Element identifies the number of units and affordability required to meet Morgan Hill's housing needs, and its share of the regional housing need. The City's RHNA for the 2007-2014 period was determined to be 1,312 units, of which 43 percent of the units are required to be affordable to low income residents. The number of units required by the RHNA would not exceed the unit limitations of the RDCS.

A substantial portion of the Morgan Hill workforce currently travels outside the City for employment. The City's General Plan policies include maintaining a jobs-housing balance (*Jobs and Housing Policy 2d*). In 2010, the City had 17,624 employed residents and 17,523 jobs, or 0.99 jobs per employed resident.⁴⁵

4.13.1.1 *Existing Land Uses*

Currently, the project site is vacant, containing no structures and supporting no residents or employees. Residences are located north and south of the project site and on the west side of Monterey Road. An adult education program uses the school facility located south of the project site.

⁴³ California Department of Finance. *E-1 Population Estimates for Cities, Counties, and the State — January 1, 2013 and 2014*. April 2014. Available at: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/>

⁴⁴ Association of Bay Area Governments. *Projections and Priorities 2009: San Francisco Bay Area Population, Household, and Job Forecasts*. August 2009.

⁴⁵ Strategic Economics. *Economic and Fiscal Impact Analysis of Proposed Industrial Land Conversion in Morgan Hill*. August 24, 2012.

4.13.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
1. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
2. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1
3. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1

4.13.2.1 *Population and Housing Impacts*

Based on the average number of persons per household in Morgan Hill of 3.13⁴⁶, the proposed 58 residential units on the project site would result in the addition of approximately 181 residents to the City’s population. The residential project competed in the City’s RDCS process, and has received 58 allotments. The RDCS process meters the amount of residential development occurring within the City in any given year, typically up to 250 units annually, to ensure the rate of development does not outstrip the availability of public services and infrastructure to serve the City’s residents. Therefore, the residential population growth in the City is controlled and would not grow substantially as a result of the project.

In addition, the proposed project is consistent with the General Plan (see *Section 4.10, Land Use*) and the planned growth of the City and, therefore, would not be expected to induce substantial population growth. **[Same Impact as Approved Project (Less Than Significant Impact)]**

Since the project site is currently vacant and the project proposes a residential development, current housing units and residents of the City would not be displaced. **[Same Impact as Approved Project (Less Than Significant Impact)]**

⁴⁶ California Department of Finance. *E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2014, with 2010 Benchmark*. May 1, 2014. Available at: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>

4.13.3 Conclusion

The proposed project would not induce substantial population growth or displace substantial numbers of housing or people such that new housing would be needed elsewhere in the City. **[Same Impact as Approved Project (Less Than Significant Impact)]**

4.14 PUBLIC SERVICES

4.14.1 Setting

4.14.1.1 *Fire Protection*

The City of Morgan Hill contracts with the California Department of Forestry and Fire Protection (CalFire) for fire and emergency medical services. The City is served by three stations at the following locations: 1) El Toro Fire Station, located at 18300 Old Monterey Road, 2) Dunne Hill Fire Station, located at 2100 East Dunne Avenue, and 3) 15670 Monterey Street. The El Toro Fire Station is within one half-mile of the project site. In general, the average response time meets the current standard of eight minutes 95 percent of the time; although it is expected that most responses would be approximately five minutes 90 percent of the time.⁴⁷ Based on estimated driving times provided by Google Maps, the project site is located within one minute driving distance of the nearest fire station.

4.14.1.2 *Police Protection*

Police service to the site is provided by the Morgan Hill Police Department (MHPD). Officers are dispatched from police headquarters located at 16200 Vineyard Boulevard. It is MHPD's goal to respond to Priority One calls within five minutes and Priority Two calls within 10 minutes.

4.14.1.3 *Schools*

The Morgan Hill Unified School District (MHUSD) provides public education services to approximately 10,000 students in the City. MHUSD is currently comprised of eight elementary schools, two middle schools, two comprehensive high schools, one continuation high school, and one community adult school. MHUSD also oversees the City's K-8 home school program. Residents of the project site would attend El Toro Elementary School, Britton Middle School, and Ann Sobrato High School.⁴⁸ Recent student enrollment data for each school is shown in Table 4.14-1 below.

Table 4.14-1 Current School Enrollment	
Schools	2013-2014 Enrollment¹
El Toro Elementary School (Grades K-6)	450 students
Britton Middle School (Grades 7-8)	658 students
Ann Sobrato High School (Grades 9-12)	1,423 students
¹ Source: Morgan Hill Unified School District. <i>Demographic Study 2013-14</i> . February 2014. Prepared by SchoolWorks, Inc.	

⁴⁷ City of Morgan Hill, City Council Staff Report. *Fire and Emergency Medical Services (EMS) CalFire Proposal Update*. Meeting Date April 4, 2012.

⁴⁸ Morgan Hill Unified School District. *School Locator*. 2015. Accessed April 10, 2015. Available at: <http://www.schoolworksgis.com/SL/MHUSD/schoollocator.html>

4.14.1.4 *Parks and Other Public Facilities*

The City owns 70 acres of developed parkland (including the Civic Center, assessment district parks, and city-owned trails) and 59 acres of recreational facilities. Included within this inventory, the City maintains two community parks, five neighborhood parks, two neighborhood/school parks, and 15 mini-parks, in addition to its public trail system and open space. There is also a substantial amount of recreational land and open space in the City that is privately owned and maintained. In combination, these various types of public and private parks and recreational facilities total about 200 acres to serve the City's estimated population of 41,197. Based on the estimated population, the City's goal of five acres of parkland per 1,000 residents, 205 acres, is nearly met by existing parkland facilities.

The City also owns and operates special use facilities for recreational purposes. These facilities include the Morgan Hill Aquatics Center, Community and Cultural Center, the Centennial Recreation Center, the 38-acre Outdoor Sports Center, and Skateboard/BMX Park. Many sports leagues and teams use MHUSD facilities after school hours and on weekends. These facilities include 12 baseball/softball fields, two football fields, two tracks, and four swimming pools.

Morgan Hill residents also utilize County and State parks such as Silveira Park at the southern end of the City, the Coyote Creek park chain to the north, and Henry Coe State Park to the east.

The nearest parks to the project site are Galvan Park and the recreational facilities at Lewis H. Britton Middle School, approximately one-half mile southeast of the project site.

4.14.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact than "Approved Project"	Checklist Source(s)
1. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:						
Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

4.14.2.1 *Impacts to Fire and Police Services*

Development on the project site would be constructed in conformance with current building and fire codes, including features that would reduce potential fire hazards. The development application would be reviewed by both CalFire and the MHPD to ensure that appropriate safety features to reduce fire hazards and criminal activity are included in the project. Fire hydrants, emergency vehicle turnarounds and access locations, and appropriate lighting are examples of such features. The project site is located within the urban area of Morgan Hill, therefore, the proposed project would not develop in a location that requires the MHPD or CalFire to expand their service area. In addition, the project site is in an area currently served by the MHPD and CalFire and the driving time from the fire station closest to the project site is within the eight minute response time standard. Therefore, the project is not expected to substantially affect response times, and new construction or expansion of fire or police facilities would not be necessary to maintain the performance objectives of the fire and police services. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.14.2.2 *Impacts to Schools*

Approval of the proposed project would allow for construction of 58 residential units on the site. The average number of persons per household in Morgan Hill is 3.13,⁴⁹ therefore, the proposed development is estimated to accommodate 181 new residents in the City. As shown in Table 4.14-2 below, the project would result in approximately 27 additional students attending local schools.

Table 4.14-2 Estimated Student Generation				
Proposed Development	School Level	Student Generate Rate (students/unit)	Student Generation	Estimated Student Generation (rounded)
58 Single-Family Residences	Elementary	0.246	14.27	14
	Middle	0.067	3.89	4
	High	0.152	8.82	9

Source: Morgan Hill Unified School District. *Demographic Study 2013-14*. February 2014. Prepared by SchoolWorks, Inc.

⁴⁹ California Department of Finance. *E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2014, with 2010 Benchmark*. May 1, 2014. Available at: <http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>

The project would generate approximately 14 students for El Toro Elementary School, four students for Britton Middle School, and nine students for Ann Sobrato High School.⁵⁰

State Law (Government Code Section 65996) specifies that an acceptable method of offsetting a project's effect on the adequacy of school facilities is payment of a school impact fee prior to issuance of a building permit. The proposed project would be required to pay the MHUSD school impact fees prior to issuance of a building permit; therefore, school impacts would be less than significant. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.14.2.3 *Impacts to Parks and Other Facilities*

The proposed project would result in approximately 181 new residents in Morgan Hill. Based on the City's parkland goal of providing five acres for every 1,000 residents, the proposed project would need to provide approximately 0.91 acres of public parkland. The City of Morgan Hill has adopted a parkland dedication/parkland in-lieu fee ordinance (Municipal Code Chapter 17.28) that requires parkland dedication or in-lieu fees for residential developments. This ordinance requires residential developers to dedicate public parkland or pay in-lieu fees, or both, to offset the demand for neighborhood parkland created by their housing developments. The project would be required to comply with the City's parkland dedication or in-lieu fees for residential developments, which would avoid significant impacts to the City's park facilities. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.14.3 Conclusion

With review of the project design by the MHPD and CalFire, payment of school impact fees, and compliance to the City's parkland dedication/ parkland in-lieu fee ordinance, the proposed project would not result in significant impacts to public services. **(Less Than Significant Impact [Same Impact as Approved Project])**

⁵⁰ Student generation estimates have been rounded to the nearest whole student.

4.15 RECREATION

4.15.1 Setting

The City of Morgan Hill owns 70 acres of developed parkland (including the Civic Center, assessment district parks, and City-owned trails) and 59 acres of recreational facilities. Included within this inventory are two community parks, five neighborhood parks, two neighborhood/school parks, and 15 mini-parks, in addition to the City's public trail system and open space. There is also a substantial amount of recreational land and open space in the City that is privately-owned and maintained. In combination, these various types of public and private parks and recreational facilities total approximately 200 acres to serve the City's estimated population of 41,197. Based on the estimated population, the City's goal of five acres of parkland per 1,000 residents, 205 acres, is nearly met by existing parkland facilities.

The City also owns and operates special use facilities for recreational purposes. These facilities include the Morgan Hill Aquatics Center, Community and Cultural Center, the Centennial Recreation Center, the 38-acre Outdoor Sports Center, and Skateboard/BMX Park. Many sports leagues and teams use MHUSD facilities after school hours and on weekends. These facilities include 12 baseball/softball fields, two football fields, two tracks, and four swimming pools. Morgan Hill residents also utilize County and State parks such as Silveira Park at the southern end of the City, the Coyote Creek park chain to the north, and Henry Coe State Park to the east.

4.15.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as "Approved Project"	Less Impact than "Approved Project"	Checklist Source(s)
1. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility will occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
2. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

4.15.2.1 *Recreational Impacts*

The proposed project would result in approximately 181 new residents in Morgan Hill. The project would partially offset the need for recreational facilities by providing open space on the project site. The proposed common open space on the site would be maintained by the Homeowner's Association and would not provide public parkland for the City's residents.

Based on the City's parkland goal of providing five acres for every 1,000 residents, the proposed project would need to provide approximately 0.91 acres of public parkland. The City of Morgan Hill has adopted a parkland dedication/parkland in-lieu fee ordinance (Municipal Code Chapter 17.28) that requires parkland dedication or in-lieu fees for residential developments. This ordinance requires residential developers to dedicate public parkland or pay in-lieu fees, or both, to offset the demand for neighborhood parkland created by their housing developments. The project would be required to comply with the City's parkland dedication or in-lieu fees for residential developments, which would avoid significant impacts to the City's park facilities. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.15.3 Conclusion

Development of the proposed project would increase the demand for recreational facilities in the City of Morgan Hill, but standard measures required by the City would reduce or avoid recreation impacts to a less than significant level. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.16 TRANSPORTATION

4.16.1 Regulatory Background

4.16.1.1 *Santa Clara Valley Transportation Agency Congestion Management Plan*

The Santa Clara Valley Transportation Agency Congestion Management Plan (CMP) requires a transportation analysis to be prepared when a project would add 100 or more peak hour trips to the roadway network. Projects that generate fewer than 100 trips in either peak hour are presumed to have a less than significant impact on the Level of Service (LOS) of local intersections that would carry project traffic.

4.16.2 Setting

4.16.2.1 *Regional and Local Roadway Access*

Regional access to the project site is provided via U.S. Highway 101. Local access to the site is provided by Monterey Road, Cochrane Road, Main Avenue, and Wright Avenue.

Regional Access

U.S. Highway 101 is a north-south freeway extending northward to San Francisco and southward through Gilroy. U.S. Highway 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 that connects to Monterey Road and to the project site.

Local Access

Monterey Road is a four-lane divided major arterial that runs directly through Morgan Hill. Monterey Road extends from Market Street in downtown San Jose, to U.S. Highway 101 south of the City of Gilroy. Monterey Road runs west of the project site with a posted speed limit of 45 mph. The City of Morgan Hill General Plan designates Monterey Road as a 4-lane arterial. The City is considering the option of narrowing Monterey Road in the future to a two lane arterial between Main Avenue and Dunne Avenue to allow for wider sidewalks, increased on-street parking supply, and to create a more walkable, bikeable, and transit-friendly environment in the Downtown.

Cochrane Road is an east-west divided major arterial that runs from Monterey Road to Malaguerra Avenue, east of U.S. Highway 101. Currently, Cochrane Road is a four-lane road between Monterey Road and Sutter Boulevard. Between Sutter Boulevard and U.S. Highway 101, Cochrane Road widens to three lanes eastbound and two lanes westbound, then narrows back to four lanes east of U.S. Highway 101, and to two lanes east of Mission Avenida. Cochrane Road has a posted speed limit of 45 mph. The City of Morgan Hill General Plan designates Cochrane Road as a six-lane major arterial with no on-street parking between Monterey Road and Mission View Road.

Main Avenue is a two-lane, undivided roadway that extends east from Hale Avenue to Hill Road on the east side of the City. Main Avenue forms the northern boundary of the downtown area.

Wright Avenue is a two-lane, undivided roadway extending from Monterey Road in the east to its terminus west of Peak Avenue. Wright Avenue provides access to the project area from the west.

4.16.2.2 *Existing Transit Service*

Bus Routes

The Valley Transportation Authority (VTA) operates fixed route, commuter, and paratransit bus service and light rail service (LRT) in Santa Clara County. VTA provides a total of four routes in Morgan Hill (two local and two regional). Monterey Salinas Transit (MST) operates transit service in Monterey County, and provides express bus service to Morgan Hill and San José. Currently no transit stops are located on Monterey Road near the project site. A description of the transit services in Morgan Hill is provided below.

Community Bus Route 16 operates on Cochrane Road in the study area and runs from Burnett Avenue to the Civic Center (Main and Dewitt) in Morgan Hill with approximately 60-minute headways in the AM and PM peak hours. Route 16 operates between 6:30 AM and 6:00 PM. The nearest Route 16 stop is located at Main Avenue and Monterey Road, approximately one-half-mile south of the project site.

Bus Route 68 operates on Monterey Road and Hale Avenue on its route between the Gilroy Transit Center and the Diridon Transit Center in San Jose. It operates with 15-20 minute headways on weekdays in the AM and PM peak hours. Route 68 operates between 4:00 AM and 1:30 AM. Bus Route 68 has scheduled stops at the Main Avenue and Hale Avenue Transit Center. The nearest Route 68 stop is located at the Main Avenue and Hale Avenue Transit Center, approximately two-thirds of one mile south of the project site.

Express Route 121 operates on Butterfield Boulevard and Cochrane Road on its route between the Gilroy Transit Center and the Lockheed Martin Transit Center. Route 121 operates northbound with 15 to 30-minute headways during the AM peak hour and southbound with 15 to 30-minute headways during the PM peak hour. The nearest Route 121 stop to the project site is located at the Morgan Hill Caltrain Station, approximately 0.80-miles southeast 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. Route 168 operates northbound with 30-minute headways during the AM peak hour and southbound with 30-minute headways during the PM peak hour. The nearest Route 168 stop to the project site is located at the Morgan Hill Caltrain Station, approximately 0.80-miles southeast of the project site.

The *Monterey Salinas Transit (MST 55)* provides service between Monterey and the San José Diridon Station with three daily trips (one during the morning, one midday, and one in the evening). The MST 55 line has scheduled stops at the Morgan Hill Caltrain Station and the Main Avenue and

Hale Avenue Transit Center. The nearest MST 55 stop is located at the Main Avenue and Hale Avenue Transit Center, approximately 0.80-miles southeast of the project site.

Caltrain Service

The Peninsula Corridor Joint Powers Board operates Caltrain commuter rail service between San Francisco and San José, with weekday commute-hour service to Morgan Hill and Gilroy. Caltrain provides frequent daily train service between San José and San Francisco. Service extends south to Gilroy during commute hours, with three northbound trips during the AM peak period and three southbound trips during the PM peak period, stopping at both the Gilroy and Morgan Hill Caltrain Stations.

4.16.2.3 *Existing Pedestrian and Bicycle Facilities*

Pedestrian Facilities

Sidewalks are present on the west side of Monterey Road and along the east side of Monterey Road, south of the project site. On the east side of Monterey Road, sidewalks are present approximately 550 feet north of the site which extend to Cochrane Road to the north. Sidewalks are present on both sides of Wright and Main Avenues in the project vicinity. Cochrane Road contains sidewalks on the south side of the roadway from Monterey Road to the east and on the north side of the roadway east of Adams Court.

Bicycle Facilities

Bike lanes are currently provided along various roadways within the project study area, including Monterey Road, Cochrane Road, and Main Avenue. Bike lanes are currently provided along the following roadways:

- 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;
- Butterfield Boulevard, along its entire length;
- Main Avenue, from Peak Avenue to east of U.S. Highway 101; and
- Cochrane Road, along its entire length.

4.16.3 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
1. Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
2. Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
3. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
4. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible land uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
5. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
6. Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

4.16.3.1 *Transportation Impacts*

As noted above, the Santa Clara Valley Transportation Agency CMP requires a transportation analysis to be prepared when a project would add 100 or more peak hour trips to the roadway network. Projects that generate fewer than 100 trips in either peak hour are presumed to have a less than significant impact on the Level of Service (LOS) of local intersections that would carry project traffic. The project site is currently vacant and, therefore, does not currently generate peak hour vehicle trips. As shown in Table 4.16-1, the project would generate 25 AM peak hour and 30 PM peak hour trips.

Table 4.16-1 Trip Generation Estimates								
Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Residential Condominium/ Townhouse (ITE Code 230)	58 units	336	4	21	25	20	10	30
Project Trips			4	21	25	20	10	30

The proposed 58 residential units would not result in 100 or more AM or PM peak hour trips and would have a less than significant transportation impact. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.16.3.2 *Transit, Pedestrian, and Bicycle Facilities*

The closest bus stop to the project site is located approximately one-half mile south of the project site at Monterey Road and Main Avenue. Buses do not operate along the segment of Monterey Road fronting the project site. The project would not result in any impact with existing or planned transit facilities. **(Less Than Significant Impact [Same Impact as Approved Project])**

Sidewalks are present on the west side of Monterey Road and along the east side of Monterey Road, south of the project site. On the east side of Monterey Road, sidewalks are also present approximately 550 feet north of the site which extend to Cochrane Road to the north. The project would construct sidewalks along the project frontage which would connect to existing sidewalks south of the project site. Crosswalks are located at the intersection of Wright Avenue and Monterey Road. Although the project would likely increase the number of pedestrians at this intersection, the existing pedestrian infrastructure is anticipated to be adequate to serve users of the project site. **(Less Than Significant Impact [Same Impact as Approved Project])**

Major roadways in the project vicinity contain bicycle lanes, including Monterey Road, Cochrane Road, Butterfield Boulevard, and Main Avenue. The proposed project would not result in any impact to existing bicycle lanes fronting the project site. Bicycle lanes on Monterey Road are adequate to serve the proposed project. The project, therefore, would not conflict with any adopted bicycle plan, policy, or facility. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.16.3.3 *Traffic Hazards*

The design of the project streets would be reviewed by the Fire Department to ensure adequate emergency access. The proposed project would be reviewed by the City, and designed in accordance with applicable standards and policies to avoid design feature hazards. The project site is not located within the South County Airport Influence Area and, therefore, development at the project site would not change air traffic patterns. **(No Impact [Same Impact as Approved Project])**

4.16.4 Conclusion

Implementation of the proposed project would have a less than significant impact on local traffic operations, transportation facilities, airport operations, and emergency vehicle access. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.17 UTILITIES AND SERVICE SYSTEMS

4.17.1 Setting

4.17.1.1 *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 14 groundwater wells, 10 potable water storage tanks, 10 booster stations, and over 160 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 and water needs, the City has planned and constructed water projects in conjunction with new street construction.

The undeveloped project site does not currently use any water. There are 10-inch diameter water mains in Monterey Road west of and adjacent to the project site.

4.17.1.2 *Wastewater*

The City of Morgan Hill sewer collection system consists of approximately 165 miles of six-inch through 30-inch diameter sewers, and includes 14 sewage lift stations and associated force mains. 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. 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.

Both the cities of Gilroy and Morgan Hill have residential growth control systems in place which limit unexpected increases in sewage generation. The ADWF for combined flows from Morgan Hill and Gilroy were approximately 6.8 mgd in 2010. Based on combined population projections for both cities, the current capacity of 8.5 mgd will be reached in approximately 2020.⁵¹ Based on permitting data for the SCRWA, the current capacity will be reached in 2021.

The SCRWA is in the process of designing a 3.25 mgd expansion project, which will be constructed from the year 2017 through 2019. The increase would bring the total plant capacity to 11.75 mgd, with 4.92 mgd assigned to Morgan Hill (compared to 3.6 mgd, currently). The City has projected the wastewater treatment plant expansion will provide sufficient capacity to accommodate City growth through 2030, with an estimated future population of 54,000.

⁵¹ MWH Global and Akel Engineering Group. *Technical Memorandum – SCRWA Wastewater Flow Projections* (2012). November 20, 2013. Available at: http://www.cityofgilroy.org/CityOfGilroy_Files/city_hall/meetings/52fd58ad_12-4-13%20SCRWA%20packet.pdf

There are existing six (6)-inch sewer lines in Monterey Road adjacent to the project site that extend south along Monterey Road until they connect with the 12-inch Hale-Monterey trunk sewer at Main Avenue.

4.17.1.3 *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 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 vacant and generates little to no stormwater runoff when it rains. The project site is within the West Little Llagas Creek drainage area, which generally drains the western portion of the City.⁵² West Little Llagas Creek merges with Llagas Creek, which drains into the Monterey Bay.

There are no storm drains along Monterey Road adjacent to the project site. Storm drainage lines are located in Monterey Road at the southern edge of Central High School to the south of the site.

4.17.1.4 *Solid Waste*

Recology South Valley provides solid waste and recycling services to the businesses and residents of the cities of Morgan Hill and Gilroy. Recology South Valley has contracted through 2017 with the Salinas Valley Solid Waste Authority to dispose of municipal solid waste at Johnson Canyon Sanitary Landfill. Johnson Canyon Sanitary Landfill is anticipated to reach capacity in 2043.⁵³ There is no solid waste generated by the project site because it is vacant.

4.17.2 Environmental Checklist and Discussion of Impacts

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

⁵² Sowers, J.M. & Henkle, J.E, William Lettis & Associates, Inc. *Creek and Watershed Map of Morgan Hill & Gilroy*. 2009.

⁵³ Phil Couchee. General Manager, Recology. Phone Communication. February 3, 2010.

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
Would the project:						
2. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
3. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
4. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
5. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
6. Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2
7. Comply with federal, state and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1,2

4.17.2.1 *Impacts to Water Supply and Service*

Water Supply

There is no existing water demand from the project site because it is vacant and unirrigated. Long-range water supply planning in the City, which occurred most recently via the 2002 Water System Master Plan (WSMP) and the 2010 Urban Water Management Plan (UWMP), assumed build-out of

the project site based on its former General Plan designation. The current General Plan designation was shown to reduce water demand from the site by 12.7 million gallons per year versus its assumed land use in the 2002 WSMP and 2010 UWMP.⁵⁴ The proposed project would result in water use of approximately 6.2 million gallons per year.⁵⁵ The proposed project would increase water demand in the City by approximately 18.9 acre-feet per year (AFY)⁵⁶ over the existing condition.

The 2010 Urban Water Management Plan (which assumed development on the project site based on the former General Plan land use designation) found that even in a worst-case, multiple dry-year scenario, the supply of potable water available in the City will exceed demand by at least 6,000 acre-feet per year through the year 2030.⁵⁷ The proposed development on the site would use substantially less water than previously assumed in the 2010 UWMP; therefore, there is adequate water supply to serve the proposed project and new water supply or facilities are not required. **(Less Than Significant Impact [Same Impact as Approved Project])**

Water Distribution Infrastructure

As detailed in *Section 4.17.1.1* above, there is water distribution infrastructure in place adjacent to the project site. No long-term water infrastructure improvements were identified in the WSMP as necessary to accommodate development on this site.⁵⁸ As discussed above, the proposed project would result in less water use than anticipated for the project site in the WSMP. Therefore, the existing water infrastructure is adequate to serve the project site. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.17.2.2 *Impacts to Wastewater Treatment Facilities and Infrastructure*

Wastewater Treatment Capacity

Currently, there is no wastewater generated from the project site. Wastewater generation is approximately equal to 85 percent of a project's water demand. The water demand of the proposed project would be approximately 6.2 million gallons per year, which would result in approximately 5.27 million gallons per year of wastewater. As described above, there is adequate treatment capacity at the SCRWA Wastewater Treatment Plant to accommodate new development consistent with the General Plan through 2020, and a planned expansion would add capacity for growth through 2030. Given that treatment capacity is available for development on the project and the proposed project would demand less water than previously planned for in the City's General Plan, there is adequate treatment capacity for the proposed development. **(Less Than Significant Impact [Same Impact as Approved Project])**

⁵⁴ City of Morgan Hill. *Fall 2014 General Plan Amendments Initial Study*. September 2014. Table 4.17-2.

⁵⁵ California Air Pollution Control Officers Association (CAPCOA). *California Emissions Estimator Model User's Guide, Version 2013.2*. July 2013. Appendix D, Table 9.1. Residential: 65,154 gallons/unit/year (indoor) and 41,075 gallons/unit/year (outdoor)

⁵⁶ One acre-foot is the volume of water that would cover one acre of land with one foot of water, and is equal to 325,851.429 gallons.

⁵⁷ City of Morgan Hill. *2010 Urban Water Management Plan*. 2010. Prepared by Risk Management Professionals, Inc. Tables 5.4.3, 5.4.4, and 5.4.5.

⁵⁸ City of Morgan Hill. *Water System Master Plan*. 2002. Prepared by Carollo Engineers. Figure 5.1.

Sanitary Sewer Infrastructure

There are existing six (6)-inch sanitary sewer lines adjacent to the project site. No long-term sewer infrastructure improvements were identified in the Sewer System Master Plan as necessary to accommodate development on the site.⁵⁹ The proposed project is anticipated to result in less sewage generation than assumed for the site in the Sanitary Sewer Master Plan, therefore the project would be adequately served by existing sewer infrastructure. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.17.2.3 Impacts to Storm Drainage Infrastructure

The proposed project would increase on-site impervious surfaces (i.e., roofs, sidewalks, and pavement) compared to the existing condition and, as a result, the volume of stormwater runoff from the site would increase. As described in *Section 4.9, Hydrology and Water Quality*, the project would direct all runoff to on-site landscape areas, which are designed to function as bioretention facilities. In accordance with the City of Morgan Hill Standard Conditions of Approval, the project would prepare and submit a Storm Drainage Study to the Director of Public Works for review and approval prior to the issuance of a grading permit for the project. The Storm Drainage Study would include calculations to determine detention and operations and demonstrate how the runoff rate from the site would be less than or equal to existing conditions.⁶⁰ The project would require extension of the existing storm drainage lines in Monterey Road south of the project site. The extension of a storm drainage line within an existing four-lane roadway would not have any greater off-site impacts than those identified for the project site. For these reasons, project runoff would not result in any new or significant impacts resulting from the provision of storm drainage facilities to the project site. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.17.2.4 Solid Waste Impacts

The proposed project would result in 58 new single-family residences on the site. Single-family housing is estimated to generate 0.42 tons of waste per resident per year.⁶¹ Based on the average number of persons per household in Morgan Hill of 3.13, the 58 residential units are estimated to accommodate 181 residents, who would in turn generate approximately 76 tons of solid waste per year.⁶²

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 would dispose of solid waste from the City at Johnson Canyon Sanitary Landfill, which had just over 6,900,000 cubic yards of capacity

⁵⁹ City of Morgan Hill. *Water System Master Plan*. 2002. Prepared by Carollo Engineers. Figure 5.1.

⁶⁰ Using the City's requirements for sizing, the site would be required to provide storage for a 25-year, 24-hour storm with an additional capacity of 25 percent for freeboard.

⁶¹ California Air Pollution Control Officers Association (CAPCOA). *California Emissions Estimator Model User's Guide, Version 2013.2*. July 2013. Appendix D, Table 10.1.

⁶² California Department of Finance. *E-5 Population and Housing Estimates for Cities, Counties, and the State, January 1, 2011-2014, with 2010 Benchmark*. May 1, 2014. Available at:

<http://www.dof.ca.gov/research/demographic/reports/estimates/e-5/2011-20/view.php>

remaining as of July 2007 and is expected to remain open through 2040.⁶³ The proposed project would result in increased waste disposal from the site; however, the proposed development would be served by a landfill with adequate capacity. Waste diversion services (e.g. recycling) would be provided to residents of the site consistent with the 50 percent minimum waste diversion requirement set by the State. **(Less Than Significant Impact [Same Impact as Approved Project])**

4.17.3 Conclusion

The proposed project would not result in any new significant impacts to the utility or service systems in the City of Morgan Hill. Storm drainage lines would be extended to the site within Monterey Road which is not anticipated to result in any new significant impacts. **(Less Than Significant Impact [Same Impact as Approved Project])**

⁶³ CalRecycle. *Facility/Site Summary Details: Johnson Canyon Sanitary Landfill (27-AA-0005)*. Updated continuously. Accessed April 15, 2015. Available at: <http://www.calrecycle.ca.gov/SWFacilities/Directory/27-AA-0005/Detail/>

4.18 MANDATORY FINDINGS OF SIGNIFICANCE

	New Potentially Significant Impact	New Less Than Significant With Mitigation Incorporated	New Less Than Significant Impact	Same Impact as “Approved Project”	Less Impact than “Approved Project”	Checklist Source(s)
1. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pgs. 12-108
2. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pgs. 12-108
3. Does the project have the potential to achieve short-term environmental goals to the disadvantage of long-term environmental goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pgs. 12-108
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	pgs. 12-108

4.18.1 Project Impacts

The proposed project includes mitigation measures to avoid or reduce air quality, biological resources, geology and soils, and noise and vibration impacts to a less than significant level. As described in the respective sections of this Addendum, the proposed project would not result in other

significant environmental impacts or substantially adversely affect human beings directly or indirectly or degrade the quality of the environment such that a fish or wildlife population would drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory (refer to *Section 4.0 Environmental Setting, Checklist, and Discussion of Impacts* on pages 12 – 108 of this Addendum).

4.18.2 Short-term Environmental Goals vs. Long-term Environmental Goals

The proposed project would develop vacant land and add connectivity for multi-modal circulation in areas currently developed with suburban uses. The proposed project would not achieve short-term environmental goals to the detriment of any long-term environmental goals of the City of Morgan Hill.

4.18.3 Cumulative Impacts

The proposed project would not result in a considerable contribution to any new cumulative impact not previously identified in the *Fall 2014 General Plan Amendments Initial Study*. The project would not be affected by cumulative sources of TACs as detailed in Section 4.3. The project's contribution to cumulative nitrogen deposition impacts would be offset through the payment of impact fees (refer to Section 4.4). Service systems to the project site would not require expansion due to planned cumulative development in the City as detailed in the master plans prepared for those services.

4.18.4 Direct or Indirect Adverse Effects on Human Beings

Implementation of the proposed mitigation to address construction air quality impacts and noise impacts would ensure that no direct or indirect adverse effects on human beings would result from the project.

Checklist Sources

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5. California Department of Conservation, Division of Land Resources Protection. *Santa Clara County Important Farmland 2012*. 2014. <<ftp://ftp.consrv.ca.gov/pub/dlrp/FMMP/pdf/2012/sc112.pdf>>. Accessed February 11, 2015.

6. Bay Area Air Quality Management District. *Bay Area 2010 Clean Air Plan*. Adopted September 2010.
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10. Morgan Hill Tree Service. *Monterey – KB Home Residential Development*. March 10, 2015.
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12. Illingworth & Rodkin, Inc. *Spring 2014 General Plan Amendments Draft TAC and GHG Emissions Assessment*. August 14, 2014.
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14. Federal Emergency Management Agency. *Flood Insurance Rate Map, Community Panel #06085C0443H*. May 18, 2009.
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