INITIAL STUDY

WALNUT GROVE/DIANA SUBDIVISION MORGAN HILL, CALIFORNIA

ENVIRONMENTAL ASSESSMENT: EA-16-03

SUBDIVISION: SD-16-02

DEVELOPMENT AGREEMENT: DA-16-01

CITY OF MORGAN HILL

SEPTEMBER 2016

INITIAL STUDY

WALNUT GROVE/DIANA SUBDIVISION MORGAN HILL, CALIFORNIA

PREPARED FOR
CITY OF MORGAN HILL
DEVELOPMENT SERVICES DEPARTMENT
17575 PEAK AVENUE
MORGAN HILL, CA 95037

SEPTEMBER 2016

PREPARED BY

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

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SECTION 1. PROJECT INFORMATION

1.1 Project Title: Walnut Grove/Diana Subdivision

1.2. Lead Agency Contact:
Richard Buikema
Community Development Department
City of Morgan Hill
17575 Peak Avenue
Morgan Hill, CA 95037

1.3 **Project Location:** The Walnut Grove/Diana Subdivision project (proposed project) site is located at the intersection of Diana Avenue and Walnut Grove Drive, immediately west of U.S. Highway 101 (US 101) in the City of Morgan Hill, California. Morgan Hill is located in Santa Clara County, just southeast of San Jose. US 101 runs in a north/south orientation through the center of Morgan Hill, providing major regional access to the City (see Figure 1). The proposed project site consists of a total of 4.7 acres on Assessor's Parcel Numbers (APNs) 726-07-021, -023, -024, and -089.

1.4. Project Applicant:
Bryan Avilla
Newland Homes
3121 Michelson Drive, Suite 110
Irvine, CA 92612
Contact: J. Robert Meserve
(949) 344-2704

Owners:
Light of the World Apostolic Church of San Jose
4814 Wellington Park Drive
San Jose, CA 95136-2945

Timothy Healey
4132 De Mille Drive
San Jose, CA 95117-3101

Deluke Company LTD
535 Arrastadero Road
Palo Alto, CA 94306

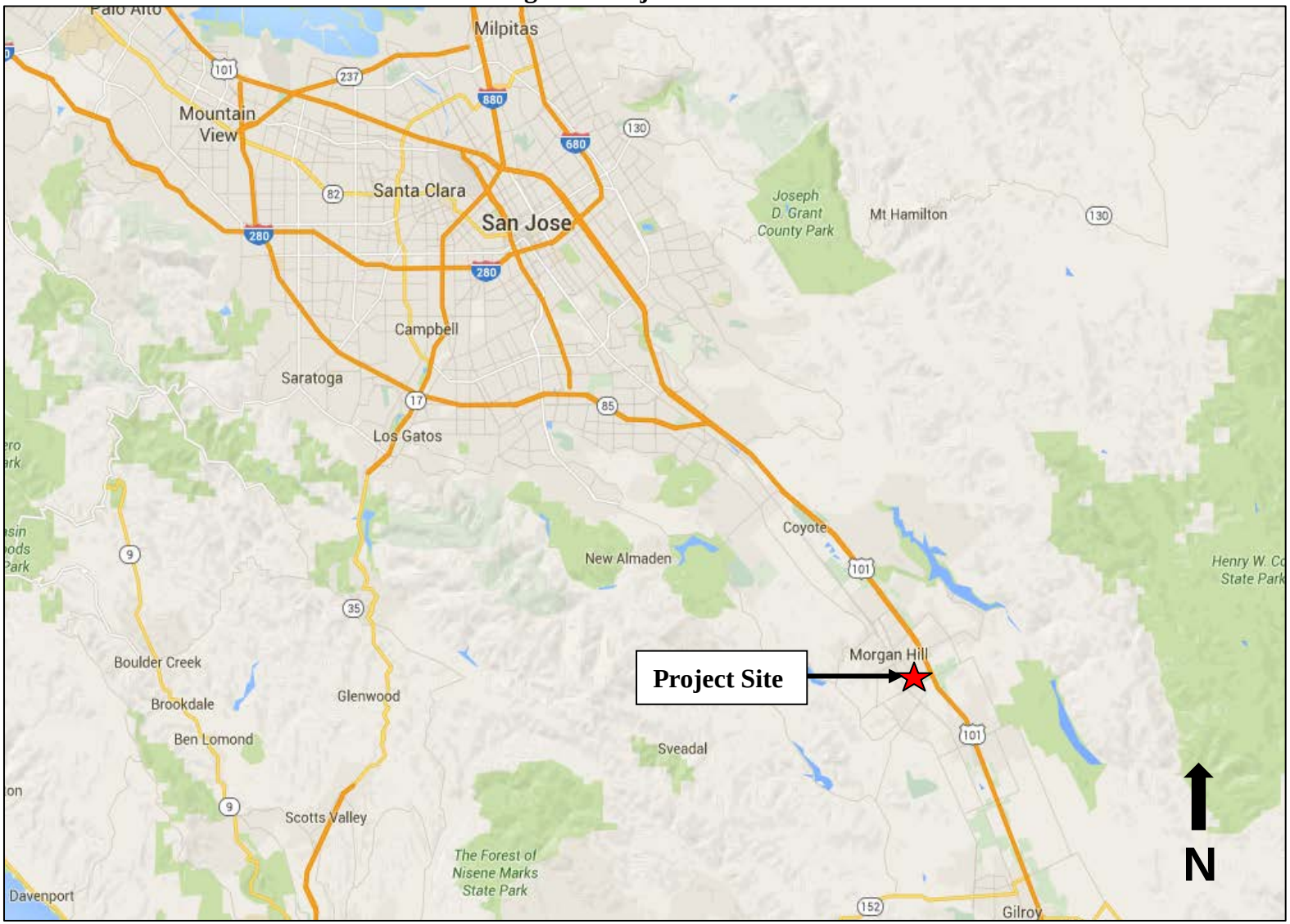
1.5. Existing General Plan Designation: Residential Detached Medium

1.6 Proposed General Plan Designation: N/A

1.7. Existing Zoning Designation: R-1 9,000 Single-Family Medium District

1.8. Proposed Zoning Designation: N/A

Figure 1
Regional Project Location



SECTION 2. PROJECT DESCRIPTION

The project consists of the development of a vacant 4.7-acre site for residential purposes, in accordance with the Residential Detached Medium General Plan designation and R-1 9,000 zoning standards that establish a minimum lot size of 9,000 square feet (sf) for single-family homes and 4,200 sf for duet units on corner lots. A Tentative Subdivision Map and a Site and Architectural Review application have been submitted by Newland Homes for the northern 2.1 acres of the project site. Single-family development on the remaining 2.6-acre portion of the site is also being evaluated in this Initial Study/Mitigated Negative Declaration (IS/MND) for the potential development of approximately 10 additional units. Where appropriate, this IS/MND includes separate discussions for the Newland Homes Tentative Map area and the 2.6-acre future development area.

2.1 Background

A General Plan Amendment (GPA-97-11 Walnut Grove-La Mere) was approved in October 1998 amending the land use designation of the project site from Office Industrial to Single Family Medium (3-5 dwelling units per acre). Concurrently, the site was rezoned from Office Industrial (MO) to R-1-9,000/RPD (ZA-97-20 Walnut Grove-La Mere). A Precise Plan was not submitted within the required timeframe specified by Chapter 18.18.140 of the Municipal Code, therefore, the zoning has reverted back to the MO zone district. The City initiated a rezoning of the property to R-1-9,000 that was approved in August 2016. The project site was reviewed as part of the Master Environmental Impact Report for the 2001 General Plan update. On July 27, 2016, the General Plan designation for the site was changed as part of the Morgan Hill 2035 General Plan Update to Residential Detached Medium.

2.2 Site Description and Setting

The proposed project site encompasses a total of 4.7 acres of vacant land surrounded by Diana Avenue and existing residences to the north, US 101 to the east, Honda of Morgan Hill to the south, and Walnut Grove Drive and existing residences to the west (see Figure 2). The proposed project site lacks sidewalks along the site's perimeter and consists primarily of tall, ruderal vegetation and disturbed soil (see Figure 3 and Figure 4). Structures are not located on the project site. The Newland Homes Tentative Map area contains a soil stockpile at its southern end, as well as three trees along Walnut Grove Drive. The future development area includes 17 trees, primarily concentrated at the southern boundary of the future development area. Several discarded tires are also located along the southern boundary.

Figure 2
Project Vicinity Map

Figure 3
Site Photo A

Figure 4
Site Photo B

2.3 Project Components

The proposed project would include the subdivision of the northernmost 2.1 acres (APNs 726-07-023, -024, and -089) of the 4.7-acre site into five single-family lots and a designated remainder to be subdivided upon receiving Residential Development Control System (RDCS) allocation. The Vesting Tentative Map (see Figure 5) shows that two of the five total units would be constructed as duet units, with lots ranging between approximately 5,000 and 7,000 sf. The remaining lot sizes would range between approximately 9,000 and 11,600 sf, with the largest lot containing an additional 600 sf second dwelling unit. The proposed project would also involve the construction of sidewalks along the perimeter of the site and the extension of Diana Avenue along the northeastern/eastern portions of the tentative map area. The extension of Diana Avenue along the eastern boundary of the tentative map area would provide vehicular access to lots 1-5 and serve as a setback from US 101 for noise attenuation purposes.

The project will include connections to existing water and sewer infrastructure in surrounding roads, as well as installation of on-site storm drain lines, which would collect and route storm water runoff to a proposed bio swale/rain tank along the eastern boundary of the project site.

As discussed above, the IS/MND will also consider the development of additional residential development on the southern 2.6-acre future development area (APN 726-07-021). A conceptual plan (see Figure 6) prepared by MH Engineering indicates 10 additional lots. Therefore, the total development potential for the 4.7-acre site being evaluated in this IS/MND is approximately 20 residential units.

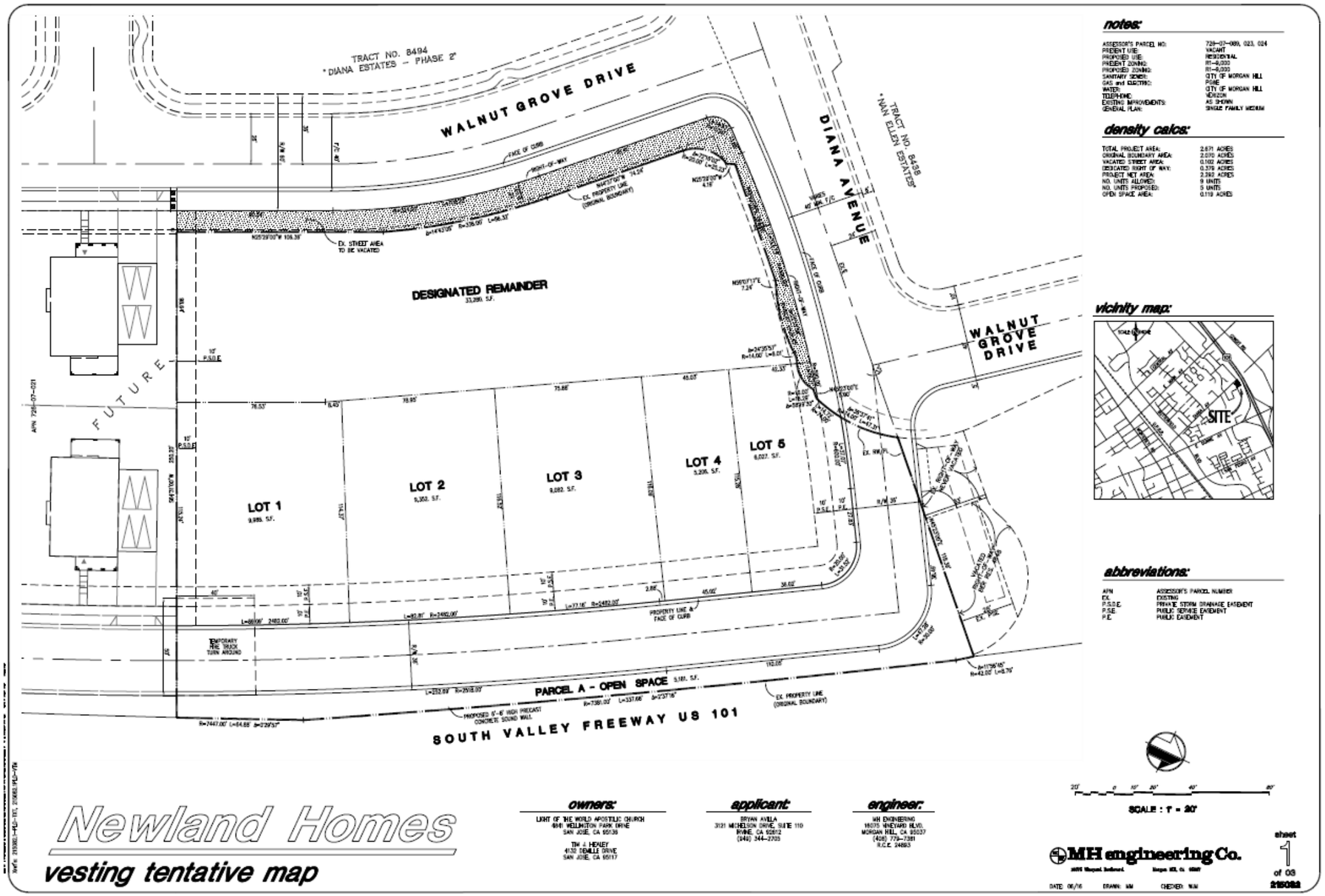
The project requires the City's approval of the following entitlements:

- Adoption of an IS/MND and Mitigation Monitoring and Reporting Program.
- Approval of a Tentative Subdivision Map for APNs 726-07-023, -024, and -089 to subdivide the 2.1-acre property in accordance with the R-1-9,000 zoning district.
- Subsequent Design Review approval for residential development resulting in three or more units consistent with the Tentative Map and General Plan.

2.3 Surrounding Land Uses

The project site is located in a suburban neighborhood with existing single-family residences to the north and west. US 101 is located directly to the east. The property directly south of the site is occupied by the Honda of Morgan Hill car dealership. Within 0.5-mile of the site are commercial developments that include Trader Joes, Starbucks, a Chevron gas station, and Walgreens.

Figure 5
Vesting Tentative Map



notes:

ASSESSOR'S PARCEL NO:	728-07-089, 023, 024
PRESENT USE:	VACANT
PROPOSED USE:	RESIDENTIAL
PRESENT ZONING:	R1-8,000
PROPOSED ZONING:	R1-6,000
SANITARY SEWER:	CITY OF MORGAN HILL
GAS and ELECTRIC:	PG&E
WATER:	CITY OF MORGAN HILL
TELEPHONE:	VERIZON
EXISTING IMPROVEMENTS:	AS SHOWN
GENERAL PLAN:	SINGLE FAMILY MEDIUM

density calcs:

TOTAL PROJECT AREA:	2.671 ACRES
ORIGINAL BOUNDARY AREA:	2.070 ACRES
VACATED STREET AREA:	0.102 ACRES
DEDICATED RIGHT OF WAY:	0.376 ACRES
PROJECT NET AREA:	2.293 ACRES
NO. UNITS ALLOWED:	9 UNITS
NO. UNITS PROPOSED:	5 UNITS
OPEN SPACE AREA:	0.119 ACRES

vicinity map:

abbreviations:

APN	ASSESSOR'S PARCEL NUMBER
EX.	EXISTING
P.S.D.E.	PRIVATE STORM DRAINAGE EASEMENT
P.S.E.	PUBLIC SERVICE EASEMENT
P.E.	PUBLIC EASEMENT

owners:
LIGHT OF THE WORLD APOSTOLIC CHURCH
4941 WELLINGTON PARK DRIVE
SAN JOSE, CA 95136
TIM J. HENLEY
4132 DEMILLE DRIVE
SAN JOSE, CA 95117

applicant:
BRYAN AVILLA
3121 MICHELSON DRIVE, SUITE 110
IRVINE, CA 92612
(949) 344-3725

engineer:
MH ENGINEERING
16075 VINEYARD BLVD.
MORGAN HILL, CA 95037
(408) 779-7381
R.C.E. 24863

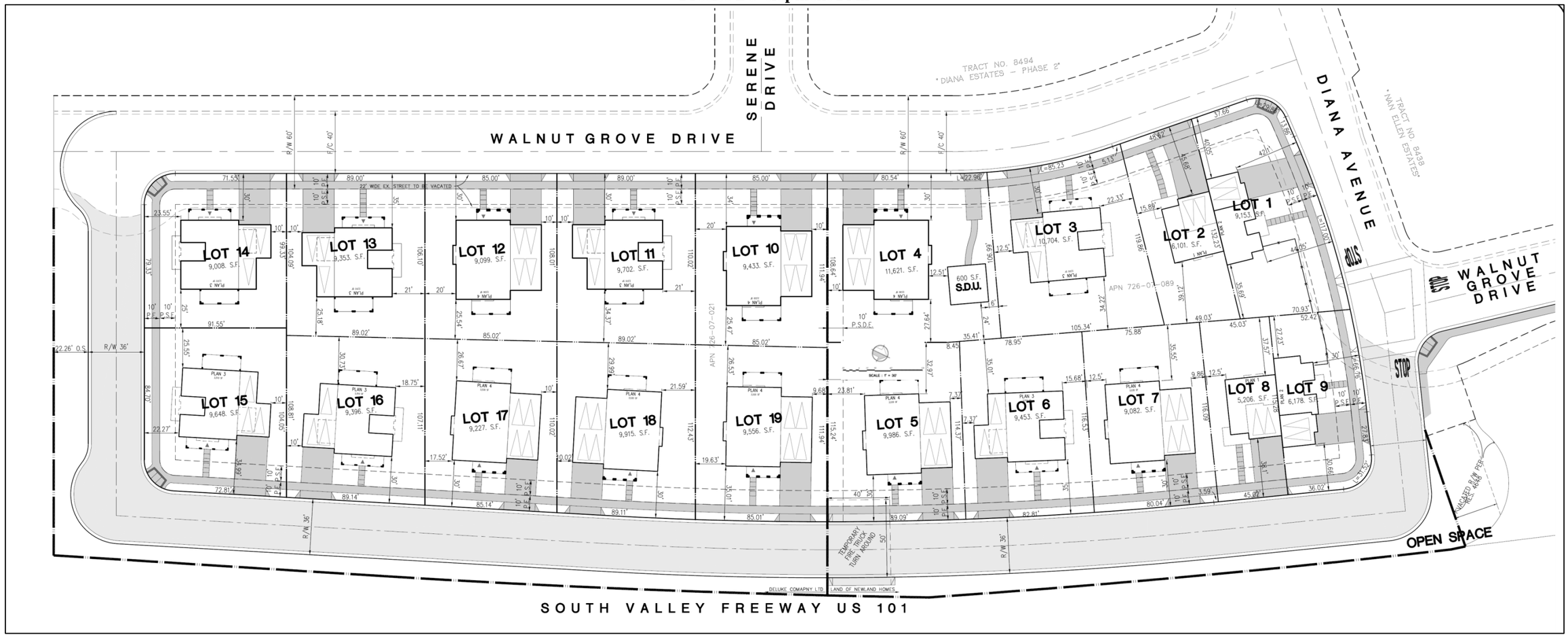
MH engineering Co.

DATE: 06/16 DRAWN: MM CHECKED: MM

sheet 1 of 03

215082

Figure 6
Precise Development Plan



SECTION 3. SOURCES

The following documents are referenced information sources utilized by this analysis:

1. Association of Bay Area Governments. *Dam Failure Inundation Hazard Map for Morgan Hill*. 1995. Available at: http://www.mhcert.com/prepare/dam_failure.shtml. Accessed June 2016.
2. Association of Bay Area Governments. *Earthquake and Hazards Information*. http://gis.abag.ca.gov/website/liquefactionsusceptibility/; Accessed June 2016.
3. Bay Area Air Quality Management District. *Air Quality Plans*. Available at: http://www.baaqmd.gov/Divisions/Planning-and-Research/Plans.aspx. Accessed July 2016.
4. Bay Area Air Quality Management District. *Air Quality Standards and Attainment Status*. Available at: http://www.baaqmd.gov/research-and-data/air-quality-standards-and-attainment-status. Accessed July 2016.
5. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2010.
6. Bay Area Air Quality Management District. *California Environmental Quality Act Air Quality Guidelines*. May 2012.
7. Bay Area Air Quality Management District. *Tools and Methodologies*. Available at: http://www.baaqmd.gov/plans-and-climate/california-environmental-quality-act-ceqa/ceqa-tools. Accessed July 2016.
8. Bollard Acoustical Consultants, Inc. *Environmental Noise Assessment for the Newland Homes Residential Development.* July, 2016.
9. California Air Resources Board. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005.
10. California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. *Santa Clara County Important Farmland 2012*. August 2014.
11. CalRecycle. *Facility Operations: Johnson Canyon Sanitary Landfill*. http://www.calrecycle.ca.gov/FacIT/Facility/Operations.aspx?FacilityID=18565. Accessed June 2016.
12. Circa. *Historic Context Statement for the City of Morgan Hill.* October 2006.
13. City of Morgan Hill. *Architectural Review Handbook.* February 2008.
14. City of Morgan Hill. *Morgan Hill General Plan*. Amended through September 2015.
15. City of Morgan Hill. *Municipal Code*. Available at: https://www.municode.com/library/ca/morgan_hill/codes/code_of_ordinances?nodeId=TIT15BUCO. Accessed June, 2016.
16. City of Morgan Hill. *Revised Regional Stormwater Management Plan*. February 22, 2010.
17. ENVIRON International Corporation and the California Air Districts. *California Emissions Estimator Model User's Guide Version 2013.2*. July 2013.
18. Federal Emergency Management Agency. *Santa Clara County, California, Flood Insurance Rate Map Panel 06085C0607H*. May 18, 2009.
19. Institute of Transportation Engineers. *Trip Generation, 9th Edition*. 2012.

20. United Soil Engineering, Inc. *Geotechnical Investigation and Pavement Design—Proposed Light of the World Church, 970 Diana Avenue, Morgan Hill, California.* January 2006.
21. Environmental Data Resources, Inc. *Phase I Environmental Site Assessment Report for: 970 Diana Ave Morgan Hill, CA 95037.* September, 2005.
22. Salinas Valley Solid Waste Authority. *Annual Report 2014-15*. 2015. Available at: http://svswa.org/wp-content/uploads/2014-2015-Annual-Report-Final4.pdf. Accessed June 2016.
23. Santa Clara County. *Final Santa Clara Valley Habitat Plan*. August 2012.
24. Santa Clara Valley Habitat Agency. *Geobrowser* [Property Report for subject property]. Available at: http://www.hcpmaps.com/habitat/. Accessed June 2016.
25. Santa Clara County. *Regional Parks and Scenic Highways Map.* June 2008.
26. SchoolWorks, Inc. *Morgan Hill Unified School District Demographic Study 2013-14.* February, 2014.

SECTION 4. EVALUATION OF ENVIRONMENTAL IMPACTS

This Initial Study (IS) identifies and analyzes the potential environmental impacts of the proposed project. The information and analysis presented in this document is organized in accordance with the order of the California Environmental Quality Act (CEQA) checklist in Appendix G of the CEQA Guidelines. If the analysis provided in this document identifies potentially significant environmental effects of the project, mitigation measures that should be applied to the project are prescribed.

The City of Morgan Hill adopted their current General Plan in 2001, which has undergone updates and amendments through September 2015. The current General Plan Final Master Environmental Impact Report (EIR), a program EIR prepared pursuant to Section 15168 of the CEQA Guidelines (Title 14, California Code of Regulations, Sections 15000 *et seq.*), was prepared in July 2001. It should be noted that the City is in the process of updating their General Plan; however, the updated 2035 General Plan is not yet adopted and an EIR has not been certified. Therefore, the current General Plan and EIR have been utilized for this analysis to the extent practicable. Notwithstanding this, the draft 2035 General Plan and its associated EIR are referenced throughout this IS/MND, as deemed appropriate, by the City. The draft 2035 documents are referenced primarily for purposes of including current setting information for the City.

The mitigation measures prescribed for environmental effects identified in this Initial Study/ Mitigated Negative Declaration (IS/MND) will be implemented in conjunction with the project, as required by CEQA. The mitigation measures will be incorporated into the project through project conditions of approval. The City will adopt findings and a Mitigation Monitoring and Reporting Program for the project in conjunction with approval of the project.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is "Less Than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

☐ **Aesthetics**	☐ **Agriculture Resources**	☐ **Air Quality**
✖ **Biological Resources**	☐ **Cultural Resources**	☐ **Geology & Soils**
☐ **Greenhouse Gas Emissions**	✖ **Hazards**	☐ **Hydrology & Water Quality**
☐ **Land Use**	☐ **Mineral Resources**	✖ **Noise**
☐ **Population, Employment, & Housing**	☐ **Public Services**	☐ **Recreation**
☐ **Transportation & Circulation**	☐ **Utilities & Service Systems**	☐ **Mandatory Findings of Significance**

DETERMINATION

On the basis of this initial study:

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

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

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

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

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

Signature	Date
Rich Buikema, Community Development	City of Morgan Hill
Printed Name	For

ENVIRONMENTAL CHECKLIST

The following Checklist contains the environmental checklist form presented in Appendix G of the CEQA Guidelines. The checklist form is used to describe the impacts of the proposed project. A discussion follows each environmental issue identified in the checklist. Included in each discussion are project-specific mitigation measures recommended, as appropriate, as part of the proposed project.

For this checklist, the following designations are used:

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

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

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

No Impact: The project would not have any impact.

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

a. The existing General Plan does not designate official scenic view corridors or vistas. However, according to the *Morgan Hill General Plan*, the hillsides that surround the City to the east and west are considered scenic. The project site is located in a suburban neighborhood surrounded by existing development and is not located on a hillside or in the vicinity of a hillside. While distant views of eastern hills can be seen through the project site from public viewpoints,[1] including Walnut Grove Drive, Diana Drive, and Serene Drive, the hills are partially obscured by existing development and heavy traffic along US 101, including semi-truck traffic (see Figure 7). In addition, while views of El Toro are available through the site for US 101 travelers, these views are partially obstructed by existing development and momentary due to the speed at which vehicles are travelling. Based upon such considerations, and the fact that the General Plan does not designate any official scenic vistas within the City of Morgan Hill, the project would have a ***less-than-significant*** impact to a scenic vista.

b. Scenic gateways to the City include Pacheco Pass, Hecker Pass, US 101 south of Gilroy, and the Coyote greenbelt area north of Morgan Hill. According to the California Department of Transportation (Caltrans) map of Santa Clara County prepared for the Scenic Highway Mapping System, officially designated State or County scenic highways do not occur in the project vicinity.

[1] It is important to distinguish between public and private views. Private views are views seen from privately-owned land and are typically viewed by individual viewers, including views from private residences. Public views are experienced by the collective public. These include views of significant landscape features and along scenic roads. California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) case law has established that only public views, not private views, are protected under CEQA. For example, in *Association for Protection etc. Values v. City of Ukiah* (1991) 2 Cal.App.4th 720 [3 Cal. Rptr.2d 488] the court determined that "we must differentiate between adverse impacts upon particular persons and adverse impacts upon the environment of persons in general. As recognized by the court in *Topanga Beach Renters Assn. v. Department of General Services* (1976) 58 Cal.App.3d 188 [129 Cal.Rptr. 739]: '[A]ll government activity has some direct or indirect adverse effect on some persons. The issue is not whether [the project] will adversely affect particular persons but whether [the project] will adversely affect the environment of persons in general.'" Therefore, it is appropriate to focus the aesthetic impact analysis on potential impacts to public views.

Figure 7
Site Photo C

Because the proposed project is not located in the vicinity of any State scenic highway or scenic gateway identified by the City, the proposed project would not damage any scenic resources within a State scenic highway. Therefore, ***no impact*** related to damaging scenic resources within a State scenic highway would occur.

c. The 4.7-acre project site consists of ruderal vegetation, exposed soil, and approximately 20 mature trees. The project site is surrounded by existing commercial and residential development. Due to the vacant nature of the project site, the development of the site with single-family residences would change the character of the site from an undeveloped lot to a suburban residential neighborhood. Development of the site with single-family residences, however, would be consistent with the existing single-family residential development that surrounds the site to the north and west. The project is also subject to design review in accordance with Morgan Hill Municipal Code Section 18.74.030, which would ensure that the proposed project is consistent with applicable design standards and guidelines in the City's Architectural Review Handbook for Single-Family Residential development. Said Handbook is intended to encourage sensitive site planning and well-designed neighborhoods. Because the project would be consistent with the surrounding visual character and quality and would require a separate design review, a ***less-than significant*** impact would occur related to degradation of the existing visual character of the site and its surroundings.

d. Due to the vacant nature of the existing site, light or glare is currently not produced on site. Therefore, the proposed project would increase the amount of light and glare at the site from current levels due to the introduction of residential units, parking areas, and vehicles traveling to and from the site. However, the proposed project's increase in light and glare in the area would not be considered substantial because the site is surrounded by existing development, including single-family residences, commercial uses, and US 101. In addition, new sources of lighting would be required to comply with the standards set forth in Section F of the City's Architectural Review Handbook, which includes such requirements as cut-off lenses to direct light downward. Compliance with such would help to ensure that the light and glare created by the proposed project would be consistent with the levels of light and glare currently emitted in the surrounding developed environment. Implementation of the project would, therefore, result in a ***less-than-significant*** impact with respect to creating a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

II. AGRICULTURE AND FOREST RESOURCES. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	✖
b. Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	✖
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	✖
d. Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	✖
e. Involve other changes in the existing environment which, due to their location or nature, could individually or cumulatively result in loss of Farmland to non-agricultural use?	☐	☐	☐	✖

a,e. The proposed project site is surrounded by existing residential and commercial development and is not currently used for agricultural purposes. According to the Santa Clara County Important Farmland 2012 map, the site is considered Urban and Built-Up Land.[2] Therefore, ***no impact*** would occur with respect to converting Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use.

b. The proposed project site is not zoned for agricultural use, nor is the site under a Williamson Act contract. Accordingly, ***no impact*** would occur.

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

[2] California Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program. *Santa Clara County Important Farmland 2012*. August 2014.

III. AIR QUALITY. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	✖	☐
b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	✖	☐
c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	✖	☐
d. Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	✖	☐
e. Create objectionable odors affecting a substantial number of people?	☐	☐	✖	☐

a-c. The City of Morgan Hill is located in the San Francisco Bay Area Air Basin (SFBAAB), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD), who regulates air quality in the San Francisco Bay Area. The SFBAAB area is currently designated as a nonattainment area for the State and federal ozone, State and federal particulate matter 2.5 microns in diameter ($PM_{2.5}$), and State particulate matter 10 microns in diameter (PM_{10}) standards. The SFBAAB is designated attainment or unclassified for all other ambient air quality standards (AAQS). It should be noted that on January 9, 2013, the U.S. Environmental Protection Agency (EPA) issued a final rule to determine that the Bay Area has attained the 24-hour $PM_{2.5}$ federal AAQS. Nonetheless, the Bay Area must continue to be designated as nonattainment for the federal $PM_{2.5}$ AAQS until such time as the BAAQMD submits a redesignation request and a maintenance plan to the USEPA, and the USEPA approves the proposed redesignation.

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

The most recent federal ozone plan is the 2001 Ozone Attainment Plan, which was adopted on October 24, 2001 and approved by the California Air Resources Board (CARB) on November 1, 2001. The plan was submitted to the EPA on November 30, 2001 for review and approval. The most recent State ozone plan is the 2010 Clean Air Plan (CAP), adopted on September 15, 2010. The 2010 CAP was developed as a multi-pollutant plan that provides an integrated control strategy to reduce ozone, PM, toxic air contaminants (TACs), and greenhouse gases (GHGs). Although a plan for achieving the

State PM_{10} standard is not required, the BAAQMD has prioritized measures to reduce PM in developing the control strategy for the 2010 CAP. The control strategy serves as the backbone of the BAAQMD's current PM control program.

The aforementioned air quality plans contain mobile source controls, stationary source controls, and transportation control measures (TCMs) to be implemented in the region to attain the State and federal standards within the SFBAAB. Adopted BAAQMD rules and regulations, as well as the thresholds of significance, have been developed with the intent to ensure continued attainment of AAQS, or to work towards attainment of AAQS for which the area is currently designated nonattainment, consistent with applicable air quality plans. The BAAQMD's established significance thresholds associated with development projects for emissions of the ozone precursors reactive organic gases (ROG) and oxides of nitrogen (NO_x), as well as for PM_{10}, and $PM_{2.5}$, expressed in pounds per day (lbs/day) and tons per year (tons/yr), are listed in Table 1. By exceeding the BAAQMD's mass emission thresholds for operational emissions of ROG, NO_X, or PM_{10}, a project would be considered to conflict with or obstruct implementation of the BAAQMD's air quality planning efforts.

Table 1
BAAQMD Thresholds of Significance

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

Source: BAAQMD, CEQA Guidelines, May 2010.

It should be noted that a series of recent court cases have called into question the BAAQMD resolutions adopting and revising their 2010 significance thresholds, asserting that the adoption of such would be considered a project under CEQA, necessitating environmental review. None of the courts have indicated whether the thresholds were valid on the merits or that the thresholds lack evidentiary support. Nonetheless, BAAQMD has withdrawn their revised quantitative significance thresholds for the time being. However, because the BAAQMD's thresholds of significance are supported by substantial evidence and remain the best available option, the City, as lead agency, has chosen to use the BAAQMD's thresholds of significance for evaluation of the proposed project.

The proposed project's construction and operational emissions were quantified using the California Emissions Estimator Model (CalEEMod) software version 2013.2.2 – a statewide model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify air quality emissions, including GHG emissions, from land use projects. The model applies inherent default values for various land uses, including construction data, trip generation rates based on the Institute of Transportation Engineers (ITE) Trip Generation Manual, 9th Edition, vehicle mix, trip length, average speed, etc. Where project-specific information is available, such

information should be applied in the model. However, project-specific construction data (e.g., construction phases and/or timing) is not available at this time. As such, the construction phases and durations used were based on the default values within CalEEMod. The modeling assumed that construction would commence in early 2017 and the project would be fully operational by 2018. The proposed project's required compliance with the current California Building Energy Efficiency Standards Code was assumed in the modeling. All CalEEMod results are included in Appendix A.

The proposed project's estimated emissions associated with construction and operations are presented and discussed in further detail below. A discussion of the proposed project's contribution to cumulative air quality conditions is provided below as well.

Construction Emissions

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

Table 2
Maximum Unmitigated Construction Emissions (lbs/day)

Pollutant	Proposed Project Emissions	Threshold of Significance	Exceeds Threshold?
ROG	53.80	54	**NO**
NO_X	51.85	54	**NO**
PM_{10} (exhaust)	2.76	82	**NO**
PM_{10} (fugitive)	18.24	None	**N/A**
$PM_{2.5}$ (exhaust)	2.54	54	**NO**
$PM_{2.5}$ (fugitive)	9.98	None	**N/A**

Source: CalEEMod, July 2016 (see Appendix A).

Although thresholds of significance for mass emissions of fugitive dust PM_{10} and $PM_{2.5}$ have not been identified by the City or BAAQMD, the proposed project's estimated fugitive dust emissions have been included for informational purposes. All projects under the jurisdiction of the BAAQMD are required to implement all of the BAAQMD's Basic Construction Mitigation Measures, which include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.

5. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
6. 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.
7. All construction equipment shall be maintained and properly tuned in accordance with manufacturer‘s specifications. All equipment shall be checked by a certified visible emissions evaluator.
8. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The Air District‘s phone number shall also be visible to ensure compliance with applicable regulations.

The proposed project’s required implementation of the BAAQMD’s Basic Construction Mitigation Measures listed above would help to further minimize any construction-related emissions.

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

Operational Emissions

According to the CalEEMod results, the proposed project would result in maximum operational criteria air pollutant emissions as shown in Table 3. As shown in the table, the proposed project’s operational emissions would be below the applicable thresholds of significance.

Table 3
Unmitigated Maximum Operational Emissions

Pollutant	Proposed Project Emissions		Threshold of Significance		Exceeds Threshold?
	lbs/day	tons/yr	lbs/day	tons/yr	
ROG	39.29	0.39	54	10	**NO**
NO_X	1.95	0.26	54	10	**NO**
PM_{10} (exhaust)	6.38	0.03	82	15	**NO**
PM_{10} (fugitive)	0.86	0.15	None	None	**N/A**
$PM_{2.5}$ (exhaust)	6.38	0.03	54	10	**NO**
$PM_{2.5}$ (fugitive)	0.23	0.04	None	None	**N/A**

Source: CalEEMod, July 2016 (see Appendix A).

Because the proposed project’s operational emissions would be below the applicable thresholds of significance, the proposed project would not be considered to result in a significant air quality impact during operations.

Cumulative Emissions

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

Conclusion

As stated previously, the applicable regional air quality plans include the 2001 Ozone Attainment Plan and the 2010 CAP. According to BAAQMD, if a project would not result in significant and unavoidable air quality impacts, after the application of all feasible mitigation, the project may be considered consistent with the air quality plans.[3] Because the proposed project would result in emissions below the applicable thresholds of significance, the project would not be considered to conflict with or obstruct implementation of regional air quality plans.

Overall, the proposed project would not conflict with or obstruct implementation of the applicable air quality plans, violate any air quality standards or contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in any criteria air pollutant. Therefore, impacts would be considered ***less than significant***.

d. Some land uses are considered more sensitive to air pollution than others, due to the types of population groups or activities involved. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and/or duration of exposure to air pollutants. Children, pregnant women, the elderly, and those with existing health problems are especially vulnerable to the effects of air pollution. Accordingly, land uses that are typically considered to be sensitive receptors include residences, schools, childcare centers, playgrounds, retirement homes, convalescent homes, hospitals, and medical clinics. The proposed project would involve the development of new housing

[3] BAAQMD. *California Environmental Quality Act Air Quality Guidelines* [pg. 9-2]. Updated May 2012.

and, thus, would be considered a sensitive receptor. The nearest existing sensitive receptors would be the single-family residences located to the north and west of the site.

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

Localized CO Emissions

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

In order to provide a conservative indication of whether a project would result in localized CO emissions that would exceed the applicable threshold of significance, the BAAQMD has established screening criteria for localized CO emissions. According to BAAQMD, a proposed project would result in a less-than-significant impact related to localized CO emission concentrations if all of the following conditions are true for the project:

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

The current congestion management program applicable to the project area would be the 2013 Congestion Management Program prepared by Valley Transportation Authority, the congestion management agency for Santa Clara County. The proposed project includes the development of nine single-family residential units, with the potential for another ten units in the future, which is consistent with the existing land use designations for the site. Because buildout and growth assumptions used for development of congestion management program are based on land use designations, the proposed project would be consistent with what would have been anticipated for buildout of the project site in the 2013 Congestion Management Program. Thus, the project would be considered consistent with the established congestion management program.

According to the Institute of Transportation Engineers (ITE) Manual, 9th Edition, trip rates for single family homes are 9.52 weekday trips per dwelling unit (du), 0.75 AM peak hour trip per du, and one PM peak hour trip per du. The proposed project would be

anticipated to result in a total of 181 weekday trips, 14 AM peak hour trips, and 19 PM peak hour trips. As discussed in detail in Section XVI, Transportation/Circulation, of this IS/MND, the nearest arterial roadways to the project site, Butterfield Boulevard to the east and Dunne Avenue to the south, are capable of accommodating an average daily traffic volume of 35,400. Accordingly, the nearest intersections would not involve peak hour traffic volumes greater than the screening levels presented above. In addition, as further discussed in Section XVI, the estimated amount of trips would not be expected to result in any new significant impacts or an increase in the severity of any existing impacts to nearby roadways or intersections.

Based on the above, a substantial increase in levels of CO at surrounding intersections would not occur. Therefore, the proposed project would not be expected to result in substantial levels of localized CO at surrounding intersections or generate localized concentrations of CO that would exceed standards.

TAC Emissions

Another category of environmental concern is TACs. The CARB's *Air Quality and Land Use Handbook: A Community Health Perspective* (Handbook) provides recommended setback distances for sensitive land uses from major sources of TACs, including, but not limited to, freeways and high traffic roads, distribution centers, and rail yards. The CARB has identified diesel particulate matter (DPM) from diesel-fueled engines as a TAC; thus, high volume freeways, stationary diesel engines, and facilities attracting heavy and constant diesel vehicle traffic are identified as having the highest associated health risks from DPM. Health risks from TACs are a function of both the concentration of emissions and the duration of exposure. Health-related risks associated with DPM in particular are primarily associated with long-term exposure and associated risk of contracting cancer.

With regards to TAC emissions, BAAQMD recommends that any project siting a new source take into consideration impacts associated with TACs located within a 1,000-foot zone. According to BAAQMD, a significant impact related to TACs would occur if a project would result in any of the following:

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

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

- An increase in cancer risk levels (from all local sources) of more than 100 persons in one million;
- A chronic non-cancer hazard index (from all local sources) greater than 10.0; or

- An annual average $PM_{2.5}$ concentration (from all local sources) of 0.8 µg/m^3 or greater.

As part of the ongoing *California Building Industry Association v. Bay Area Air Quality Management District* case, the Supreme Court granted limited review to the question: Under what circumstances, if any, does CEQA require an analysis of how existing environmental conditions will impact future residents or users (receptors) of a proposed project? In the opinion published on December 17, 2015, the Supreme Court looked closely at the language and legislative intent in CEQA, and found that CEQA does not provide "enough of a basis to suggest that the term 'environmental effects' . . . is meant, as a general matter, to encompass these broader considerations associated with the health and safety of a project's future residents or users." Based on the Supreme Court opinion, it would be considered appropriate to evaluate a project's potentially significant *exacerbating* effects on existing environmental hazards – effects that arise because the project brings "development and people into the area affected." The Supreme Court stated that even in those specific instances where evaluation of a project's potentially significant exacerbating effects on existing environmental hazards is appropriate, the evaluation of how future residents or users could be affected by the exacerbated conditions is still compelled by the project's impact on the environment, and not the environment's impact on the project.

The Supreme Court provided the example of a supposed project next to an abandoned gas station where soil and groundwater contamination has occurred. Without any additional development in the area, the contamination would remain as an existing condition whose risks are limited to the gas station site and immediate environs. By virtue of the proposed location, the supposed project would threaten to disperse the settled contamination and, thus, exacerbate the existing contamination, in which case the lead agency would be required to evaluate the existing condition as part of the environmental review. Such an evaluation would still focus on the project's impacts on the environment, specifically how the project might worsen the existing conditions and potentially affect the project's future users or residents. As a further example, the Supreme Court invalidated the following two sentences within the CEQA Guidelines: "[A]n EIR on a subdivision astride an active fault line should identify as a significant effect the seismic hazard to future occupants of the subdivision. The subdivision would have the effect of attracting people to the location and exposing them to the hazards found there." Consistent with the recent Supreme Court opinion, the City, as lead agency, does not require (and has not required in the past) analysis of the existing environment's effects on a proposed project in relation to TACs.

The proposed project would not involve any land uses or operations that would be considered to exacerbate any existing environmental hazards in the area. In addition, the proposed project would be consistent with the General Plan land use designation for the site, as well as the zoning designation that was analyzed and addressed as part of the approved and certified Initial Study prepared for the 1998 rezone. The proposed project would not involve any conditions that would result in an increase in any impacts previously identified in the General Plan EIR or 1998 Initial Study for the rezone. In

addition, with respect to the Newland Homes Tentative Map area, the applicant intends to include high efficiency particulate air (HEPA) filters or similar mechanical air filters as part of the HVAC systems, which remove particles using a mesh of material, typically fiberglass fibers, to capture the particles as they pass through the filter. Inclusion of particulate filters in the proposed homes would help to ensure indoor air quality would be adequate. Based on the above, the discussion regarding TAC emissions focuses on the proposed project's potential effects on the existing surrounding environment.

The proposed project would not involve any land uses or operations that would be considered major sources of TACs, including DPM. As such, the proposed project would not generate any substantial pollutant concentrations during operations. However, short-term, construction-related activities could result in the generation of TACs, specifically DPM, from on-road haul trucks and off-road equipment exhaust emissions. Construction is temporary and occurs over a relatively short duration in comparison to the operational lifetime of the proposed project, particularly so for the proposed project, as the construction activities would likely occur over an approximately one-year period (based on CalEEMod). All construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation, which is intended to help reduce emissions associated with off-road diesel vehicles and equipment, including DPM. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. During construction, only portions of the project site would be disturbed at a time. Operation of construction equipment would occur on such portions of the site intermittently throughout the course of a day over the overall construction period. In addition, per Chapter 8.28 of the City of Morgan Hill Municipal Code, construction activities would be limited to Mondays through Saturdays during daytime hours only.

Because construction equipment on-site would not operate for any long periods of time and would be used at varying locations within the site, associated emissions of DPM would not occur at the same location (or be evenly spread throughout the entire project site) for long periods of time. Health risks associated with TACs are a function of both the concentration of emissions and the duration of exposure, where the higher the concentration and/or the longer the period of time that a sensitive receptor is exposed to pollutant concentrations would correlate to a higher health risk. Due to the temporary nature of construction and the relatively short duration of potential exposure to associated emissions, sensitive receptors in the area would not be exposed to pollutants for a permanent or substantially extended period of time.

Due to the varying distances from working construction areas and equipment usage to any one nearby sensitive receptor, any one nearby sensitive receptor would be exposed to varying concentrations of DPM emissions throughout the construction period. According to BAAQMD, research conducted by CARB indicates that DPM is highly dispersive in the atmosphere and is reduced by 70 percent at a distance of approximately 500 feet. In addition, the City of Morgan Hill is located within the Santa Clara Valley, which, according to the BAAQMD, has prevailing north-northwesterly winds. Because the nearest existing sensitive receptors to the site are located to the north and west of the site,

the prevailing winds in the area would help to direct potential pollutants generated at the project site away from the nearby sensitive receptors.

Considering the short-term nature of construction activities, the regulated and intermittent nature of the operation of construction equipment, the highly dispersive nature of DPM, and the prevailing winds, the likelihood that any one sensitive receptor would be exposed to high concentrations of DPM for any extended period of time would be low. For the aforementioned reasons, project construction would not be expected to expose sensitive receptors to substantial pollutant concentrations.

Conclusion

Based on the above, the proposed project would not generate substantial pollutant concentrations, including localized CO or TACs, and impacts related to exposing sensitive receptors to such would be ***less than significant***.

e. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, quantitative methodologies to determine the presence of a significant odor impact do not exist. Typical odor-generating land uses include, but are not limited to, wastewater treatment plants, landfills, and composting facilities. The proposed project would not introduce any such land uses and is not located in the vicinity of any such existing or planned land uses. Residential land uses are not typically associated with the creation of substantial objectionable odors. As a result, the proposed project operations would not create any objectionable odors that would affect a substantial number of people.

Although less common, diesel fumes associated with substantial diesel-fueled equipment and heavy-duty trucks, such as from construction activities, freeway traffic, or distribution centers, could be found to be objectionable. As such, the proposed project activities could cause diesel fumes, which could be considered objectionable, during the temporary construction period. Although diesel fumes from construction equipment are often found to be objectionable, construction is temporary and construction equipment would operate intermittently throughout the course of a day, would be restricted to daytime hours per the City of Morgan Hill Municipal Code, and would only occur over portions of the improvement area at a time. In addition, all construction equipment and operation thereof would be regulated per the In-Use Off-Road Diesel Vehicle Regulation. Project construction would also be required to comply with all applicable BAAQMD rules and regulations, particularly associated with permitting of air pollutant sources. The aforementioned regulations would help to minimize air pollutant emissions as well as any associated odors. Considering the short-term nature of construction activities and the regulated and intermittent nature of the operation of construction equipment, construction of the proposed project would not be expected to create objectionable odors affecting a substantial number of people.

It should be noted that BAAQMD regulates objectionable odors through Regulation 7, Odorous Substances, which does not become applicable until the Air Pollution Control

Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period. Once effective, Regulation 7 places general limitation on odorous substances and specific emission limitations on certain odorous compounds, which remain effective until such time that citizen complaints have been received by the APCO for one year. The limits of Regulation 7 become applicable again when the APCO receives odor complaints from five or more complainants within a 90-day period. Thus, although not anticipated, if odor complaints are made after the proposed project is developed, the BAAQMD would ensure that such odors are addressed and any potential odor effects reduced to less than significant.

For the aforementioned reasons, construction and operation of the proposed project would not create objectionable odors, nor would the project site be affected by any existing sources of substantial objectionable odors, and a ***less-than-significant*** impact related to objectionable odors would result.

IV. BIOLOGICAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	✖	☐	☐
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	✖	☐
c. 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?	☐	☐	✖	☐
d. Interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites?	☐	☐	✖	☐
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	✖	☐	☐
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	✖	☐

a. Special-status species are plants and animals that are legally protected under the State and/or Federal Endangered Species Act (FESA) or other regulations. Special-status species also include species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitats.

The project site is located within the Santa Clara Valley Habitat Plan (SCVHP) area and is designated in the SCVHP as having a Rural Residential developed land cover type. Rural Residential is described by the SCVHP as being similar to the urban-suburban type, which is described as developed areas "where the native vegetation has been cleared for residential, commercial, industrial, transportation, or recreational structures, and is defined as one or more structures per 2.5 acres." However, according to the SCVHP, the Rural Residential designation involves land that is typically much less dense (defined as

less than one structure per 2.5 acres) and usually contains extensive landscaping and/or irrigated lands (including small areas of pasture). The SCVHP indicates that several covered species may be found in Rural Residential areas. Specifically, the California red-legged frog, western pond turtle, western burrowing owl, tricolored blackbird, or San Joaquin kit fox may move through Rural Residential land cover if the land occurs adjacent to or near open space. The bay checkerspot butterfly may also move through Rural Residential areas to disperse between patches of serpentine grassland. As such, Rural Residential areas that contain small patches of serpentine soils may be used for dispersing bay checkerspot butterflies as temporary foraging sites. However, because the project site does not contain low grasses, serpentine soils, or water features and is not located near any open space, the site would not be suitable for the California red-legged frog, western pond turtle, tricolored blackbird, or San Joaquin kit fox.

Only the western burrowing owl has the potential of inhabiting the proposed project site, according to habitat requirements listed in Appendix D of the SCVHP. Burrowing owls do not require a specific vegetation cover or soil type and typically use vacated burrows dug by small mammals as nesting habitat; however, burrowing owls are also known to use artificial burrows including pipes, culverts, and piles of concrete pieces in urban areas. Burrowing owls were not observed on the project site. In addition, ground squirrels or ground squirrel burrows were not observed at the site. It is possible that burrowing owls could occupy the site in the future, if suitable burrow habitat is created by ground squirrels or other artificial means (e.g., dumped debris).

Any potential impacts to habitat for covered species resultant of the proposed project would be addressed by the applicant's required payment of appropriate SCVHP development impact fees. The proposed project site includes land within Fee Zone B (Mostly Agricultural and Valley Floor Rural Residential Land) and Fee Zone C (Small Vacant Sites). Specifically, the Newland Homes Tentative Map area includes APNs 072-607-089 and -023 that are located within Fee Zone B (Mostly Agricultural and Valley Floor Rural Residential Land) and the future development area consists of APN 072-607-021, which is located within both Fee Zone B and Fee Zone C (Small Vacant Sites).

In June 2003, the City of Morgan Hill adopted the Citywide Burrowing Owl Habitat Mitigation Plan.[4] The purpose of the plan was to create a comprehensive program to mitigate impacts to Burrowing Owls a "Species of Special Concern" and their habitat, instead of addressing such impacts on a project-by-project basis. As a result of this plan, the City has established a 30.5-acre preserve for burrowing owl off of Edmundson Avenue. Lands subject to the Citywide Burrowing Owl Habitat Mitigation Plan are those lands that are below 600 feet in elevation above sea level and support any grassland and/or mixed herbaceous vegetation upon which an activity is proposed that is defined as a "project" by CEQA. The proposed project site is subject to the City's Habitat Mitigation Plan for burrowing owl because it is below 600 feet in elevation and at certain times of the year may contain low enough herbaceous ground cover to support burrowing owl. As stated above, in the site's present condition, burrowing owls would not use the

[4] City of Morgan Hill. *Citywide Burrowing Owl Mitigation Plan*. August 2003.

site due to the density and height of ruderal vegetation, which is spread uniformly across the entire 4.7-acre project site.
In addition, the three trees located within the 2.1-acre Newland Homes Tentative Map area and the 17 trees located on the 2.6-acre future development area could provide habitat for migratory birds protected under the Federal Migratory Bird Treaty Act. The construction of the proposed project could disturb nesting birds if they occupy these trees prior to the onset of construction.

Should the project 1) not comply with the mitigation requirements of the City's burrowing owl mitigation plan, 2) disturb habitat for species covered under the SCVHP without paying appropriate development impact fees, or 3) impact nesting migratory birds during construction, a ***potentially significant*** impact would result with respect to the project having a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service

Mitigation Measure(s)
Implementation of Mitigation Measures IV-1 through IV-3, consistent with the City of Morgan Hill's 2003 Burrowing Owl Habitat Mitigation Plan, would reduce potential impacts to western burrowing owl to a *less-than-significant* level. In addition, implementation of Mitigation Measure IV-4 would reduce the project's potential impacts to habitat for covered species by requiring compliance with the SCVHP. Implementation of Mitigation Measure IV-5 would ensure that nesting migratory birds are not impacted during construction activities. It is also important to note that the applicant for the Newland Homes Tentative Map will only need to implement these mitigation measures for the 2.1-acre Newland Homes Tentative Map area. The applicant(s) for the future development area will be required by the City to implement these mitigation measures for the 2.6-acre future development portion of the overall project site.

IV-1. *A pre-construction survey shall be conducted by a qualified Burrowing Owl biologist no more than 30 days prior to initiation of any ground disturbing (construction) activity to assure take avoidance of burrowing owls. The survey shall consist of a habitat assessment, burrow survey, owl survey, and completion of a written report. The written report shall be submitted to the Community Development Department. If owls are observed during the preconstruction survey, no impacts to the owls or their habitat will be allowed during the nesting season (February 1 to August 31).*

IV-2. *Should burrowing owls be found on the site during the breeding season (February 1 through August 31), exclusion zones, with a 250-foot radius from occupied burrows, shall be established. All development-related activities shall occur outside of the exclusion area until the young have fledged.*

IV-3. *If pre-construction surveys are conducted during the non-breeding season (September 1 through January 31) and burrowing owls are observed on the site, the owls may be relocated upon approval by the California Department of Fish and Wildlife, in accordance with the Burrowing Owl Mitigation Plan.*

IV-4. *No later than submittal of the first construction or grading permit for the Newland Homes Tentative Map area, the owner or designee shall pay the Santa Clara Valley Habitat Plan per-acre fee in effect for the appropriate fee zone of the 2.1-acre site, as determined by the Santa Clara Valley Habitat Agency, in compliance with Section 18.69.150 of the Morgan Hill Municipal Code. Similarly, no later than submittal of the first construction or grading permit for the southern 2.6-acre future development area, the applicant of such development shall pay the appropriate Santa Clara Valley Habitat Plan per-acre fee in effect for the appropriate fee zone of the 2.6-acre area, as determined by the Santa Clara Valley Habitat Agency, in compliance with Section 18.69.150 of the Morgan Hill Municipal Code.*

IV-5 *If construction is proposed during breeding season (February 1 to August 31), a pre-construction nesting survey for raptors and other protected migratory birds shall be conducted by a qualified biologist and submitted to the City of Morgan Hill Community Development Department for review no more than 14 days prior to the start of construction. Pre-construction surveys during the non-breeding season (September 1 to January 31) are not necessary for birds, including roosting raptors, as they are expected to abandon their roosts during construction. If these species are deemed absent from the area, construction may occur within 14 days following the survey during the early nesting season (February to May) and within 30 days following the survey during the late nesting season (June to August).*

If nesting raptors are detected on or adjacent to the site during the survey, a suitable construction-free buffer shall be established around all active nests. The precise dimension of the buffer (250-foot minimum for certain raptors) shall be determined by the qualified biologist at that time and may vary depending on location, topography, type of construction activity, and species. The buffer areas shall be enclosed with temporary fencing, and construction equipment and workers shall not enter the enclosed setback areas. Buffers shall remain in place for the duration of the breeding season or until it has been confirmed by a qualified biologist that all chicks have fledged and are independent of their parents.

b,c. The proposed project site consists primarily of disturbed ruderal vegetation and is surrounded by existing development. Although the site contains vegetation and some mature trees, water features do not exist on the project site or in the vicinity of the site.

The site would, therefore, not be considered a riparian habitat, a wetland, or a sensitive natural community. Accordingly, the proposed project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community, or on federally-protected wetlands, and impacts would be ***less than significant***.

d. The 4.7-acre project site is surrounded by existing commercial and residential development and consists primarily of ruderal vegetation. As noted earlier, water features do not exist on the project site or in the vicinity of the site. Additionally, the site is located adjacent to US 101 and not near any existing open space. As such, the potential for the site to be used as a corridor for resident or migratory wildlife or as a wildlife nursery site would be low. Therefore, the proposed project would not interfere with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors, or impede the use of wildlife nursery sites, and a ***less-than-significant*** impact would occur.

e. The proposed project site currently consists of three trees located within the 2.1-acre Newland Homes Tentative Map area and 17 trees located on the 2.6-acre future development area. Ruderal vegetation is present throughout the entire project site. Section 12.32.030 of the City of Morgan Hill's Municipal Code requires the approval of a tree removal permit before the removal of any tree with a circumference greater than 40 inches or any indigenous tree (Oak, Sycamore, California Bay, Madrone, or Alder) with circumference greater than 18 inches. Of the 20 total trees, 14 are mature, non-indigenous walnut trees, while the remaining six trees are unidentified ornamental species. The health and circumference of each tree has not been identified at this time; however, it can be concluded, based upon site reconnaissance, that some of the trees would be considered protected per the City's tree protection ordinance. As such, a ***potentially significant*** impact related to a conflict with local policies or ordinances protecting biological resources could occur.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

IV-6. *Prior to removal of any on-site trees, as defined in Section 12.32.020 of the City of Morgan Hill Municipal Code, the applicant shall obtain a tree removal permit from the City of Morgan Hill in accordance with the Municipal Code. A certified arborist shall identify the precise location, type, size, and health of each tree proposed for removal. All protected trees removed on-site, including trees that are fatally damaged as a result of project buildout, shall be subject to replacement plantings as determined by the City of Morgan Hill's Community Development Department.*

For any subject trees that are not proposed for removal, prior to approval of Improvement Plans, the project applicant shall retain a certified arborist to prepare a tree protection plan, subject to review and approval by the Community Development Department. The plan shall demonstrate

how any retained trees are to be protected during and after construction. The tree protection plan shall include, but not be limited to, the following:

- *Locate structures, grade changes, etc. as far as feasible from the 'dripline' area of the tree.*
- *Avoid root damage through grading, trenching, compaction, etc. Where root damage cannot be avoided, roots encountered (over one-inch diameter) should be exposed beyond the area to be disturbed (towards tree stem), by appropriate methods, 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 six to eight feet in height. Post no parking or storage signs outside/on fencing. Do not attach posting to the mainstem 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 one to two years following completion of construction. Trees that will be impacted by construction may benefit from fertilization, ideally performed in the fall, and preferably prior to any construction activities.*
- *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 may require specific, more extensive efforts and/or a more detailed specification than those contained within these general guidelines will be established in the tree preservation plan.*

f. The project site is located within the boundaries of the SCVHP. The SCVHP was developed by the County of Santa Clara, the Cities of Gilroy and Morgan Hill, the Santa Clara Valley Water District, and the Santa Clara Valley Transportation Authority under the guidance of the U.S. Fish and Wildlife Service and the California Department of Fish and Game. The SCVHP provides take authorization for 18 listed and non-listed species (i.e. covered species). In addition, the SCVHP includes conservation measures to protect the covered species covered by the SCVHP, as well as a conservation strategy designed to mitigate impacts on covered species and contribute to the recovery of the species in the study area. A certain amount of urban development is assumed in the SCVHP to occur within the City of Morgan Hill and remaining Plan area, which would have both permanent, direct impacts and indirect impacts. The proposed project would permanently alter the land; however, as discussed above, any potential impacts to habitat for covered

species resultant of the proposed project would be addressed by the applicant's required payment of appropriate SCVHP development impact fees. The Newland Homes Tentative Map area includes APNs 072-607-089 and -023 that are located within Fee Zone B (Mostly Agricultural and Valley Floor Rural Residential Land). The future development area consists of APN 072-607-021, which is located within both Fee Zone B and Fee Zone C (Small Vacant Sites).

The SCVHP also considers a certain amount of indirect impacts would result from urban development, including the effects of nitrogen deposition. Urban development increases air pollutant emissions associated with passenger and commercial vehicles, as well as industrial and other non-industrial sources. Emissions from these sources are known to increase airborne nitrogen, of which a certain amount is converted into forms that fall to earth as depositional nitrogen. Increased nitrogen in serpentine soils has been shown to favor the growth of nonnative annual grasses over native serpentine species. Invasive non-native species, if left unmanaged, have the potential to overtake the native serpentine species, which are host plants for larval bay checkerspot butterfly. As such, all projects within the SCVHP area are subject to paying a "Nitrogen Deposition Impact Fee," which would be calculated based on the number of daily vehicle trips attributed to the activity and collected prior to the commencement of the use. Thus, the proposed project would be required to pay the appropriate Nitrogen Deposition Impact Fee.

In summary, the proposed project would comply with the SCVHP through payment of the appropriate SCVHP fees. Therefore, the proposed project would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, resulting in a ***less-than-significant*** impact.

V. CULTURAL RESOURCES. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?	☐	☐	☐	✖
b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to Section 15064.5?	☐	☐	✖	☐
c. Directly or indirectly destroy a unique paleontological resource on site or unique geologic features?	☐	☐	✖	☐
d. Disturb any human remains, including those interred outside of formal cemeteries.	☐	☐	✖	☐
e. Cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code 21074?	☐	☐	✖	☐

a. The proposed project site is currently vacant with ruderal vegetation and does not contain any buildings or structures. Historical resources, as defined in section 15064.5, are not located on the project site. Therefore, the proposed project would not cause any adverse change in the significance of a historical resource, and ***no impact*** would occur.

b-d. Unique archeological or geological resources, human remains, or cultural resources have not been identified on the project site. A California Historical Resources Information System (CHRIS) search was conducted for the project site on June 20, 2016, which identified one structure on the site in 1917 and 1939 aerial photographs and five structures on the site in a 1955 aerial photograph. Although these structures no longer exist on site, the unrecorded buildings/structures meet the Office of Historic Preservation's minimum age standard that buildings, structures, and objects 45 years or older may be of historical value. As such, a moderately high possibility exists for previously unknown resources to be found on-site during grading and excavation associated with construction and the installation of new infrastructure lines for the proposed development. In the event that such resources are unearthed, the following City standard measures related to the protection of archaeological resources would be implemented:

1. An archaeologist shall be present on-site to monitor all ground-disturbing activities. Where historical or archaeological artifacts are found, work in areas where remains or artifacts are found will be restricted or stopped until proper protocols are met, as described below:

    a. Work at the location of the find will halt immediately within thirty feet of the find. If an archaeologist is not present at the time of the discovery, the applicant shall contact an archaeologist for evaluation of the find to determine whether it qualifies as a unique archaeological resource as defined by this chapter;

b. If the find is determined not to be a Unique Archaeological Resource, construction can continue. The archaeologist will prepare a brief informal memo/letter that describes and assesses the significance of the resource, including a discussion of the methods used to determine significance for the find;
c. If the find appears significant and to qualify as a unique archaeological resource, the archaeologist will determine if the resource can be avoided and will detail avoidance procedures in a formal memo/letter; and
d. If the resource cannot be avoided, the archaeologist shall develop within forty-eight hours an action plan to avoid or minimize impacts. The field crew shall not proceed until the action plan is approved by the community development director. The action plan shall be in conformance with California Public Resources Code 21083.2.

2. The following policies and procedures for treatment and disposition of inadvertently discovered human remains or archaeological materials shall apply. If human remains are discovered, it is probable they are the remains of Native Americans,

    a. If human remains are encountered they shall be treated with dignity and respect as due to them. Discovery of Native American remains is a very sensitive issue and serious concern. Information about such a discovery shall be held in confidence by all project personnel on a need to know basis. The rights of Native Americans to practice ceremonial observances on sites, in labs and around artifacts shall be upheld.
    b. Remains should not be held by human hands. Surgical gloves should be worn if remains need to be handled.
    c. Surgical mask should also be worn to prevent exposure to pathogens that may be associated with the remains.

3. 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 exclusion zone as defined below.

4. An "exclusion zone" where unauthorized equipment and personnel are not permitted shall be established (e.g., taped off) around the discovery area plus a reasonable buffer zone by the contractor foreman or authorized representative, or party who made the discovery and initiated these protocols, or if on-site at the time or discovery, by the monitoring archaeologist (typically twenty-five to fifty feet for single burial or archaeological find).

5. The exclusion zone shall be secured (e.g., twenty-four-hour surveillance) as directed by the city or county if considered prudent to avoid further disturbances.

6. 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:

    a. The city of Morgan Hill Community Development Director,
    b. The contractor's point(s) of contact,
    c. The coroner of the county of Santa Clara (if human remains found),
    d. The Native American Heritage Commission (NAHC) in Sacramento, and
    e. The Amah Mutsun Tribal Band.

7. 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 twenty-four hours to notify the NAHC.

8. 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.).

9. Within twenty-hour hours of their notification by the NAHC, the MLD will be granted permission to inspect the discovery site if they so choose,

10. Within twenty-four 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.

11. If the MLD recommendation is rejected by the City of Morgan Hill the parties will attempt to mediate the disagreement with the NAHC. If mediation fails, then the remains and all associated grave offerings shall be reburied with appropriate dignity on the property in a location not subject to further subsurface disturbance.

Compliance with the above standard conditions of approval would ensure that construction of the proposed project would have a ***less-than-significant*** impact related to unique archeological, paleontological, and geological resources, as well as the disturbance of human remains.

e. Tribal cultural resources are generally defined by Public Resources Code 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a

California Native American tribe. A Sacred Lands File search, performed by the Native American Heritage Commission (NAHC) for the immediate project area on July 6, 2016, did not indicate the presence of Native American cultural resources in the immediate project area. In addition, the CHRIS search did not identify any known Native American cultural resources on or near the site, and concluded that the potential for Native American resources to be found on site would be low due to the site's distance from hills and natural watercourses. The project site has been previously graded for development and is surrounded by existing developments. As such, given the results of the CHRIS search and the NAHC sacred lands file search, as well as the existing nature and surroundings of project site, the project would result in a ***less-than-significant*** impact to tribal cultural resources.

VI. GEOLOGY AND SOILS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area based on other substantial evidence of a known fault?	☐	☐	✖	☐
ii. Strong seismic ground shaking?	☐	☐	✖	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	✖	☐
iv. Landslides?	☐	☐	☐	✖
b. Result in substantial soil erosion or the loss of topsoil?	☐	☐	✖	☐
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	✖	☐
d. Be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code?	☐	☐	✖	☐
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	✖

ai-iii. The San Francisco Bay Area is one of the most seismically-active areas 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. The three major faults in the area are the Calaveras, Monte Vista-Shannon, and San Andreas faults. According to the Association of Bay Area Governments (ABAG) Resilience Program's interactive Hazards Map, the project site is not located on or near an Alquist-Priolo fault zone or any other State of California earthquake fault zone.[5]

The primary factors affecting soil liquefaction include the intensity and duration of seismic shaking, soil type, relative density of granular soils, moisture content and plasticity of fine-grained soils, overburden pressure, and depth to groundwater. According to the U.S. Department of Agricultural Natural Resources Conservation

[5] Association of Bay Area Governments. *Earthquake and Hazards Information.* http://gis.abag.ca.gov/website/liquefactionsusceptibility/; Accessed June 2016.

Science Web Soil Survey[6] performed for the project site, the site is made up of Pleasanton loam, zero to two percent slopes, and Arbuckle gravelly loam, zero to two percent slopes. All of the Newland Homes Tentative Map area is comprised of Pleasanton loam, while approximately half of the future development area is comprised of Pleasanton loam with the remaining half consisting of Arbuckle gravelly loam. According to the Santa Clara County Soil Survey (1974), both the Arbuckle gravelly loam and Pleasanton Loam have moderate shrink-swell potential, which equates to a moderate to low susceptibility for liquefaction. Consistent with the Web Soil Survey findings, a geotechnical report conducted in 2006 for a proposed project on the Newland Homes Tentative Map area found the site's soil composition to include "brown, moist, hard gravelly clayey silt" in the three feet closest to the surface and "brown, moist, very dense sandy gravel" from three feet to 20 feet in depth. The 2006 report concluded that the site has a very low possibility of liquefaction. Furthermore, the ABAG interactive Hazard Map does not identify the site as an area of high liquefaction susceptibility.[7]

Residential development at the project site would be built using standard engineering and seismic safety design techniques. Building design and construction at the project site will be completed in conformance with the recommendations of a design-level geotechnical investigation. The report shall be reviewed and approved by the City of Morgan Hill Building Division as a standard condition of development prior to issuance of a building permit. The buildings will be required to meet the requirements of applicable Building and Fire Codes, including the 2013 California Building Code, as adopted or updated by the City of Morgan Hill. The project will be designed to withstand soil and earthquake hazards identified on the site and the project shall be designed to reduce the risk to life or property to the extent feasible and in compliance with the Building Code. Accordingly, impacts would be considered ***less than significant***.

aiv. The project site is relatively flat and is not located near any hills or slopes. Thus, ***no impact*** would occur in relation to landslides.

b. The development of the 4.7-acre site would cause ground disturbance of mostly top soil related to construction activity. The ground disturbance would be limited to the areas proposed for grading and excavation, including the residential building pads; curb, gutter, and sidewalk improvement areas; and drainage, sewer, and water infrastructure alignments. After grading and excavation and prior to overlaying the disturbed ground surfaces with impervious surfaces and structures, the potential exists for wind and water erosion to occur, which could adversely affect downstream storm drainage facilities.

Prior to the approval of improvement plans and issuance of building permits, the applicant for the Newland Homes Tentative Map area, and any future applicants proposing residential construction on the future development area, will submit a sediment and erosion control plan to the City of Morgan Hill, Public Works Department, as a

[6] United States Department of Agriculture, National Resources Conservation Service. Web Soil Survey. Available at: http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed July, 2016.

[7] United Soil Engineering, Inc. *Geotechnical Investigation and Pavement Design—Proposed Light of the World Church, 970 Diana Avenue, Morgan Hill, California.* January 2006.

standard City condition. The plan(s) shall be acceptable and conform to City standards to prevent significant sediment and soil erosion during construction and include the standards and guidelines found in the California Stormwater Quality Association, Stormwater Best Management Practice Handbook. Compliance with these City standards would ensure that the project would have a ***less-than-significant*** impact with respect to substantial soil erosion.

c-d. The soil composition of the Newland Homes Tentative Map area was determined to be of low plasticity and subsequently low expansion potential by the 2006 Geotechnical Report. Additionally, groundwater was not encountered in any of the drill holes during the geotechnical consultant's subsurface exploration. The findings from the Geotechnical Report are anticipated to also apply to the soil of the future development area. Given the above considerations, the site would not be located on a geologic unit or soil that is unstable or be located on expansive soil as defined in Table 18-1B of the Uniform Building Code; therefore, a ***less-than-significant impact*** would occur.

e. The proposed development would connect to existing sewer lines on Diana Avenue and Walnut Grove Drive and would not include the use of septic tanks. Accordingly, ***no impact*** would occur from soils incapable of adequately supporting the use of septic tanks.

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

a, b. Emissions of greenhouse gases (GHGs) contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors. Therefore, the cumulative global emissions of GHGs contributing to global climate change can be attributed to every nation, region, and city, and virtually every individual on earth. An individual project's GHG emissions are at a micro-scale level relative to global emissions and effects to global climate change; however, an individual project could result in a cumulatively considerable incremental contribution to a significant cumulative macro-scale impact. As such, impacts related to emissions of GHG are inherently considered cumulative impacts.

Implementation of the proposed project would cumulatively contribute to increases of GHG emissions. Estimated GHG emissions attributable to future on-site development would be primarily associated with increases of carbon dioxide (CO_2) and, to a lesser extent, other GHG pollutants, such as methane (CH_4) and nitrous oxide (N_2O) associated with area sources, mobile sources or vehicles, utilities (electricity and natural gas), water usage, wastewater generation, and the generation of solid waste. The primary source of GHG emissions for the project would be mobile source emissions. The common unit of measurement for GHG is expressed in terms of annual metric tons of CO_2 equivalents ($MTCO_2e$/yr).

The proposed project is located within the jurisdictional boundaries of the BAAQMD. The BAAQMD threshold of significance for project-level operational GHG emissions is 1,100 $MTCO_2e$/yr or 4.6 $MTCO_2e$/yr per service population (population + employees). BAAQMD's approach to developing a threshold of significance for GHG emissions is to identify the emissions level for which a project would not be expected to substantially conflict with existing California legislation adopted to reduce statewide GHG emissions needed to move towards climate stabilization. If a project would generate GHG emissions above the threshold level, the project would be considered to generate significant GHG emissions and conflict with applicable GHG regulations. The City of Morgan Hill, as lead agency, has chosen to use the BAAQMD thresholds of significance for the analysis within this IS/MND, as the thresholds are supported by substantial evidence.

The proposed project's GHG emissions were quantified using CalEEMod using the same assumptions as presented in the Air Quality section of this IS/MND, and compared to the 1,100 $MTCO_2e$/yr threshold of significance. The proposed project's required compliance

with the current California Building Energy Efficiency Standards Code was assumed in the modeling. In addition, the CO_2 intensity factor within the model was adjusted to reflect the Pacific Gas & Electric Company's anticipated progress towards statewide renewable portfolio standards goals. All CalEEMod results are included in Appendix A.

According to the CalEEMod results, the proposed project would result in operational GHG emissions of 232.34 $MTCO_2e$/yr, which is well below the 1,100 $MTCO_2e$/yr threshold of significance. Construction GHG emissions are a one-time release and are, therefore, not typically expected to generate a significant contribution to global climate change. Neither the City nor BAAQMD has adopted a threshold of significance for construction-related GHG emissions. However, even if the proposed project's total construction GHG emissions of 360.04 $MTCO_2e$/yr are included with the annual operational GHG emissions, the resultant total GHG emissions of 592.38 $MTCO_2e$/yr would still be well below the 1,100 $MTCO_2e$/yr threshold of significance. Therefore, the proposed project would not be expected to result in a significant impact related to GHG emissions.

Based on the above, the proposed project would not be considered to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, or conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs; and impacts would be considered ***less than significant***.

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

a. Projects that involve the routine transport, use, or disposal of hazardous materials are typically industrial in nature. The proposed project would be a residential development and would not be industrial in nature. Residential land uses do not typically involve the routine transport, use, disposal, or generation of substantial amounts of hazardous materials. Construction activities would involve the use of heavy equipment, which would contain fuels and oils, and various other products such as concrete, paints, and adhesives. However, the project contractor would be required to comply with all California Health and Safety Codes and local ordinances regulating the handling, storage, and transportation of hazardous and toxic materials. As such, impacts related to the routine transport, use, or disposal of hazardous materials would be ***less-than-significant.***

b. A Phase I Environmental Site Assessment (ESA) was performed for a different proposed project on the Newland Homes Tentative Map area by Environmental Data Resources, Inc. in October of 2005. The Phase I ESA included a survey of the site and a review of historical documentation, aerial photography, regulatory agency files, and environmental sites radius reports. According to the Phase I ESA, the proposed project site does not contain storage tanks or water supply, irrigation, oil, injection, or dry wells, or stained soil or pavement. However, the Phase I ESA did identify "one large pile of dirt and debris" on-site. While not sampled for its contents, soil stockpiles can contain hazardous materials or substances. Given the unknown source of origin for the stockpiled soils, the possibility exists that the soils contain hazardous materials and/or substances. Additionally, the ESA's review of historical aerial photography provided evidence that the site had been used for primarily agricultural purposes from at least 1953 to 1988. As a result, residual pesticides could still be present in the site's soils. While pesticides are unlikely to be found in the soil due to the site's disturbed and graded nature, construction of the proposed project could potentially result in the release of hazardous materials from the soil stockpile and/or any remaining pesticides in the site's soil and, thus, result in a ***potentially significant*** impact.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce the above impacts to a *less-than-significant* level.

VIII-1. *If any debris or stained soil is encountered within the soil stockpile during construction activities, the contractor shall contact the project applicant, who shall retain the services of a qualified environmental hazard firm, to evaluate the debris to determine whether it poses any environmental contamination risks. A written evaluation shall be submitted to the City of Morgan Hill Community Development Department. If the debris is trash or other non-hazardous material, then the contractor shall dispose of the debris and no further mitigation shall be required. If the debris is associated with signs of soil staining or odors indicative of hazardous materials, the project environmental professional shall obtain samples of the potentially impacted soil for analysis of the contaminants of concern and comparison with applicable regulatory residential screening levels (i.e., Environmental Screening Levels, California Human Health Screening Levels, Regional Screening Levels, etc.). Where the soil contaminant concentrations exceed the applicable regulatory residential screening levels, the impacted soil shall be excavated and disposed of offsite at a licensed landfill facility to the satisfaction of the Santa Clara County Environmental Health Department and the City of Morgan Hill.*

VIII-2. *Prior to issuance of a grading permit, the applicant shall hire an Environmental Consultant to perform a Phase II Environmental Site Assessment (ESA) in order to determine whether pesticides are persistent in on-site soils. The soil analytical results shall be documented in the Phase II ESA report and submitted to the City Community Development*

Department. If the Phase II ESA determines that the on-site soils have not been impacted, further mitigation is not required.
If the Phase II ESA determines that on-site soils have been impacted, and contaminants are identified in excess of the California Human Health Screening Levels [CHHSLs] for residential land uses, the contaminated areas shall be remediated such that the resultant concentrations are below the CHHSLs for residential land uses. The Phase II ESA shall specify measures for the remediation of the soils, including proper removal and disposal procedures. The relative efficacy of potential removal technologies is dependent on subsurface conditions, including soil lithology, groundwater depth, and contaminant type/extent. Accordingly, several remediation options may be considered. For soil contamination, potential removal technologies could include, but would not necessarily be limited to, the following:

- *Excavation and off-haul – Impacted soils are excavated until the excavation base and sidewalls do not exhibit impact above a specific screening level or cleanup goal. The excavated soils are transported and disposed of at an appropriate landfill facility.*
- *Bioremediation - Nutrients, oxygen, and biological cofactors are introduced to the soil (either in-place or post-excavation in a treatment area) to stimulate natural biological breakdown of the contaminants.*
- *Bioaugmentation – Similar to bioremediation, except that bioaugmentation involves the introduction of engineered microorganisms to the soil to degrade the contaminants.*
- *Soil vapor extraction (SVE) - Soil gas is extracted from the subsurface under vacuum and brought to the surface, where it is treated.*

The project applicant shall comply with all recommendations of the Phase II ESA for review and approval by the Santa Clara County Department of Environmental Health and the City of Morgan Hill.

c. The proposed project site is located approximately 0.75-mile from two existing elementary schools, El Toro Elementary and Nordstrom Elementary. The proposed 19 residential units would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Thus, ***no impact*** would result relating to the emission or handling of hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.

d. The proposed project site is not included on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, ***no impact*** would result from implementation of the proposed project.

e,f. The airport nearest to the project site is the San Martin Airport, which is located approximately 4.4 miles southeast of the project site at 13030 Murphy Avenue. The project site is located well outside of the Airport Influence Area (AIA) identified in the South County Airport comprehensive land use plan. In addition, the project site is not located within the vicinity of a private airstrip. Therefore, ***no impact*** would occur.

g. The proposed project is consistent with the General Plan land use designation for the site. Implementation of the proposed project would not result in any substantial modifications to the existing roadway system and would not interfere with potential evacuation or response routes used by emergency response teams. Therefore, ***no impact*** would result.

h. The proposed project site consists of vacant land with ruderal vegetation and 20 mature trees. Dry, potentially-flammable, vegetation currently exists on the site; however, the existing vegetation and trees would be removed as part of the proposed project. In addition, the City of Morgan Hill Wildland Urban Interface map illustrates that the project site is not located in a fire hazard severity zone.[8] Therefore, wildland fires would pose ***no impact*** to the proposed residential structures.

[8] City of Morgan Hill. *City of Morgan Hill Wildland Urban Interface Map.* March 2009.

IX. HYDROLOGY AND WATER QUALITY. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements?	☐	☐	✖	☐
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	✖	☐
c. 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 would result in substantial erosion or siltation on- or off-site?	☐	☐	✖	☐
d. 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 would result in flooding on- or off-site?	☐	☐	✖	☐
e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	✖	☐
f. Otherwise substantially degrade water quality?	☐	☐	✖	☐
g. Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☐	✖	☐
h. Place within a 100-year floodplain structures which would impede or redirect flood flows?	☐	☐	✖	☐
i. 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.	☐	☐	✖	☐
j. Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	✖

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

Construction Water Quality Impacts

Construction would require grading, excavation, and other construction-related activities that could cause soil erosion at an accelerated rate during storm events. All of these

activities have the potential to affect water quality and contribute to localized violations of water quality standards if storm water runoff from construction activities enters receiving waters.

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

Water quality degradation is regulated by the federal National Pollutant Discharge Elimination System (NPDES) Program, established by the Clean Water Act, which controls and reduces pollutants to water bodies from point and non-point discharges. In California, the NPDES permitting program is administered by the State Water Resources Control Board (SWRCB) through nine Regional Water Quality Control Boards (RWQCBs). Projects disturbing more one or more acres of soil or disturb less than one acre but are part of a larger common plan of development that in total disturbs one or more acres are required to obtain coverage under the State NPDES General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit). A Notice of Intent must be filed with the RWQCB and the General Permit requires that a Storm Water Pollution Prevention Plan (SWPPP) be prepared. Including both the Newland Homes Tentative Map area and the future development area, the proposed project would disturb approximately 4.7 acres and, thus, would be subject to the State NPDES General Permit conditions.

The proposed project would also be subject to all regional and local water quality regulations. In order to meet water quality objectives for the region, the City of Morgan Hill, City of Gilroy, and County of Santa Clara have prepared and are implementing a Revised Regional Storm Water Management Plan (SWMP). The SWMP incorporates the efforts of the City of Morgan Hill, the City of Gilroy, and the unincorporated portion of Santa Clara County, within the watershed of the Pajaro River and Monterey Bay, to meet the Phase II Storm Water Permit requirements for small municipal separate storm sewer systems (MS4s). The Upper Pajaro River Watershed is located within the jurisdiction of the Central Coast Regional Water Quality Control Board (CCRWQCB). The City of Morgan Hill implements the SWMP through an extensive program that entails: 1) the establishment of SWMP goals for the City; 2) public education and outreach; 3) public involvement and participation; 4) illicit discharge control; 5) construction site storm

water runoff control; 6) post-construction storm water management in development; and 7) pollution prevention.
For construction activities, the SWMP presents Best Management Practices (BMPs) that are required for the control of storm water runoff quality during construction. The project's required compliance with the SWMP and NPDES would ensure that construction activities would not result in degradation of downstream water quality.

Operational Water Quality Impacts

After project completion, impervious surfaces on the project site could contribute incrementally to the degradation of downstream water quality during storm events. During the dry season, vehicles and other urban activities may release contaminants onto the impervious surfaces, where they would accumulate until the first storm event. During the initial storm event, or first flush, the concentrated pollutants would be transported via stormwater runoff from the site to the stormwater drainage system and eventually a downstream waterway. Typical urban pollutants that would likely be associated with the proposed project include sediment, pesticides, oil and grease, nutrients, metals, bacteria, and trash. In addition, stormwater runoff could cause soil erosion if not properly addressed, and provide a more lucrative means of transport for pollutants to enter the waterways.

The proposed project would be managed in accordance with Resolution R3-2013-0032 issued by the California Regional Water Quality Control Board, Central Coast Region. This resolution formally adopts post-construction stormwater management requirements for development projects in the Central Coast Region. The requirements identify 10 Watershed Management Zones (WMZs) in the covered area, and specify stormwater management requirements for each zone, depending on the size of the development project. Because the proposed project site is located in an area classified as WMZ-1, stormwater management at the project site must include site design and runoff features to limit the amount of runoff from the project site as well as on-site water quality treatment to reduce pollutant loads in the stormwater runoff using a Low Impact Development (LID) treatment system such as biofiltration. In WMZ-1, the treatment system must retain 95 percent of the runoff from the project site and also maintain peak runoff flows such that they do not exceed pre-project flows.

The Newland Homes Tentative Map area includes a proposed bioswale and underground rain tank on the eastern edge of the site to treat at least 95 percent of the runoff from the project site (see Table 4). Based upon the Precise Development Plan, the anticipated design for the future development area could also include a proposed bioswale/raintank; though, the final stormwater system design would require approval by Public Works at the time of tentative map submittal for the southerly 2.6 acres. The design, construction, operation, and maintenance of the system would be addressed in a Stormwater Control Plan submitted to the City of Morgan Hill in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032. This plan would demonstrate how the bioretention facility would meet the specified water quality, runoff retention, and peak flow management requirements. Prior to occupancy of the project, the

stormwater controls would be field verified by the City of Morgan Hill to confirm design of the controls in accordance with the specified standards, and the controls would be subject to later operation and maintenance inspections by the City.

Table 4
Proposed Rain Tank[1] LID BMP Sizing Calculations

BMP Impervious Area		95th Percentile (1.6" Rain) First Flush Volume to Treat (cu. ft.)	Proposed BMP Surface Area (sf)	Native Soil Infiltration Rate (in/hr)	BMP Loading Depth (inches)	BMP Infiltration Duration (hrs) ≤ 72
Public Hardscape (sf)	Private Hardscape (sf)					
18,247	32,059	6,707	2,231	0.6	54	90

Notes:
[1] Proposed rain tank volume: 496'L X 4.5'W X 4.5'H = 10,004 cu. ft.

Source: MH Engineering Co. Newland Homes Preliminary Grading Plan. May 2016.

The City's SWMP requires BMPs to be provided for the control of runoff quality from new projects and redeveloped properties. The City has also adopted an Ordinance, codified in Chapter 18.71 of the City's Municipal Code, which requires certain development projects to incorporate permanent storm water pollution prevention measures. Per Section 18.71.030A of the City's Municipal Code, the proposed project would be subject to the City's Post Construction Stormwater Pollution Prevention Ordinance. As such, the proposed project would be required to comply with the design standards set forth in Section 18.71.110, and select and implement BMPs to the satisfaction of the City in accordance with the requirements contained in the most recent versions of the following documents:

1. City of Morgan Hill Stormwater Post Construction Best Management Practices Development Standards for new development and redevelopment;
2. California Storm Water Quality Association Best Management Practice Handbooks;
3. City of Gilroy, City of Morgan Hill and County of Santa Clara Regional Stormwater Management Plan (SWMP), as approved by the Central Coast Regional Water Quality Control Board; and
4. City of Morgan Hill Hydro-modification Management Plan, as approved by the Central Coast Regional Water Quality Control Board.

The final design of the proposed drainage system will be reviewed and approved by the City of Morgan Hill Public Works Department, who will ensure that the proposed system complies with the City's Post Construction Stormwater Pollution Prevention Ordinance with respect to incorporating sufficient permanent stormwater treatment control BMPs. Therefore, water quality standards or waste discharge requirements would not be violated and water quality would not be degraded as a result of the proposed project operations.

Conclusion

Based on the above discussions, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality during construction or operations. Therefore, impacts would be ***less than significant***.

b. The City of Morgan Hill relies on groundwater sources for the public water supply. The proposed project would not include installation of wells, as the proposed project would connect to the City's existing water system. As the City's water supply includes groundwater resources, the proposed project would add to the overall City's water demands, including use of groundwater. However, the proposed project would be consistent with the site's existing land use designation. Accordingly, the increase in water usage that would result from the construction of 19 residential units was already anticipated for the project site by the General Plan, and subsequently the City's Urban Water Management Plan.

Although the proposed project would be adding impervious surfaces to the currently vacant site, the site is within an urbanized area of the City and surrounded by existing residential and commercial development. As such, the site would not be considered a major source for groundwater recharge, and the proposed project would not be considered to substantially interfere with groundwater recharge.

Therefore, the proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level, and impacts would be ***less than significant***.

c-e. As previously mentioned the proposed project site consists of vacant undeveloped land with ruderal vegetation. The site is surrounded by existing residential and commercial development and does not include a stream or river on-site or in the immediate vicinity. Implementation of the proposed project would result in additional impervious surfaces. However, as discussed in IX 'a,f', the Newland Homes Tentative Map area includes installation of a bioretention facility along the eastern site boundary that would treat and retain 95 percent of the runoff from the project site and also maintain peak runoff flows such that they do not exceed pre-project flows in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032. Based upon the Precise Development Plan, the anticipated design for the future development area could also include a proposed bioswale/raintank that meets Resolution R3-2013-0032 requirements; though, the final stormwater system design would require approval by Public Works at the time of tentative map submittal for the southerly 2.6 acres. Furthermore, stormwater runoff associated with the site would be required to comply with the City's SWMP standards. As such, the project would not significantly increase stormwater flows into the existing system. The final drainage system design for the project will be subject to review and approval by the City of Morgan Hill Public Works Department, who will confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval. Therefore, the proposed project would not substantially alter the existing drainage pattern of the site

or area in a manner that would result in substantial erosion, siltation, or flooding on- or off-site, create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems, or provide substantial additional sources of polluted runoff. Therefore, impacts would be considered ***less than significant***.

g,h. According to FEMA Flood Insurance Rate Map number 06085C0444H, the proposed project site is located within Zone X. Zone X is defined as the area between the limits of the 100-year floodplain and the 500-year floodplain (i.e. 0.2 percent annual chance flood hazard). As such, the proposed project would not be placing housing or structures within the 100-year floodplain and 100-year flood impacts to housing and flood flows would be considered ***less than significant***.

i. The Association of Bay Area Governments (ABAG) has compiled dam failure inundation hazard maps submitted to the State Office of Emergency Services by dam owners throughout the Bay Area. The map for the City of Morgan Hill shows that the project site is within the dam failure inundation hazard zone for Anderson Reservoir.[9]

The dams in Santa Clara County are managed by the Santa Clara Valley Water District (SCVWD). The dams are inspected twice each year and are continuously monitored for seepage and settling and inspected immediately following significant earthquakes. A seismic stability evaluation performed in 2007 on Anderson Dam indicated that the downstream and upstream embankments could become unstable during a very large magnitude earthquake and the rupture of faults underlying the dam may have adverse impact on the outlet pipes and intake structure. The SCVWD has initiated a capital project, the Anderson Dam Seismic Retrofit Project (ADSRP), to complete the planning, design, and construction of the seismic retrofit of the dam. Construction work for the ADSRP is planned to start in 2017.

In order to protect the public from potential effects until the ADSRP is complete, a storage restriction of approximately 45 feet below the dam crest has been put in place, with a reduced storage capacity of 61,810 acre-feet. The SCVWD and regulatory agencies (California Division of Safety of Dams and the Federal Energy Regulatory Commission) have approved the restriction and believe that the restriction would be sufficient to prevent the uncontrolled release of water in case of dam failure after a major earthquake.

Therefore, the proposed project would not 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, and impacts would be ***less than significant***.

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

[9] Association of Bay Area Governments. *Dam Failure Inundation Hazard Map for Morgan Hill*. 1995. Available at: http://www.mhcert.com/prepare/dam_failure.shtml. Accessed June 2016.

that is susceptible to seiche hazard. Furthermore, the distance to the nearest coastline does not subject the site to tsunami hazards, resulting in ***no impact***.

X. LAND USE AND PLANNING. *Would the project:*		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a.	Physically divide an established community?	☐	☐	☐	✖
b.	Conflict with any applicable land use plans, policies, or regulations 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?	☐	☐	✖	☐
c.	Conflict with any applicable habitat conservation plan or natural communities conservation plan?	☐	☐	✖	☐

a. The proposed project would be an infill residential development as the site is currently vacant and unused and is surrounded by existing commercial and residential development. As such, the project would be consistent with surrounding residential land uses and would not physically divide an established community. Therefore, ***no impact*** would occur.

b. The project site has an existing General Plan land use designation of Residential Detached Medium that allows up to 7 units per acre. A total of 19 single-family residential units are anticipated for the 4.7-acre site, which includes nine units for the Newland Homes Tentative Map area, and up to 10 units for the future development area. This results in an overall density of approximately 4 du/ac, which would be consistent with the allowable density per the site's land use designation.

As discussed in the Project Components section of this IS/MND, the City approved a rezone of the site to R-1-9,000 in 1998 (ZA-97-20). However, due to the then-current Zoning Ordinance requirements, which required submittal of a precise development plan within one year of the rezone approval, the site's zoning designation has reverted back to MO-Office Industrial. Thus, the proposed project includes a request for rezone of the entire site from MO-Office Industrial to R-1-9,000. The Newland Homes Tentative Map design is consistent with the R-1-9,000 zoning standards in that all lots are over 9,000 sf or, in the case of duet units, a combined minimum of 9,000 sf. Lot sizes for the future development area would also be required by the City to comply with the R-1-9,000 zoning standards.

Impacts associated with rezone of the site from MO-Office Industrial to R1-9,000 were analyzed and addressed as part of Master Environmental Impact Report for the 2001 General Plan update. Accordingly, rezone of the site for residential uses has already been anticipated and analyzed by the City. The proposed project would not involve any conditions that would result in an increase in any of the impacts that were previously identified. In addition, Design Review of the proposed project would ensure that the project would be designed in accordance with all applicable City regulations, including General Plan policies and zoning requirements.

The timing, type, and amount of residential growth in Morgan Hill is ultimately controlled by the Residential Development Control System (RDCS), which was adopted for the purpose of managing 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. The Newland Homes Tentative Map was awarded five allocations. Newland Homes received five Residential Development Control System (RDCS) building allotments in the 2015 competition for Fiscal Year 2017-18 (Application No. MC-15-10: Walnut Grove-Newland). The developer intends to seek the remaining 4 building allotments as an ongoing project for Fiscal Year 2018-19. Allocations would also need to be awarded by the City for the future development area in order for residential development to proceed on that portion of the overall project site subject to approval of a tentative map.

The proposed residential development would comply with the site's existing General Plan designation, the proposed zoning designation, and the City's growth-management policies. The development of the project would, therefore, result in a ***less than significant*** impact regarding any potential conflict with local or regional planning.

c. The project site is located within the boundaries of the SCVHP. As discussed in detail in the Biological Resources section of this IS/MND (Question 'f"), the proposed project would comply with the SCVHP through payment of HCP fees. Therefore, the proposed project would have a ***less-than-significant*** impact regarding a conflict with an applicable habitat conservation plan or natural communities plan.

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

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

XII. NOISE. *Would the project result in:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. 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?	☐	✖	☐	☐
b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	✖	☐
c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	✖	☐
d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	✖	☐
e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✖
f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	✖

a. The following discussion is based on an *Environmental Noise Assessment* prepared for the proposed project by Bollard Acoustical Consultants, Inc. in July 2016. The full Environmental Noise Assessment prepared for the proposed project, which includes a thorough description of assessment methodology, graphics, and detailed calculations and results, is provided as Appendix B.

Noise Standards and Criteria

The noise exposures associated with the site were evaluated against the noise standards and criteria described below.

City of Morgan Hill Noise Element

The City of Morgan Hill 2035 General Plan was adopted in July 2016 and serves as the overall guiding policy document for land use, development, and environmental quality for the City. Chapter 9: *Safety, Service, and Infrastructure* contains the following policies pertaining to new residential developments such as this project:

SSI-8.1 Exterior Noise Level Standards. Require new development projects to be designed and constructed to meet acceptable exterior noise level standards (see Table SSI-1 [of the General Plan]), as follows:

- Apply a maximum exterior noise level of 60 dBA L_{dn} in residential areas where outdoor use is a major consideration (e.g., backyards in single-family housing developments and recreation areas in multi-family housing projects). Where the City determines that providing an L_{dn} of 60 dBA or lower cannot be achieved after the application of reasonable and feasible mitigation, an L_{dn} of 65 dBA may be permitted.

- Indoor noise levels should not exceed an L_{dn} of 45 dBA in new residential housing units.

- Noise levels in new residential development exposed to an exterior L_{dn} 60 dBA or greater should be limited to a maximum instantaneous noise level (e.g., trucks on busy streets, train warning whistles) in bedrooms of 50 dBA. Maximum instantaneous noise levels in all other habitable rooms should not exceed 55 dBA. The maximum outdoor noise level for new residences near the railroad shall be 70 dBA L_{dn}, recognizing that train noise is characterized by relatively few loud events.

California Code of Regulations, Title 24

The Title 24 standards use the DNL descriptor and specify a limit of 45 dB DNL or lower for interior living spaces from exterior noise sources. The Title 24 standards also specify minimum sound insulation ratings for common partitions separating different dwelling units and dwelling units from interior common spaces. The standards specify that common walls and floor/ceiling assemblies must have a design Sound Transmission Class (STC) rating of 50 or higher. As design details for the interior partitions of the project were not available at the time the Environmental Noise Assessment was prepared, an evaluation of the interior partitions was not made.

Assessment Methodology

The ambient noise environment in the immediate project vicinity is defined by traffic on US 101. To quantify the existing ambient noise environment in the project vicinity, long-term (continuous) noise level measurements were conducted at two locations on the project site, one on the northern portion and one on the southern portion (see Figure 8). The long-term monitoring was conducted from June 17 to June 21, 2016, and results are shown in Table 5.

Figure 8
Noise Measurement Locations

Table 5
Noise Measurement Results Summary[1]

Site[2]	Date	Average Noise Level (dB L_{eq})		Maximum Noise Level (dB L_{max})		Day-Night Average (dB L_{dn})
		Daytime[3]	Nighttime[4]	Daytime[3]	Nighttime[4]	
1	6/17 – 6/18	64	64	73	76	71
	6/18 – 6/19	66	64	75	76	72
	6/19 – 6/20	67	65	75	76	72
	6/20 – 6/21	66	64	75	75	71
2	6/17 – 6/18	70	67	80	80	74
	6/18 – 6/19	68	67	81	78	74
	6/19 – 6/20	69	67	79	78	74
	6/20 – 6/21	69	66	79	78	74

Notes:
[1] Detailed noise measurement results are provided in Appendices B and C.
[2] Measurement site locations are shown on Figure 8.
[3] Daytime hours are 7 AM – 10 PM.
[4] Nighttime hours are 10 PM – 7 AM.

Source: Bollard Acoustical Consultants, Inc., 2016.

The noise level measurements conducted at Sites 1 and 2 on the project site were intended to quantify the existing general ambient noise environment, including the noise generation from traffic on US 101. The long-term ambient noise survey results indicate that measured noise levels at Site 1 were slightly lower than Site 2 levels due to the increased distance from US 101 traffic. Site 1 is approximately 290 feet away from the centerline of US 101 while Site 2 is approximately 185 feet away.

To predict existing and future traffic noise levels, the Federal Highway Administration Highway Traffic Noise Prediction Model (FHWA RD-77-108) was used. The FHWA Model was used with traffic estimates from the Morgan Hill 2035 General Plan Update Draft EIR to predict future traffic noise levels at the project site. The future traffic volume of US 101, as it passes through Morgan Hill, is projected to increase from 128,000 daily vehicles to 168,636 daily vehicles by the year 2035. The Model was also used in conjunction with the Calveno reference noise emission curves, and accounts for vehicle volume and speed, roadway configuration, distance to the receiver, and the acoustical characteristics of the project site.

The FHWA Model predicted a noise level of 76 dB Ldn at 185 feet from the centerline of US 101, which is the distance to noise measurement Site 2. The predicted existing traffic noise level is 2 dB higher than the ambient noise level measured at Site 2 shown in Table 5. In order to provide conservative prediction of future traffic noise levels, a -2 dB offset was applied to the model to account for excess ground absorption. The FHWA Model predicted noise level of 74 dB Ldn was used as the existing (baseline) traffic noise level at Site 2.

Newland Homes Tentative Map Area

The following sections analyze current and projected noise conditions for the Newland Homes Tentative Map area and compare the findings with local and state guidelines regarding noise.

Exterior Noise Levels

The FHWA Model was used with average daily traffic (ADT) volumes to predict future traffic noise levels at the nearest proposed building facades and outdoor activity areas of the Newland Homes Residential Development. The future traffic volume was obtained from the City of Morgan Hill 2035 General Plan Update DEIR. The predicted future traffic noise levels are summarized in Table 6.

Table 6
Predicted Future Exterior Traffic Noise Levels[1]

Nearest Lots	Description	Distance from Centerline (ft)[2]	Offset (dB L_{dn})[3]	Exterior Noise Level (dB Ldn)
Lots 5-9	First-floor façades	190	-2	75
	Upper-level façades	190	+1	78
	Outdoor areas (backyards)	250	-10	65

Notes:

[1] A complete listing of FHWA Model inputs and results are provided in Appendix E to the Noise Study.

[2] Distance from said location to the centerline of Highway 101.

[3] A -2 dB offset was applied to first-floor facades in order to calibrate the FHWA model. A 3 dB increase was applied to the upper-floor facades due to reduced ground absorption at elevated floor levels (shown as a +1 dB offset relative to the calibrated first-floor levels). A -10 dB offset was applied to predicted Highway 101 traffic noise levels at the nearest backyards to account for the screening provided by proposed intervening buildings.

Source: Bollard Acoustical Consultants, Inc. 2016.

The Table 6 data indicate that future traffic noise levels are predicted to be greater than the 60 dB Ldn exterior noise level standard applied by City of Morgan Hill to the outdoor activity areas (backyards) of new residential development. As a result, noise mitigation measures would be necessary to achieve compliance with the City's exterior noise level standards.

Bollard Acoustical Consultants, Inc. evaluated the effectiveness of solid noise barriers in reducing future Highway 101 traffic noise levels for this development. The results of the FHWA modeling exercise are summarized in Table 7.

Table 7
Predicted Future Traffic Noise Levels with Various Noise Barrier Heights

Roadway	Lots	Barrier Height (feet)	Resulting Noise Level (dB L_{dn})
Highway 101	5-9	6	59
		7	59
		8	58

Note: Detailed inputs and results are provided in Appendix F.
Source: FHWA-RD-77-108 with inputs from the project site plans and Appendix E.

Source: Bollard Acoustical Consultants, Inc. 2016.

The Table 7 data indicate that a barrier height of six feet along the Highway 101 right-of-way would be required to reduce future traffic noise levels to approximately 59 dB Ldn at the outdoor activity areas of proposed lots. However, in order for the barrier to be effective for Lots 4 and 5, it must extend into the future southern residential area to be constructed by another developer. If the six-foot tall barrier is not extended south along the Highway 101 right-of-way, an additional barrier would be required adjacent to Lots 4 and 5 to achieve 60 dB Ldn within those backyard areas. Figure 9 shows the location of the recommended noise barriers.

Interior Noise Levels

Interior traffic noise levels were calculated by applying a conservative -25 dB offset to the predicted future exterior traffic noise levels presented in Table 6 and include the noise attenuation provided by the recommended Highway 101 right-of-way noise barrier. The results are summarized in Table 8.

Standard residential construction (wood siding, STC-27 windows, door weather-stripping, exterior wall insulation, composition plywood roof) typically results in an exterior to interior noise reduction of about 25 dB with windows closed, and approximately 15 dB with windows open. As shown in Table 8, standard construction practices would be adequate for first-floor facades of all residences constructed within this development, provided mechanical equipment is included in the project construction to allow occupants to close doors and windows as desired for additional acoustical isolation.

Due to reduced ground absorption at elevated positions and the lack of shielding provided by the recommended noise barrier, upper-floor traffic noise levels are predicted to be approximately 9 dB higher than first-floor levels. Table 8 indicates that upper-floor exposure of the residences proposed adjacent to Highway 101 would be approximately 53 dB L_{dn}.

Figure 9
Project Barrier Location

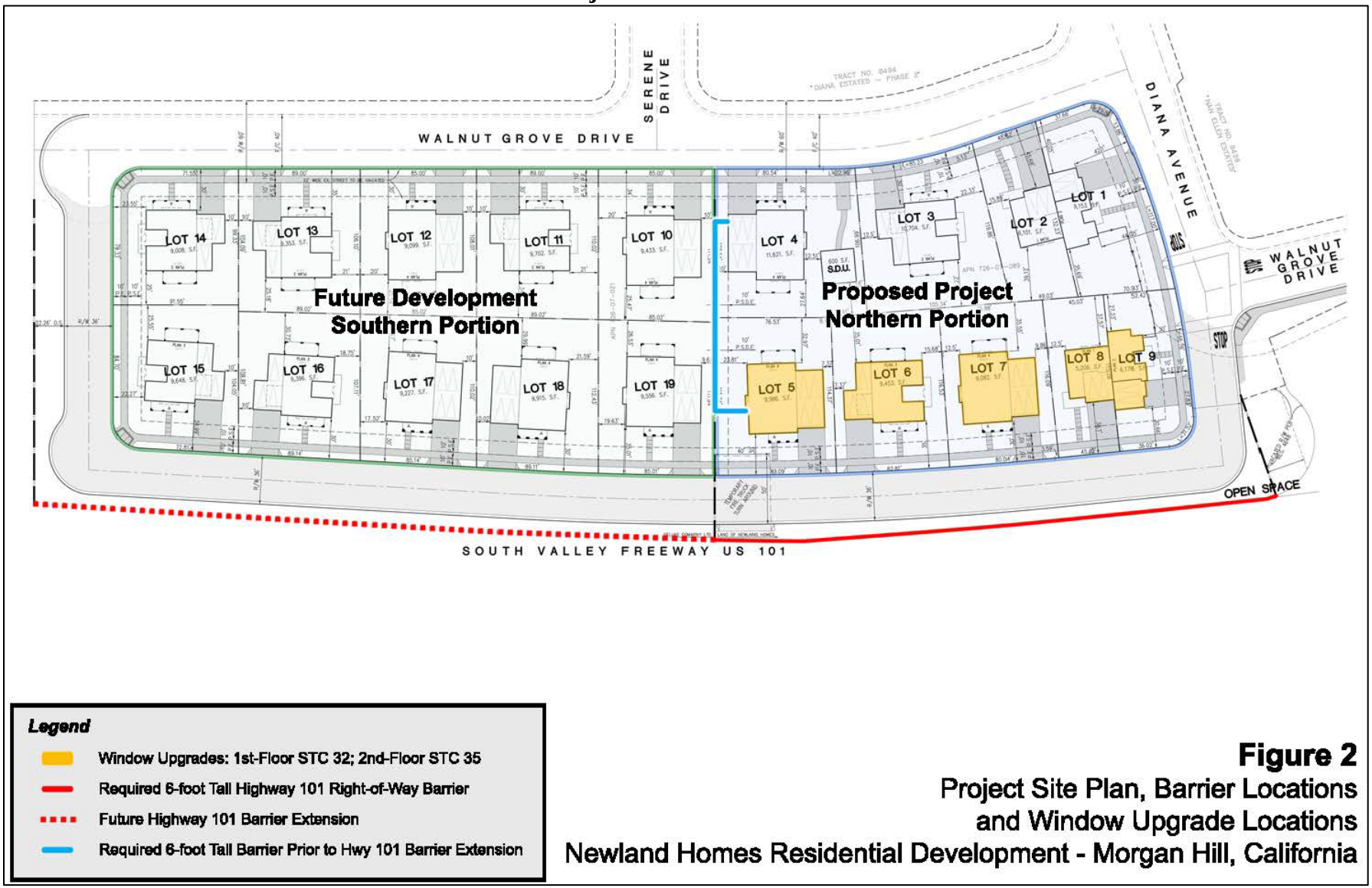


Table 8
Predicted Unmitigated Future Interior Traffic Noise Levels

Nearest Lots	Description	Distance from Centerline (ft)[1]	Offset (dB Ldn)[2]	Interior Noise Level (dB Ldn)
Lots 5-9	First-floor facades	190	-25	44
	Upper-level facades	190	-25	53

Notes:
[1] Distance from said location to the centerline of Highway 101.
[2] Standard residential construction (wood siding, STC-27 windows, door weather-stripping, exterior wall insulation, composition plywood roof), results in an exterior to interior noise reduction of at least 25 dB with windows closed.
[3] Predicted noise levels at the nearest first-floor facades take into account for the shielding provided by a 6-foot tall Highway 101 right-of-way sound barrier.

Source: Bollard Acoustical Consultants, Inc., 2016.

While standard construction practices would be acceptable for the first-floor facades of the proposed residences, improvements to upper-floor residential building façades are recommended for the lots proposed nearest to Highway 101. To ensure satisfaction with the City's 45 dB L_{dn} interior noise level standard with a margin of safety, it is recommended that all upper-floor bedroom windows of residences constructed on Lots 5-9 from which Highway 101 is visible should have a minimum STC rating of 35. Although standard construction would theoretically result in compliance within first-floor rooms due to shielding provided by the Highway 101 barrier, no margin of safety would result. As a result, it is also recommended that first-floor windows facing north, east or south be upgraded to STC 32. Air conditioning should be provided for all residences within this development to allow the occupants to close doors and windows as desired for additional acoustical isolation. Specific buildings requiring upgraded windows and doors are shown in Figure 9.

Future Development Area

The noise analysis included an evaluation of potential noise impacts associated with the southern portion of the proposed project site, which would contain up to 10 future residential lots. Based on the Precise Development Plan prepared by MH Engineering, the lots within the south portion of the site would likely have a similar setback from US 101 as those lots in the Newland Homes Tentative Map area. Regardless of the building setbacks for the southern project section, the six-foot-tall US 101 barrier would be required, as well as the requirement that the proposed outdoor activity areas (backyards) be shielded from US 101 by the residential structure itself.

Future interior noise exposure within the residences constructed in the future development area will depend on the building setback from the centerline of US 101. Table 9 in Mitigation Measure XII-5, below, shows the required STC ratings for all north, east, and south-facing windows as a function of US 101 setback for both first-floor

and second-floor exposure. It should be noted that the first-floor exposure includes the shielding provided by the required six-foot-tall US 101 barrier.

Conclusion

Both the proposed residential development in the Newland Homes Tentative Map area and the future residential development, which would occur within the 2.6-acre southern section of the project study area, would be exposed to future traffic noise levels in excess of City of Morgan Hill noise standards. As a result, the project would result in a ***potentially significant*** impact with respect to 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.

Mitigation Measure(s)

Implementation of the following mitigation measures would reduce interior and exterior ambient noise to levels below the applicable threshold of significance. Thus, implementation of the following mitigation measures would reduce the above impact to a *less-than-significant* level.

Newland Homes Tentative Map Area and Future Development Area

XII-1. *In conjunction with submittal of Improvement Plans, the applicant shall show on the Improvement Plans that a noise barrier shall be constructed along the project site's entire US 101 frontage sufficient to reduce noise levels to acceptable levels. ~~Alternatively, i~~If the sound wall is not constructed along the Future Development Area at this time, a sound fence ~~nother sound wall can~~shall be installed along the south side of the Newland Homes Tentative Map area as shown in Figure 9 of the Initial Study. The sound fence shall consist of 100% overlap on fence slats, which shall be screwed to the frame, not stapled or nailed.*

The noise barrier(s) shall be a minimum height of ~~A~~ six ~~foot-tall noise barrier is recommended~~ feet in order to reduce noise levels to acceptable levels; however, the specific height and location of the noise barrier(s) shall be confirmed based upon the final approved site and grading plans to the satisfaction of the City Engineer. The Improvement Plans shall be subject to review and approval by the City Engineer.

XII-2. *In conjunction with submittal of building plans, the applicant shall show on the plans that mechanical ventilation (air conditioning) shall be provided for all residences to allow the occupants to close doors and windows as desired to achieve compliance with the applicable interior noise level criteria. The building plans shall be subject to review and approval by the City Building Division.*

Newland Homes Tentative Map Area

XII-3. In conjunction with submittal of building plans for the Tentative Map area (i.e. APNs 726-07-024, -023, and -089) the applicant shall show on the plans that, for all of the proposed residences closest to US 101, all second-floor windows on the north, east, and south sides of the buildings shall have a minimum STC rating of 35, and all first-floor windows on the north, east, and south sides shall have a minimum STC rating of 32. The building plans shall be subject to review and approval by the City Building Division.

Future Development Area

XII-4. In conjunction with submittal of building plans for residences on the 2.6-acre future development area (i.e. APN 726-07-021), the applicant shall show on the plans that the outdoor activity areas shall be located such that those areas shall be shielded in the direction of US 101 by the residential structure itself. The building plans shall be subject to review and approval by the City Building Division.

XII-5. In conjunction with submittal of building plans for the future residences in the 2.6-acre future development area (i.e. APN 726-07-021), the applicant shall show on the plans that the first and second-floor window STC ratings for all windows on the north, east, and south sides of the buildings shall be designed in accordance with Table 9. The building plans shall be subject to review and approval by the City Building Division.

Table 9
Required Window STC Ratings as a Function of Building Setbacks from Highway 101 Centerline

Distance from Hwy 101 C/L to building facades (ft)[1]	Required Window STC Rating[2]	
	1st Floor Facades[3]	Upper-Level Facades
150	32	37
170	32	37
190	32	35
210	32	35
230	32	35
250	32	35
270	32	35
290	27	32
310	27	32
330	27	32
350	27	32
370	27	32

Notes:

[1] Distance from said location to the centerline of Highway 101.

[2] The required STC ratings would provide an approximate 3 dB margin of safety relative to the City's 45 dB Ldn interior noise level standard and would only be required on the north, east, and south-facing facades of the future residences located in the southern section identified in Figure 9.

Source: Bollard Acoustical Consultants, Inc., 2016.

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

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

Human and structural response to different vibration levels is influenced by a number of factors, including ground type, distance between source and receptor, duration, and the number of perceived vibration events. Table 10, which was developed by Caltrans, shows the vibration levels which would normally be required to result in damage to structures. The vibration levels are presented in terms of peak particle velocity in in/sec. Table 10 indicates that the threshold for architectural damage to structures is 0.20 in/sec peak particle velocity (p.p.v.) and continuous vibrations of 0.10 in/sec p.p.v., or greater, would likely cause annoyance to sensitive receptors.

Table 10
Effects of Vibration on People and Buildings

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

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

2002.

The proposed project would only cause elevated vibration levels during construction, as the proposed project would not involve any uses or operations that would generate substantial groundborne vibration. Although noise and vibration associated with the construction phases of the project would add to the noise environment in the immediate project vicinity, construction activities would be temporary in nature and are anticipated to occur during normal daytime working hours. Because the proposed project would not cause continuous, long-term vibrations, the project would not be expected to result in extended annoyance to the nearby sensitive receptors. Construction vibration typically occurs due to equipment that creates force on the ground, such as pile drivers, vibratory compactors, or vehicles traveling over rough surfaces. Table 11 shows the typical vibration levels produced by construction equipment.

Table 11
Vibration Levels for Various Construction Equipment

Type of Equipment	Peak Particle Velocity @ 25 feet (inches/second)	Approximate Velocity Level @ 100ft (inches/second)
Large Bulldozer	0.089	0.011
Loaded Trucks	0.076	0.010
Pile Driving (Impact)	1.518	0.190
Pile Driving (Sonic)	0.734	0.092
Small Bulldozer	0.003	0.000
Auger/drill Rigs	0.089	0.011
Jackhammer	0.035	0.004
Vibratory Hammer	0.070	0.009
Vibratory Compactor/roller	0.210	0.026

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

The primary vibration-generating activities associated with development of the proposed project would occur during demolition, grading, placement of infrastructure, and construction of foundations. According to the Environmental Noise Assessment, vibration-generating equipment is not expected to be used at the site. In addition, as the site is generally flat, groundborne vibration associated with vehicles traveling over the site would be expected to be minimal due to fairly smooth surface of the site.

Because pile driving and vibratory compactors would not be necessary during development of the proposed project, the most significant source of groundborne vibrations during the project construction would occur from the use of large bulldozers and auger/drill rigs. Large bulldozers and auger/drill rigs would generate typical vibration levels of 0.089 in/sec at a distance of 25 feet. The nearest residences would be located adjacent to the site to the north and west, approximately 75 feet from the project site boundary. According to Table 11, equipment used at the project site would not generate vibration levels that would exceed safe levels at the nearby residences to the north or west. Therefore, construction-related groundborne vibration would not cause architectural damage to structures or annoyance to nearby sensitive receptors.

Overall, the proposed project would not expose people to or generate excessive groundborne vibration or groundborne noise levels, and impacts would be ***less than significant***.

c. According to the Environmental Noise Assessment, due to the very low volume of traffic that would be generated by the proposed project, increases in off-site traffic noise levels resulting from either the Newland Homes Tentative Map area and/or and the future residential development, which would occur within the southern section of the project study area, would be insignificant at off-site locations.[10]

To assess noise impacts due to project-related traffic increases on the local roadway network resulting from the Newland Homes Tentative Map, Bollard Acoustical Consultants, Inc. utilized ITE trip generation rates and the same traffic noise prediction methodology as described previously. According to ITE, single-family detached residential units generate approximately 9.52 trips per day per unit. Based on the proposed site plans, it appears that the proposed residential units will be accessed primarily by the entrance on Diana Avenue. As a result, the greatest impact from off-site traffic will be on Diana Avenue. Conservatively assuming all 9 proposed residential units generate 9.52 trips per day, the predicted off-site traffic noise level, at 50 feet from centerline of the access roadway computes to 42 dB Ldn.

The Federal Interagency Commission on Noise (FICON) has developed a graduated scale for use in the assessment of project-related noise level increases. According to the FICON standards, the threshold for finding a significant noise impact is 1.5 dB if ambient noise levels are above 65 dB. Because the ambient noise levels at the project area average between 71-74 dB Ldn, an increase of 1.5 dB would be required to conclude a significant noise impact. Therefore, the predicted level of 42 dB Ldn due to the project is well below existing ambient conditions and would not constitute a significant noise increase as the predicted traffic noise level is about 29-32 dB below the existing ambient noise level.

Because the development of the proposed project would result in traffic noise increases that would not be perceptible (i.e., less than 3 dB), the proposed project would create a ***less-than-significant*** impact related to creating a substantial permanent increase in ambient noise levels in the project's vicinity.

d. According to the Environmental Noise Assessment, construction equipment generates noise levels in the range of 74 to 89 dBA at a distance of 50 feet from the source (see Table 12). Noise from construction equipment dissipates at the rate of 6 dB per doubling of the distance from the source to the receiver. At the nearest receptor locations to the north and the west, construction noise would be in the range of 71 to 86 dBA during construction of the proposed project.

[10] Bollard Acoustical Consultants. *Environmental Noise Assessment, Newland Homes Residential Development* [pg. 15]. July 20, 2016.

Table 12 Construction Equipment Noise Emission Levels	
Equipment	**Typical Sound Level (dBA) 50 Feet from Source**
Air compressor	81
Backhoe	80
Compactor	82
Concrete mixer	85
Concrete pump	82
Concrete vibrator	76
Crane, mobile	83
Dozer	85
Generator	81
Grader	85
Impact wrench	85
Jackhammer	88
Loader	85
Paver	89
Pneumatic tool	85
Pump	76
Roller	74
Saw	76
Truck	88
Source: Transit Noise and Vibration Impact Assessment, Federal Transit Administration, Table 12-1. (May 2006)	

Chapter 8.28 of the Morgan Hill Municipal Code prohibits construction activities between 8:00 PM and 7:00 AM, Monday through Friday, and between 6:00 PM and 9:00 AM on Saturdays. Construction activities may not occur on Sundays or federal holidays. The Morgan Hill Municipal Code does not specify any short-term noise level limits. Furthermore, construction activities related to the proposed project would include the use of sound-dampening equipment such as mufflers, air-inlet silencers, shrouds, shields, or other noise-reducing features where appropriate. Enforcement of time restrictions specified in the Morgan Hill Noise Ordinance and the use of noise-dampened equipment would be adequate to ensure that the temporary or periodic increase in ambient noise levels in the project vicinity associated with construction of the proposed project would not be considered substantial. Therefore, impacts would be considered ***less than significant***.

e,f. The nearest airport to the project site is the South County Airport (aka "San Martin Airport"), which is located approximately 4.3 miles southeast of the project site at 13030 Murphy Avenue. The project site is located well outside of the Airport Influence Area (AIA) and the noise contours identified in the South County Airport Comprehensive Land Use Plan. In addition, the project site is not located within the vicinity of a private airstrip. Therefore, the proposed project would not expose people residing or working in the project area to excessive noise levels associated with air traffic noise, and ***no impact*** would occur.

XIII. POPULATION AND HOUSING. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)?	☐	☐	✖	☐
b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖
c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	✖

a. As mentioned previously, residential development within the City of Morgan Hill is controlled by the RDCS. By approving Measure C in 2004 and Measure F in 2006, Morgan Hill voters extended the City's RDCS to 2020. RDCS establishes a population ceiling for the City of 48,000 as of January 1, 2020. The RDCS system was adopted for the purpose of controlling impacts from rapid growth in Morgan Hill. 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 a project, including provision of public services, site planning, and architectural design considerations. Newland Homes received five Residential Development Control System (RDCS) building allotments in the 2015 competition for Fiscal Year 2017-18 (Application No. MC-15-10: Walnut Grove-Newland). The developer intends to seek the remaining four building allotments as an ongoing project for Fiscal Year 2018-19. Allocations would also need to be awarded by the City for the future development area in order for residential development to proceed on that portion of the overall project site subject to approval of a tentative map. In addition, the proposed residential density for the project is consistent with the current General Plan land use designation for the project site. As a result, the project would have a ***less-than-significant*** impact with respect to inducing population growth in the area.

b,c. The site currently consists of vacant land with dispersed trees and ruderal vegetation. Existing housing is not located on site and displacement of housing or people associated with the demolition of such would not occur as a result of the proposed project. Therefore, the project would have ***no impact*** regarding the displacement of substantial numbers of housing or people necessitating the construction of replacement housing elsewhere.

XIV. PUBLIC SERVICES. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Fire protection?	☐	☐	✖	☐
b. Police protection?	☐	☐	✖	☐
c. Schools?	☐	☐	✖	☐
d. Parks?	☐	☐	✖	☐
e. Other Public Facilities?	☐	☐	✖	☐

a-c,e. The City of Morgan Hill contracts with CAL FIRE (State Department of Forestry and Fire Protection) for fire protection services. Three fire stations are located within the City boundaries: El Toro Station, located at 18300 Old Monterey Road; Dunne-Hill Station, located at 2100 Dunne Avenue; and the CAL FIRE station at 15670 Monterey Street. The nearest fire station (El Toro Station) is located approximately 2.3 miles to the northwest of the site. The incremental increase in demand associated with the proposed project would not necessitate new or physically altered facilities and would not be substantial enough that the current response times could not be maintained. Accordingly, the response time from the El Toro Station would be anticipated to be within the City's preferred response time of five minutes or less. The project site is also located within the Morgan Hill Police Department's normal patrol routes meaning police response times would be comparable to nearby existing developments.

The Morgan Hill Unified School District (MHUSD) operates public education facilities that serve the project site and surrounding area. The City of Morgan Hill is served by eight elementary schools, two middle schools, two high schools, one continuation school, one K-8 home school program, and one community adult school. Utilizing the MHUSD student yield rate of 0.465 students per household, the total anticipated development potential for the project site (19 single-family residential units) is only anticipated to add approximately nine new students to the District's schools. The nine additional students would not exceed the MHUSD anticipated 87 new students per year associated with new residential development.[11] Furthermore, the City collects development impact fees to help pay for public services that include public schools. In general, pursuant to SB 50, payment of these fees is considered adequate to mitigate the project's impact on these services to a less-than-significant level.[12] In addition, the City's RDCS provides more direct assurance that any new residential development, including future residential development on the project site, would not cause significant adverse impacts on these and other public services and facilities, including park facilities. Development allotments are

[11] SchoolWorks, Inc. *Morgan Hill Unified School District Demographic Study 2013-14.* February, 2014.

[12] For example, State Law (Government Code Section 65996) specifies 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.

awarded based on the number of points scored for all development proposals for each year and the point scale takes into account the impact of the proposed development on schools, fire and police protection, and other municipal services. Therefore, development allotments are not awarded to any development proposals until adequate services are available.

For the aforementioned reasons, the project would have a ***less-than-significant*** impact with respect to creating adverse physical environmental impacts associated with the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services.

d. The proposed project is anticipated to generate an estimated 59 additional residents (based on 3.08 persons per household) in the City of Morgan Hill.[13] The City of Morgan Hill has adopted a parkland ordinance (Municipal Code Chapter 17.28) that 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 acreage of parkland or amount of the in-lieu fee required is based upon criteria outlined in Chapter 17.28 of the City's Municipal Code. The proposed project is required to comply with the City's parkland dedication or in-lieu fees for residential developments, which would ensure that the project has a ***less-than-significant*** impact on parks.

[13] City of Morgan Hill Housing Element. *"Persons per household demographic projection" for Morgan Hill* (see Table 1-1). February 2015.

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

a,b. Considering the total of 19 residential units, the proposed project would generate 59 additional residents (based on 3.08 persons per household) in the City of Morgan Hill.[14] Given the City's parkland goal of five acres per 1,000 residents, the proposed project would create the need for a minor amount of additional parkland (0.29 acres). The City of Morgan Hill has adopted a parkland dedication/parkland in-lieu fee ordinance (Municipal Code Chapter 17.28) that 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 is not proposing to construct or dedicate any land for recreational facilities; therefore, the applicant for the Newland Homes Tentative Map area and any future applicants for future development area would pay in-lieu fees, which would ensure that the project has a ***less-than-significant*** impact on recreation facilities.

[14] According to the persons per household demographic projection for Morgan Hill for the year 2015 (see Table 1-1 of City of Morgan Hill Housing Element, adopted February 18, 2015.

XVI. TRANSPORTATION/CIRCULATION. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. 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?	☐	☐	✖	☐
b. 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?	☐	☐	✖	☐
c. 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?	☐	☐	☐	✖
d. Substantially increase hazards due to design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	✖	☐
e. Result in inadequate emergency access?	☐	☐	✖	☐
f. Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☐	☐	✖	☐

a,b,f. According to the City of Morgan Hill Guidelines for Preparation of Transportation Impact Reports, a transportation impact analysis is required for projects that add between 50 and 99 combined net new peak hour trips to the roadway system where nearby intersections are operating at LOS D or worse, or projected to operate at LOS D or worse with traffic added by approved developments, or when a project generates 100 or more total net new peak hour trips (consistent with the Valley Transportation Authority [VTA] policy).

According to the Institute of Transportation Engineers (ITE) Manual, 9th Edition, trip rates for single family homes are 9.52 weekday trips per du, 0.75 AM peak hour trips per du, and one PM peak hour trips per du. The proposed project would be anticipated to result in a total of 181 weekday trips, 14 AM peak hour trips, and 19 PM peak hour trips. Because the proposed project would only generate approximately 33 total net new peak hour trips, a traffic study to evaluate the proposed project's traffic impacts is not necessary for the proposed project.

Roadway Traffic

The nearest arterial roadways to the proposed project site are Butterfield Boulevard to the east and Dunne Avenue to the south. Both Dunne Avenue and Butterfield Boulevard are considered four-lane divided arterials that are capable of accommodating an average daily traffic volume of 35,400 while still operating at a level of service (LOS) D, which is considered the LOS threshold for planning purposes.[15] At the nearest major road segments to the project site, Dunne Avenue had an average daily traffic volume of 27,828 and Butterfield Boulevard had an average daily traffic volume of 21,686, as of 2015.[16] Neither road segment is currently near exceeding the LOS D threshold of 35,400 average daily vehicles. Thus, the projected increase of 181 average daily trips from the proposed project would not cause either roadway segment to exceed capacity.

In addition, the proposed project is consistent with the existing land use designation for the site. Thus, the increase in traffic associated with anticipated buildout of the site has already been anticipated by the City.

Alternative Transportation

The proposed project would include the construction of curbs, gutters, and sidewalks along the perimeter of the site. Construction of proposed sidewalks would help to establish connectivity to the surrounding pedestrian network. Additionally, the City of Morgan Hill's Bikeways Master Plan Update identifies the site's adjacent streets of Diana Avenue and Walnut Grove Drive as planned bike routes with designated bike lanes on either side of the streets.[17] Completion of the bike lanes would provide opportunities for bicyclists near the project site to access the nearby commercial developments that include Trader Joes, Walgreens, and Starbucks. The site is also located within one mile of multiple County bus routes and the Morgan Hill Caltrain Station, which provide regional public transportation opportunities to the City.

Conclusion

Overall, the proposed project's increase in traffic to the nearby transportation and circulation network would not be considered substantial in relation to the existing traffic load or capacity of the street system, and would not exceed any LOS standard. Therefore, impacts would be considered ***less than significant***.

c. The proposed project would not involve any uses or operations that would cause any changes in air traffic patterns, including increases in traffic levels or changes in location that would result in any safety risks. Therefore, ***no impact*** related to air traffic patterns would occur as a result of the proposed project.

[15] Fehr & Peers Transportation Consultants. *City of Morgan Hill General Plan Circulation Element Network and Policy Revisions Transportation Impact Analysis* [pg. 18]. July 29, 2009.
[16] City of Morgan Hill. *2035 General Plan Draft EIR*. January, 2016.
[17] City of Morgan Hill. *Bikeways Master Plan Update.* May, 2008.

d,e. The proposed project includes the construction of a new roadway paralleling US 101 as an extension of Diana Avenue that would serve the 10 eastern-most proposed residential units. The proposed roadway would be designed consistent with all applicable State and City roadway requirements and would provide emergency access to the site. The proposed project would not modify the existing roadway system, with the exception of one additional stop sign at the intersection of Diana Avenue and Walnut Grove Drive to the north. Thus, the proposed project would not increase hazards due to a design feature, such as a sharp curve or dangerous intersection, or incompatible uses and would have a ***less-than-significant*** impact related to emergency access and hazardous design features.

XVII. UTILITIES AND SERVICE SYSTEMS. *Would the project:*	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	✖	☐
b. 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?	☐	☐	✖	☐
c. 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?	☐	☐	✖	☐
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	✖	☐
e. 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?	☐	☐	✖	☐
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	✖	☐
g. Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	✖	☐

a,b,d. As mentioned previously, residential development within the City of Morgan Hill is controlled by the RDCS. By approving Measure C in 2004 and Measure F in 2006, Morgan Hill voters extended the City's RDCS to 2020. RDCS establishes a population ceiling for the City of 48,000 as of January 1, 2020. The RDCS system was adopted for the purpose of controlling impacts from rapid growth in Morgan Hill. 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 a project, including impacts to the water supply system, sanitary sewer and treatment plant, drainage and runoff, and other municipal services. Newland Homes received five Residential Development Control System (RDCS) building allotments in the 2015 competition for Fiscal Year 2017-18 (Application No. MC-15-10: Walnut Grove-Newland). The developer intends to seek the remaining four building allotments as an ongoing project for Fiscal Year 2018-19. Allocations would also need to be awarded by the City for the future development area in order for residential development to proceed on that portion of the overall project site subject to approval of a tentative map. Brief discussions of the wastewater and water systems that would serve the proposed projects are included below.

Wastewater

The City of Morgan Hill sewer collection system consists of approximately 135 miles of 6-inch through 30-inch diameter sewers, and includes 15 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 through an outfall that continues south to the Wastewater Treatment Facility (WWTF) in Gilroy. The WWTF is owned and operated by the South County Regional Wastewater Authority (SCRWA), under a Joint Powers Agreement with the cities of Morgan Hill and Gilroy. The City of Morgan Hill has an allocation of 3.56 million gallons per day (MGD) from the WWTF. The average dry weather flow from the City of Morgan Hill was approximately 2.7 MGD in 2015.[18]

The proposed project would connect to existing sewer lines on Diana Avenue and Walnut Grove Drive. Based on population and water conservation projections for the City of Morgan Hill, the current allocated of 3.56 MGD is anticipated to be reached in approximately 2023, with expansion planned for 2022.[19] Based on the current and projected sewage flows associated with the WWTF, the incremental increase in wastewater generation associated with the development of up to 19 residential units would not require the construction of new or expansion of existing wastewater treatment facilities, as adequate capacity is already sufficient to serve the proposed project.

Water

The City of Morgan Hill provides potable water service to its residential, commercial, industrial, and institutional customers within the City limits. The City's water system facilities include 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. The City has planned and constructed water projects in conjunction with new street construction in anticipation of future growth and water needs.

Existing 8-inch water lines exist in Diana Avenue and Walnut Grove Drive, which border the project site to the north and west. The project improvements include new water main connections to the existing water lines.

According to the City's Urban Water Management Plan, the City's projected water supply far exceeds the water demand for normal, single-dry, and multiple-dry years until at least 2030.[20] For example, during a normal year in 2015, the anticipated supply exceeds the anticipated demand by 6,923 acre-feet per year. Furthermore, during a normal dry year in 2030, the anticipated supply exceeds the anticipated demand by 6,309 acre-feet per year. Based on the proposed land uses, the proposed project would result in an increase in demand for water supply from what has occurred at the site. However,

[18] City of Morgan Hill. *2035 General Plan Draft EIR*. January, 2016.
[19] South County Regional Wastewater Authority. *Biennial Budget Transmittal – FY 14 & FY 15*. April 3, 2013.
[20] City of Morgan Hill. *2010 Urban Water Management Plan* [pg. 5-23 to 5-24]. 2010.

based on information in the City's Urban Water Management Plan, the City has adequate water supply to serve the proposed project. In addition, the increase in water usage that would result from the construction of 19 residential units was already anticipated for the project site by the General Plan, and subsequently the City's Urban Water Management Plan, as the proposed project would be consistent with the site's existing land use designation. Therefore, the proposed project would not require or result in the construction of new water treatment facilities or expansion of existing facilities, and sufficient water supplies would be available to serve the project from existing entitlements and resources.

Conclusion

As discussed above, the increase in wastewater generation and water usage for the 19 anticipated residential units would not be considered substantial. Furthermore, the approval of the proposed project site through the RDCS process ensures consistency with the growth rate in the City's General Plan, and the project would not exceed the City's planned wastewater treatment or water demand projections. As a result, the project would have ***less-than-significant*** impacts to water, wastewater, and storm drainage facilities.

c,e. As discussed in IX 'a,f', the Newland Homes Tentative Map area includes installation of a bioretention facility along the eastern site boundary that would treat and retain 95 percent of the runoff from the project site and also maintain peak runoff flows such that they do not exceed pre-project flows in accordance with the stormwater management requirements adopted by Resolution R3-2013-0032. Based upon the Precise Development Plan, the anticipated design for the future development area could also include a proposed bioswale/raintank that meets Resolution R3-2013-0032 requirements; though, the final stormwater system design would require approval by Public Works at the time of tentative map submittal for the southerly 2.6 acres. Furthermore, stormwater runoff associated with the site would be required to comply with the City's SWMP standards. As such, the project would not significantly increase stormwater flows into the existing system. The final drainage system design for the project will be subject to review and approval by the City of Morgan Hill Public Works Department, who will confirm that the proposed drainage system for the project is consistent with the City's Storm Drainage Master Plan and standard stormwater-related conditions of approval. Therefore, the proposed project would not substantially increase stormwater levels resulting in the construction of new stormwater drainage facilities or the expansion of existing facilities. Thus, impacts would be considered ***less than significant***.

f,g. 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. The average annual solid waste disposed at the Johnson Canyon Sanitary Landfill is between 100,000 and 250,000 tons per year (approximately 173,971 tons in 2014),[21] and the average annual capacity for the landfill

[21] Salinas Valley Solid Waste Authority. *Annual Report 2014-15*. 2015. Available at: http://svswa.org/wp-content/uploads/2014-2015-Annual-Report-Final4.pdf. Accessed June 2016.

is between 500,000 and 750,000 tons per year.[22] The proposed project would not produce enough solid waste for the landfill to exceed capacity. Therefore, sufficient permitted capacity exists at the Johnson Canyon Sanitary Landfill to accommodate the proposed project's incremental increase in solid waste disposal needs.

The proposed project would involve the generation of typical household solid waste and would not require specialized solid waste disposal needs. The proposed 19 units would each require a standard 48-gallon garbage cart for regularly-scheduled solid waste collection through Recology South Valley. As such, the proposed project would comply with applicable federal, State, and local statutes and regulations related to solid waste. Therefore, the proposed project would have a ***less-than-significant*** impact related to solid waste.

[22] California Department of Resources Recycling and Recovery (CalRecycle). *Facility Information Toolbox (FacIT), Facility Operations: Johnson Canyon Sanitary Landfill*. Available at: http://www.calrecycle.ca.gov/FacIT/Facility/Operations.aspx?FacilityID=18565. Accessed June 2016.

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a. Does the project have the potential to 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?	☐	☐	✖	☐
b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	✖	☐
c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	✖	☐

a. As mentioned previously, the project site is subject to the Burrowing Owl Fee Zone and tree protection measures which would cover the loss of potential biological resources within the project site, and does not contain known historical or cultural resources. Although unlikely, the possibility exists that subsurface excavation of the site during grading and other construction activities could unearth deposits of cultural significance. However, this IS/MND explains how the City's Municipal Code requires standard measures for development projects that would ensure any impacts to archaeological resources would be less than significant. Therefore, the proposed project would have ***less-than-significant*** impacts to the reduction of habitat of a fish or wildlife species, plant or animal community and important examples of California history or prehistory and the overall quality of the environment.

b. The 4.7-acre project site is anticipated to include a total of 19 single-family residential units, which would not cause environmental impacts that would be cumulatively considerable when evaluated in conjunction with other current or probable projects. In November 2004, the Measure C initiative was approved by voters, which extended the City's Residential Development Control System until 2020. Measure C caps the population at 48,000 for the year 2020, and requires development allotments for all residential development. Measure C caps the population at 48,000 for the year 2020, and requires development allotments for all residential development. The project's contribution to cumulative growth effects on the City would be less than cumulatively considerable since new population could not occur until development allotments are obtained for the project site. These allotments ensure that growth induced by the project would be within the City's planned growth level. Additionally, the IS/MND has

concluded that all project-level impacts would be less than significant with incorporation of mitigation measures, where necessary, the incremental effect of the proposed project would not be cumulatively considerable when viewed in connection with the effects of other past, present, and future projects in the City of Morgan Hill. Therefore, the proposed project's impacts would not be cumulatively considerable and would be ***less than significant***.

c. The proposed project site would be developed in a generally urbanized and built-up area of the City of Morgan Hill. Development of the proposed project would not be expected to result in adverse impacts to human beings, either directly or indirectly. The potential for environmental effects on human beings is addressed within this initial study and all impacts have been identified as less-than-significant or less than significant with the incorporation of mitigation measures. In addition, the amount and type of development proposed for the project is consistent with the *Morgan Hill General Plan* assumptions for the project site. New unmitigated impacts to human beings would not occur. As such, a ***less-than-significant*** impact would result.