575 Benton - Viso Project Santa Clara, California

Addendum to the Mission Town Center Final Environmental Impact Report SCH No. 201532076

Prepared for:

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1.0 INTRODUCTION

This Addendum, checklist, and attached supporting documents have been prepared to document that the Final Environmental Impact Report (FEIR) (State Clearinghouse Number 201532076) for the Mission Town Center project adequately addresses the potential environmental impacts of the proposed 575 Benton - Viso project (proposed project), at 575 Benton Street, in the City of Santa Clara, California pursuant to California Environmental Quality Act (CEQA) (Pub. Resource Code, Section 21000, et seq.) and that no Subsequent or Supplemental EIR is required.

2.0 PURPOSE AND BACKGROUND

On February 23, 2016 the Santa Clara City Council certified the FEIR and adopted Findings and a Mitigation Monitoring Program pursuant to CEQA for the Mission Town Center project.

The Mission Town Center project included the demolition of the existing buildings on the 5.75-acre project site, located at the intersection of Benton Street and El Camino Real in the southeastern portion of the City of Santa Clara, and the construction of a mixed-use residential development project that would consist of 385 apartment units, three distinct private open space areas, approximately 27,000 square feet of ground floor retail, 6,000 square feet amenity space, three courtyards, 4,000 square feet leasing space, and 839 parking spaces (See **Table 2-1**).

Since then, a new applicant has submitted an application to the City of Santa Clara to develop the project site with a mixed-use development similar to the project that was analyzed in the FEIR with minor modifications that include a reduction in the number of residential units, the amount of retail space, and the number of parking spaces. The proposed project includes 355 apartment units including 8 live-work units, approximately 22,064 square feet of retail space with 2,364 square feet within 8 work-live units, 1,601 square feet of leasing office space, 5,866 square feet of amenity space, three courtyards and public open space areas, and 645 parking spaces (See **Table 2-1**).

The City of Santa Clara has prepared this Addendum to document that the proposed project is substantially the same as the previously evaluated project, that the environmental effects of the proposed development project are adequately analyzed in the FEIR, certified in February 2016, and that there are no changes in circumstances or substantial new information that would trigger the need for further environmental review under CEQA.

Table 2-1 Land Uses

Land Uses	Mission Town Center Project Analyzed in	Proposed Project			
the FEIR					
Residential	385 units	355 units (including 8 live-work units)			
Retail	27,000 sf	22,064 sf			
Retail within live- work units		2,364 sf			
Amenity	6,000 sf	5,866 sf			
Leasing	4,000 sf	1,601 sf			
Parking (garage)	839 spaces	645 spaces			

Source: City of Santa Clara, 2016; Prometheus Real Estate Group, 2017

Notes: sf= square feet

The CEQA Guidelines provide that where none of the conditions requiring the preparation of a subsequent or supplemental EIR are met, a lead agency would prepare an Addendum to the previously adopted EIR, and include a brief explanation of the decision to not prepare a Subsequent or Supplemental EIR supported by substantial evidence (Section 15164). Based on the analysis below, this Addendum concludes that the proposed 575 Benton - Viso project would not result in a new environmental impact previously not evaluated in the FEIR, an increase in the severity of significant adverse impacts previously identified and studied in the FEIR, nor would the project require the adoption of any new or considerably different mitigation measures, or otherwise trigger the need for further environmental review. Therefore this Addendum, combined with the FEIR, provide environmental review appropriate for the approval of the proposed project.

3.0 CEQA REQUIREMENTS

CEQA Guidelines Section 15164(a) states that the lead agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in CEQA Guidelines Section 15162 calling for preparation of a subsequent or supplemental EIR have occurred. Section 15164(c) states than an addendum does not need to be circulated for public review. Section 15164(d) provides that the decision-making body shall consider the addendum in conjunction with the certified EIR prior to making a decision on the project. Section 15164(e) requires documentation of the decision not to prepare a subsequent or supplemental EIR pursuant to Section 15162.

CEQA Guidelines Section 15162(a) provides that once an EIR has been certified, no subsequent EIR shall be prepared unless the lead agency determines, on the basis of substantial evidence, one or more of the following:

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

This Addendum has been prepared to satisfy the requirements of CEQA Guidelines Sections 15164(b), 15164(d), and 15164(e).

4.0 PROJECT DESCRIPTION

4.1 Project Location

The project site is located in the southeastern portion of the City of Santa Clara at the corner of Benton Street and El Camino Real (See **Figure 4-1, Regional Location**). Specifically, the project site is bound by Benton Street to the south, commercial and residential development along Harrison Street to the north, The Alameda to the west, and El Camino Real to the east.

Regional access to the project site is provided by Interstate 880 (I-880) to the southeast via The Alameda and El Camino Real. Direct access to the site is provided by Benton Street and El Camino Real. Secondary access to the project site is provided by The Alameda and Harrison Street.

Valley Transportation Authority (VTA) buses, including routes 32, 60, and 81 provide service to the project area. The nearest VTA bus stop to the project site is located at mid-block on Benton Street between Sherman Street and El Camino Real. Additionally, the Santa Clara Transit Center (transit center) is located southeast of the project site across El Camino Real. The transit center services several regional carriers. However, it requires crossing six-lane arterial to access the transit center from the project site. Carriers that service the transit center include VTA, Altamont Corridor Express (ACE), Caltrain, and Amtrak Capitol Corridor.

4.2 Existing Conditions

The 5.75-acre project site is located on the southwestern corner of El Camino Real and Benton Street (See Figure 4-2, Project Site). The project site is relatively flat and comprises 12 parcels with three parcels designated for residential uses, three parcels designated for commercial uses, and three other parcels designated for light industrial uses. One parcel is vacant. The project site is developed with approximately 101,207 gross square feet (gsf) of commercial and light industrial space, 10 residential units that total about 9,426 gsf, roadways (Fremont and Sherman Streets), site serving infrastructure, and landscaping. The residential and commercial parcels are flanked by mature trees and landscaping consisting of irrigated lawn, ground cover, and shrubs. Approximately 87 percent (5.0 acres) of the project site is currently under impervious surfaces (buildings, roadways, sidewalks, and parking lots). The remaining 13 percent (0.7 acre) of the site is pervious and landscaped with trees and shrubs. There are 26 trees on the project site.

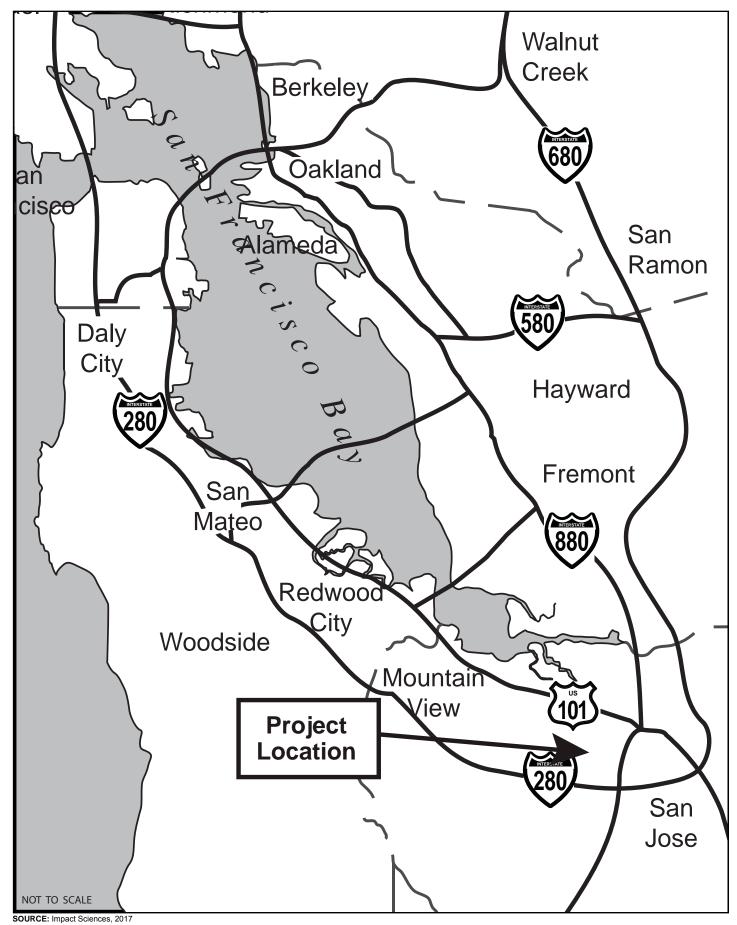


FIGURE **4-1**

Regional Location



SOURCE: Google Inc., 2017

FIGURE **4-2**



4.3 Surrounding Land Uses

The area surrounding the project site is fully developed with mostly residential and commercial uses. A medical office building and single-family homes are located directly adjacent to the north/northwest of the project site along Harrison Street. In addition, commercial uses are located to the north across Harrison Street. To the east and northeast is an apartment complex and the Santa Clara Police Department headquarters located on the northeastern corner of El Camino Real and Benton Street. A limousine rental office is located at the southeastern corner of El Camino Real and Benton Street. A multi-unit residential building and single-family residences are located to the south across Benton Street. Single-family residential uses, a residence hall, and commercial uses are located to the west across The Alameda. Other major uses in the area include Santa Clara University, located one block to the south, and the Santa Clara Transit Center which is located approximately 500 feet to the southeast.

4.4 Project Features and Operations

The proposed project would demolish the existing structures on the approximately 5.75-acre project site, with the exception to the two historical homes at 3410 The Alameda and at 3370 The Alameda, and construct a mix of residential and retail uses that would include 355 apartment units (including 8 livework units), retail space, amenities, public and private recreational areas, site serving infrastructure, and a parking structure. The proposed site plan is shown on Figure 4-3, Site Plan. Table 4-1, Proposed Land Uses, presents summary information regarding the various types of proposed land uses.

Table 4-1 Proposed Land Uses

Proposed Land Use	Space (sf)
Residential	346,823
Retail	22,064
Retail with the 8 work-live units	2,364
Amenity	5,866
Leasing	1,601
Public and private recreational areas	40,024
Parking (garage)	296,062

Source: Prometheus Real Estate Group, 2017

Notes: sf= square feet



SOURCE: Studio T Square, 2017

FIGURE 4-

Site Plan

Apartment Units

The proposed project would develop 355 apartment units, including 8 live-work units, at an overall density of approximately 61.7 dwelling units per acre. The proposed apartments would include one-bedroom and two-bedroom units ranging in size from approximately 753 to 1,476 sf. The proposed apartment mix would include 192 one-bedroom units, which would account for approximately 54 percent of the units, and 163 two-bedroom units, which would account for approximately 46 percent of the units. The residential unit mix is summarized in **Table 4-2**, **Residential Unit Mix Summary**.

As shown on **Figure 4-3**, the proposed project would preserve the two historical homes on the project site by keeping the single-family home at 3410 The Alameda in place, and relocating the single-family home at 3370 The Alameda to a site adjacent to the home at 3410 The Alameda.

Table 4-2 Residential Unit Mix Summary

	Number of			
Housing Type	Units	Unit Size (sf)	Total (sf)	Mix
One-Bedroom Units (Including 5 Work-Live Units)	192	753 to 934	154,033	54%
Two-Bedroom Units (Including 3 Work-Live Units)	163	966 to 1,476	192,790	46%
Totals	355		346,823	

Source: Prometheus Real Estate Group, 2017

Notes: s f= square feet

Retail Space

The proposed project would include approximately 22,064 gsf of retail uses. In addition, the retail space within the live-work units would account for a total of 2,364 square feet. The retail uses would be located at street level along Benton Street and El Camino Real and at the corner of Benton Street and El Camino Real.

Amenity Space and Leasing Office

The proposed project would include approximately 5,866 gsf of conditioned amenity space and 1,601 gsf of leasing office space. Amenities would include a 1,775 sf fitness center and a club room with 2,142 sf of space both located on the seventh floor of the parking structure (See **Figure 4-3**). Additional amenities

include a 380 sf pet spa and a 1,569 sf bicycle room. The leasing office would be located along the El-Camino Real frontage.

Open Space and Courtyards

The proposed project would include three courtyards, a private roof deck, a public open space, landscaped walkways, and paseos. Outdoor seating areas would also be developed along Benton Street and at the corner of Benton Street and El Camino Real. A description of each courtyard is provided below.

Courtyard A

Courtyard A would be located in the southwestern portion of the project site in the center of the residential buildings (Figure 4-3). The 10,713 sf courtyard area would include lounge seating with tables, open play lawn, passive garden spaces, artificial turf lounge area, benches and barbeques, and overhead shade structures.

Courtyard B

As shown on **Figure 4-3**, Courtyard B would be adjacent to the public open space, The Alameda Courtyard. Courtyard B would be 5,278 sf and would provide lounge seating with tables, open play lawn, passive garden spaces, artificial turf lounge area, benches and barbeques, and overhead shade structures.

Courtyard C

Courtyard C would be located in the northwestern portion of the project site with an entry way along El Camino Real. This courtyard would be 4,493 sf and would provide gathering space, passive garden space, and benches and barbeques.

Roof Deck (Pool Area)

The roof deck would be located on the seventh floor of the parking structure near the fitness center and club room. The roof deck area would be approximately 13,321 sf and would contain a lap swimming pool, seating and dining areas, barbeque area and outdoor kitchen, bar table and seats, and game tables.

The Alameda Courtyard

The Alameda Courtyard would provide 6,219 sf of open space along The Alameda and would include a seating area, an open play lawn, passive garden spaces, benches, game tables, outdoor chess, and bicycle racks.

4.5 Building Design

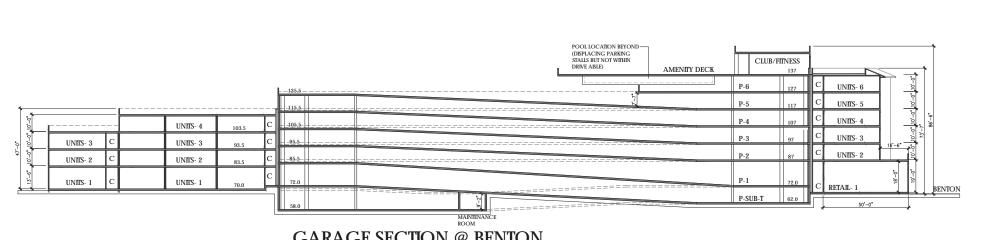
The proposed residential/retail buildings would be three to five stories and would range in height from approximately 37 to 78 feet. Parking would be provided in a seven-story parking structure with six levels above-grade and one level of below-grade parking. An amenity deck would be located on the roof of the parking structure, where the height of the structure would be approximately 88 feet. The parking structure would be wrapped by the proposed residential and retail uses located along El Camino Real and Benton Street.

The design of the proposed project would be a quintessential transit-oriented development. The proposed urban design would reinforce the urban street edge along El Camino Real corridor, punctuated by an active public plaza with vibrant retail uses on the corner of El Camino Real and Benton Street. Along with significant public spaces, each street frontage would be activated by retail, and residential units, some with stoop conditions. Live-work units would be located along Benton Street. The Alameda Courtyard would be accessed from The Alameda. The proposed 575 Benton - Viso projectwould create a sense of place for the Santa Clara University campus as well as the transit gateway into Santa Clara.

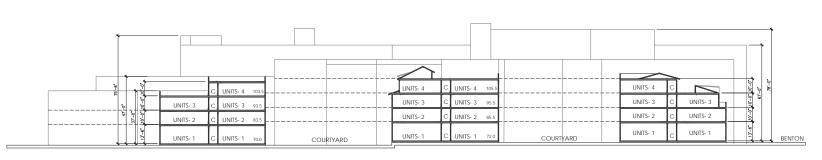
Recalling an historical warehouse district, the architecture near the corner of El Camino Real and Benton Street would be reminiscent of converted industrial lofts anchored by significant active retail uses. The combination of the smooth plaster and masonry tile base would also create a strong urban character consistent with the color and material palette of the existing Mission style inspired context.

Along Benton Street and El Camino Real, the proposed mixed-use development would be characterized by an informal Spanish Monterey architecture, to create variety of scale and modulation. Decks, railing articulations, and window patterning would be incorporated into this design to further promote the informal nature of this architecture. The buildings would have interlocking gable roofs with a plaster finish that would relate with the Mission inspired university context and historical homes on site.

Figure 4-4, Benton Street Sections, shows the building sections along Benton Street, and **Figure 4-5**, **El Camino Real Sections**, shows the building sections along El Camino Real. **Figure 4-6**, **The Alameda/Benton Street Perspective**, shows the perspective view of the proposed building from the intersection of The Alameda and Benton Street; **Figure 4-7**, **Benton Street Elevation** shows the elevation along Benton Street; **Figure 4-8**, **El Camino Real/Benton Street Corner Perspective**, shows the perspective view of the proposed building from the intersection of El Camino Real and Benton Street; **Figure 4-9**, **El Camino Real Perspective**, shows the perspective view of the proposed building along El Camino Real; and **Figure 4-10**, **The Alameda Perspective and Elevation**, shows the perspective view and the elevation of the proposed building along The Alameda.



GARAGE SECTION @ BENTON





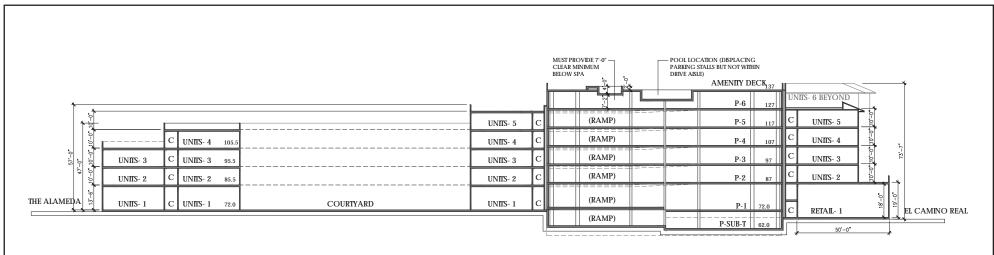
BUILDING SECTION THROUGH COURTYARDS @ BENTON

SOURCE: Studio T Square, 2017

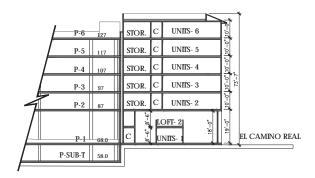
FIGURE 4-4

Benton Street Sections





GARAGE SECTION @ EL CAMINO REAL



SECTION @ EL CAMINO REAL

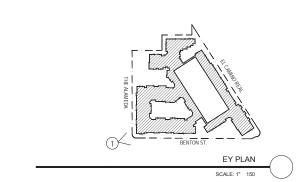
SOURCE: Studio T Square, 2017





SOURCE: Studio T Square, 2017

FIGURE 4-



- 1) BRICK VENEER
- EXTERIOR PLASTER
- CORRUGATED METAL PANEL
- (4) PORCELAIN TILE
- VERTICAL SIDING

- HORIZONTAL SIDING
- WOOD PATTERN SIDING
- VINYL WINDOW
- 9 BALCONIES
- (10) GLASS STOREFRONT





RENDERING - BENTON ST



SOUTH EAST ELEVATION - BENTON

SOURCE: Studio T Square, 2017

FIGURE 4-

Benton Street Elevation

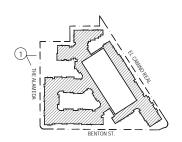


SOURCE: Studio T Square, 2017









EY PLAN

SCALE: 1" 150

- 1 BRICK VENEER
- (2) EXTERIOR PLASTER
- (3) CORRUGATED METAL PANEL
- 4 PORCELAIN TILE
- (5) VERTICAL SIDING

- (6) HORIZONTAL SIDING
- 7) WOOD PATTERN SIDING
- 8) VINYL WINDOW
- 9 BALCONIES
- (10) GLASS STOREFRONT





RENDERING - COURTYARD ON THE ALAMEDA



SOUTH WEST ELEVATION - THE ALAMEDA

SCALE: 1" = 20'

SOURCE: Studio T Square, 2017

FIGURE 4 –

The Alameda Perspective and Elevation



4.6 Circulation and Parking

Figure 4-11, Vehicular Circulation, shows the conceptual access plan for the project. Vehicular access to the parking garage would be provided from Benton Street and El Camino Real. The western most section of Fremont Street and the northern section of Sherman Street currently intersect on the project site. The sections of these two streets on the project site would be vacated and would be integrated into the project.

The proposed project would include a number of street improvements, including an upgraded signal at the intersection of El Camino Real and Benton Street that would improve the pedestrian movement across El Camino Real. In addition, the proposed project would widen the sidewalks along The Alameda, El Camino Real, and Benton Street to increase pedestrian activity along the project edge. The proposed project would relocate the existing bus stop on Benton Street approximately 10 feet to the north closer to El Camino Real.

Table 4-3, Proposed Vehicle Parking, shows the number of parking spaces and configuration of parking proposed at the project site. Resident parking would be distributed over all the levels of the parking garage. Retail parking would be provided on the lower two levels of the parking garage.

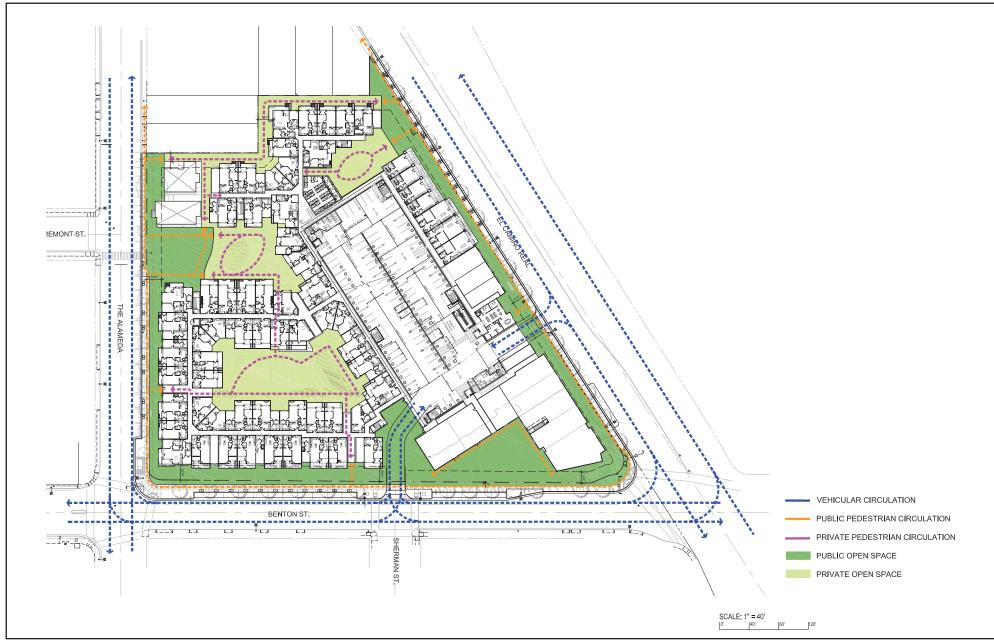
The total garage area would be approximately 296,062 gsf and would provide a total of 645 parking spaces, including 536 spaces for the residential component and 109 spaces for the retail component of the proposed project. A total of 248 Class I bicycle locker spaces would be provided with 38 outside bicycle racks for use by retail patrons.

Table 4-3 Proposed Vehicle Parking

Parking Type	Number of Units	Rate	Parking Provided
Residential			
One-Bedroom (including 5-Work/Live Units)	192	1.50	288
Two-Bedroom (including 3-Work/Live Units)	163	1.50	245
Parking for the existing single homes (3410 The Alameda and 3370 The Alameda)	-		3
Residential Subtotal			536
Retail			
Retail (Indoor)		0.004 stalls/unit	88
Retail (Outdoor Seating)		0.33 stalls/unit	17
Live/Work Commercial Space		0.5 stalls/unit	4
Retail Subtotal			109
TOTAL	355		645

Source: Prometheus Real Estate Group, 2017

20



SOURCE: Studio T Square, 2017

FIGURE 4-

Vehicular Circulation

4.7 Landscaping

Figure 4-3 shows the proposed landscaping plan for the project site. This plan includes the planting of new trees and shrubs throughout the site. There are 26 existing trees on the site. The City of Santa Clara General Plan Policy 5.10.1-P3 requires "preservation of all City-designated heritage trees listed in the Heritage Tree Appendix 8.10 of the General Plan." In addition, General Plan Policy 5.10-1-P4 provides the criteria for the identification of trees that the City seeks to protect. This policy states "Protect all healthy cedars, redwoods, oaks, olives, bay laurel, and pepper trees of any size, and all other trees over 36 inches in circumference measured from 48 inches above grade on private and public property as well as in the public right-of-way." Of the 26 existing trees on the site, none is listed as a Heritage Tree in the General Plan, and none of the trees are cedars, redwoods, oaks, olives, bay laurel or pepper trees, the species specifically identified for protection in General Plan Policy 5.10-1-P4. However, 11 trees on the project site meet both the trunk circumference and health criteria in General Plan Policy 5.10-1-P4 and thus are protected.

The applicant would be required to comply with General Plan Policy 5.3.1-P10, which requires that new development "provide opportunities for increased landscaping and trees in the community, including requirements for new development to provide street trees and a minimum 2:1 on- or off-site replacement for trees removed as part of the project."

In order to compensate for the protected trees removed at a 2:1 ratio according to General Plan Policy 5.3.1-P10, 52 replacement trees would be required. The proposed landscaping plan calls for installing approximately 320 trees which would exceed the requirements of the General Plan policy. The proposed landscaping plan for the site depicts four general areas of tree planting: (1) along The Alameda, Benton Street, and El Camino Real; (2) the outdoor area on Benton Street; (3) the courtyards; and (4) the roof deck.

The overall landscape character would be designed to add interest to the site and to help define and enhance the architectural elements through the use of flower and leaf color, texture, plant forms, and plant masses. Plant material would comply with the City of Santa Clara requirements and landscape plantings and features would be employed to minimize water use, reduce runoff, and promote surface infiltration of storm water.

Irrigation improvements would utilize high efficiency design and equipment components in conformance with the requirements of the City of Santa Clara, the Santa Clara Valley Water District, and the South Bay Water Recycling.

4.8 Utilities

4.8.1 Potable and Irrigation Water

The City of Santa Clara Water and Sewer Utilities (CSC) would provide water service to the project site. CSC uses groundwater pumped by wells scattered throughout the city and surface water supplies from the Santa Clara Valley Water District (SCVWD) and the San Francisco Hetch-Hetchy System to provide water to various land uses throughout the City. CSC owns and maintains the existing water mains surrounding the project site, including water mains in The Alameda and El Camino Real.

Potable water service would be provided to the site by the existing and proposed water infrastructure system. The proposed project would relocate an existing 24-inch water main from Fremont Street and Sherman Street to the existing right-of-way on The Alameda and Harrison Street within the existing right of way and connect it to the existing 24-inch water main in El-Camino Real. The existing 6-inch water main in The Alameda would be abandoned and replaced with a new 12-inch main. The annual water demand associated with the existing uses on the project site is about 1.7 acre-feet¹. The net additional water demand required by the proposed project is estimated to be about 55.2 acre- feet/year (see Appendix A- Water and Sewer Utilities Memorandum).

Recycled water would be used for landscape irrigation on the project site. However, recycled water use would be contingent on the approval of the California State Water Resources Control Board, Division of Drinking Water and South Bay Water Recycling The project would extend the 8-inch recycled water main approximately 500 linear feet within Fremont Street from the intersection of Fremont and Alviso Streets to the project frontage on the east side of the intersection of The Alameda and Fremont Street. This recycled water line would provide service to the entire development.

4.8.2 Wastewater

CSC provides wastewater collection service to the project site. Services provided by CSC include construction, operation, and maintenance of the City's sanitary sewer system. CSC operates and maintains 18-inch and 24-inch sewer mains in Benton Street; a 6-inch sewer main in Fremont Street, Sherman Street, and The Alameda; and a 12-inch sewer main in El Camino Real.

Wastewater generated in the City of Santa Clara is treated at the San Jose-Santa Clara Regional Wastewater Facility (RWF), which is a regional wastewater treatment facility serving eight tributary wastewater collection agencies. Wastewater generated within the project site would be collected through

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City of Santa Clara Water and Sewer Utilities, 2015. Mission Town Center, Water Supply Assessment for Compliance with California Water Code Section 10910. August, 11.

an on-site collection system and discharged into the existing wastewater main in Benton Street and El Camino Real for conveyance to the RWF. The proposed project would include the removal of the 6-inch sewer main in the sections of Fremont and Sherman Streets that would be integrated with the project.

4.8.3 Storm Drainage

The proposed project would reduce the current impervious surface area at the project site by approximately 9.3 percent. The project site has currently about 32,182 sf of pervious surface and about 218,109 sf of impervious surface. The post development pervious surface would be about 52,494 sf and the impervious surface would be about 197,797 sf.

The site is currently served by the City's municipal storm drainage facilities. The City owns and maintains 24-inch to 48-inch storm drains in Benton Street, 12-inch to 60-inch storm drains in Sherman Street, and 48-inch and 72-inch storm drains in El Camino Real.

The proposed project would demolish a 27-inch storm drain along Benton Street and replace it with a 72-inch storm drain that would be connected to the 72-inch storm drain on El Camino Real. In addition, the proposed project would remove the 60-inch storm drain on Sherman Street and replace it with a 72-inch storm drain that would be installed around the project site to the east along Benton Street and connected to the 72-inch storm drain on El Camino Real. The dead end portion of a 12-inch storm drain located within the area of Sherman Street would be removed. Storm water from the proposed impervious surfaces on the site would be collected, treated, and discharged to the storm drains.

The proposed project qualifies as a "Special Project" under Category C: Transit-Oriented Development of the Santa Clara Valley Urban Runoff Pollution Prevention Program. The proposed project meets the following minimum requirements:

- At least 50 percent of the project site is within 0.25 mile of a transit hub (Santa Clara Station);
- The project is a non-auto related use (mixed-use commercial and residential); and
- The project Floor Area Ratio (FAR) is at least 2:1 (The proposed project would have a FAR of 2.2:1).

As a "Special Project" and based on the project's location, density, and above-grade parking, the proposed project may receive credits to use Bay Area Stormwater Management Agencies Association (BASMAA) approved, non-LID (Low Impact Development) treatment methods to treat up to 80 percent of the post-development storm water runoff.

The project proposes to treat storm water through a combination of bioretention areas and media filter vault system. A minimum of 20 percent of the post-development storm water volume would be treated through bioretention. Any flow-through in-ground planters used as bioretention would be designed in accordance with Chapter 6.2 of the C.3 Stormwater Handbook of the Santa Clara Valley Urban Runoff Pollution Prevention Program.

The remainder of the post-development storm water volume would be treated through subgrade media filter vaults located at or near discharge points to the existing public storm drain system. These vaults would contain media filter cartridges designed in accordance with Chapter 6.7 of the C.3 Stormwater Handbook, and taken from the BASMAA list of approved media filter devices.

Bioretention areas and media filter vaults would remove pollutants from on-site storm water runoff prior to discharge to the City's storm drain system in compliance with the City of Santa Clara Public Works Department guidelines and standards as well as the San Francisco Bay Regional Water Quality Control Board's Municipal Regional Permit requirements.

4.8.4 Electricity and Natural Gas

As part of the proposed project, overhead utilities along the project frontage would be relocated underground. The proposed project would incorporate the state of the art water and energy conservation features, and comply with Title 24 (2013) standards and General Plan Policy 5.10.3-P4 that requires new development to promote sustainable buildings and land planning, including programs that reduce energy and water consumption in new development.

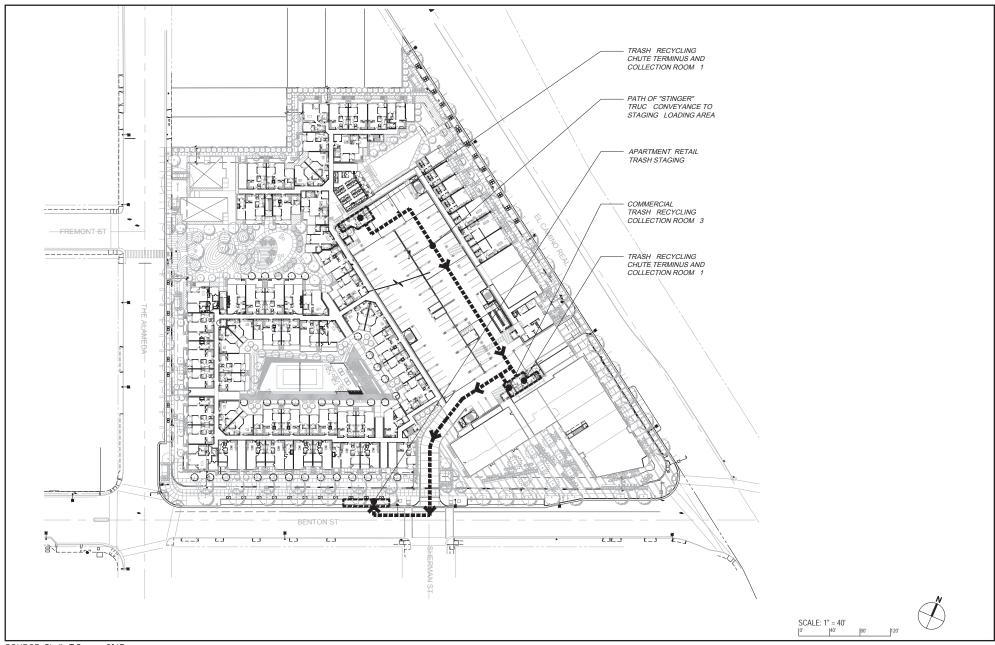
4.8.5 Solid Waste

The proposed residential component is estimated to generate approximately 12,070 pounds of solid waste and 2,485 pounds recyclable waste per week. The proposed retail component (not including restaurants) would generate approximately 331 pounds of solid waste and 384 pounds of recyclable waste per week. Restaurants associated with the proposed retail component would generate 1,693 pounds of solid waste and 782 pounds of recyclable waste per week. The proposed project would include three collection rooms for solid and recyclable waste (See **Figure 4-12**). Two of the collection rooms would be for the residences and the third collection room would be for the retail. Trash loading area would be along Benton Street.

4.8.6 Sustainable Development Features

The proposed project proposes high-density residential, with on-site commercial amenities, on an infill site with easy access to transit. The proposed project would achieve a minimum of a LEED Gold or

greater equivalent. In addition, the following measures would be incorporated into the proposed project to minimize energy and water consumption, improve indoor environmental quality, minimize waste disposed in landfills, and minimize vehicular traffic and associated air pollutant emissions:



SOURCE: Studio T Square, 2017

FIGURE 4-

Solid Waste Collection

Water

The recycled water main would be extended approximately 500 linear feet along Fremont Street from the intersection of Fremont Street and Alviso Street to the project front on the east side of the intersection of The Alameda and Fremont Street. This recycled water line would provide service to the entire development.

- Recycled water would be used for irrigation of all landscaped areas.
- New landscape plants would be drought tolerant.
- High efficiency irrigation systems with water-efficient sprinkler heads and smart irrigation controllers for drought tolerant landscape would be installed.
- State of the art water conserving features would be included.
- Solar thermal hot water would be used for the swimming pool.

Energy

- Parking garage, apartments, and corridors would be equipped with smart LED lighting systems with occupancy sensors.
- All apartments would be equipped with Energy Star certified appliances (dishwashers and refrigerators).
- The parking garage would be equipped with Electric Vehicle (EV) charging stations.
- Temperature controllers would be installed for pool and spa heaters.
- Car Share service for neighborhood use would be provided if available.
- Roofs would have reflective roofing membranes.

Materials

- More than 75 percent of all demolition materials and construction debris would be recycled.
- Demolished concrete would be crushed and re-used as base rock for the building foundations, roadways, sidewalks, and utility trenches.

 Recycled content carpeting, padding, framing materials, concrete aggregates, and other products would be used.

Site Planning & Design

- The proposed project would develop the project site with a mixed-use residential and retail development near the Santa Clara Station (Caltrain) and Santa Clara University.
- The proposed project would include pedestrian and bicycle improvements to reduce vehicular trips. It would be the first project to adopt and implement the City of Santa Clara's bicycle connectivity plan beginning at the Santa Clara Station and extending to the edge of the project site at the intersection of The Alameda and Benton Street. The proposed project would include a network of pedestrian and bicycle paths to and from the Station, Santa Clara University, area retail and service uses, and all residential buildings.
- The proposed project would be equipped with secure bike lockers for residents and retail tenant employees. A total of 248 secured bicycle parking stalls would be provided with 38 outside bicycle racks for use by retail patrons.
- The proposed project would provide bicycle racks for retail users as well as guests to the residential buildings and the greater community. A Bike Share program is also being explored for inclusion in the project scope and design.
- The proposed project would have a public plaza along Benton Street and the corner of Benton Street and El Camino Real, and a public pocket courtyard accessed from The Alameda. Both the plaza and courtyard would encourage pedestrian activity for the project as well as the greater community and would provide casual seating and activity spaces.

4.8.9 Demolition and Construction Activities

Construction of the proposed project would be preceded by the demolition of the existing buildings on the project site with the exception of the two historical houses. As shown on **Figure 4-3**, the single-family home located at 3410 The Alameda would remain in place, and the single-family home at 3370 The Alameda would be relocated to be adjacent to the home at 3410 The Alameda.

Demolition of the rest of the structures at the project site would generally proceed as follows: (1) the contents of the buildings would be characterized; (2) any hazards present would be abated, including, but not limited to, asbestos containing materials and lead-based paint; (3) reusable and recyclable materials

would be identified and removed; (4) structures would be demolished and removed; (5) the foundation slabs and underground utilities would be removed. Construction would be conducted under a project-specific site management plan or equivalent plan approved by the San Francisco Regional Water Quality Control Board or other agency of applicable jurisdiction, in order to ensure protection of construction workers, the general public, the environment, and future site occupants from known and unknown contamination that may be present in the subsurface.

Demolition is expected to generate about 14,180 tons of concrete, 4,700 tons of asphalt, 700 tons of construction debris, 100 tons of dimensional lumber, 207 tons of metals, and 105 tons of green waste. The proposed project is subject to the City Construction and Demolition Ordinance (which requires 50 percent diversion) as well as CALGreen Code. Debris generated from the demolition of the buildings would be sorted into materials that can be reused or recycled, materials that are contaminated and cannot be reused, and non-hazardous waste materials. Each type of material would be appropriately reused, stored, and/or disposed. Fluorescent light fixtures and other items that would require separate handling would be removed prior to building demolition. Metal, wire, conduit, etc., would be hauled off-site and sent to a recycling firm. Most of the concrete and asphalt would be crushed and ground to use on the site as engineered fill. This material would be stockpiled on the site until needed. It is estimated that of the total demolition debris that would be generated, about 1,112 tons would be hauled to a City-certified disposal facility.

Site clearing and demolition would be followed by excavation and grading, utility infrastructure, and foundation work. Construction of the below-grade parking level would require excavation of 10 to 12 feet below ground surface. Subsequent phases would include building construction, completion of exterior and interior improvements, and installation of landscaping.

Site demolition work is expected to begin in mid-summer 2018, followed by site grading and utility infrastructure work in mid-fall 2018. Construction of residential units is expected to commence in winter 2019 with full occupancy by the early spring 2021.

4.9 Lead and Responsible Agencies

The City of Santa Clara has the principal responsibility for approving the proposed project. For this reason, the City is the "Lead Agency" as defined by CEQA.

As defined by CEQA, "Responsible Agencies" are public agencies other than the Lead Agency that have discretionary approval over the project. The following agencies are considered responsible agencies for the proposed project.

California Department of Transportation (Caltrans). Caltrans is a California government department that manages the state highway system and is actively involved with public transportation systems within the state. The construction of utilities on El Camino Real (State Route 82) required to serve the proposed project would require an encroachment permit from Caltrans.

Regional Water Quality Control Board (RWQCB). The RWQCB is a responsible agency for this project. The proposed project would require the submittal of a Notice of Intent for coverage under the State National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Stormwater Runoff Associated with Construction Activity (General Construction Permit). In addition, it is anticipated that the RWQCB would have oversight and approval jurisdiction for any site management plan or equivalent plan developed for the project.

Bay Area Air Quality Management District (BAAQMD). Although no permit is required for building demolition, the BAAQMD requires notification of demolition projects of this size. Notification is performed through filing of a form provided by the BAAQMD Regulation 11, Rule 2 also requires that a survey for asbestos be performed before demolition as well as the proper removal and disposal of any asbestos found.

5.0 ENVIRONMENTAL SETTING AND IMPACT ANALYSIS

This Addendum provides an analysis of each environmental issue identified in the FEIR to determine whether new or more severe environmental effects could occur from the implementation of the proposed project and whether mitigation measures identified in the FEIR would be needed and/or if additional mitigation could be necessary.

5.1 **AESTHETICS**

		Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
AE	STHETICS - Would the project:				
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?				

Summary of Analysis in the FEIR

The FEIR found that the project site is not adjacent to a state scenic highway. In addition, the project site is not part of any scenic vista and does not contain scenic resources as identified in the City's General Plan or any other land use plans. The FEIR concluded that the Mission Town Center project would have no effect on a scenic vista, and would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state highway. The FEIR found that the Mission Town Center project would be of a scale that is greater than the existing development near the project site, and would change the visual character on the project site from a mix of light industrial, commercial and residential uses to a large mixed-use residential building that is five stories in height. The FEIR found that the frontages of the Mission Town Center project include features that would improve the project site's visual integration with the surrounding uses and that would promote a more human scale at the ground level. Furthermore, the FEIR found that landscape features associated with the Mission Town Center project would soften the overall visual character of the structure at the ground level. The FEIR concluded that while the change in visual character under the Mission Town Center project would be substantial, the change would not substantially degrade the existing visual character of the site or its surroundings. The FEIR found that implementation of the Mission Town Center project would increase the nighttime illumination on the project site from current levels. However, the FEIR concluded that new lighting would not result in a substantial increase in light that could adversely affect

nighttime views in the area, because all new lighting would be directed away from adjacent properties and public rights of way. In addition, trees along the perimeter of the project site would minimize light spillover.

Analysis of the Proposed Project

Similar to the FEIR findings, the project site is not part of any scenic vista; nor does it contain any scenic resources. Therefore, the proposed project would have no effect on scenic vistas, or substantially damage scenic resources.

Similar to the Mission Town Center project, the proposed project's scale would be greater than the nearby existing development and would change the visual character on the project site. The height of the proposed project would be approximately 13 feet higher than the Mission Town Center project. However, additional height would be limited to the amenity deck area that would be set back from The Alameda frontage, and would be close to El Camino Real and Benton Street where comparable building heights are present. Similar to the Mission Town Center project, the proposed project would promote a human scale development at the ground level and include landscape to soften the building structures at the ground level. Furthermore, the proposed project would maintain the historical home at 3410 The Alameda in place, and relocate the single-family home at 3370 The Alameda to a location adjacent to this home, thereby maintaining the character of The Alameda in the area north of Fremont Street. Therefore, similar to the Mission Town Center project analyzed in the FEIR, the proposed project would not substantially degrade the existing visual character of the site or its surroundings. Similar to the Mission Town Center project, the proposed project would not result in a substantial increase in light that could adversely affect nighttime views in the area.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to visual resources have come into effect since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to environmental impacts such that additional environmental review would be triggered.

Findings

Because the proposed project is generally similar to the Mission Town Center project, its potential aesthetic impacts would be similar to the impacts analyzed in the FEIR. Therefore, no new or

substantially increased significant aesthetic impacts would result from the proposed project beyond tho	se
analyzed in the FEIR. No new mitigation is required.	

5.2 AGRICULTURE AND FORESTRY RESOURCES

		Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
AG	RICULTURAL RESOURCES - Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?				
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?				
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?				
d)	Result in the loss of forest land or conversion of forest land to non-forest use?				
e)	Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?				

Summary of Analysis in the FEIR

The FEIR determined that the project site is not used for agriculture and is located in a developed area with no agricultural land uses near the site. The FEIR found that the project site is not designated as Important Farmland on maps prepared pursuant to the Farmland Mapping and Monitoring Program, nor it is zoned for agricultural use, forest land, or timberland. In addition, the FEIR found that there is no Williamson Act contract applicable to the project site or its vicinity. The FEIR concluded that implementation of the Mission Town Center project would have no impact on agriculture or forest resources. No mitigation was required.

Analysis of the Proposed Project

Similar to the FEIR findings, the project site is not used for agriculture or zoned for agricultural use, forest land, or timberland. Therefore, similar to the FEIR conclusion, the proposed project would have no impacts on agriculture or forest resources. No new mitigation is required.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to agricultural or forest resources have come into effect since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to environmental impacts such that additional environmental review would be triggered.

Findings

Given the urbanized nature of the project site (which has remained the case since the FEIR), the potential impacts from the proposed project on agricultural and forestry resources are essentially the same as those analyzed in the FEIR. Therefore, no new or substantially increased significant impacts would result from the proposed project beyond those analyzed in the FEIR. No new mitigation is required.

5.3 AIR QUALITY

		Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impacts Fully Analyzed in the FEIR
AIR QUALITY - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:					
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?				

Summary of Analysis in the FEIR

The analysis in the Mission Town Center FEIR assumed that the project would be constructed over a period of about 30 months for a total of 660 workdays. The FEIR found that estimated average daily project construction emissions would not exceed the thresholds for ROG, NOx, PM10, and PM2.5. Therefore, the FEIR concluded that the impact associated with construction-period emissions of criteria pollutants would be less than significant.

The FEIR found that construction activities, particularly during site preparation and remediation, utility trenching, and grading, would temporarily generate fugitive dust, including PM10 and PM2.5 emissions. Furthermore, the FEIR found that the project site contains a number of areas where soils and groundwater are contaminated as a result of previous land uses and exposure to this on-site

contamination during construction could affect human health. The FEIR included the implementation of Mitigation Measure AIR-1, which requires that the dust control and other BMPs put forth by the BAAQMD to be implemented as part of the Mission Town Center project. In addition, Mitigation Measure AIR-1 would require the project applicant to comply with BAAQMD Regulation 8, Rule 40, "Aeration of Contaminated Soil and Removal of Underground Storage Tanks," in the unlikely event that an underground storage tank or soils contaminated with volatile organic compounds are exposed during construction. The FEIR also included Mitigation Measures HAZ-2a through HAZ-2d, which require the development and implementation of a site management plan or similar response plan that includes protection of construction workers from exposure to impacted soil and groundwater through measures included in a health and safety plan.

The FEIR concluded that with the implementation of the BAAQMD-recommended BMPs pursuant to **Mitigation Measure AIR-1a**, and **Mitigation Measure AIR-1b** which implements **Mitigation Measures HAZ-2a** through **2d**, the construction of the Mission Town Center project would not result in substantial emissions of fugitive dust, PM10 or PM2.5, and the impact associated with construction-period emissions of fugitive dust, PM10 and PM2.5 would be less than significant.

The FEIR found that the earliest year the Mission Town Center project could possibly be constructed and fully occupied would be 2019. The FEIR found that average daily and annual emissions of ROG, NOx, PM10, or PM2.5 emissions associated with operation of the Mission Town Center project would not exceed the significance thresholds. The FEIR concluded that impacts associated with contribution to an air quality violation, or cumulatively considerable net increase of a criteria pollutant during operation would be less than significant.

The FEIR found that the Mission Town Center project would not conflict with the Clean Air Plan nor obstruct its implementation because (1) it would result in emissions below the criteria air pollutant significance thresholds; (2) the development of the project site would be considered urban "infill", and the Mission Town Center project would put housing in a central portion of the Bay Area and in close proximity of transit with regional connections. In addition, the Mission Town Center project would not be required to incorporate project-specific transportation control measures listed in the latest Clean Air Plan. The FEIR also found that the Mission Town Center project would generally be consistent with, and would help achieve the goals of the Plan Bay Area Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) adopted in 2013 and the City of Santa Clara's Climate Action Plan. For all of these reasons, the FEIR concluded that the Mission Town Center project would not conflict with the Clean Air Plan nor obstruct its implementation. This impact was determined to be less than significant. No mitigation was required.

Exposure to Pollutant Concentrations during Project Construction. The FEIR found that construction activities and vehicular traffic generated by the Mission Town Center project would have the potential to expose sensitive receptors to substantial pollutant concentrations. According to the FEIR, the maximum residential lifetime excess cancer risk associated with the construction of the Mission Town Center project would be 44.9 in 1 million. The FEIR found that maximum increased lifetime cancer risk would be above the BAAQMD significance threshold of a cancer risk of 10 in one million or greater, and would be considered a significant impact. Furthermore, the FEIR found that the maximum modeled annual PM2.5 concentration (including fugitive dust and DPM) of 0.4 µg/m³ would be above the BAAQMD significance threshold of 0.3 µg/m³. The FEIR included Mitigation Measure AIR-4a, which requires the implementation of Mitigation Measure AIR-1, to reduce exhaust emissions by 5 percent and fugitive dust emissions by more than 50 percent. The FEIR also included Mitigation Measure AIR-4b, to reduce the computed maximum lifetime excess residential cancer risk under conservative assumptions to less than 2.7 in one million. Furthermore, with implementation of Mitigation Measure AIR-4b, PM2.5 concentrations would be reduced to 0.1 µg/m³. As an alternative to **Mitigation Measure AIR-4b**, the FEIR also included Mitigation Measure AIR-4c, which would require the reassessment of the constructionphase health risk impacts, and in the event cancer risk and exposure to PM2.5 for all potentially exposed off-site receptors would be computed at less than BAAQMD project-level thresholds, then impacts would be less than significant. Therefore, the FEIR determined that with the implementation of Mitigation Measures AIR-4a through AIR-4c, this impact would be reduced to a less-than-significant level.

The FEIR found that non-cancer health hazards from toxic air contaminants (TAC) exposure would be below the reference exposure level (REL), and are not expected to cause adverse health impacts, even for sensitive individuals. The maximum modeled annual DPM concentration was $0.24~\mu g/m^3$, which is much lower than the chronic inhalation REL of $5~\mu g/m^3$. Based on the DPM concentration, the FEIR found that the maximum computed hazard index (HI) would be 0.05, which is much lower than the BAAQMD significance criterion of a hazard index greater than 1.0. This impact was determined to be less than significant.

Community Health Risk Impacts from Local Roadways. The FEIR found that there are no local surface streets besides El Camino Real (State Highway 82) in the project vicinity with future 2035 volumes exceeding 10,000 ADT. Therefore, the FEIR concluded that community health risk impact on the project site receptors from TAC emissions associated with other local surface streets would be less than significant. No mitigation was required.

The FEIR found that the maximum increased cancer risk associated with TAC emissions from El Camino Real was computed as 7.1 in one million at a residential area in the northern portion of the project site

closest to El Camino Real. The FEIR concluded that the maximum increased cancer risk from TACs emissions associated with local roadways would be below the BAAQMD's threshold of 10 in one million excess cancer cases per million and this impact was determined to be less than significant. No mitigation was required.

For non-cancer health effects associated with chronic exposure to DPM, the FEIR found that the maximum predicted annual DPM concentration from El Camino Real traffic was $0.008 \,\mu g/m3$, and would occur at the same receptor where the maximum cancer risk would occur. The HI of 0.01 associated with this concentration was found to be much lower than the BAAQMD significance criterion of a HI greater than 1.0. As such, the FEIR concluded that the impact associated with non-cancer health effects would be a less than significant. No mitigation was required.

In addition to evaluating the health risks from TACs, the FEIR evaluated potential impacts from PM2.5 emissions generated by vehicles traveling on El Camino Real. The maximum annual average PM2.5 concentration from El Camino Real traffic calculated at $0.1~\mu g/m3$ were found to occur at the receptor that had the maximum cancer risk. The FEIR concluded that PM2.5 concentration associated with El Camino Real traffic would be below the PM2.5 threshold of $0.3~\mu g/m3$ and the impact would be considered less than significant. No mitigation was required.

Community Health Risk Impacts from Railway Sources. The project site is located about 400 feet southwest from Caltrain and other rail lines. These rail lines are used primarily by trains for passenger (Caltrain, Altamont Commuter Express (ACE), Amtrak Capitol Corridor, and the Amtrak Coast Starlight) and freight service (Union Pacific Rail Road (UPRR)).

The FEIR analyzed PM2.5 (assumed to be DPM) emissions from trains under two scenarios. Scenario 1 assumed that the San Jose to San Francisco fleet would be electrified by 2026 to 2029. Scenario 2 assumed that all trains would continue to use diesel locomotives.

Under Scenario 1, the FEIR found that maximum increased cancer risk at the project site was 11.9 in one million. Under Scenario 2, the maximum cancer risk was calculated at 19.6 in one million. Therefore, the FEIR found that community health risk impact on the project site receptors from railway emissions under both Scenario 1 and Scenario 2 would be above the BAAQMD thresholds of 10.0 in a million.

Potential non-cancer health effects due to chronic exposure to DPM under both scenarios were found to be less than 0.04 $\mu g/m^3$ — lower than the REL of 5 $\mu g/m^3$. The HI was found to be less than 0.01, which is much lower than the BAAQMD significance criterion of a HI greater than 1.0. The FEIR concluded that

chronic impact from exposure to DPM at the project site would be less than significant. No mitigation was required.

Furthermore, the FEIR found that the maximum PM2.5 concentration for both operation scenarios was $0.04~\mu g/m^3$, occurring at the same receptor that had the maximum cancer risk. The FEIR concluded that the maximum PM2.5 concentration from railroad operations that could affect the project site residents was below the BAAQMD threshold, and this impact was determined to be less than significant. No mitigation was required.

The FEIR included **Mitigation Measure AIR-5a** which would require a properly installed and operated ventilation system with MERV13 air filters to reduce PM2.5 concentrations from DPM mobile sources by approximately 60 percent. As an alternative, the FEIR included **Mitigation Measure AIR-5b**, which would require the reassessment of the potential cancer risk exposures to on-site residential receptors later in the design phase. The FEIR determined that with implementation of **Mitigation Measure AIR-5a** or **Mitigation Measure AIR-5b**, this impact would be less than significant.

Community Health Risk Impacts from Stationary Sources. The FEIR found that the maximum cancer risk at the project site from the nearby stationary sources was 4.8 in 1 million, HI was calculated to be less than 0.01, and the maximum annual PM2.5 concentration was estimated at less than 0.1 μ g/m³. The FEIR found that none of the identified stationary sources exceed the applicable single-source thresholds of 10.0 in 1 million for cancer risk, HI threshold of 1.0, or the threshold of 0.3 μ g/m³ for PM2.5 concentrations. The FEIR concluded that the impact associated with stationary source TAC emissions on the project site receptors would be less than significant. No mitigation was required. The FEIR found that odor associated with emissions of diesel exhaust during construction equipment operation and truck activity may be noticeable from time to time to adjacent receptors. The FEIR concluded that with implementation of BAAQMD-recommended control measures to minimize diesel exhaust emissions, the odor impact from construction-phase emissions would be less than significant. Furthermore, the FEIR concluded that there would be no impact on the new residents related to exposure to odor sources near the project site. No mitigation was required.

Cumulative Impacts

Construction. Construction exhaust emissions associated with the Mission Town Center project were found not to exceed the significance thresholds, and fugitive dust emissions were found to be adequately controlled through implementation of **Mitigation Measure AIR-1**. Therefore, the FEIR concluded that mitigation would reduce the Mission Town Center project's contribution to construction emissions of criteria air pollutants or their precursors to a less than cumulatively considerable level.

With respect to cumulative community health risk impact, the FEIR found that the sum of impacts from combined sources within 1,000 feet of the project site, at the construction maximally exposed individual (MEI), would be below the applicable risk thresholds, and thus impacts were determined to be less than significant.

Operations. The FEIR found that because the proposed project's operational emissions would not exceed the significance thresholds, project emissions of criteria air pollutants or their precursors from operations would not make a considerable contribution to cumulative air quality impacts.

The FEIR found that the sum of impacts from all existing TAC sources within 1,000 feet of the project site would be below the applicable risk thresholds. Therefore, cumulative health risk impact at the project site would be less than significant.

FEIR Mitigation Measures

AIR-1a The construction contractor(s) shall implement the following BMPs during project construction:

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as
 possible and feasible. Building pads shall be laid as soon as possible and feasible after
 grading, unless seeding or soil binders are used.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the Lead
 Agency regarding dust complaints. This person shall respond and take corrective action
 within 48 hours. The Air District's phone number shall also be visible to ensure
 compliance with applicable regulations.
- AIR-1b Implement Mitigation Measures HAZ-2a through HAZ-2d.
- AIR-4a Implement Mitigation Measure AIR-1 to control fugitive dust and on-site construction exhaust emissions.
- AIR-4b Equipment shall be selected during demolition, grading and trenching construction phases to minimize emissions. Such equipment selection would include the following:
 - 1. All diesel-powered off-road equipment larger than 50 horsepower and operating on the site for more than two days continuously shall, at a minimum, meet U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent; and
 - 2. All diesel-powered portable equipment (i.e., air compressors, concrete saws, and forklifts) operating on the site for more than two days shall meet U.S. EPA particulate matter emissions standards for Tier 4 engines or equivalent.
 - 3. As an alternative to measures 1 and 2 above, the construction contractor shall use other measures, or in combination with use of Tier 4 equipment, to minimize diesel particulate matter emissions during construction period, provided such measures reduce the predicted cancer risk below the thresholds and are approved by the City. Any diesel-powered off-road and portable equipment shall meet or exceed emission standards for Tier 2 engines. For example, the construction contractor may use other measures such as the use of alternative powered equipment (e.g., LPG-powered or electric lifts), alternative fuels (e.g., biofuels), added exhaust devices, or a combination of measures.
- AIR-4c The Applicant may choose to reassess the potential off-site cancer risk and PM2.5 concentration exposures to off-site residential receptors later in the design phase, but prior to the start of construction, and prepare a revised HRA using updated receptor

location information and more detailed construction plans and equipment list and submit to the City for review. If the revised HRA demonstrates, to the satisfaction of the City, that the cancer risk and exposure to PM2.5 for all potentially exposed off-site receptors will be less than BAAQMD project-level thresholds, then **Mitigation Measure AIR-4b** is unnecessary. If the revised HRA demonstrates, to the satisfaction of the City, that the cancer risk or exposure to PM2.5 for off-site sensitive receptors will be less than presented in this analysis but still over BAAQMD thresholds, then the mitigation effort may be proportionately adjusted.

AIR-5a The project shall include the following measures to minimize long-term toxic air contaminant (TAC) exposure for new project residences:

- 1. Integrate building design features to limit exposure from sources of TAC and PM2.5;
- 2. Install air filtration in residential buildings. Air filtration devices shall be rated MERV13 or higher. To ensure adequate health protection to sensitive receptors, this ventilation system shall meet the following minimal design standards:
 - a. A MERV13 filter or higher rating;
 - b. At least one air exchange(s) per hour of fresh outside filtered air; and
 - c. At least four air exchange(s) per hour recirculation.
- 3. As part of implementing this measure, an ongoing maintenance plan for the buildings' heating, ventilation, and air conditioning (HVAC) air filtration system shall be required. Recognizing that emissions from air pollution sources are decreasing, the maintenance period shall last as long as significant excess cancer risk are predicted. Subsequent studies could be conducted by an appropriately credentialed environmental professional to identify the ongoing need for the ventilation systems as future information becomes available.
- 4. Ensure that the lease agreement and other property documents (1) require cleaning, maintenance, and monitoring of the residential buildings for air flow leaks; (2) assurance that new tenants are provided information on the ventilation system; (3) provisions that fees associated with leasing a unit(s) in the building include funds for cleaning, maintenance, monitoring, and replacements of the filters, as needed; and (4)

provide information regarding the ventilation/filtration systems and importance of keeping windows and doors closed to maximize the efficiency of the system.

AIR-5b

The Applicant may choose to reassess the potential cancer risk exposures to on-site residential receptors later in the design phase, but prior to occupancy, and to prepare a revised HRA using updated receptor location information and a more detailed assessment of risks associated with rail line operations that accounts for the status of Caltrain electrification at that time and submit to the City for review. If the revised HRA demonstrates, to the satisfaction of the City, that the cancer risk exposures for on-site receptors will be less than BAAQMD project-level thresholds, then **Mitigation Measure AIR-5a** would be unnecessary. If the revised HRA demonstrates, to the satisfaction of the City, that the cancer risk for on-site sensitive receptors will be less than presented in this analysis, but still over BAAQMD threshold, the mitigation effort may be proportionately reduced.

Analysis of the Proposed Project

The proposed project would demolish the existing structures on the approximately 5.75-acre project site and construct a mix of residential and retail uses that would include 355 residential units (including 8 live-work units), 22,064 sf of retail space with 2,364 square feet within the 8 live-work unitsm 5,866 sf amenities, 40,024 sf of public and private recreational areas, 297,161 sf parking garage and site serving infrastructure.

Due to the fewer number of apartment units and smaller construction square footage, with the similar construction duration time, the proposed project's construction emission of criteria pollutants would be less than the emissions that would result from the construction of the Mission Town Center project. Similar to the conclusion of the FEIR, the proposed project's impact associated with construction-period emissions of criteria pollutants would be less than significant. No new mitigation is required.

Similarly, the smaller scale of construction of the proposed project is expected to result in reduced fugitive dust emissions from the Mission Town Center project. The proposed project would incorporate FEIR **Mitigation Measure AIR-1a** and **Mitigation Measure AIR-1b** that would require implementation of the BAAQMD-recommended BMPs. Therefore, similar to the FEIR conclusion, the proposed project's impact associated with construction-period emissions of fugitive dust, PM10 and PM2.5 would be less than significant. No new mitigation is required.

The proposed project would result in reduced emissions of criteria pollutants from mobile sources during operation as there would be approximatively 30 fewer residential units than previously analyzed and a smaller amount of retail space (approximately 4,936 less square footage). As described in **Section 5.15 Transportation and Traffic**, the proposed project would result in 344 fewer vehicle trips than the Mission Town Center project analyzed in the FEIR. The FEIR found that average daily and annual emissions of ROG, NOx, PM10, or PM2.5 emissions associated with operation of the Mission Town Center project would not exceed the significance thresholds. Similar to the FEIR conclusion, implementation of the proposed project would not result in a cumulatively net increase of any criteria pollutant, and this impact would be less than significant. No new mitigation is required.

Similar to the Mission Town Center project, the proposed project would construct a smaller, high-density residential development, with on-site commercial amenities, on an infill site with easy access to transit. It would include pedestrian and bicycle improvements to reduce vehicular trips. Similar to the FEIR conclusions, the proposed project would not conflict with the Clean Air Plan and would be consistent with the Plan Bay Area RTP/SCS and the City of Santa Clara's Climate Action Plan, and this impact would be less than significant. No new mitigation is required.

The proposed project would have a smaller number of apartment units and smaller building square footage than the Mission Town Center project analyzed in the FEIR. Therefore, construction activities and vehicular traffic generated by the proposed project would have the potential to expose sensitive receptors to substantial pollutant concentration of TACs but to a lesser degree than those under the Mission Town Center project. The proposed project would incorporate the FEIR **Mitigation Measures AIR-4a** through **AIR-4c** to reduce pollutant concentration during construction. Similar to the FEIR conclusion, with implementation of the FEIR **Mitigation Measures AIR-4a** through **AIR-4c**, this impact would be reduced to a less-than-significant level. No new mitigation is required.

Community Health Risk Impacts from Local Roadways. The proposed project would place sensitive receptors in the same locations as the Mission Town Center project, resulting in their exposure to TAC and PM2.5 emissions from nearby roadways and other sources. Similar to the FEIR conclusion, cancer health effects and non-cancer health effects on the project community associated with TAC and PM2.5 emissions from El Camino Real and other local roadways would be below the BAAQMD's threshold and would result in a less-than-significant impact. No new mitigation is required.

Community Health Risk Impacts from Railway Sources. Health risk impacts from railway sources on the project site's community would be similar to those identified in the FEIR for the Mission Town Center project. Therefore, community cancer health risk impact from railway emissions would be above the BAAQMD thresholds of 10.0 cases per million, and non-cancer health effects would be lower than the

BAAQMD threshold. Also similar to the FEIR findings, PM2.5 concentration from railroad operations on project site would be below the BAAQMD thresholds. Similar to the FEIR conclusions, with implementation of the FEIR **Mitigation Measure AIR-5a**, or **FEIR Mitigation Measure AIR-5b**, the impact associated with excess cancer risk on the project residents would be less than significant. No new mitigation is required.

Community Health Risk Impacts from Stationary Sources. Health risk impacts on the project site's community from stationary sources would be similar to those identified in the FEIR on the Mission Town Center project. Therefore, similar to the FEIR conclusions, the impact associated with stationary source TAC emissions on the project site receptors would be less than significant. No new mitigation is required.

Similar to the FEIR findings, with implementation of BAAQMD-recommended control measures to minimize diesel exhaust emissions, odor impacts from construction emissions of the proposed project on the receptors near the project site would be less than significant. No new mitigation is required.

Cumulative Impacts

Construction. Similar to the findings of the FEIR, the proposed project would implement FEIR **Mitigation Measure AIR-1** to adequately control fugitive dust emissions, and therefore the project would not make a considerable contribution to cumulative air quality impacts. Similarly, the cumulative community health risk impact would be below the applicable risk thresholds, and therefore impacts would to be less than significant.

Operations. Similar to the FEIR findings, the combined impact from all existing TAC sources within 1,000 feet of the project site would be below the applicable risk thresholds. Therefore, the cumulative health risk impact at the project site would be less than significant.

Changes in Circumstances and/or New Information

Since certification of the FEIR, there have been no changes in circumstances or substantial new information that would alter the conclusions of the FEIR with respect to air quality impacts such that additional environmental review would be triggered.

There have been no other changes in circumstances or substantial new information that would alter the conclusions of the FEIR with respect to air quality impacts such that additional environmental review would be triggered. In May 2017, the BAAQMD updated the CEQA Air Quality Guidelines in light of the final California Supreme Court ruling in BAAQMD v. CBIA. The updated guidelines summarize the relevant portions of the California Supreme Court decision with regard to "Receptor Thresholds" and

note that under appropriate circumstances, as set forth by the Supreme Court, the receptor thresholds may be used by lead agencies to evaluate impacts of the environment on the project receptors. The updated guidelines are unchanged in all other respects, and do not contain any revised thresholds of significance or methodologies for evaluation of the environmental impacts of a proposed project.

Findings

The potential air quality impacts of the proposed project would be less than significant and the project would not increase the severity of the previously reported air quality impacts in the FEIR. The potential air quality impacts of the proposed project are adequately analyzed in the FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those analyzed in the FEIR. No new mitigation is required.

5.4 BIOLOGICAL RESOURCES

		Potentially Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impacts Fully Analyzed in the FEIR
BIG	DLOGICAL RESOURCES - Would the project:				
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, regulations or by the California Department of Fish and Game or U.S. 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 native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				
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 Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				

Summary of Analysis in the FEIR

The FEIR found that no special-status plant species have potential to occur on the project site. Similarly, no special-status wildlife species have potential to occur on the project site because no natural habitats

remain on the site or in its vicinity. The FEIR determined that there is potential for construction-related impacts to nesting birds, protected under the Migratory Bird Treaty Act (MBTA) and/or the California Fish and Game Code, if trees or structures containing active nests are removed, pruned, or otherwise disturbed during the breeding season (February 1 through August 31). Additionally, loud noise associated with construction activity has the potential to disturb nesting occurring in close proximity of the construction site and result in the abandonment of an active nest. To reduce the impacts on special-status birds and non-special status birds protected under the MBTA and California Fish and Game Code, the FEIR included **Mitigation Measure BIO-1**, which would reduce the impact to a less-than-significant level.

The FEIR found that no riparian habitat or other sensitive natural community is present on the project site. In addition, no wetlands or other waters subject to jurisdiction by the United States Army Corps of Engineers, Regional Water Quality Control Board or California Department of Fish and Wildlife occur on the project site. However, the FEIR found that the net new daily vehicle trips (approximately 1,725 trip) that would be generated by the Mission Town Center project would result in the release of nitrogen into the atmosphere. The increase in nitrogen could have a negative effect on the dwarf plantain found in serpentine grassland habitat, which is essential for Bay checkerspot butterfly populations. Loss of host plants and nectar sources due to nonnative grass invasions could lead to a rapid decline and eventual extinction of the populations. This rare land cover type is not found at the project site and the closest Bay checkerspot butterfly populations to the project site are in the Santa Teresa hills, (approximately nine miles from the project site) and on Coyote Ridge (approximately 12 miles south of the project site). The FEIR determined that the project site is well outside known and suspect Bay checkerspot butterfly habitat. The FEIR concluded that the Mission Town Center project would not result in direct impacts on the species or its habitat. Moreover, given the distance of the project site from the serpentine soil habitats targeted for conservation and the insignificant contribution that Mission Town Center project would make to the hundreds of thousands of vehicle trips (existing, planned, and future) in the more immediate vicinity of the habitat that may contribute to changes in the chemical makeup of the soil, the FEIR concluded that the proposed project alone would not have a significant impact on Bay checkerspot butterfly habitat.

The FEIR determined that the project site is bordered on all sides by development, does not provide habitat connectivity between undeveloped lands and is not part of a regional wildlife movement corridor. Therefore, the FEIR concluded that there would be no impact to wildlife movement from the implementation of the Mission Town Center project.

The FEIR found that none of the 26 existing trees on the project site is listed as a Heritage Tree in the General Plan, and none of the trees are cedars, redwoods, oaks, olives, bay laurel and pepper trees, the species specifically identified for protection in General Plan Policy 5.10-1-P4. The FEIR found that of the 26 trees, 11 trees on the project site meet both the trunk circumference and health criteria in General Plan Policy 5.10-1-P4. The FEIR determined that because the Mission Town Center project would include planting 256 trees which would exceed the requirement contained in the City's General Plan, it would not conflict with applicable policies protecting biological resources. In addition, the loss of habitat for common bird species and urban wildlife provided by the site trees would be compensated by the replacement trees and landscaping that would be provided as part of the Mission Town Center project. The FEIR concluded that this impact would be less than significant. No mitigation was required.

The FEIR found that the project site is not located within the portion of Santa Clara County that is covered by the Santa Clara Valley Habitat Conservation Plan (HCP)/Natural Community Conservation Plan (NCCP). The FEIR concluded that the Mission Town Center project would not result in any conflicts with an HCP/NCCP, or other conservation plan. No mitigation was required.

FEIR Mitigation Measures

BIO-1

For the protection of special status bird species and birds species protected by the Migratory Bird Treaty Act and Fish and Game Codes, project activities shall occur during the non-breeding bird season to the extent feasible (September 1 through January 31). However, if vegetation removal, grading, demolition of structures, or initial ground-disturbing activities must occur during the breeding season (February 1 through August 31), a survey for active bird nests shall be conducted by a qualified biologist no more than 14 days prior to the start of these activities. The survey shall be conducted in a sufficient area around the work site to identify the location and status of any nests that could potentially be affected by project activities.

If active nests of protected species are found within project impact areas or close enough to these areas to affect breeding success, a work exclusion zone shall be established around each nest by a qualified biologist. Established exclusion zones shall remain in place until all young in the nest have fledged or the nest otherwise becomes inactive (e.g., due to predation). Appropriate exclusion zone sizes vary dependent upon bird species, nest location, existing visual buffers and ambient sound levels, and other factors; an exclusion zone radius may be as small as 50 feet (for common, disturbance-adapted species) or as large as 250 feet or more for raptors. Exclusion zone size may also be reduced from established levels if supported with nest monitoring by a qualified

biologist indicating that work activities outside the reduced radius are not adversely impacting the nest.

Analysis of the Proposed Project

Similar to the FEIR findings, construction activities of the proposed project would have the potential to impact nesting birds present on the project site and in close proximity. The proposed project would incorporate FEIR **Mitigation Measure BIO-1** to reduce the impact on nesting birds. Similar to the FEIR conclusion, with this mitigation, the proposed project's impact on nesting birds would be less than significant. No new mitigation is required.

Although the proposed project would result in a smaller number of vehicle trips than the Mission Town Center project, the increase in net new daily vehicle trips could impact the habitat of the Bay checkerspot butterfly. However, similar to the Mission Town Center project, the closest area where this habitat is present is approximately nine miles from the project site. Therefore, similar to the FEIR conclusion, the proposed project would not have a significant impact on Bay checkerspot butterfly habitat.

The proposed project includes planting 320 trees, approximately 64 more trees than those included in the Mission Town Center project. Therefore, the proposed project would exceed the General Plan's requirement and would not conflict with applicable policies protecting biological resources. Similar to the FEIR conclusion, the proposed project's impact would be less than significant. No new mitigation is required.

Changes in Circumstances and/or New Information

Since certification of the FEIR, there have been no changes in circumstances at the project site or any new substantial information that would alter the conclusions of the FEIR with respect to biological resource impacts such that additional environmental review would be triggered.

Findings

The potential biological resource impacts of the proposed project would be comparable to those analyzed in the FEIR. For reasons stated above, the proposed project's potential impacts related to biological resources would be less than significant with the incorporation of FEIR **Mitigation Measure BIO-1**, discussed above. The potential biological impacts of the proposed project are adequately analyzed in the FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in the FEIR. No new mitigation is required.

5.5 CULTURAL RESOURCES

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
CULTURAL RESOURCES - Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?				\boxtimes
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?				
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?				
d) Disturb any human remains, including those interred outside of formal cemeteries?				

Summary of Analysis in the FEIR

The FEIR found that of the 13 buildings located on the project site, 11 buildings were not eligible for listing as historical resources under either the criteria of the California Register of Historical Resources (California Register) or the City of Santa Clara Criteria of Local Significance.

Two remaining single-homes at 3370 The Alameda and 3410 The Alameda were found to meet the City of Santa Clara's Criteria for Local Significance, and the home at 3370 The Alameda was found to be also individually eligible for the California Register. Since the two houses at 3370 The Alameda and 3410 The Alameda was originally proposed to be demolished as part of the Mission Town Center project, the FEIR determined that demolition of the buildings would represent a significant impact on historical resources. The FEIR also determined that although the project site is within the Santa Clara grid, the section of the grid on the project site has been altered and filled in by modern development, and therefore has been determined as not a historical resource eligible for the California Register or the City of Santa Clara Criteria of Local Significance.

The FEIR included **Mitigation Measures CUL-1a through 1d** to reduce impacts on the two historical houses. The FEIR concluded that with implementation of FEIR **Mitigation Measures CUL-1a**, which requires relocating the two historical houses to an appropriate location, the impact would be reduced to a

less-than-significant level and further mitigation would not be required. In the event that moving the two homes was determined to be infeasible, the FEIR concluded that **Mitigation Measures CUL-1b through CUL-1d**, alone or in combination, shall be implemented which would help reducing the impact but would not mitigate it to a less than significant level and the impact of the Mission Town Center project on historical resources was determined to remain significant and unavoidable.

The FEIR found that on-site and off-site ground disturbing activities associated with the Mission Town Center project would directly or indirectly affect known archaeological resources —including Pre-Colonial human burials, Spanish Colonial Era archaeological resources, and Late Mexican and American Period archaeological resources— as well as currently unknown archaeological resources. The FEIR found that the southern and northeastern portions of the project site are considered highly sensitive for buried archaeological resources, whereas the remainder of the site is considered less sensitive for archaeological resources. The FEIR included **Mitigation Measures CUL-2a** and **CUL-2b** to avoid and minimize impacts to any significant pre-historic, Spanish Colonial era, and American Period archaeological resources, including human remains that could be encountered during construction of the Mission Town Center project. The FEIR concluded that impacts on known and unknown significant archaeological resources would be reduced to a less than significant level with mitigation incorporated.

The FEIR found that alluvial fan deposits that underlie Santa Clara are generally not considered sensitive for paleontological resources, and the site has been extensively disturbed in the past. The FEIR concluded that it would be improbable to discover paleontological resources at the project, and this impact was determined to be less than significant. **Cumulative Impacts**

The FEIR found that in the event the two houses are successfully relocated pursuant to **Mitigation**Measure CUL-1a, the Mission Town Center project's contribution to cumulative impacts on historical architectural resources would not be cumulatively considerable. However, if they cannot be relocated and are demolished, even with the implementation of **Mitigation Measure CUL-1b**, the FEIR found that the Mission Town Center project's contribution to the cumulative impact on historical architectural resources would be cumulatively considerable, and the impact would be significant and unavoidable.

The FEIR found that anticipated future developments in the project area as well as in other portions of the City of Santa Clara would be subject to environmental review and required by state law to implement mitigation measures that avoid or substantially lessen potentially significant impacts to cultural resources. In addition, the FEIR concluded that with mitigation, contribution of the Mission Town Center project to cumulative impacts on archaeological resources in the City of Santa Clara or the broader region would not be cumulatively considerable.

FEIR Mitigation Measures

CUL-1a

If feasible, the houses at 3410 and 3370 The Alameda shall be moved to a different location appropriate to their historic character, preferably within the Santa Clara historic quad or grid, or other appropriate setting as determined by the City of Santa Clara Planning Department prior to relocation of the building. The project applicant has agreed to pay for the relocation costs. However, a recipient site may not be available and hence relocation may not be feasible.

CUL-1b

If relocating either of the two buildings is determined to be infeasible, the salvage of materials and features of the buildings located on this parcel is recommended. Representatives of the Santa Clara Planning Department, the Santa Clara Historical Commission, the other citizen groups and parties interested in historical resources shall be given the opportunity to examine the buildings and provide suggestions for salvaging and relocating elements of the buildings. The project impact will be reduced commensurate with the percentage of the existing buildings that can be incorporated into the design for any new buildings on site or in other buildings in Santa Clara, or otherwise preserved.

CUL-1c

If relocating either of the two buildings is determined to be infeasible, historic documentation of the two houses shall be completed prior to salvage or demolition. This documentation shall be according to the Outline Format described in the Historic American Buildings Survey Guidelines for Preparing Written Historical Descriptive Data (Pacific Coast Basin Regional Office, U.S. National Park Service, 1993) and the Photographic Specifications – Historic American Building Survey (U.S. National Park Service, 1989). The documentation, with original photo prints and negatives, should be placed in an historical archive or history collection accessible to the general public (such as the Santa Clara Main Library History Pavilion).

CUL-1d

If relocating either of the two buildings is determined to be infeasible, a public exhibit/education program to present interpretive information on the early residential development and architecture of the project area and vicinity shall be prepared by the Applicant. The exhibit shall be placed on site, at the Santa Clara Historic Museum in the Headen-Inman House, or other appropriate venue in Santa Clara, as determined by the City of Santa Clara Planning Department prior to placement of the public exhibit/education program.

Cultural Resources Treatment Plan: The Treatment Plan (presented in Appendix 4.2) will be implemented by the Applicant to mitigate the project's potentially significant impacts on archaeological resources that are encountered during project site excavation and grading. The Treatment Plan identifies a series of specific measures for areas of sensitivity within the project site, and construction monitoring for the remainder of the project site. Key aspects of the Treatment Plan are summarized below; refer to Appendix 4.2, Cultural Resources Treatment Plan, pages 122 through 143, for the complete Treatment Plan that shall be implemented.

Mitigation for Less Sensitive Areas

Construction Monitoring during Ground Disturbance. Areas not known to be sensitive shall be monitored by a trained archaeologist during ground disturbing activities. Archaeological monitors shall observe all initial grading within the northeast portion of the project site. If archaeological materials are found, all work within 50 feet of the find shall stop. The monitor and the archaeological team shall conduct a rapid significance assessment as described below. If the archaeologist determines that an archaeological feature is significant under CEQA, the feature shall be subject to data recovery mitigation to reduce adverse impacts to less than significant. Data recovery, if undertaken, will follow the procedures for excavation, analysis, and reporting defined in the Treatment Plan and set forth below.

Mitigation for Areas of Sensitivity

The Treatment Plan requires that an archaeological team shall be given access to conduct mechanical excavation in "open spaces" within the area of sensitivity, including parking lots, back yards, and access ways. Then after demolition permits are awarded, an archaeological team shall be given access to conduct mechanical excavation and examine areas of sensitivity underneath existing structures.

The key elements of the Treatment Plan for sensitive areas are summarized below:

A. Excavation and Evaluation of Pre-Colonial Era Resources

1. <u>Mechanical Excavation</u>. A mechanical trenching program in conjunction with the screening of soils shall be implemented to investigate the presence of previously unidentified buried Pre-Colonial deposits within the project site. Between 3 and 5 trenches shall be excavated within the project parcel. These trenches shall measure 2

CUL-2a

meters in length and be excavated to Native soil, unless an archaeological feature is encountered prior to reaching Native soil. Excavation shall involve a backhoe equipped with a 46 cm flat-bladed bucket.

2. <u>Evaluation of Significance</u>. If no Pre-Colonial archaeological deposits are encountered during mechanical excavation, or are found in disturbed contexts, no further action is required. If intact archaeological deposits are encountered, additional archaeological excavation shall be required to evaluate the site in accordance with CEQA Guidelines Section 15064.5(c), and if needed, implement appropriate mitigation measures as set forth in the Treatment Plan.

If intact Pre-Colonial deposits are encountered during mechanical excavation, excavation of 1 to 2 Surface Transect Units (STUs) of 1 x 0.5 meters in size shall be conducted in each identified site or area of intact deposit to assess the spatial extent and structure of the subsurface deposits. Archaeologists shall dry screen all materials using 1/8 inch mesh and identify and map all encountered features. A 2-liter soil sample shall be retained for flotation and paleobotanical analysis.

Determining the significance of Pre-Colonial resources shall be guided by CEQA. In case of Pre-Colonial resources, however, the majority of significance assessments typically falls under Criterion D ([Section 15064.5 (a) (3) of the CEQA Guidelines]), where an archaeological site or resource will be considered significant, if it can be demonstrated that it has the potential to contribute important information pertinent to prehistory or history. Based on previous research in the area, the archaeological resources that will likely be encountered include midden sites, lithic scatters, burial complexes or cemeteries, residential sites, and isolates.

3. If and when any of these resources are encountered at the project site, they will first be assessed for integrity. In most cases, once a positive integrity has been established, the Pre-Colonial resource is considered significant, at least for evaluation purposes. This does not mean, however, that the resource is necessarily significant under National Register or California Register of Historic Places. Nor does it mean that one hundred percent of the site or resource will necessarily be sampled. Sampling strategies are typically employed at this juncture. Moreover, these methods need to be agreed upon by the archaeologist, property owner, City, and other specified parties in accordance with CEQA mitigation requirements and established practices.

4. Additional Archival Research. While historic documents are very useful for predicting what kinds of cultural properties may be encountered, it is rare that initial pre-field research covers all land uses within a specific area. Some activities are unreported or under-reported. For this reason, if currently unknown or unidentified cultural resources are identified during excavation, additional archival research may be conducted during and after the fieldwork phase when necessary to characterize the resources identified.

B. Excavation and Evaluation of Historic Era (Spanish Colonial and American) Resources

- 1. Mechanical Excavation/Monitoring. A trained archaeological monitor shall direct mechanical excavation of selected regions within the project site. Monitoring shall occur after demolition but before construction grading in specific areas within the project that are determined to be the most sensitive based on background research. Mechanical excavation shall be executed using a flat-bladed bucket and removing soils in increments of 2 to 5 inches, to the depth of historic cultural features, or native subsoil, whichever comes first.
- 2. Evaluation of Significance. If any unknown or unidentified historic era resources are discovered during mechanical excavation, all work within 50 feet of the find shall stop, and each resource shall be assessed in accordance with CEQA Guidelines Section 15064.5(c). Each archaeological resource shall be evaluated relative to a number of criteria. For historic era archaeological resources, these criteria include: (1) integrity of the resource, (2) historic context, in space and time, (3) data potential of the archaeological resource, and (4) relevance to proposed research themes.4 In each category, several subcategories are given a point value. Each archaeological resource will be assigned a score within each of these categories by the project Archaeologist. The total points assigned will be a general estimate of the resource significance under CEQA Criteria A, B, and/or D. The higher the score, the more likely a resource would be determined to be significant/historic resource. If a resource has integrity, good archaeological data potential, and can contribute to research themes as set forth in the Treatment Plan, it will be determined significant under CEQA Criteria A, B, and D.
- 3. <u>Additional Archival Research</u>. Research in available Spanish Colonial Mission period documents may be warranted to determine the significance of currently unknown

historic era resources encountered during project construction, in accordance with CEQA Guidelines Section 15064.5(c). Additional research may be warranted regarding the Early American settlement of the blocks. This may include investigation of parcel ownership records, personal histories of significant persons, or further investigation of population trends, such as neighborhood ethnicity, ethnic succession, labor patterns, or economic conditions.

C. Preservation Plan or Data Recovery for Pre-Colonial and Historic Era Archaeological Resources

C.1. Preservation Plan for Pre-Colonial and Historic Era Archaeological Resources

In portions of the project site where subsurface ground disturbance activities would not occur at a depth that could disturb the identified archaeological resource, the following conservation measures shall be implemented individually or in conjunction with each other to preserve the resource in place.

- Monitoring the resource to ensure that it is not inadvertently disturbed
- Covering the resource with water-permeable construction grade filter fabric
- Layering visible slurry sand over the resource
- Marking the feature with a permanent tag identifying the date, project and feature number

The GPS based location and shape of the resource shall be identified on project as-built drawings to insure that they would be known to facility managers and those managing the property for the life of the project.

C.2. Data Recovery Plan for Pre-Colonial and Historic Era Archaeological Resources

A. Data Recovery for Pre-Colonial Resources

Data recovery shall be completed in coordination with the remediation of any contaminated media to assure safe and appropriate management of recovered materials.

<u>Midden and Residential Sites</u>. These sites are anticipated to be the most structurally complex and have the greatest artifact diversity of all the resource types. Data recovery

shall be conducted in contexts deemed significant and that have the potential to meet data requirements and research themes outlined in the Treatment Plan. The data recovery program may include any combination of hand excavation techniques in order to recover the appropriate amount of information to fully address research questions outlined in the Treatment Plan.

<u>Lithic Scatters</u>. Lithic scatters are usually limited to formed tools and tool manufacturing debris, or what is termed "debitage." Archaeological testing and data recovery methods will be implemented. Field documentation will include mapping, level record forms, wall profiles, and photography.

<u>Isolated Finds</u>. Isolated finds are three or fewer artifacts that occur within a restricted spatial context. Information potential is usually limited to location, material type, style, and function of the individual artifact. Isolated artifacts would be collected, and their location mapped using GPS or other mapping techniques. Artifacts would be processed in the laboratory along with other collected cultural materials.

<u>Burial Complexes/Cemetery</u>. Burial features can range in complexity from a simple isolated inhumation to more elaborate interments, or formal cemeteries, containing numerous bodies. Where appropriate, and based upon Native American consultation conducted under the authority of Senate Bill 18, these features shall be hand excavated for complete removal. This effort may include mapping, photography, removal, and packaging pending the decision of the Applicant and the Most Likely Descendent (MLD) for disposition of the remains.

B. Data Recovery for Historic Era Resources

<u>Architectural Features</u>. If architectural features such as structural remains such as foundations, wall footings, basement walls, and floor remnants are identified, they shall be recorded through photography, drawings, and GPS data. American period architectural features with corroborated historical data would not be mitigated beyond those documentary efforts. If determined to be of the Spanish-Mission Period, the feature shall be divided in half or into quadrants, and excavated by natural stratigraphy.

<u>Infrastructure Features</u>. If infrastructure features are identified, they shall be recorded through photography, drawings, and GPS data. Infrastructure features with corroborated

historical data would not be further mitigated beyond those documentary efforts. However, diagnostic artifacts may be collected.

<u>Agricultural Features</u>. If agricultural features are identified, the feature shall be recorded through photography, drawings, and GPS data. Agricultural features that do not also contain a refuse component would not be mitigated beyond those documentary efforts. However, diagnostic artifacts may be collected.

Refuse Features. Refuse features are the most common expected historic property type, and include pits, privies, and wells. If encountered and determined to be significant, features shall be divided in half or into quadrants, and excavated by natural stratigraphy. The Field Director shall assign new context numbers as each stratigraphic layer and soil type is encountered. Descriptions of each context shall include Munsell color descriptions, texture, natural and cultural inclusions, depths below datum, thickness, and contacts between strata. Technicians shall take photographs at the start of each new context as it is encountered in the field.

<u>Industrial Process Features</u>. Industrial property types for the project site are expected to include features associated with 19th century warehouse facility and railroad-related structures. If industrial features are identified, and are determined to be in contaminated soils, photography and GPS data shall be collected at a safe distance. If determined to be non-hazardous, the feature shall be recoded through photography, drawings, and GPS data. Industrial features would not be mitigated beyond those documentary efforts. However, diagnostic artifacts may be collected.

<u>Ceremonial</u>. Ceremonial sites are where people intentionally buried their dead. Burial sites range from isolated burials in shallow holes to elaborate interments, such as whole cemeteries that may possess numerous bodies. Where appropriate and based upon Native American consultation conducted under the authority of Public Resources Code 5097.9, these features shall be hand excavated for complete removal. This effort may include mapping, photography, removal, and packaging pending the decision of the Applicant and the Most Likely Descendent (MLD) for disposition of the remains.

C. Laboratory Studies

All Pre-Colonial and Historic-Era archaeological resources and human remains shall be evaluated at a cultural resources laboratory. Resources recovered during excavation will be evaluated by following the protocol for washing, sorting, labeling, carbon dating, and other routine analyses. The resulting analytical information shall then be recorded in a computer database.

D. Curation

Upon completion of laboratory analysis, the Applicant or designee shall cause materials for curation to be placed in archival quality, long-term storage packing materials, including acid-free boxes, inert polyethylene plastic bags, and acid-free paper labels. Certain materials that do not have long-term research or interpretive value may be discarded after documentation. All curation methods shall meet current professional standards and will follow to the extent feasible the guidelines set forth in 36CFR79, Curation of Federally owned and Administered Collections. Documentary materials, such as progress reports, photographs, computer disk files, field notes, and other pertinent records must be permanently stored with the artifact collections. The land owner or designee shall make every reasonable effort to make the collection available to scholars and access shall be based on a written and accepted request.

E. Public Interpretation

The Secretary of the Interior's Standards for Archaeological Documentation encourages public interpretation of archaeological data where merited by the findings. There is a high probability for recovering resources within the project site that have the potential for expanding the public's understanding of the establishment of and life in Mission Santa Clara, the transformation of the mission to an important Mexican and later American settlement in the first years of statehood, and the development of commercial agricultural interests in the second half of the nineteenth century.

The Applicant shall participate in the historical interpretation effort in one or more of the following ways.

- The Applicant shall make all curated materials, documents, maps, photographs, and reports available to historical societies, museums, and libraries for use in interpretive displays and programs.
- The Applicant will develop interpretive outdoor signage in public spaces at the project site, which will describe both the importance of the project parcel in the history of Santa Clara, and the findings of the archaeological data recovery program.

 The Applicant shall create similar interpretive displays in interior spaces in the project structures.

CUL-2b Discovery of Human Remains

The treatment of human remains and of associated or unassociated funerary objects discovered during any soil-disturbing activity within the project site shall comply with applicable State laws. This shall include immediate notification of the Santa Clara County Medical Examiner and the City of Santa Clara.

In the event of the coroner's determination that the human remains are Native American, notification of the Native American Heritage Commission is required, who shall appoint a Most Likely Descendant (MLD) (Public Resources Code Section 5097.98).

The Applicant, archaeological consultant, and MLD shall make all reasonable efforts to develop an agreement for the treatment, with appropriate dignity, of human remains and associated or unassociated funerary objects (CEQA Guidelines Section 15064.5(d)). The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. The California Public Resources Code allows 48 hours to reach agreement on these matters. If the MLD and the other parties do not agree on the reburial method, the project will follow Public Resources Code Section 5097.98(b) which states that "the landowner or his or her authorized representative shall reinter the human remains and items associated with Native American burials with appropriate dignity on the property in a location not subject to further subsurface disturbance."

Analysis of the Proposed Project

The proposed project would preserve the two historical homes on the project site by keeping the single-family home at 3410 The Alameda in place, and relocating the single-family home at 3370 The Alameda to a location on the project site adjacent to the home at 3410 The Alameda. Relocation of the single-family home at 3370 The Alameda would be in compliance with the California Historical Building Code (CHBC) (as set forth in Sections 18950 to 18961 of Division 13, Part 2.7 of Health and Safety Code and as subject to the rules and regulations set forth in 24 CCR Part 8) . Therefore, FEIR **Mitigation Measures CUL-1a** through **CUL-1d** would not apply, because the proposed project would not demolish or relocate the

historical homes off site. With the preservation of both historical homes on site, the proposed project's impact on historical resources would be less than significant. No new mitigation is required.

Similar to the FEIR findings, ground disturbing activities associated with the proposed project have the potential to affect known and unknown archaeological resources. FEIR **Mitigation Measures CUL-2a** and **CUL-2b** would be incorporated into the proposed project to avoid or minimize impacts to any significant Spanish Colonial era, and American Period archaeological resources, including human remains to a less-than-significant level. No new mitigation is required.

Similar to the FEIR conclusion, the project site is not considered sensitive for paleontological resources and the proposed project's impact on these resources would be less than significant.

Cumulative Impacts

The proposed project would preserve the two historical homes on the project site. Therefore, the proposed project's contribution to cumulative impacts on historical architectural resources would not be cumulatively considerable. No new mitigation is required.

Similar to the Mission Town Center project analysis, the proposed project's contribution to cumulative impacts on archaeological resources would not be cumulatively considerable. No new mitigation is required.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to cultural resources have come into effect since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to environmental impacts such that additional environmental review would be triggered.

Findings

For reasons stated above, the proposed project's potential impacts related to cultural resources would be similar to or less than the impacts of the Mission Town Center project analyzed in the FEIR. No new or substantially increased significant cultural resource impacts would result from the proposed project beyond those analyzed in the FEIR. No new mitigation is required.

5.6 GEOLOGY AND SOILS

		Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
GE	OLOGY AND SOILS - Would the project:				
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 or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.				\boxtimes
ii)	Strong seismic ground shaking?				\boxtimes
iii)	Seismic-related ground failure, including liquefaction?				\boxtimes
iv)	Landslides?				\boxtimes
b)	Result in substantial soil erosion or the loss of topsoil?				\boxtimes
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 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?				
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?				

Summary of Analysis in the FEIR

The FEIR found that the project site is not located in an Alquist-Priolo Earthquake Fault Zone, and no known active or potentially active faults exist on site. Therefore, the FEIR determined that the risk of fault rupture on the site from a known active fault is low. However, the FEIR found that the project site is located within a state-designated Liquefaction Hazard Zone as well as a Santa Clara County Liquefaction

Hazard Zone. Furthermore, the site could be subject to differential settlement in the event of a seismic event. The FEIR determined that the effects of seismic ground shaking, liquefaction, and differential settlement would be reduced by adhering to 2013 California Building Code (CBC) and seismic design parameters. Furthermore, the FEIR found that the potential for seismically induced landslides to affect the project site is considered very low since the project site is situated on flat land. The FEIR concluded that the Mission Town Center project would have a less than significant impact with regard to seismic hazards.

Implementation of the Mission Town Center project would require grading and other earthmoving activities, which could subject exposed soils to erosion by water or wind. The FEIR determined that the Mission Town Center project would disturb more than 1 acre, and therefore would require coverage under the state's National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity (NPDES Construction General Permit) prior to construction. The construction contractor would be required to file a notice of intent (NOI) with the State Water Resources Control Board and develop and implement a site-specific Storm Water Pollution Prevention Plan (SWPPP). The FEIR concluded that with the implementation of Best Management Practices (BMPs) to control on-site erosion and off-site sedimentation in compliance with the NPDES requirements, impacts related to accelerated erosion and sedimentation would be to be less than significant. In addition, erosion potential would be low upon completion of construction because all disturbed areas would be covered by buildings, pavement, and landscaping.

Based on the geotechnical investigation, the FEIR determined that soils at the project site are characterized by a moderate potential for expansion. The FEIR concluded that with adherence to the 2013 CBC, which includes the requirements related to construction on expansive soils, the effect related to expansive soils would be less than significant.

The FEIR found that excavated (cut) slopes during construction could be unstable and subject to failure over the short term if they are improperly designed or implemented. The FEIR concluded that design and construction of the Mission Town Center project in accordance with the current CBC, which includes provisions that specifically address good grading practices and cut and fill slope stability would reduce impacts related to unstable cut or fill slopes to a less-than-significant level.

The FEIR determined that the Mission Town Center project would have no impact related to septic tanks, because the project site is currently urbanized and sewers are available for the disposal of wastewater.

Analysis of the Proposed Project

The proposed project would adhere to the latest CBC code (2016 CBC that went into effect on January 1, 2017) and seismic design parameters to reduce the effects of seismic ground shaking, liquefaction, and differential settlement. Similar to the FEIR conclusion, the proposed project would have a less-than-significant impact with regard to seismic hazards. No new mitigation is required.

Similar to the Mission Town Center project analyzed in the FEIR, the proposed project would disturb more than 1 acre and would require coverage under the NPDES Construction General Permit. The proposed project would implement the BMPs to control on-site erosion and off-site sedimentation in compliance with the NPDES requirements. Therefore, similar to the FEIR conclusion, the proposed project's impact related to erosion and sedimentation would be less than significant. No mitigation is required.

The proposed project would adhere to the CBC requirements for expansive soils. Therefore, similar to the FEIR conclusion, the proposed project's impacts associated with expansive soils would be less than significant. In addition, design and construction of the proposed project would be in accordance of CBC provisions for grading activities and cut and fill slope stability. Therefore, similar to the FEIR conclusion, the proposed project's impact related to stability of cut or fill slopes would be less than significant. No mitigation is required.

Similar to the FEIR findings, the proposed project would have no impact related to septic tanks, because the project site is currently urbanized and connected to the City's wastewater system.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to geology and soils have come into effect since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to environmental impacts such that additional environmental review would be triggered.

Findings

The potential geological impacts of the proposed project are similar to those analyzed in the FEIR. For reasons stated above, the proposed project's potential impacts related to geology and soils would be less than significant. The potential impacts of the proposed project associated with geology and soils are

adequately analyzed in the FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in the FEIR. No new mitigation is required.

5.7 GREENHOUSE GAS EMISSIONS

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impacts Fully Analyzed in the FEIR
GREENHOUSE GAS EMISSIONS - Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
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 gases?				

Summary of Analysis in the FEIR

Construction Emissions

The FEIR found that construction of the Mission Town Center project would emit a total of 1,315 metric tons of carbon dioxide equivalent (MTCO2e) over the duration of project construction or an average of approximately 526 MTCO2e per year. The FEIR found these emissions to be less than the emissions that would result in 2019 if the existing buildings were to remain and continue to be occupied (baseline emissions) and also to be half of the BAAQMD's bright-line operational threshold of 1,100 MTCO2e/yr. The Mission Town Center project would have to comply with the City's municipal code, which requires recycling or reuse of at least 50 percent of construction waste or demolition materials and the use of local sources for at least 10 percent of the building materials. Based on these factors, the FEIR concluded that construction-phase GHG emissions of the Mission Town Center project would be less than significant. No mitigation is required.

Operational Emissions

Based on household size information obtained from the Department of Finance for the City of Santa Clara, the FEIR assumed that future service population of the Mission Town Center project would be 2.69 persons per household, and one (1) employee per 400 square feet of retail space. With 385 apartment

units and 31,000 leasable square feet, the FEIR found that the Mission Town Center project would result in 1,036 residents and 78 workers. The Mission Town Center project's operational GHG emissions were calculated to be approximately 3,180 MTCO2e/yr, with a net increase of approximately 2,328 MTCO2e/yr. The FEIR found that both the per capita operational emissions of 2.9 MTCO2e/yr and the per capita net increase in operation emissions of 2.1 MTCO2e/yr would be below the per capita threshold of 4.6 MTCO2e/yr. As a result, the FEIR concluded that the Mission Town Center project would not generate GHG emissions that would have a significant impact on the environment. No mitigation is required.

The FEIR found that the Mission Town Center project would be consistent with all applicable goals and measures in the Santa Clara Clean Air Plan. In addition, the Mission Town Center project would increase housing and create jobs in the region and create a mixed-use community with nearby transportation. Therefore, the FEIR found that the Mission Town Center would support Goals One, Two, and Three of the Plan Bay Area (the region's RTP/SCS) adopted in 2013.

The FEIR found that the per capita GHG emissions of the Mission Town Center project would be below the BAAQMD efficiency threshold for project-level GHG emissions. In addition, the FEIR found that the Mission Town Center project would include energy-reducing factors and numerous features to promote travel by alternate means and reduce vehicular travel and associated GHG emissions. The FEIR concluded that the Mission Town Center project would be in compliance with AB 32. The FEIR determined that the Mission Town Center project would not conflict with any plans, policies, or regulations for reducing GHG emissions, and the impact would be less than significant. No mitigation is required.

The FEIR stated that the discussion of GHG emissions is cumulative in nature. As discussed above, the Mission Town Center project would result in less-than-significant impacts related to GHG emissions, and its contribution to the cumulative impact would not be cumulatively considerable. Therefore, the cumulative impact would be less than significant. No mitigation is required.

Analysis of the Proposed Project

Construction Emissions

The proposed project would demolish the existing structures on the approximately 5.75-acre project site and construct a mix of residential and retail uses that would include 355 residential units (including 8 live-work units), 22,064 sf of retail space with 2,364 square feet within the 8 work-live units, 5,866 sf amenities, 40,024 sf of public and private recreational areas, 297,161 sf parking garage and site serving infrastructure.

Due to the smaller number of apartment units and smaller square footage of building space to be constructed, the proposed project's construction emissions would be less than those estimated for the Mission Town Center project. In addition, the proposed project would comply with the City's municipal code, which requires recycling or reuse of at least 50 percent of construction waste or demolition materials and the use of local sources for at least 10 percent of the building materials. Therefore, similar to the FEIR conclusions, the GHG emissions during the construction phase of the proposed project would be less than significant. No new mitigation is required.

Operational Emissions

Because of the smaller number of apartment units and smaller overall project size, the proposed project's operational GHG emissions would be less than those that would result from the operation of the Mission Town Center project. Therefore, similar to the FEIR findings, the per capita operational emissions and the per capita net increase in operation emissions due to the proposed project would be below the per capita threshold of 4.6 MTCO2e/yr. Similar to the FEIR conclusions, the proposed project would not generate GHG emissions that would have a significant impact on the environment. No new mitigation is required.

Similar to the Mission Town Center project analyzed in the FEIR, the proposed project would develop the project site with a mixed-use community near transit facilities, and would include energy-reducing factors and numerous features to promote travel by alternate means and reduce vehicular travel and associated GHG emissions. Therefore, similar to the FEIR conclusions the proposed project would be consistent with all applicable goals and measures in the Santa Clara Clean Air Plan. In addition, the proposed project would support Goals One, Two, and Three of the Plan Bay Area, would comply with AB 32, and would not conflict with any plans, policies, or regulations for reducing GHG emissions. Therefore, the proposed project's project impact related applicable GHG plan, policy or regulation would be less than significant. No new mitigation is required.

Similar to the Mission Town Center project, the proposed project would result in less-than-significant impacts related to GHG emissions, and its contribution to the cumulative impact would not be cumulatively considerable. Therefore, the cumulative impact would be less than significant. No mitigation is required.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to the project's GHG impacts such that

additional environmental review would be triggered. In 2015 and 2016, additional laws were enacted that established GHG reduction targets for the state of California for years beyond 2020. In October 2015, Senate Bill 350 established California's 2030 GHG reduction target of 40 percent below 1990 levels. In August 2016, Senate Bill 32 (SB 32) was signed into law which requires CARB to adopt rules and regulations to ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030. Although new GHG reduction targets have been set forth, the BAAQMD has not developed new thresholds for use by lead agencies in the Bay Area to evaluate a project's GHG impacts. In May 2017, the BAAQMD issued updated CEQA Air Quality Guidelines in light of the final ruling in *BAAQMD v. CBIA*. However the updated guidelines do not contain any revised thresholds of significance or methodologies for evaluation of GHG impacts, and the City of Santa Clara has also not adopted any revised thresholds. Therefore, the impacts of the proposed project are evaluated above using available thresholds, and the analysis appropriately concludes that the proposed project would not result in new or more severe impacts related to GHG emissions.

Findings

For reasons stated above, the potential impacts from GHG emissions generated by the proposed project would be similar to or less than those analyzed in the FEIR and would be less than significant. The potential GHG impacts of the proposed project are adequately analyzed in the FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in the FEIR. No new mitigation is required.

5.8 HAZARDS AND HAZARDOUS MATERIALS

		Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the MBCSP FEIR
	ZARDS AND HAZARDOUS MATERIALS- Would the ject:				
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 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 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 a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?				

Summary of Analysis in the FEIR

The FEIR found that during construction of the Mission Town Center project, use of hazardous materials in compliance with local, state, and federal regulations, as well as the implementation of a construction-phase stormwater pollution prevention plan (SWPPP) in compliance with National Pollutant Discharge Elimination System (NPDES) requirements, would minimize risks associated with the routine transport, use, or disposal of hazardous materials. Regarding occupancy and operation, the FEIR found that land uses of the Mission Town Center project would not generally involve the use, transport, or disposal of significant amounts of hazardous materials, including hazardous chemical, radioactive, and biohazardous materials. Furthermore, compliance with local, state, and federal regulations would minimize risks associated with the routine transport, use, or disposal of hazardous materials during project occupancy. The FEIR concluded that potential impacts from the routine transport, use, or disposal of hazardous materials during construction and operation of the proposed project would be less than significant.

Soil and groundwater contamination is present at the project site as a result of its historical use. In addition, two hazardous materials sites are located upgradient from the project site. The FEIR found that contamination on the project site and off-site and the presence of TPH-gasoline, TPH-diesel, TPH-motor oil, metals and VOCs in the groundwater would pose a human health risk for the construction workers on the project site, and could adversely affect the health of the residential and non-residential population that would occupy the project site after construction. In addition, water extracted during dewatering would potentially contain petroleum hydrocarbons and associated VOCs and metals. The FEIR also found that construction of off-site utilities to serve the Mission Town Center project would result in the exposure of the public or construction workers to hazardous materials. To reduce potentially significant human health risk impacts from contaminated soil and groundwater during construction and occupancy of the project site, the FEIR included Mitigation Measures HAZ-2a through HAZ-2d, which would reduce impacts to a less-than-significant level. Furthermore, compliance with BAAQMD Regulation 8, Rule 40, "Aeration of Contaminated Soil and Removal of Underground Storage Tanks," would limit the emissions of organic compounds from soil that has been contaminated by organic chemical or petroleum chemical leaks or spills and outline procedures for controlling such emissions.

The FEIR found that asbestos containing materials (ACMs) and lead may be present in several structures at the project site. The FEIR concluded that with compliance with the state law, which requires notifying BAAQMD of any proposed demolition or abatement work, and notifying Cal/OSHA of asbestos abatement would ensure that potential impacts from asbestos exposure during demolition would be less than significant. In addition, compliance with Cal/OSHA Lead Construction Standard, Title 8, California

Code of Regulation 1532 would ensure that potential impacts from lead-based paint disturbance during demolition would be less than significant.

Furthermore, the FEIR concluded that compliance with procedures established by the Metallic Discards Act of 1991 (California Public Resources Code, Sections 42160-42185) and other state and federal guidelines and regulations would ensure that potential impacts from disturbance of other hazardous building materials during construction would be reduced to a less than significant level.

The FEIR found that no CalARP facilities are located within 0.5 mile of the project site boundary, and therefore, an accidental release of stored hazardous materials from commercial/industrial facilities located on nearby properties would not be expected to endanger the health and/or safety of future residents on the project site. The FEIR concluded that this impact would be less than significant.

No schools are located within 0.25 mile of the project site other that the Santa Clara University. The FEIR found that compliance with local, state, and federal regulations, as well as the implementation of a construction-phase SWPPP in compliance with NPDES requirements would minimize any potential for impacts to nearby schools during construction. In addition, operation of the Mission Town Center project would not involve any use that would result in hazardous emissions. The FEIR concluded that the impact of the Mission Town Center project on nearby schools would be less than significant.

The FEIR found that concentration of residual environmental constituents from a historical Cortese listing of the property at 3390 The Alameda on the project site exceed environmental threshold. The FEIR included **Mitigation Measure HAZ-5**, which requires the implementation of **Mitigation Measure HAZ-2** and **HAZ-2c**. The FEIR concluded that implementation of **Mitigation Measure HAZ-5** would reduce the impact associated with hazardous materials at the project site to a less-than-significant level.

The project site is located at approximately 0.5 miles from the Norman Y. Mineta San Jose International Airport in San Jose and is subject to the Airport's Comprehensive Land Use Plan (CLUP). The project site is also located at approximately 4 miles from Moffett Federal Airfield in Mountain View. The FEIR found that the flight paths of the nearby San Jose International Airport are adjacent to but not directly over the project site and flight paths and approaches for Moffett Federal Airfield are well away from the project site. The FEIR concluded that aircrafts flying the area would not result in a safety hazard to people living or working on the project site and this impact would be less than significant.

The FEIR found that the Mission Town Center project would not exceed the FAR Part 77 212-foot height restrictions. However, FAA notification under FAR Part 77.9b would be required because the height of the Mission Town Center project would extend into the imaginary surface extending outward and

upward at a slope of 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway. At the project site, the airport's imaginary surface would extend across the project site at a height of 42 feet. The FEIR stated that the Mission Town Center project would comply with the FAA notification requirements. Therefore, the FEIR concluded that this impact would be less than significant.

The FEIR found that construction and operation of the Mission Town Center project would not substantially interfere with the operation of traffic, including emergency response vehicles, along The Alameda, Benton Street, or El Camino Real. The project site is located in an extensively urbanized area at a substantial distance from the closest wildland areas. The FEIR concluded that the Mission Town Center project would have no impacts with regard to implementation of an emergency plan or wildland fire hazards.

Cumulative Impacts

The FEIR found that the Mission Town Center project would comply with relevant regulations and not result in a cumulatively considerable contribution to a significant cumulative impact. The FEIR stated that other foreseeable development projects in the City of Santa Clara would also be required to comply with local, state, and federal hazardous materials laws, and each cumulative project has been or will be subject to environmental review and if significant impacts are identified, mitigation measures would be implemented to avoid or reduce the impacts. The FEIR concluded that cumulative impacts associated with hazards and hazardous materials would be less than significant.

FEIR Mitigation Measures

HAZ-2a The project shall be developed under a project-specific site management plan or similar response plan approved by an agency of applicable jurisdiction, such as the RWQCB, that is protective of construction workers, the general public, the environment, and future site occupants from known and unknown environmental conditions that may be present at the site. The site management plan or similar response plan shall be designed and implemented under the oversight of an appropriately credentialed environmental professional (e.g., California licensed Professional Engineer), and shall require:

Implementation of a worker health and safety plan (HASP) covering project construction workers and post-construction maintenance workers and groundskeepers who may be potentially exposed to hazardous materials. At a minimum, the HASP shall comply with state and federal worker safety regulations and be protective of worker health consistent with state and federal guidelines. The

HASP shall include measures such as training, signage, and personal protective equipment;

- The site management plan or similar response plan shall include health based goals, consistent with state and federal standards and guidance documents (taking into account the presence of naturally occurring constituents). These goals shall be achieved through one or more of the of the following or similar site management strategies or approaches: (1) excavation or extraction of impacted soil or groundwater and disposal in accordance with applicable regulations; (2) implementation of effective engineering controls (e.g., barriers, caps, onsite encapsulation, mechanical ventilation); (3) onsite treatment of soil or groundwater; or (4) implementation of institutional controls (e.g., land use covenants prohibiting the use of groundwater);
- Procedures to provide notice to the City of Santa Clara Fire Department for the removal of USTs and comply with the substantive City requirements should an UST or other underground structure be discovered on the project site, and address any associated soil impacts;
- Procedures for evaluating and discharging dewatering water; and
- Provisions to visually inspect for staining soil underlying existing buildings for
 potential unknown residual environmental constituents, to stop work in the vicinity
 of such discovery until notice to the oversight agency and appropriately credentialed
 environmental professional has been provided, and direction for further action
 received.

HAZ-2b Prior to dewatering, the project applicant will obtain and comply with all applicable permits and requirements prior to the discharge of any groundwater to surface water (storm drains) or sanitary sewers. Requirements may include treatment, monitoring, and reporting to ensure that the discharge meets the appropriate water quality objectives for the receiving waters.

HAZ-2c The metallic mass shall be removed under the jurisdiction of an appropriately credentialed environmental professional and agency of applicable jurisdiction, if the mass is determined to be an underground storage tank or other regulated subsurface

structure. Previously unidentified soil contaminants associated with the mass, if any, shall be removed and properly disposed of at an appropriately permitted facility.

HAZ-2d

If evidence of contaminated soil and/or groundwater, such as discolored soil, odors or oil sheen, is encountered during excavation and/or grading for off-site utility improvements, the construction contractor shall stop work and immediately inform the Applicant and City staff. An appropriately credentialed (e.g., California licensed Professional Engineer) shall be contracted to conduct an on-site assessment. If the materials are determined to pose a risk to the public or construction workers, the environmental professional shall prepare and submit a site management plan to the appropriate agency and the project will comply with all federal, state, and local laws for the handling and disposal of contaminated soils and/or groundwater.

Analysis of the Proposed Project

Similar to the Mission Town Center project analyzed in the FEIR, the proposed project would build a mixed-use development on the project site that would not generally involve the use, transport, or disposal of significant amounts of hazardous materials or hazardous waste. Similar to the FEIR findings, the proposed project would comply with local, state, and federal regulations and would implement a construction SWPPP, which would minimize risks associated with the routine transport, use, or disposal of hazardous materials and this impact would be less than significant. No new mitigation is required.

Similar to the FEIR findings, the presence of soil and water contamination at the project site would have the potential to affect construction workers and future occupants of the project site. In addition, construction of off-site utilities would expose the public and construction workers to hazardous materials. The proposed project would comply with BAAQMD Regulation 8, Rule 40 to limit the emissions of organic compounds from contaminated soil, and incorporate FEIR **Mitigation Measures HAZ-2a** through **HAZ-2d** to reduce human health risk during construction and operation. Similar to the FEIR conclusion, the proposed project would result in a less-than-significant impact associated with soil and groundwater contamination.

Similar to the Mission Town Center project analyzed in the FEIR, the proposed project would be comply with the state law, which requires notifying BAAQMD of any proposed demolition or abatement work, and notifying Cal/OSHA of asbestos abatement. In addition, the proposed project would comply with Cal/OSHA Lead Construction Standard, Title 8, California Code of Regulation 1532 and with procedures established by the Metallic Discards Act of 1991. Similar to the FEIR conclusions, the proposed project's

impact during demolition from asbestos and lead-based paint disturbance and other hazardous building materials would be less than significant. No new mitigation is required.

Similar to the FEIR conclusions, the proposed project would result in a less-than-significant impact associated with CalARP facilities.

The proposed project would comply with local, state, and federal regulations to reduce hazardous materials impacts on nearby schools during construction. In addition, the proposed project's operations would be similar to those of the Mission Town Center project. Therefore, the proposed project's impacts on nearby schools would be less than significant. No new mitigation is required.

To reduce impacts associated with the Cortese listing at 3390 The Alameda, the proposed project would incorporate FEIR **Mitigation Measure HAZ-5**. Similar to the FEIR conclusions, the proposed project's impact associated with hazardous materials would be less than significant with mitigation incorporated. No new mitigation is required.

Similar to the Mission Town Center project analyzed in the FEIR, the proposed project would comply with the FAA notification requirements, and therefore, would result in a less-than-significant impact associated with aircraft hazard. In addition, implementation of the proposed project would not interfere with any emergency plan or result in wildfire hazards.

Cumulative Impacts

Similar to the FEIR conclusion, the proposed project would not make a cumulatively considerable contribution to any significant cumulative impact with respect to hazards and hazardous materials.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to hazards and hazardous materials have come into effect since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to environmental impacts such that additional environmental review would be triggered.

Findings

For reasons stated above, the potential hazards and hazardous impacts of the proposed project would be comparable to or less than those analyzed in the FEIR. The potential hazards and hazardous materials impacts of the proposed project are adequately analyzed in the FEIR. No new or substantially increased

significant impacts asso those discussed in FEIR		result from the propos	sed project beyond

5.9 HYDROLOGY AND WATER QUALITY

		Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
HY	DROLOGY AND WATER QUALITY - Would the project:				
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 (e.g., 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?				\boxtimes
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?				
h)	Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?				\boxtimes
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?				

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
j) Inundation by seiche, tsunami, or mudflow?				\boxtimes

Summary of Analysis in the FEIR

Construction of the Mission Town Center would involve the disturbance of the 5.75-acre project site. The FEIR found that runoff and erosion during construction could result in pollutants such as soil, sediments, and other substances to enter the local storm drain system. The FEIR stated that compliance with the state's NPDES Construction General Permit would require the preparation of a SWPPP that include appropriate erosion-control measures. In addition, the SWPPP would require notifying the proper agency of any spills of pollutants or hazardous materials and appropriate cleanup of the spill. The FEIR concluded that with adherence to the SWPPP requirements approved by the City of Santa Clara Building Inspection Division would ensure that the quality of runoff that is discharged from the project site would not violate any water quality standards or otherwise substantially degrade surface water quality.

The FEIR found that water extracted via dewatering operations during construction of the below-grade parking level could contain contaminants that could affect surface water quality in the event that the water is discharged into a storm drain. The FEIR determined that with compliance with City de-watering requirements and implementation of FEIR **Mitigation Measure HAZ-2b** would ensure that contaminated groundwater is not discharged to surface waters. The FEIR concluded that construction of the Mission Town Center project would have a less than significant short-term impact on surface water quality.

Based on a hydrology study prepared for the Mission Town Center project, the FEIR found that the development qualifies as a "Special Status Project - Category C: Transit Oriented Development" as identified in Appendix J of the Santa Clara County Urban Runoff Pollution Prevention Program (SCVURPPP). Therefore, the FEIR determined that the Mission Town Center project is eligible for credits to reduce the amount of runoff that is treated by Low Impact Developments (LID) methods. The development was found to qualify for treating up to 80 percent of the storm runoff by non-LID methods, such as SCVURPPP-compliant media filters. Because the Mission Town Center project was proposing to treat 70 percent of the storm runoff by non-LID methods, the FEIR determined that the remaining 30 percent of storm runoff would be treated with SCVURPPP compliant LID methods, specifically LID based bioretention. The FEIR found that bioretention areas and media filter vaults as proposed by the

Mission Town Center project would remove pollutants from on-site storm water runoff prior to discharge to the City's storm drain system in compliance with applicable City of Santa Clara guidelines and standards as well as the San Francisco Bay RWQCB's Municipal Regional Permit requirements. The FEIR concluded that the quality of runoff that is discharged from the project site would not violate any water quality standards or otherwise degrade surface water quality. Therefore, the long-term impact on surface water quality during operation of the Mission Town Center project was determined to be less than significant.

The FEIR found that wastewater generated on the project site post development would be collected and conveyed to the San Jose - Santa Clara RWF for treatment, and no wastewater would be discharged directly into receiving waters. In addition, the FEIR determined that wastewater discharged to the RWF by the Mission Town Center project would not exceed the capacity of the treatment plant. The FEIR concluded that the impact associated with wastewater discharge would be less than significant.

The FEIR found that the Mission Town Center project would result in a net increase of potable water demand on the project site of approximately 58.4 acre-feet per year (afy). The FEIR determined that that the increase in demand at the project site in conjunction with the projected demand by other development in the City, would be adequately served by the available supply, under normal, single dry and multiple dry years, and the development of the Mission Town Center projects would not result in the need for new or expanded water supply entitlements.. The FEIR concluded that the Mission Town Center impact related to water supply would be less than significant.

In addition, the FEIR found that the project site is not located within the 26 acres used by the Santa Clara Valley Water District for recharge of the potable water aquifer. The FEIR found that impervious surfaces after development of the project site would total about 4.8 acres, which represents a four percent decrease compared to current conditions. The FEIR concluded that the Mission Town Center project would not interfere with, and may instead improve, groundwater recharge. This impact was determined to be less than significant.

The FEIR also found that the Mission Town Center project would include residential and commercial uses and would not use or store the types or volumes of hazardous materials that would pose the risk of groundwater contamination. Therefore, the FEIR concluded that the impact to groundwater quality during operation of the Mission Town Center project would be less than significant.

The FEIR found that site drainage would be designed and constructed in accordance with the 2013 CBC, and all site drainage would be routed to the City's storm drain system. This system is designed to accommodate existing and future flows from the project site and the surrounding area. As a result, the

FEIR concluded that the Mission Town Center project would not substantially alter existing natural drainage patterns.

Furthermore, the FEIR found with the small reduction in impervious surfaces on the project site after development of the Mission Town Center project, site runoff would be slightly reduced. In addition, with the 30 percent of the post-development storm water volume treated through bioretention, the volume of stormwater runoff discharged from the site would be reduced. Therefore, the FEIR concluded that runoff from the project site would not result in significant erosion or siltation on- or off-site. Nor would it result in flooding or produce runoff that exceeds the capacity of existing or planned stormwater drainage systems. This impact was determined to be less than significant.

The FEIR found that the project site is not located within a 100-year flood zone. As a result, the FEIR concluded that implementation of the Mission Town Center project would have no impact associated with placing housing or structures within a flood hazard area.

The FEIR found that project site is not located near water bodies and is not within the inundation area for Lexington Dam and/or Anderson Dam. As a result, the FEIR concluded that no impact would occur related to risk of seiche or tsunami inundation, debris flow, or mudflow.

Analysis of the Proposed Project

To reduce runoff and erosion potential during construction, the proposed project would comply with the requirements in the SWPPP that would be prepared as part of the compliance with the state's NPDES Construction General Permit. Therefore, similar to the FEIR conclusion, adherence to the SWPPP requirements that would be approved by City of Santa Clara Building Inspection Division would ensure that the quality of runoff that is discharged from the project site would not violate any water quality standards or otherwise substantially degrade surface water quality.

Construction of the proposed project would include a below-grade parking level, which would require dewatering operations. The proposed project would incorporate FEIR **Mitigation Measure HAZ-2b** to ensure that contaminated groundwater is not discharged to surface waters. Similar to the FEIR conclusion, with implementation of FEIR **Mitigation Measure HAZ-2b**, the proposed project's short-term impact on surface water quality would be less than significant. No new mitigation is required.

The proposed project would treat stormwater through a combination of bioretention areas and media filter vault system, with up to 80 percent of the post-development stormwater to be treated by filter vault system, and a minimum of 20 percent to be treated through bioretention. Similar to the FEIR findings, bioretention areas and media filter vaults would remove pollutants from on-site stormwater runoff prior

to discharge to the City's storm drain system in compliance with applicable City of Santa Clara guidelines and standards as well as the San Francisco Bay RWQCB's MRP requirements. Similar to the FEIR conclusion, the long-term impact on surface water quality during operation of the proposed project would be less than significant. No new mitigation is required.

The proposed project would have fewer apartment units and retail space than the Mission Town Center project analyzed in the FEIR. Therefore, the volume of wastewater discharged to the WRF would be lower than analyzed in the FEIR, and similar to the FEIR conclusion, wastewater discharged to the WRF by the proposed project would not exceed the capacity of the treatment plant, and this impact would be less than significant. No new mitigation is required.

Net increase in potable water demand that would result from the proposed project would be approximately 5.3 percent less than that estimated for the Mission Town Center project. Based on the updated 2016 Groundwater Management Plan, the demand for groundwater in 2035 within the Santa Clara Subbasin is projected to be 118,000 afy, including anticipated growth in the region such as the proposed project, which is 41 percent less than the safe yield of the subbasin. Therefore, similar to the FEIR conclusion, the proposed project would not substantially deplete groundwater supplies.

The proposed project would result in a reduction in impervious surface area of approximately 9.3 percent compared to current conditions. Therefore, similar to the FEIR conclusion, the proposed project would not interfere with, and may instead improve, groundwater recharge, and this impact would be less than significant.

Similar to the Mission Town Center project analyzed in the FEIR, due to the mixed-use nature of the proposed project, the project would not involve storage or use of the types or volumes of hazardous materials that would pose the risk of groundwater contamination. Therefore, similar to the FEIR conclusion, the proposed project's impact to groundwater quality during operation would be less than significant.

Similar to the Mission Town Center project, storm drainage would be designed to accommodate existing and future flows and the proposed project would not substantially alter existing natural drainage patterns. Furthermore, the reduction in impervious surfaces under the proposed project would be approximately twice the reduction that would have resulted under the Mission Town Center project. Therefore, similar to the FEIR conclusion, with the stormwater treatment through a filter vault system and bioretention, runoff from the project site would not result in significant erosion or siltation on- or off-site. Nor would it result in flooding or produce runoff that exceeds the capacity of existing or planned stormwater drainage systems, and this impact would be less than significant.

Changes in Circumstances and/or New Information

Since the preparation of the FEIR, the SCVWD updated the District's Groundwater Management Plan and adopted it on November 2016. Based on the updated Plan, the demand for groundwater within the Santa Clara subbasin in 2035 was estimated to be 118,000 afy, including anticipated growth in the region such as the development of the project site. As discussed above, the updated projection of 2035 water demand is approximately 41 percent less than that estimated previously and would remain within the safe yield of the subbasin. Therefore, the new information in the District's Groundwater Management Plan has no effect on the FEIR analysis or its conclusions relative to environmental impacts, and additional environmental review is not triggered.

Findings

The potential hydrology and water quality impacts of the proposed project are similar to those analyzed in the FEIR. For reasons stated above, the proposed project's potential impacts related to hydrology and water quality would be less-than-significant with implementation of FEIR **Mitigation Measure HAZ-2b**. The potential impacts of the proposed project associated with hydrology and water quality are adequately analyzed in the FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in the FEIR. No new mitigation is required.

5.10 LAND USE AND PLANNING

		Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
LA	ND USE AND PLANNING - Would the project:				
a)	Physically divide an established community?				\boxtimes
b)	Conflict with applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?				
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?				

Summary of Analysis in the FEIR

The FEIR found that the portions of Sherman and Fremont Streets to be vacated on the project site for the construction of the Mission Town Center project provide access to existing buildings and uses presently located on the site. Therefore, the project would not physically divide the surrounding neighborhood by reducing accessibility by vehicles or pedestrians or by reducing access to any existing uses around the project site. The FEIR concluded this impact to be less than significant.

As stated in the FEIR, the applicant for the Mission Town Center project requested a General Plan Amendment (GPA) to change the land use designations on the project site from Santa Clara Station Low Density Residential (8-18 du/ac) and Santa Clara Station High Density Residential (37-50 du/ac) to Santa Clara Station Very High Density Residential (51-90 du/ac). The Mission Town Center also proposed to add a policy to the General Plan allowing limited neighborhood commercial within the Santa Clara Station Very High Density Residential land use designation. The FEIR found that with the approval of the amendments, the residential and retail components of the Mission Town Center project would be consistent with the General Plan land use designation for the project site. In addition, the FEIR found that the Mission Town Center project would be consistent with the City of Santa Clara Zoning code if the rezoning of the project site was approved.

The FEIR found that the Mission Town Center project would not conflict with any of the regional plans such as the Plan Bay Area, the 2010 Clean Air Plan, the Santa Clara Congestion Management Plan, or the San Francisco Bay Regional Water Quality Control Plan. Additionally, the FEIR found that the Mission Town Center project would not conflict with the Comprehensive Land Use Plan of Norman Y. Mineta San José International Airport. The FEIR concluded that the Mission Town Center project would have a less-than-significant impact related to conflict with any applicable land use plan, policy, or regulation. No mitigation was required.

The FEIR found that project site is not located within the portion of Santa Clara County that is covered by the Santa Clara Valley Habitat Conservation Plan (HCP)/Natural Community Conservation Plan (NCCP). In addition, there are no other HCPs or NCCPs applicable to the project area. The FEIR concluded that the Mission Town Center project would have no conflicts with an HCP/NCCP, or other conservation plan would occur. No mitigation was required.

Cumulative Impacts

The FEIR found that future development near the project site would largely involve the redevelopment of previously developed parcels that would not substantially change the land uses in the project area. In addition, future development in the City of Santa Clara would be reviewed for consistency with the General Plan designations and policies, in accordance with the requirements of CEQA, the State Zoning and Planning Law, and the State Subdivision Map Act. The FEIR concluded that the Mission Town Center project would not contribute to any cumulative land use impacts, and this impact would be less than significant.

Analysis of the Proposed Project

The proposed project would be similar to the Mission Town Center project analyzed in the FEIR and would also vacate the on-site streets. For the same reasons as put forth in the FEIR, the proposed project would not physically divide the surrounding neighborhood and this impact would be less than significant. No new mitigation is required.

On February 23, 2016, the City Council approved a General Plan Amendment (GPA) and a rezoning of the project site. The approved GPA and rezoning, however, were for a project that was less intense than originally contemplated by the FEIR, and less intense than the current proposal. Although the original FEIR analyzed a project for 385 apartments (at a density of 67.5 du/ac), the project approved by Council would have only allowed for 318 units (at a density of 55 du/ac), which fell within the land use designation for Santa Clara Square High Density Residential with the density bonus for the affordable

units the prior developer proposed. As a result, the City Council did not change the land use designation to Santa Clara Square Very High Density Residential, and instead changed it to Santa Clara Square High Density Residential. Similarly, the approved rezoning to Planned Development (PD) was for a development of 318 units, not a development of 385 units. Consequently, the current proposed project would still require both a General Plan Amendment and a rezoning in order to proceed, as the current zoning and land use designation approved in February 2016 would not allow for a project of this density.

Similar to the Mission Town Center project analyzed in the FEIR, the proposed project would require a GPA to change the land use designations on the project site to Very High Density Residential (51-90 du/ac), and to include a policy allowing limited neighborhood commercial within Santa Clara Station Very High Density Residential land use designation. Similar to the FEIR conclusion, with approval of the General Plan amendments and with the rezoning of the project site, the proposed project would be consistent with the General Plan land use designation and with the City of Santa Clara Zoning code. Similar to the FEIR conclusion, impacts of the proposed project related to conflicts with any applicable land use plan, policy, or regulation would be less than significant. In addition, the proposed project would have no conflicts with any HCP/NCCP, or other conservation plan.

Cumulative Impacts

Similar to the FEIR conclusion, the proposed project would not contribute to any cumulative land use impacts, and this impact would be less than significant.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to land use and planning have come into effect since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to environmental impacts such that additional environmental review would be triggered.

Findings

For reasons stated above, less-than-significant impacts or no impacts related to land use and planning would result from implementation of the proposed project. The potential land use impacts of the proposed project are adequately analyzed in the FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in the FEIR. No new mitigation is required.

5.11 MINERAL RESOURCES

	Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
MINERAL RESOURCES - Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of future 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?				

Summary of Analysis in the FEIR

The FEIR found that no aggregate production areas have been identified in the City of Santa Clara, and no known mineral resources are present on the project site. The FEIR concluded that implementation of the Mission Town Center project would not result in the loss of availability of known mineral resources that would be of value to the region and the residents of the state. Therefore, the implementation of the Mission Town Center project was determined to have no impact on mineral resources.

Analysis of the Proposed Project

Similar to the FEIR findings, with no mineral resources present at the project site or in the City of Santa Clara, implementation of the proposed project would have no impact on mineral resources.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to mineral resources have come into effect since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to environmental impacts such that additional environmental review would be triggered.

Findings

The potential mineral resource impacts of the proposed project are similar to those analyzed in the FEIR. For reasons stated above, no new impacts to mineral resources would result with implementation of the proposed project. The potential impacts of the proposed project associated with mineral resources are adequately analyzed in the FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in the FEIR. No new mitigation is required.

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5.12 NOISE

		Potentially New Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant new Impact	Impact Fully Analyzed in the FEIR
NC	VISE - Would the project result in:				
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?				\boxtimes
b)	Exposure of persons to or generation of excessive ground borne vibration or ground borne 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?				

Summary of Analysis in the FEIR

Noise Impact On-Site

The FEIR found that ambient noise levels at most residential facades of the Mission Town Center project would be above 60 dB(A), therefore exceeding the 45 dB(A) standards for interior noise levels set by the City of Santa Clara General Plan and California Building Code. The FEIR included **Mitigation Measure Noise-1a** to reduce this impact to a less-than-significant level.

The FEIR found that noise levels at the outdoor areas of the Mission Town Center project would be at or below the normally acceptable exterior noise levels of 55 db(A). The FEIR concluded that this impact

would be less than significant. The FEIR however stated that in the event of a design change that would result in the outdoor areas near roadways to be not completely shielded, noise levels could exceed the acceptable exterior noise levels. The FEIR included **Mitigation Measure NOISE-1b** to reduce this impact to a less-than-significant level.

Groundborne Vibration Impact

The FEIR found that vibration levels resulting from commuter trains, which pass near the site more than 70 times daily, are below the frequent event criteria established by the FTA for residential and commercial uses. In addition, the FEIR found that freight train passbys are infrequent and their measured vibration levels at the project site were below FTA infrequent event criteria of 80 VdB for residential and commercial uses. Based on a detailed assessment, all of the measured vibration levels are below the FTA's residential daytime and nighttime detailed assessment vibration criteria of 78 and 72 VdB, respectively, as well as the criterion of 84 VdB for institutional uses. Therefore, the FEIR concluded that residential and commercial uses of the Mission Town Center project would not be exposed to groundborne vibration levels from rail sources in excess of FTA assessment guidelines, and this impact was determined to be less than significant. No mitigation was required.

The FEIR found that construction activities, such as drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) would result in vibration levels that exceed 0.1 in/sec PPV threshold, and have the potential to result in damage to the structure at 3430 The Alameda located at 10 feet from the project site. The FEIR found that vibration levels at other structures that are more than 50 years old along The Alameda, Benton Street, and Harrison Street would be below 0.1 in/sec PPV threshold. The FEIR also found that with the exception of one home located within 10 feet from the northern boundary of the project site, vibration levels associated with construction activities would not be perceptible to nearby sensitive receptors. The FEIR included Mitigation Measure NOISE-7 to address the potentially significant impact on building structures and nearby sensitive receptors from construction-phase vibrations, and concluded that the mitigation measure would reduce this impact to a less than significant level.

Noise-sensitive receptors near the project site

The relatively high traffic volumes on nearby El Camino Real and Benton Street are the primary sources of noise in the area. The FEIR found that intersection noise levels would increase by less than 1 dB(A) outside the project site with or without the implementation of the Mission Town Center project. Therefore, the FEIR concluded that the Mission Town Center project would not substantially increase traffic noise levels at noise-sensitive receptors near the project site. The FEIR found that segments of some

intersections (e.g., project access from El Camino Real and the north segment of the intersection of Benton and Sherman Streets on or adjacent to the project site would experience a significant increase in noise levels (above 3dBA) as a result of the Mission Town Center project. However, the FEIR stated that these segments are internal to the project site and would not have any impact on nearby properties. The FEIR concluded that traffic along El Camino Real is significantly higher and would control noise levels at the project access driveway, resulting in a less-than-significant change in noise levels. The FEIR noted that for on-site sensitive receptors, implementation of **Mitigation Measures NOISE-1a** and **NOISE-1b** would reduce noise impacts to a less-than-significant level.

The FEIR found that HVAC equipment installed at the edge of the buildings of the Mission Town Center project would produce noise levels at the nearest residential uses that would exceed the City's 55 dB Leq daytime and 50 dB Leq nighttime noise standards for residential uses. Similarly, the FEIR found that noise produced by standard HVAC equipment could exceed the City's 65 dB(A) Leq daytime and 60 dB(A) Leq nighttime noise standards for nearby commercial land uses. The FEIR included **Mitigation Measure NOISE-4** to reduce this impact to a less-than-significant level.

The FEIR found that the parking garage of the Mission Town Center project would be enclosed on all sides and sufficiently insulated and would not result in additional noise to nearby residents or project-site residents. The FEIR concluded that noise impacts from the parking garage of the Mission Town Center project would be less than significant. No mitigation was required.

Construction Noise

The FEIR found that construction activities and construction traffic would be louder than the ambient noise levels and would affect existing residences, commercial buildings, and other sensitive receptors located adjacent to the project site with direct line-of-sight. The FEIR included **Mitigation Measure NOISE-6** to reduce the impacts from construction noise at nearby sensitive receptors to a less than significant level.

Cumulative Impacts

The FEIR found that while noise levels would increase by 3 dBA at some intersections, this increase would be primarily result from the cumulative traffic volume without the project. The FEIR found that addition of the project traffic would not result in a cumulative increase of 3 dBA or more. In addition, the FEIR included **Mitigation Measures Noise-1a** and **Noise-1b**. Therefore, the FEIR concluded that cumulative noise impacts associated with the Mission Town Center project would be less than significant.

FEIR Mitigation Measures:

NOISE-1a

A project-specific acoustical analysis shall be prepared by a qualified acoustical consultant as the project design is refined to determine specific noise attenuation improvements (e.g., STC ratings, exterior wall construction, treatment of façade openings) that must be included in the project to reduce interior noise levels to meet the City of Santa Clara and the State Building Code criterion of an Ldn of 45 dB or less for residential developments. The results of the analysis and recommended ratings for windows and doors shall be submitted to the City Building Official for approval and approved prior to issuance of building permits. Forced air mechanical ventilation, satisfactory to the City Building Official, shall be considered where windows must remain closed in order to achieve the interior noise criteria.

NOISE-1b

In the event that outdoor-use spaces are not completely shielded from adjacent roadways by the proposed structure, a project-specific acoustical analysis shall be prepared by a qualified acoustical consultant as the project design is refined to determine specific noise attenuation improvements (e.g., reconfiguration, sounds walls, glass screen, or other equivalent measures) that must be included in the project to reduce exterior noise levels to meet the City outdoor noise guidelines for primary outdoor-use spaces. The results of the analysis and recommended noise attenuation improvements shall be submitted to the City Building Official for approval and approved prior to issuance of building permits.

NOISE-4

Mechanical equipment shall be selected and designed to reduce impacts on surrounding uses to meet the City's Noise Ordinance requirements. A qualified acoustical consultant shall be retained to review mechanical noise as these systems are developed to determine specific noise reduction measures necessary to reduce noise to comply with the City's Noise Ordinance. Noise reduction measures could include but are not limited to selection of equipment that emits low noise levels and/installation of noise barriers such as enclosures and parapet walls to cut the line of sight between the noise source and the nearest receptors.

NOISE-6 Construction-related activities shall be conducted in accordance with the following:

- Based on the final construction plan and equipment list, a site specific noise reduction plan shall be prepared by a qualified acoustical consultant, detailing locations of construction noise barriers and other site mitigation, to reduce noise levels at adjacent residential properties.

- Pursuant to the Santa Clara City Code, construction activities within 300 feet of any residence shall be limited to the hours of 7:00 AM to 6:00 PM, Monday through Friday and 9:00 AM to 6:00 PM on Saturday. No construction shall occur on Sundays and holidays.
- During construction, mufflers shall be provided for all heavy construction equipment and all stationary noise sources in accordance with the manufacturers' recommendations.
- Unnecessary idling of internal combustion engines shall be limited.
- Stationary noise sources and staging areas shall be located as far as is feasible from existing residences, or contractors shall be required to provide additional noise-reducing engine enclosures (with the goal of achieving approximately 10 dB(A) of reduction compared to uncontrolled engines). Locating stationary noise sources near existing roadways away from adjacent properties is recommended (i.e., at the southwest corner of the project site).
- Air compressors and pneumatic equipment shall be equipped with mufflers, and impact tools shall be equipped with shrouds or shields.
- If for construction purposes, locating stationary construction equipment near existing residential uses is required, an eight foot tall sound-rated fence should be erected between the equipment and the sensitive receptors. The fence should be located as close to the equipment as is feasible.
- Construction vehicle access routes shall be designed to minimize the impact on existing residences. The vehicle access route shall be along El Camino Real.
- A "construction liaison" shall be designated to ensure coordination between construction staff and neighboring properties to minimize disruptions due to construction noise. Occupants and property owners adjacent to the construction activity shall be notified in writing of the construction schedule and the contact information for the construction liaison.
- A qualified acoustical engineer shall be retained to address neighbor complaints, if they occur. If complaints occur, noise measurements shall be conducted, to determine if construction noise levels at adjacent property lines are within the

standards. Short-term or long-term construction noise monitoring may also be utilized, at the discretion of the acoustical engineer, to diagnose complaints and determine if additional mitigation is required for certain phases of construction.

NOISE-7 Construction-related activities shall be conducted in accordance with the following:

- Within 45 feet of any existing structure that is over 50 years old:
 - o Compaction activities shall not be conducted using a vibratory roller. Within this area, compaction shall be performed using smaller hand tampers.
 - o Demolition, earth-moving and ground-impacting operations shall be phased so as not to occur at the same time.
 - Construction and demolition activities shall not involve clam shell dropping operations.
- Pursuant to the Municipal Code, construction activities within 300 feet of any residence shall be limited to the hours of 7 AM to 6 PM, Monday through Friday and 9 AM to 6 PM on Saturday. No construction shall occur on Sundays and holidays.
- A "construction liaison" shall be designated to ensure coordination between construction staff and neighboring properties to minimize disruptions due to construction vibration. Occupants and property owners adjacent to construction activity shall be notified in writing of the construction schedule and the contact information for the construction liaison. Vibration generating activities shall be scheduled during less sensitive times of day (i.e., middle of the day) as feasible.
- A pre-construction survey of buildings within 45 feet of construction activities shall be performed, including those at 3430/3450 The Alameda and 610/640 Harrison Street to document existing conditions. Vibration monitoring shall be performed at the start of each major construction phase to confirm vibration levels at the building setback and to determine if further mitigation is needed. Buildings shall be monitored during construction for structural damage.

Analysis of the Proposed Project

Similar to the Mission Town Center project analyzed in the FEIR, noise levels at residential facades of the proposed project would exceed the 45 dB(A) standards for interior noise levels if no noise attenuation

were implemented. The proposed project would incorporate FEIR **Mitigation Measure NOISE-1a** which requires the preparation of an acoustical analysis and the implementation of the recommended noise attenuation improvements that would be approved by the City Building Official. Similar to the FEIR conclusion, with implementation of FEIR **Mitigation Measure NOISE-1a**, interior noise levels in the residential units of the proposed project would be less than significant. No new mitigation is required.

The proposed project includes two courtyards (Courtyards B and C) in proximity to roadways. The proposed project would incorporate FEIR **Mitigation Measure NOISE-1b**, which requires an acoustical analysis to determined specific noise attenuation improvements to reduce exterior noise levels and meet the City outdoor noise guidelines for primary outdoor-use spaces. With implementation of FEIR **Mitigation Measure NOISE-1b**, the proposed project's impact associated with noise levels at the outdoor areas would be less than significant. No new mitigation is required.

Similar to the FEIR conclusions, residential and commercial uses of the proposed project would not be exposed to groundborne vibration levels from rail sources in excess of FTA assessment guidelines, and this impact would be less than significant. No mitigation is required.

Construction activities associated with the proposed project would be similar to those under the Mission Town Center project. Therefore similar to the FEIR findings, construction of the proposed project would result in vibration levels that exceed 0.1 in/sec PPV threshold and have the potential to result in damage to the structure at 3430 The Alameda and to be perceptible to the sensitive receptors in one home located within 10 feet from the northern boundary of the project site. The proposed project would implement FEIR **Mitigation Measure NOISE-7** to reduce potential construction vibration impacts on building structures and nearby sensitive receptors. Similar to the FEIR conclusion, vibration impacts of the proposed project would be less than significant with mitigation incorporated. No new mitigation is required.

The proposed project would have fewer apartment units and a reduction in the retail space compared to the Mission Town Center project. Therefore, traffic generation associated with the proposed project would be smaller than that of the Mission Town Center project analyzed in the FEIR. Similar to the FEIR findings, the proposed project would not substantially increase traffic noise at noise-sensitive receptors near the project site. The proposed project would incorporate FEIR **Mitigation Measure NOISE-1a** and **NOISE-1b**. Similar to the FEIR conclusion, the proposed project's impact related to traffic noise would be less than significant with mitigation incorporated.

Similar to the FEIR, noise level generated by HVAC equipment that would be installed as part of the project buildings would exceed the City's 55 dB Leq daytime and 50 dB Leq nighttime noise standards for

residential uses, and would exceed the City's 65 dB(A) Leq daytime and 60 dB(A) Leq nighttime noise standards for nearby commercial land uses. The proposed project would incorporate FEIR **Mitigation Measure NOISE-4** which requires the selection of mechanical equipment that would meet the City's Noise Ordinance requirements. Similar to the FEIR conclusion, the noise impact from HVAC equipment included in the proposed project would be less than significant with mitigation incorporated.

Similar to the Mission Town Center project, the parking garage of the proposed project would be enclosed on all sides and sufficiently insulated. Therefore, similar to the FEIR conclusions, noise impacts associated with the parking garage would be less than significant. No new mitigation is required.

Construction activities associated with the proposed project would be similar in type and duration to those for the Mission Town Center project. Therefore, similar to the FEIR findings, noise associated with these activities would be louder than the ambient traffic noise. The proposed project would incorporate FEIR **Mitigation Measure NOISE-6** to reduce the impacts from construction noise at nearby sensitive receptors. Similar to the FEIR conclusions, the noise impact of proposed project during construction would be less than significant with mitigation incorporated.

Cumulative Impacts

The proposed project would have fewer apartment units and a reduction in the retail space compared to the Mission Town Center project. Therefore, similar to the Mission Town Center project, the proposed project would not result in a cumulative traffic noise increase of 3 dBA or more, and the cumulative noise impacts associated with the proposed project would be less than significant.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to noise have come into effect since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to environmental impacts such that additional environmental review would be triggered.

Findings

For reasons stated above, with mitigation, less-than-significant noise impacts would result from implementation of the proposed project. The potential noise impacts of the proposed project are adequately analyzed in the FEIR. No new or substantially increased significant impacts would result from the proposed project beyond those discussed in the FEIR. No new mitigation is required.

5.13 POPULATION AND HOUSING

		Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
РО	PULATION AND HOUSING – Would the project:				
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				
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?				

Summary of Analysis in the FEIR

The FEIR found that the 385 residential units associated with the Mission Town Center project would increase the population of the City of Santa Clara by approximately 1,036 people based on an estimated average household of 2.69 persons; thereby, increasing the City's population by approximately 0.86 percent. The EIR found that the Mission Town Center project is accounted for in anticipated growth under the City's General Plan. Furthermore, the FEIR found that the addition of 385 residential units to the City of Santa Clara would help improve the City's jobs/housing balance. Therefore, the FEIR concluded that the impact related to population growth would be less than significant.

The FEIR found the Mission Town Center project would not displace substantial numbers of existing housing necessitating the construction or replacement housing elsewhere, because it would result in a net increase of 375 units on the project site. The FEIR determined that this impact would be less than significant.

Since the existing residential units on the project site house approximately 24 people, the FEIR found that the Mission Town Center project would not displace substantial numbers of people necessitating the construction of replacement housing elsewhere, and this impact was determined to be less than significant.

Analysis of the Proposed Project

The proposed project would have 55 fewer residential units than the Mission Town Center project, and therefore would result in a smaller increase in population. Therefore, similar to the FEIR conclusion, the proposed project's impact related to population growth would be less than significant.

Furthermore, similar to the FEIR conclusions, the addition of residential units under the proposed project would help improve the City's jobs/housing balance, would not displace substantial numbers of existing housing, and would not displace substantial numbers of people. Therefore, similar to the FEIR conclusions, the proposed project's impacts related to increase in population and displacement of housing and population would be less than significant. No new mitigation is required.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to population and housing have come into effect since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to environmental impacts such that additional environmental review would be triggered.

Findings

The potential population and housing impacts of the proposed project are adequately analyzed in the FEIR. The proposed project would not result in new or substantially increased significant impacts beyond those discussed in the FEIR. No new mitigation is required.

5.14 PUBLIC SERVICES

	Potentially New Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
PUBLIC SERVICES				
a) 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:				
i) Fire protection?				
ii) Police protection?				
iii) Schools?				
iv) Parks?				
v) Other governmental services?				

Summary of the Analysis in the FEIR

Fire

The FEIR found that the increase in residents and employees (1,114 residents and employees) at the project site due to the Mission Town Center project would increase the need for fire suppression services. To meet the City's standards of 1.5 firefighters per 1,000 residents and employees, the FEIR found that the City would need to add one to two firefighters. The FEIR found that the addition of one to two firefighters could be accommodated in the existing fire facilities and would not require the construction of new of physically altered facilities. The FEIR concluded that the Mission Town Center project would have a less-than-significant impact related to fire services.

Police

The FEIR found that the increase in residents and employees (1,114 residents and employees) at the project site would increase the demand for police services serving the site. To meet the standard of

maintaining an officer-to-service population ratio of 1.7 officers per 1,000 residents, the FEIR found that the City would need to add one to two officers, one non-sworn staff, and four additional patrol vehicles to serve the residents and employees associated with the Mission Town Center project. The FEIR found that existing police facilities in the City could accommodate the additional officers and equipment required for the Mission Town Center project. The FEIR concluded that since project implementation would not require new or physically altered police facilities, the impact to police services would be less than significant.

Schools

The FEIR found that all of the schools that serve the project site are at or over capacity and the Mission Town Center project would result in the overutilization of these schools. In accordance with SB 50, the FEIR found that the Mission Town Center project applicant would pay the developer fees to offset the cost of new school construction and redevelopment in the City of Santa Clara. In addition, after construction the school district would receive a portion of the property taxes and General Obligation bond taxes that are collected annually concurrent with property taxes. The FEIR concluded that with payment of developer fees and property taxes, impacts of the Mission Town Center project on schools within SCUSD would be less than significant.

Libraries

The FEIR found that the City's library system meets or exceeds the service goals of 3.0 volumes (books) per capita and 3.4 items (books and audio-visual volumes) per capita. The FEIR found that even with addition of the Mission Town Center project, the City's library system would continue to meet or exceed its service goals and would not require new or physically altered facilities to accommodate a larger collection. Therefore, the FEIR concluded that this impact would be less than significant.

Parks and other Recreational Facilities

The FEIR noted that the City is currently meeting the standard of 2.53 acres per 1,000 residents per the Mitigation Fee Act provisions of the City Code and 3 acres per 1,000 residents per the Quimby Act provisions of the City Code with regard to neighborhood parks. The FEIR found that the increased population associated with the Mission Town Center project would contribute to the overuse of existing parks near the project site that would potentially lead to physical deterioration of park facilities and overcrowding. In addition, the Mission Town Center project would require the City to add more parkland to City's inventory of parkland in order to continue to meet the City's minimum standard of 2.53 acres of parkland per 1,000 residents for Mitigation Fee Act and 3.0 acres of parkland per 1,000

residents under the Quimby Act. The FEIR found that the Mission Town Center project would require 2.62 acres of additional parkland to serve the increased population in the City. The FEIR included **Mitigation Measure PUB-5** which requires the applicant to pay park in-lieu fees per City Code (Chapter 17.35) that would be used by the City to acquire and/or develop new parkland and/or amenities or facilities. The FEIR concluded that the Mission Town Center project's impact on parks and recreational facilities would be less than significant with mitigation incorporated.

Cumulative Impacts

The FEIR found that other development projects in the City would be subject to environmental review and if significant impacts are identified, mitigation measures would be implemented to avoid or reduce impacts on public services. The FEIR concluded that contribution of the Mission Town Center project would not be cumulatively considerable and cumulative impacts associated with public services would be less than significant.

Analysis of the Proposed Project

Fire

The proposed project would have 55 fewer residential units than the Mission Town Center project, and therefore would result in a smaller increase in population. Therefore, similar to the Mission Town Center project analyzed in the FEIR, the City would need to add one or two firefighters to accommodate the additional need for fire suppression as a result of the proposed project. Similar to the FEIR conclusions, the addition of one or two firefighters could be accommodated in the existing fire facilities, and the proposed project would have a less-than-significant impact related to fire services. No new mitigation is required.

Police

Similar to the Mission Town Center project analyzed in the FEIR, implementation of the proposed project would require the City to add one to two officers, one non-sworn staff, and four additional patrol vehicles to serve the residents to serve the future occupants of the project site. Similar to the FEIR conclusions, because the addition of additional officers would not require new facilities, the proposed project would have a less-than-significant impact related to police services. No new mitigation is required.

Schools

Similar to the Mission Town Center project, the proposed project would result in the overutilization of the schools in the project area. The proposed project would comply with SB 50 and pay the developer fee, and following completion of construction would pay property taxes, a portion of which would go to local schools. Similar to the FEIR conclusions, with the payment of developer fees and property taxes, the impact of the proposed project on schools within SCUSD would be less than significant.

Libraries

Similar to the Mission Town Center project analyzed in the FEIR, with implementation of the proposed project, the City's library system would continue to meet or exceed its service goals and would not require new or physically altered facilities to accommodate a larger collection. Therefore, similar to the FEIR conclusions, the proposed project would have a less-than-significant impact on local libraries.

Parks and other Recreational Facilities

The population increase associated with the proposed project would be less than that under the Mission Town Center project. However, similar to the Mission Town Center project, the proposed project would contribute to the overuse of existing parks near the project site and would require adding more parkland to the City's inventory. The proposed project would incorporate FEIR **Mitigation Measure PUB-5**, which requires the applicant to pay park in-lieu fees per City Code (Chapter 17.35). Similar to the FEIR conclusion, the proposed project's impact on parks and recreational facilities would be less than significant with mitigation incorporated.

Cumulative Impacts

Similar to the FEIR conclusions, the proposed project contribution to cumulative public services impacts would not be cumulatively considerable and the cumulative impacts associated with public services would be less than significant.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to public services have come into effect since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to environmental impacts such that additional environmental review would be triggered.

Findings

The potential public services impacts of the proposed project are adequately analyzed in the FEIR. The proposed project would not result in new or substantially increased significant impacts beyond those discussed in the FEIR. No new mitigation is required.

5.15 TRANSPORTATION AND TRAFFIC

		Potentially New Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
TR	ANSPORTATION/TRAFFIC - Would the project:				
a)	Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?				
b)	Exceed, either individually or cumulatively, a level of service standard 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 a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				
e)	Result in inadequate emergency access?				\boxtimes
f)	Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?				

Summary of the FEIR Analysis

The FEIR determined that many of the traffic impacts of the Mission Town Center project would be less than significant. However some of the project's traffic impacts would be significant and unavoidable.

Impacts on the Road Network

The FEIR found that the Mission Town Center project would add 119 net vehicle trips during the AM peak hour and 126 net vehicle trips during the PM peak hour within the study area that included 11 intersections near the project site. The FEIR found that the traffic added by the Mission Town Center project would not cause the level of service at any of the study intersections to drop to an unacceptable

level under existing plus project conditions. Therefore, the FEIR concluded that traffic impacts associated with existing plus Mission Town Center project would be less than significant.

The FEIR analyzed traffic impact associated with the Mission Town Center project under 2020 background traffic conditions (Background). The FEIR found that 10 of the 11 intersections would not experience a significant impact. The intersection of Lafayette and Lewis Streets was found to operate at LOS F during the PM peak hour under Background conditions. The FEIR found that traffic associated with the Mission Town Center project would increase the critical delay at the intersection by 5.9 seconds (which is greater than the 4 seconds threshold) and the critical V/C ratio by 0.013 (which is greater than the threshold of an increase in the V/C ratio of 0.01 or more for an intersection operating at LOS F) during the PM peak hour. The FEIR found no feasible improvements for this intersection because any changes to the intersection were found to adversely affect operations along this corridor. The FEIR concluded that impact at this intersection was significant and unavoidable.

The FEIR found that the required compliance of the Mission Town Center project with the City's design standards and the design standards in the Uniform Fire Code would prevent hazardous design features and would ensure adequate and safe access. The FEIR noted that project applicant would work with the City to design and construct off site queuing for the parking garage to minimize traffic congestion and delay. The FEIR concluded that the impact associated with hazard due to a design feature would be less than significant.

The FEIR found that existing roadways provide adequate regional access to the project site, and emergency vehicles can access the project site via roadways from each of the cardinal directions, including Benton Street, El Camino Real, The Alameda, and Harrison Street. The FEIR found that ramps within the parking structure would be adequate to allow these vehicles to access the entire site. As a result, the FEIR concluded that the Mission Town Center project would not result in inadequate emergency access, and this impact was determined to be less than significant.

Transit Impacts

The FEIR found that the Mission Town Center project would generate demand for transit services, and would provide additional amenities at transit stops adjacent to the project site, which would increase the attractiveness of VTA transit within the surrounding community. The FEIR found that the Mission Town Center project would help reduce vehicle trips to and through the area. In addition, the FEIR found that street frontage amenities associated with the Mission Town Center project, such as shelters, effective lighting, and benches would be consistent with VTA designs and plans to improve street frontages in the project area and mitigate the effects of the non-significant increase in delays to transit operations on

Benton Street and other roadways with transit services. The FEIR concluded that development of the Mission Town Center project would not conflict with applicable transit policies, and this impact was determined to be less than significant.

Bicycle and Pedestrian Impacts

The FEIR found that the Mission Town Center project would include 133 Class 1 bicycle parking spaces, and 32 Class 2 bicycle parking spaces and would widen the sidewalks along Benton Street, El Camino Real, and The Alameda. Therefore, the FEIR concluded that development of the Mission Town Center project would not conflict with the policies listed in the City General Plan that promote bicycle and pedestrian use, and this impact was determined to be less than significant.

Parking Impacts

The FEIR noted that an evaluation of parking impacts is not required under CEQA. The FEIR also noted that the Mission Town Center project qualifies for the exemption under SB 743 from analysis of parking impacts. Therefore, the FEIR included an analysis of parking impacts for informational purposes only and to assess compliance with City parking standards.

The FEIR found that Santa Clara City Code requires a total of 827 parking spaces for the Mission Town Center project, including 662 parking spaces for the 385 residential units and 165 spaces for the retail development. The FEIR found that the Mission Town Center project would provide a total of 839 parking spaces, including 674 parking spaces for the residential component of the project and 165 parking spaces for the retail component. Therefore, the FEIR concluded that the Mission Town Center project would meet or exceed the Santa Clara City Code total parking requirements and the impact was determined to be less than significant.

Cumulative Impacts

The FEIR evaluated cumulative traffic impacts of the Mission Town Center project for the year 2040. The FEIR found an unacceptable LOS F at the intersection of El Camino Real and Lafayette Street under No Project and with Project scenarios. However, the change in the critical delay movement (4.0 seconds in the AM peak hour and 2.1 second in the PM peak hour) and change in critical V/C ratio (0.009 in the AM peak hour and 0.005 in the PM peak hour) at the intersection were below the thresholds of significance. Therefore, the cumulative impact at this intersection was not considered significant.

At the intersection of Lafayette and Lewis Streets, the FEIR found that traffic generated by the cumulative conditions plus the Mission Town Center project would increase the critical delay movement by 6.1

seconds, and would increase the critical V/C ratio by 0.014 during the PM peak hour. The FEIR found no feasible improvements available for this intersection. Therefore, the FEIR concluded that the cumulative impact of the Mission Town Center project at this intersection would be significant and unavoidable.

Analysis of the Proposed Project

Road Network Impacts

As the proposed project is smaller in terms of unit count and amount of retail space than the Mission Town Center project, it is expected to generate less traffic than the Mission Town Center project and thereby expected to result in reduced traffic impacts compared to that project. Nonetheless, to confirm this and to ensure that traffic conditions in the study area have not changed substantially compared to late 2015 when the Mission Town Center traffic study was completed, an updated traffic impact analysis (TIA) was prepared (See Appendix B - Mission Town Center TIA Level of Service Update).

Based on the updated TIA, the proposed project would generate fewer vehicle trips than the Mission Town Center project with 16 fewer net vehicle trips in the AM peak hour and 24 fewer trips in the PM peak hour. As part of the updated traffic impact analysis, traffic counts were collected for the two intersections (El Camino Real and Lafayette Street and Lewis Street and Lafayette Street) that were found to operate at unacceptable level of service in the original TIA under the Background or cumulative conditions. The updated TIA found minimal changes in the volume of traffic entering both intersections. Traffic volumes at El Camino Real / Lafayette Street increased by 6% in the AM peak hour and 2% in the PM peak hour. Traffic volumes at Lewis Street / Lafayette Street increased by 2% in both the AM and PM peak hours. This level of change falls within the normal range of variation on a day-to-day basis in a typical week. Therefore, the updated TIA concluded that traffic impacts of the proposed project under existing plus project conditions would be less than significant.

The updated TIA also noted that since the preparation of the FEIR, lane configuration during the PM peak hour was modified to reflect the conditions in the field. In the AM peak hour, the configuration remained unchanged with one left lane, one through lane, and one through-right lane. In the PM peak hour, the lane configuration has been modified to one left lane, one left-through lane, and one through-right lane. The updated TIA found that despite this change in lane configuration, the proposed project would not result in any new traffic impacts.

In addition, as shown in Table-3 of the updated traffic analysis (**See Appendix B**), under the Background plus Project condition, the intersection of Lewis and Lafayette Streets would operate at LOS D in the PM peak hour. The traffic impact at this intersection would be less than significant. No mitigation is required.

Similar to the Mission Town Center project, the proposed project would comply with the City's design standards and the design standards in the Uniform Fire Code to prevent hazardous design features and would ensure adequate and safe access. In addition, the project applicant would work with the City to design and construct off site queuing for the parking garage to minimize unusual traffic congestion and delay. Therefore, similar to the FEIR conclusion, the proposed project's impact associated with hazard due to a design feature would be less than significant. No new mitigation is required.

As with the Mission Town Center project, emergency vehicles would be able to access the project site, and ramps within the parking structure of the proposed project would be adequate to allow these vehicles to access the entire site. Therefore, similar to the FEIR conclusion, the proposed project would not result in inadequate emergency access, and this impact was determined to be less than significant.

Transit Impacts

Similar to the Mission Town Center project, the proposed project would generate demand for transit services and would include street frontage amenities at transit stops adjacent to the project site, which would help reducing vehicle trips to and through the area. Similar to the FEIR conclusion, the proposed project would not conflict with applicable transit policies, and this impact would be less than significant.

Bicycle and Pedestrian Impacts

The proposed project would include 248 Class I bicycle locker spaces, 38 outside bicycle racks for use by retail patrons, and sidewalks improvements along Benton Street, El Camino Real, and The Alameda. Therefore, similar to the Mission Town Center project, the proposed project would not conflict with the policies listed in the City's General Plan that promote bicycle and pedestrian use, and this impact would be less than significant.

Parking Impacts

The proposed project is a mixed-use development on an infill site within a transit priority area. Therefore, similar to the Mission Town Center project, the proposed project qualifies for the exemption under SB 743 from analysis of parking impacts. Therefore, similar to the FEIR, parking impacts of the proposed project are discussed below for informational purposes only.

The Santa Clara City Code requires that parking for each residential unit shall be one and 1.5 spaces for each one bedroom unit, and 2.0 spaces for each two-plus bedroom unit (Santa Clara City Code Section 18.22.040) and 10 percent additional for visitor parking (Santa Clara City Code 18.54.080). For retail

development, one space is required for each 200 square feet of gross floor area and one space is required for every three restaurant seats (Santa Clara City Code 18.74.020).

The proposed project would provide 1.5 spaces for each one-bedroom unit (288 parking spaces for 192 one-bedroom units) and 1.5 spaces (245 parking spaces for 245 two-bedroom units) for each two-bedroom unit, and 3 spaces for the existing single homes (3410 The Alameda and 3370 The Alameda). For retail uses, the proposed project would provide 0.004 parking spaces per 1,000 gross square feet (88 parking spaces), and one parking space for each 3 outdoor seating (17 parking spaces). The proposed project would also add 4 parking spaces for the retail space of the 8 live-work units at a rate of 0.5 parking spaces per unit. The rezoning of the project site, as described under Section 5.10, Land Use and Planning, would allow changes in the parking spaces ratios. Therefore, if the rezoning of the project site is approved, the proposed project would be in compliance with the City requirement for parking.

Cumulative

Based on the updated TIA, under cumulative plus project conditions, the LOS at the intersection of El Camino Real and Lafayette Street would remain unchanged from that cumulative conditions (without the proposed project), with an LOS F in the AM peak hour and LOS E- in the PM peak hour. As shown in Table 3 of the updated traffic analysis (**See Appendix B**), the change in the critical delay as well as the change in the critical V/C ratio would be below the thresholds of significance. Therefore, the cumulative impact of the proposed project at this intersection would be less than significant.

Based on the updated TIA, under cumulative plus project conditions, the LOS at the intersection of Lafayette and Lewis Streets would remain unchanged from that under cumulative conditions (without the proposed project), with an LOS A during the AM peak hour, and LOS F during the PM peak hour. Traffic under the cumulative plus the proposed project conditions would increase the critical delay movement by 2.0 seconds, and would increase the V/C ratio by 0.005 during the PM peak hour at the intersection of Lafayette and Lewis Streets. Therefore, unlike the Mission Town Center project, cumulative traffic impacts of the proposed project at the intersection of Lafayette and Lewis Streets would be below the thresholds and this impact would be less than significant.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to transportation and traffic have come into effect since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to traffic impacts such that additional environmental review would be

triggered. Senate Bill (SB) 743, passed in 2013, requires the state Office of Planning and Research (OPR) to amend the CEQA Guidelines to provide an alternative to Level of Service (LOS), which essentially reflects auto delay, for evaluating transportation impacts of proposed projects. Measurements of transportation impacts may include "vehicle miles traveled (VMT), vehicle miles traveled per capita, automobile trip generation rates, or automobile trips generated." Once the CEQA Guidelines are amended to include those alternative criteria, auto delay will no longer be considered a significant impact under CEQA. OPR is working on the regulatory language changes to CEQA and it is anticipated that the changes will be adopted in late 2017 by the Natural Resources Agency and that statewide implementation will occur in late 2019. Since the new approach is not in effect at this time, and the City of Santa Clara has not adopted VMT thresholds or the VMT approach to traffic impact analysis, the traffic analysis conducted in the FEIR and the TIA update is valid and appropriately reflects the impacts of the proposed project.

Findings

Because the proposed project is generally similar to but smaller than the Mission Town Center project, its potential transportation and traffic impacts would be similar to or less than the impacts analyzed in the FEIR. Therefore, no new or substantially increased significant impacts related to transportation and traffic would result from the proposed project beyond those analyzed in the FEIR. No new mitigation is required.

5.16 TRIBAL CULTURAL RESOURCES

		Potentially Significant New Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
Tri	bal Cultural Resources - Would the project:				
a)	Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resource Code section 5020.1(k).				
b)	A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.				

Summary of Analysis in the FEIR

Assembly Bill (AB) 52, which was approved in September 2014 and became effective on July 1, 2015, requires that CEQA lead agencies consult with California Native American tribes that are traditionally and culturally affiliated with the geographic area of a revised project, if so requested by the tribes.

AB 52 applies only to projects where the Notice of Preparation (NOP) for the EIR was filed after July 1, 2015. The NOP for the Mission Town Center project EIR was filed in March 2015, and therefore the project was determined not to be subject to AB 52. Therefore the FEIR did not include an assessment of impacts on tribal cultural resources, although the City did complete consultation with Native American tribes in compliance with SB 18.

Analysis of the Proposed Project

As this addendum shows, the proposed project is adequately analyzed in the FEIR and no new EIR or NOP is necessary. Therefore, the proposed project is not subject to AB 52. As with the Mission Town Center project, the City has conducted consultation with Native American tribes in compliance with SB 18 for the proposed project.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken and no new information has become available since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to environmental impacts such that additional environmental review would be triggered. As noted above, although AB 52 has come into effect since the EIR certification, it does not apply to the proposed project for reasons presented above.

Findings

There would be no impacts to tribal cultural resources as a result of the proposed project.

5.17 UTILITIES/SERVICE SYSTEMS

		Potentially New Significant Impact	Less than Significant New Impact with Mitigation	Less than Significant New Impact	Impact Fully Analyzed in the FEIR
UT	TLITIES AND SERVICE SYSTEMS - Would the project:				
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?				\boxtimes
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new and 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?				

Summary of the Analysis in the FEIR

The FEIR found that the increase in the average volume of wastewater conveyed to the RWF as a result of the Mission Town Center project would be within the treatment capacity allocated to the City of Santa Clara. Additionally, the FEIR found that wastewater flows generated at the project site as a result of the mixed-use development would be treatable at the RWF. The FEIR concluded that the Mission Town Center project would not result in wastewater flows that would cause the RWF to exceed the wastewater treatment requirements imposed on the facility by the San Francisco Bay Regional Water Quality Control

Board (RWQCB), and the project's impact on wastewater treatment facilities would be less than significant.

The FEIR found that the Mission Town Center project would not require the upsizing of the storm drain system in Sherman and Harrison Streets because the site drainage patterns and volumes would remain substantially unchanged. The FEIR found that environmental impacts associated with the segment that would be upsized to 72 inches along Benton Street and El Camino Real as part of the Mission Town Center project were analyzed in the FEIR under the relevant resource topics. The FEIR concluded that all impacts associated with off-site storm water drainage improvements would be less than significant.

The FEIR found that bioretention areas and media filter vaults would remove pollutants from on-site storm water runoff prior to discharge to the City's storm drain system in compliance with the City of Santa Clara Public Works Department guidelines and standards, as well as the San Francisco Bay Regional Water Quality Control Board's Municipal Regional Permit requirements. Therefore, post-development impacts related to storm water were found to be less than significant.

The FEIR also found that environmental impacts from the construction of storm water drainage system on the project site were analyzed in the other sections of the FEIR, and would be less than significant with mitigation incorporated.

The FEIR found that net increase of 58.4 acre-feet per year (afy) in water demand at the project site as a result of the Mission Town Center project would be within the growth projections estimated in the Santa Clara Water Utility 2010 Urban Water Management Plan (2010 UWMP). The FEIR stated that water demand would be served by existing supplies under normal, single dry and multiple dry years, and the development of the Mission Town Center project would not result in the need for new or expanded water supply entitlements. The FEIR concluded that the Mission Town Center project's impact related to water supply would be less than significant. No mitigation was required.

The FEIR found that impacts associated with the installation of water mains and recycled water line in The Alameda, Harrison Street, and Fremont Street as part of the Mission Town Center project would be related to cultural resources, air quality, noise and hazards and hazardous materials. The FEIR concluded that all these impacts analyzed in the FEIR under the relevant resource topics would be less than significant with mitigation measures incorporated.

The FEIR found that wastewater generated at the project site would be discharged into the existing wastewater mains in Benton Street and El Camino Real for conveyance to the RWF. The FEIR found that the Mission Town Center project would not require the upsizing of sanitary sewer lines or the expansion

of any other sewer lines that are not already planned by the City. Additionally, standard impact fees would apply to the Mission Town Center project to contribute to the sewer improvements and connections. The FEIR concluded that the impact related to wastewater conveyance systems would be less than significant. No mitigation was required.

The FEIR found that the Mission Town Center project had been designed to ensure wastes generated on the project site would be recycled and the amount requiring landfill disposal would be minimized. The FEIR stated that the total waste generated by the Mission Town Center project would constitute 0.1 percent of the total waste disposed by the City at the Newby Island Landfill and would constitute approximately 0.01 percent of the daily capacity permitted at the Newby Island Landfill. The FEIR found that the solid waste that would be produced at the project site would constitute a small amount of solid waste compared to the landfill's daily permitted capacity. The FEIR concluded that the Mission Town Center project would be served by a landfill with sufficient permitted capacity and this impact would be less than significant.

The FEIR stated that the Mission Town Center project would take part in the programs set by the City to comply with state laws that require diversion of 50 percent of solid waste from landfills, and with the goal set by the General Plan to divert 90 percent solid waste between the years 2010 and 2025. The FEIR concluded that the Mission Town Center project would not conflict with federal, state, or local statutes and regulations and this impact would be less than significant.

Energy Consumption

The FEIR found that residential usage of electricity of the Mission Town Center project would be at a minimum at least 10 percent better than Title 24 (2013) standards, and residential natural gas usage would be at least 15 percent better than Title 24 (2008). The FEIR found that electrical loads that would be required by the Mission Town Center project would be within the parameters of projected load growth in the City, and the Silicon Valley Power (SVP) would be able to meet the demand in the project area. Similarly, the natural gas demand associated with the Mission Town Center project would be within the parameters of projected load growth, and PG&E would be able to meet the demand in the project area. The FEIR concluded that the Mission Town Center project would not result in the consumption of energy resources that could not be accommodated within the long-term electricity supply and distribution system of SVP or the long-term natural gas supply and distribution system of PG&E. This impact was determined to be less than significant.

Wasteful Use of Energy

The FEIR found that use of energy resources, such as diesel and gasoline, during construction of the Mission Town Center project would comply with General Plan Policy 5.10.3-P3, which requires projects to reduce energy consumption through sustainable construction practices, materials, and recycling. Additionally, the FEIR indicated that implementation of **Mitigation Measure AIR-1** would minimize idling times by shutting construction equipment off when not in use or reduce the maximum idling time to 5 minutes. **Mitigation Measure AIR-1** would also require all construction equipment to be maintained and properly tuned in accordance with manufacturer's specifications.

The FEIR found that during operation, the Mission Town Center project would include a network of pedestrian and bicycle paths, a direct connection to the adjacent Santa Clara Station, and bike lockers and racks, which would result in a smaller number of vehicle trips than a comparable development that is not located near transit or doesn't provide bicycle and pedestrian amenities. The FEIR concluded that the Mission Town Center project would not result in wasteful transportation energy and the impact related to energy use would be less than significant.

Cumulative Impacts

<u>Water Supply</u>. The FEIR stated that the City has adequate water supplies to serve the Mission Town Center project along with projected growth through 2035. The FEIR concluded that cumulative impacts associated with water supplies would be less than significant.

<u>Wastewater Conveyance and Treatment</u>. The FEIR found that the Mission Town Center project would not require expansion of wastewater lines, and the City would continue to evaluate the collection and conveyance system as part of the City's development review process, and would upgrade the system as needed. The FEIR concluded that cumulative impacts associated with wastewater conveyance would be less than significant.

The FEIR found that the RWF has sufficient capacity to accommodate wastewater flows generated by the Mission Town Center project and planned projects within the City. The FEIR concluded that cumulative impacts associated with wastewater treatment facilities would be less than significant.

<u>Solid Waste</u>. The FEIR stated that the Newby Island Landfill has adequate capacity to serve the projected growth within the City including the Mission Town Center project through 2024. The FEIR concluded that near-term impacts associated with solid waste would be less than significant. In the long term, the FEIR found that the cumulative solid waste impact related to landfill capacity would be significant. However, the FEIR concluded that due to the small amount of waste generated by the Mission Town

Center project (0.1 percent of the total waste disposed by the City at the Newby Island Landfill, and approximately 0.01 percent of the daily capacity permitted at the Newby Island Landfill), the impact would not be cumulatively considerable.

Electricity and Natural Gas. The FEIR found that the Mission Town Center project in combination with the demand for electricity associated with other proposed projects in the region would contribute to the need for an expansion of an existing power plant or the construction of a new power plant. The FEIR found that both electricity and gas needed by the cumulative projects may be generated out of state and it would not be reasonable to predict where the new supply sources would be located or to evaluate the environmental consequences from the construction and operation of such facilities. Furthermore, the FEIR found if the new power generation facilities were to be located in California, they would be subject to environmental review and would be required to avoid or minimize their environmental impacts. The FEIR concluded that the cumulative impact associated with energy resources would be less than significant.

Analysis of the Proposed Project

The proposed project would have fewer apartment units and a reduction in the retail space compared to the Mission Town Center project. Therefore, the increase in the volume of wastewater conveyed to the RWF as a result of the proposed project would be less than the volume of wastewater that was estimated for the Mission Town Center project. Therefore, wastewater flows that would be generated at the project site as a result of the proposed project would be treatable at the RWF and would not exceed the wastewater treatment requirements imposed on the facility by the RWQCB. Therefore, similar to the FEIR conclusion, the proposed project's impact on wastewater treatment facilities would be less than significant. No new mitigation is required.

Improvements to the storm drain system along Benton and El Camino Real under the proposed project would be similar to those under the Mission Town Center project analyzed in the FEIR. Therefore, similar to the FEIR conclusions, the proposed project's impacts associated with off-site storm water drainage improvements would be less than significant.

Similar to the Mission Town Center project, the proposed project would treat storm water generated at the project site with a combination of bioretention areas and media filter vaults with a minimum of 20 percent of the post-development storm water volume to be treated through bioretention designed in accordance with Chapter 6.2 of the C.3 Stormwater Handbook of the Santa Clara Valley Urban Runoff Pollution Prevention Program. Therefore, similar to the FEIR conclusion, the impacts of the proposed project associated with on-site storm water would be less than significant. No new mitigation is required.

According to a memorandum prepared by the Santa Clara Department of Water and Sewer Utilities and included in **Appendix A** of this Addendum, the proposed project's water demand would be 55.2 afy, 5.3 percent less than the water demand estimated for the Mission Town Center project. Therefore, the proposed project would be within the growth estimated in the City's UWMP. Water demand would be served by existing supplies, and the proposed project would not result in the need for new or expanded water supply entitlements. Similar to the FEIR conclusion, the proposed project's impact related to water supply would be less than significant. No new mitigation is required.

Similar to the FEIR conclusion, impacts associated with the installation of the water mains and recycled water line off site have been analyzed in the FEIR and this Addendum under the relevant resource topics, and the impacts would be less than significant with mitigation incorporated. No new mitigation is required.

The proposed project would have fewer apartment units and a reduction in the retail space compared to the Mission Town Center project. Therefore, the proposed project would not require the upsizing of sanitary pipelines or the expansion of any other wastewater lines that are not already planned by the City. The proposed project would contribute to the sewer improvements and connections by paying the standard impact fees. Therefore, similar to the FEIR conclusion, the proposed project's impact to wastewater conveyance systems would be less than significant. No new mitigation is required.

The proposed residential component is estimated to generate approximately 12,070 pounds of solid waste and 2,485 pounds recyclable waste per week. The proposed retail component (not including restaurants) would generate approximately 331 pounds of solid waste and 384 pounds of recyclable waste per week. Restaurants associated with the proposed retail component would generate 1,693 pounds of solid waste and 782 pounds of recyclable waste per week. to the Mission Town Center project, the proposed project would generate approximately 7 tons of solid waste per day, which would constitute 0.17 percent of the daily capacity permitted at the Newby Island Landfill. Therefore, similar to the FEIR conclusion, the proposed project would be served by a landfill with sufficient permitted capacity and this impact would be less than significant. No new mitigation is required.

Similar to the Mission Town Center project, the proposed project would take part in the programs set by the City to comply with state laws that require diversion of 50 percent of solid waste from landfills, and with the goal set by the General Plan to divert 90 percent solid waste between the years 2010 and 2025. Therefore, similar to the FEIR conclusion, the proposed project would not conflict with federal, state, or local statutes and regulations and this impact would be less than significant. No new mitigation is required.

Energy Consumption

The proposed project would use the most up-to-date building materials for energy conservation. Similar to the FEIR findings, electrical loads that would be required by the proposed project would be within the parameters of projected load growth in the City, and the SVP would be able to meet the demand in the project area. Similarly, the natural gas demand associated with the proposed project would be within the parameters of projected load growth, and PG&E would be able to meet the demand in the project area. Similar to the FEIR conclusions, the proposed project's impact associated with consumption of energy resources and natural gas would be less than significant. No new mitigation is required.

Wasteful Use of Energy

During construction, the proposed project would comply with General Plan Policy 5.10.3-P3 to reduce energy consumption through sustainable construction practices, materials, and recycling. In addition, the proposed project would include FEIR **Mitigation Measure AIR-1.** Therefore, similar to the FEIR conclusion, the proposed project's impact associated with wasteful energy use during construction would be less than significant.

During operation, the proposed project would generate a smaller number of vehicle trips than the Mission Town Center project analyzed in the FEIR. In addition, the proposed project would include a network of pedestrian and bicycle paths that provide direct connection from the project site to the nearby transit stations. Therefore, similar to the FEIR conclusion, the proposed project's impact associated with wasteful transportation energy during operation would be less than significant.

Cumulative Impacts

Similar to the findings of the FEIR, the proposed project's impacts associated with utilities and service systems would not be cumulatively considerable and cumulative utilities impacts would be less than significant.

Changes in Circumstances and/or New Information

There are no changes in circumstances in which the proposed project would be undertaken. No new information has become available and no new regulations related to utilities and service systems have come into effect since the certification of the Mission Town Center EIR that would alter the previous analysis and change its conclusions relative to environmental impacts such that additional environmental review would be triggered.

Findings

The potential utilities impacts of the proposed project are adequately analyzed in the FEIR, and the proposed project would not result in new or substantially increased significant impacts beyond those discussed in the FEIR. No new mitigation is required.







Memorandum

Date: August 18, 2017

To: Elaheh Kerachian, Associate Planner

From: Mike Vasquez, Compliance Manager

Subject: 575 Benton Water Supply Assessment

Water Department Staff has reviewed the proposed changes to the Mission Town Center Project (575 Benton). A Water Supply Assessment (WSA) was completed and approved by City Council on October 13, 2015.

Per the California Water Code:

- §10910, for projects that have already been subject to a water assessment, no additional water assessment shall be required unless one or more of the following changes occur:
 - o Changes in the project that result in a substantial increase in water demand for the project
 - Changes in the circumstances or conditions substantially affecting the ability of the public water system to provide a sufficient supply of water for the project
 - Significant new information becomes available that was not known and could not have been known at the time when the assessment was prepared

The calculations used to determine the need for a new WSA based on the information submitted are shown below:

Approved WSA Demand*	Proposed Changes Demand	Demand Change	% Change
58.3 Acre Ft / Year	55.2 Acre Ft / Year	-3.1 Acre Ft / Year	-5.3%

^{*}Water demands were recalculated using updated water use factors in the 2015 UWMP

The Water and Sewer Utilities has analyzed the proposed project changes and has determined that the changes result in a decrease in estimated water demand for the project. Therefore, a supplemental WSA will not be required at this time, however, please keep the Water Department apprised of any and all changes to the development that may affect the site's projected water demand. Any subsequent changes to the development may potentially exceed the criteria listed above in which a supplemental WSA will be required. Please note that any changes will be evaluated against the original approved WSA, not changes noted in this memo. Any changes in this memo will be used in future WSAs and water supply planning.

cc: Gary Welling, Acting Director of Water and Sewer Utilities

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MEMORANDUM

Date: August 29, 2017

To: Rima Ghannam, Impact Sciences

From: Robert Eckols and Vicki Caudullo, Fehr & Peers

Subject: Mission Town Center TIA Level of Service Update

SJ17-1737

The purpose of this technical memorandum is to update the Mission Town Center transportation impact analysis (TIA) with the revised project description. The memorandum discusses the following items:

- Update the trip generation for the revised project description,
- Update the analysis with new traffic counts, and
- Assess potential changes in Level of Service (LOS) analysis in the existing conditions, background conditions, and cumulative conditions without and without the project at two key intersections.

The updated traffic impact analysis was prepared using the same methodology described in the *Mission Town Center Transportation Impact Analysis* completed in November 2015. The two key intersections studied in the updated analysis are El Camino Real (SR84) / Lafayette Street and Lewis Street / Lafayette Street.

PROJECT DESCRIPTION

The revised project description is a mixed-use development on 5.7 acres with approximately 355 residential units and approximately 22,000 square feet of retail/restaurant development. The original project description was a mixed-use development with approximately 385 residential units and approximately 27,000 square feet of retail/restaurant development.

The Project will replace six single family homes, four apartments, approximately 88,000 square feet of warehouse, approximately 5,000 square feet of office, an approximately 3,900 square-foot auto care center, and an approximately 3,900 square feet restaurant.



TRIP GENERATION ANALYSIS

Fehr & Peers prepared an updated trip generation analysis for the revised project description. The same trip generation methodology in the previous analysis was used to estimate AM and PM peak hour trip and total daily traffic for the revised project.

The results of the updated trip generation analysis is included in **Table 1**. Comparing the net new trips generated by the revised project to the original project shows that there is a reduction in the daily, AM peak hour, and PM peak hour trips. There will be 368 fewer daily trips generated by the revised project. The number of AM and PM peak hour trips generated by the revised project are reduced by 16 trips in the AM peak hour and 24 trips in the PM peak hour. Detailed trip generation analyses for the original and revised project descriptions are included in Attachment A.

TABLE 1: UPDATED TRIP GENERATION

Leadilla	ITE C. d.	11.26		AN	AM Peak Hour			PM Peak Hour		
Land Use	ITE Code	Units	Weekday Trips	ln	Out	Total	ln	Out	Total	
REVISED PROJE	ЕСТ									
Apartments	220	2,361	36	142	178	138	75	213		
Retail	820	22,000 sf	939	38	24	62	39	43	82	
	Retail Pass-	-by Reduction ¹	17%	8%	8%	8%	8%	8%	8%	
		Subtotal:	3,140	71	164	235	174	114	288	
	Mixed U	Ise Reduction ² :	34%	45%	45%	45%	42%	42%	42%	
		Total Trips	2,072	39	90	129	101	66	167	
	1	Existing Trips	715	15	11	26	34	31	65	
	N	let New Trips	1,357	24	79	103	67	35	102	
ORIGINAL PRO	JECT									
	Ne	et New Trips	1,725	30	89	119	80	46	126	
		Change	(368)	(6)	(10)	(16)	(13)	(11)	(24)	

^{1 –} Pass-by trip reduction are trips that are already on the adjacent roadways that use the retail space. The pass-by trip reductions are based on guidance in the Institute of Transportation Engineers' Trip Generation Handbook and is consistent with the VTA TIA Guidelines, Section 8.3.1.

Source: Fehr & Peers, 2017

² – Mixed use trip reduction was estimated using Fehr & Peers' MainStreet tool that accounts for proximity to transit and internalization due the land use mix. A detailed description process is on pages 31 – 34 of the original traffic analysis.



CHANGES TO EXISTING CONDITIONS – VOLUME COMPARISON

New intersection turning movement counts were collected during the morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak periods for two intersections that were projected to operate at unacceptable levels of service (LOS) under the Background and/or Cumulative conditions in the original TIA. These intersections include:

- El Camino Real / Lafayette Street
- Lewis Street / Lafayette Street

The 2017 traffic counts were compared to the original counts collected in 2014. **Table 2** shows that there has been minimal change in the volume of traffic entering the intersections. The volumes at El Camino Real / Lafayette Street increased by 6% in the AM peak hour and 2% in the PM peak hour. The volumes at Lewis Street / Lafayette Street increased by 2% in both the AM and PM peak hours. This level of change is relatively modest and falls within the range of variation that one might expected on a day-to-day basis in a typical week.

The 2017 intersection turning movement count sheets are included as Attachment B.

TABLE 2: CHANGE IN VOLUMES 2014 - 2017

Location	2014 Volume	2017 Volume	Change
El Camino Real / Lafayette			
AM Peak Hour	3,820	4,055	+6.0%
PM Peak Hour	4,120	4,215	+2.2%
Lewis Street / Lafayette			
AM Peak Hour	1,710	1,750	+2.2%
PM Peak Hour	2,500	2,555	+2.3%

Source: Fehr & Peers, 2017

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LEVEL OF SERVICE EVALUATION

The TRAFFIX model used in the Mission Town Center TIA was used to test what, if any, changes to intersection operations would occur based on the new traffic count and the updated trip generation of the current proposal.

One modification was made to the Mission Town Center TIA TRAFFIX model to match field conditions at the intersection of Lewis Street / Lafayette Street. The modification to the lane configuration of the westbound Lewis Street approach reflects that the roadway lane configuration functions differently between the AM and PM peak hours. In the AM peak hours, the westbound lane configuration has one left, one through and one through-right lane. In the PM peak hours, the westbound lane configuration has one left, one left-through, and one through-right lane. The PM peak period lane configuration provides slightly more capacity for PM left turning volumes when Lafayette Street has two southbound lanes.

The combined effect of the reduction in project trip generation, updated baseline traffic volumes, and the Lewis Street lane configuration modification is that the traffic operations improve for all scenarios studied. **Table 3** presents the updated delay and level of service calculation results under Existing, Background, and Cumulative No Project and Plus Project Conditions.

Significant Impact Criteria

The determination of significance for project impacts is based on applicable policies, regulations, goals, and guidelines defined by the City of Santa Clara and the surrounding jurisdiction of Santa Clara County. The detailed impact criteria presented focus on elements of the CEQA checklist pertaining to roadway system operations and its effects on users, including drivers, pedestrians, bicyclists, transit passengers, and first responders in emergency access vehicles.

City of Santa Clara

Significant impacts at City of Santa Clara intersections would occur when the addition of project traffic causes one of the following:

- Intersection operations to degrade from an acceptable level (LOS D or better) to an unacceptable level (LOS E or F); or
- Exacerbates unacceptable operations (LOS E or F) by increasing the critical delay by more than four seconds and increasing the volume-to-capacity (V/C) ratio by 0.01 or more; or

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• An increase in the V/C ratio of 0.01 or more at an intersection with unacceptable operations (LOS E or F) when the change in critical delay is negative (i.e. decrease). This can occur if the critical movements change.

The City of Santa Clara has established a minimum acceptable operation level of LOS D for local streets, and a LOS E standard for CMP designed facilities.

Santa Clara County and Congestion Management Program

The LOS standard for Santa Clara County (VTA Congestion management Program, 2013) expressway and CMP intersections is LOS E. Traffic impacts at these intersections would occur when the addition of traffic associated with a project causes:

- Intersection operations to deteriorate from an acceptable level (LOS E or better) to an unacceptable level (LOS F); or
- Exacerbates unacceptable operations by increasing the average critical delay more than four seconds and increasing the critical volume-to-capacity (V/C) ratio by 0.01 or more at an intersection operating at LOS F; or

The V/C ratio increases by 0.01 or more at an intersection with unacceptable operations (LOS F) when the change in critical delay is negative (i.e. decreases). This can occur if the critical movements change.

Analysis Results

While there are some variations in average delay and LOS from the initial analysis, there are no new impacts with the updated project description and intersection volumes at either intersection. In addition, there are no longer significant impacts at Lafayette Street / Lewis Street in the Background Plus Project PM or the Cumulative Project Plus PM scenarios.

The initial vehicle intersection delay and level of service (LOS) is included as Attachment C.

CONCLUSIONS

The revised project description is smaller than the original project with 30 fewer apartment dwelling units and a 5,000 square feet reduction in retail space. As a result, trip generation for the revised project is less than the original project. New turning movement counts show minor (2% to 6%) increases in volumes at Lafayette Street / El Camino Real and Lafayette Street / Lewis Street. TRAFFIX analysis shows that there are no impacts under existing, background, or cumulative conditions with

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or without the Project conditions. The analysis results differ from the Mission Town Center TIA (2015) results in that there is no longer a significant impact at Lafayette Street / Lewis Street in the Background Plus Project PM or the Cumulative Plus Project PM scenarios. The change in project impacts is due to the reduction in the project's trip generation during the peak hours and that the original impact was just over the significance threshold.



TABLE 3. UPDATED INTERSECTION OPERATIONS - REVISED PROJECT

Intersection	Int. Control ¹	Jurisdiction	Minimum Acceptable LOS ²	Peak Hour ³	Exist	ing	Existing Existing Proj		Δ in Crit.	Δ in Crit. Delay ⁷	Backg	round	Backgrou Backgr Plus Pi	ound	Δ in Crit.	Δ in Crit. Delay ⁷	Cumul	lative	Cumulati Cumulati Proj	ve Plus	Δ in Crit.	Δ in Crit. Delay ⁷
					Delay ⁴	LOS ⁵	Delay ⁴	LOS ⁵	V/C ⁶	,	Delay ⁴	LOS ⁵	Delay ⁴	LOS⁵	V/C ⁶	,	Delay ⁴	LOS ⁵	Delay ⁴	LOS⁵	V/C ⁶	,
1. Lafayette St /	Signal	Santa Clara	E	AM	45.7	D	46.0	D	0.009	0.7	54.7	D-	55.7	E+	0.009	1.8	117.1	F	119.1	F	0.007	3.1
El Camino Real	-	CMP		PM	41.3	D	41.4	D	0.003	0.1	48.0	D	48.3	D	0.003	0.3	77.4	E-	78.5	E-	0.003	1.2
2. Lafayette St / Lewis St	Signal	City of Santa Clara	D	AM	10.9	B+	11.0	B+	0.004	0.2	9.3	Α	9.4	А	0.004	0.2	8.2	Α	8.3	А	0.004	0.2
remiz 2f		Cidia		PM	27.3	С	34.1	C-	0.089	9.4	45.6	D	46.6	D	0.005	1.2	82.1	F	83.7	F	0.005	2.0

Notes:

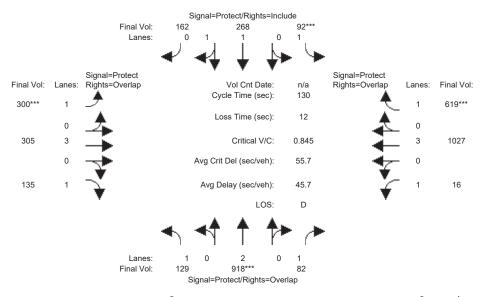
- 1. Signal = Signalized Intersection; SSSC = Side-Street Stop Controlled Intersection.
- 2. Minimum Acceptable Threshold is the threshold between acceptable and unacceptable level of service. For unsignalized intersection, an intersection must be lower than the acceptable LOS threshold and meet a peak hour signal warrant.
- 3. AM = morning peak hour, PM = afternoon peak hour
- 4. Whole intersection weighted average control delay expressed in seconds per vehicle for signalized intersections. Total control delay for the worst movement is presented for side-street stop-controlled intersections.
- 5. LOS = Level of Service calculations conducted using the TRAFFIX level of service analysis software package, which applies the methodology described in the 2000 HCM.
- 6. Change in critical volume-to-capacity ratio (V/C) between No Project and Plus Project Conditions.
- 7. Change in critical movement delay between No Project and Plus Project Conditions.

Bold font indicates unacceptable operations. **Bold and highlighted** indicates a significant impact.

Source: Fehr & Peers, 2017.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing AM

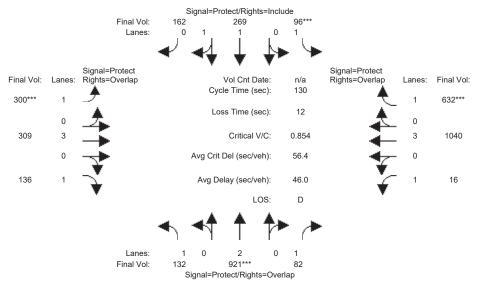
Intersection #1: LAFAYETTEE & EL CAMINO REAL



Street Name:		Lafa	ayette	ee Stre	eet		El Camino Real						
Approach:						und	E	ast Bo	und	West Bound			
Movement:	L	- T	- R	$_{\rm L}$.	- T	- R	L	- T	- R	L ·	- T		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10	
Y+R:		4.0			4.0			4.0			4.0	4.0	
Volume Module													
Base Vol:			82	92		162	300		135		1027	619	
Growth Adj:			1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	129	918	82	92	268	162	300	305	135	16	1027	619	
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	129	918	82	92	268	162	300	305	135	16	1027	619	
User Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	129	918	82	92	268	162	300	305	135	16	1027	619	
Reduct Vol:			0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	129	918	82	92	268	162	300	305	135	16	1027	619	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:			82	92		162		305	135	16	1027	619	
Saturation F						'							
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.00	2.00	1.00	1.00	1.21	0.79	1.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	1750	3800	1750	1750	2294	1387	1750	5700	1750	1750	5700	1750	
Capacity Anal	lysis	Modul	e:			'							
Vol/Sat:	0.07	0.24	0.05	0.05	0.12	0.12	0.17	0.05	0.08	0.01	0.18	0.35	
Crit Moves:		****		****			***					****	
Green Time:		37.2	67.0	8.1	27.8	27.8	26.4	42.7	60.2	29.9	46.2	54.2	
Volume/Cap:			0.09	0.84		0.55		0.16	0.17		0.51	0.85	
Delay/Veh:	61.4	51.8	16.2	112.0	48.3	48.3	71.0	31.2	20.8	39.1	33.9	45.9	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:				112.0		48.3		31.2	20.8		33.9	45.9	
LOS by Move:			В	F	D	D	E		C+	D		D	
HCM2kAvq0:	5		2		8	8	15		3	1		26	
Note: Queue										_			
	-1 -1					- I							

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing Plus Project AM

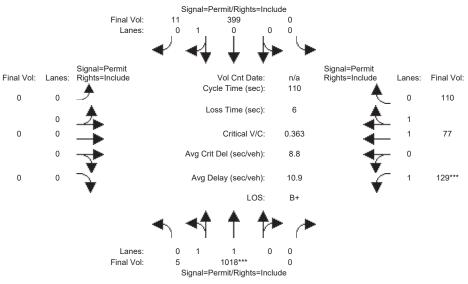
Intersection #1: LAFAYETTEE & EL CAMINO REAL



Approach:	ne: Lafayette North Bound L - T - R				ath Bo	und	Εä	ast Bo	l Cami und - R	We	ound – R	
Min. Green:		10		7				10		7		10
Y+R:		4.0			4.0			4.0				4.0
Volume Modul												
Base Vol:	129	918	82	92	268	162	300	305	135	16	1027	619
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	129	918	82	92	268	162	300	305	135	16	1027	619
Added Vol:	3	3	0	4	1	0	0	4	1	0	13	13
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	132	921	82	96	269	162	300	309	136	16	1040	632
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	132	921	82	96	269	162	300	309	136	16	1040	632
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	132	921	82	96	269	162	300	309	136	16	1040	632
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	132	921	82	96	269	162	300	309	136	16	1040	632
Saturation F	low Mo	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	1.21	0.79		3.00	1.00	1.00	3.00	1.00
Final Sat.:			1750		2298	1384		5700	1750		5700	1750
	1											
Capacity Ana	_											
Vol/Sat:			0.05	0.05		0.12		0.05	0.08	0.01	0.18	0.36
Crit Moves:							****					****
Green Time:				8.4		27.5		42.8	60.5		46.6	55.0
Volume/Cap:			0.09	0.85		0.55		0.16	0.17		0.51	0.85
Delay/Veh:				112.4		48.6		31.1	20.6		33.6	45.9
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:				112.4		48.6		31.1	20.6		33.6	45.9
LOS by Move:			В	F	D	D	E		C+	D	-	D
HCM2kAvgQ:	5		2	6	8	8	15	_	3	1	11	27
Note: Queue	report	ted is	the r	number	of ca	rs per	lane	•				

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing AM

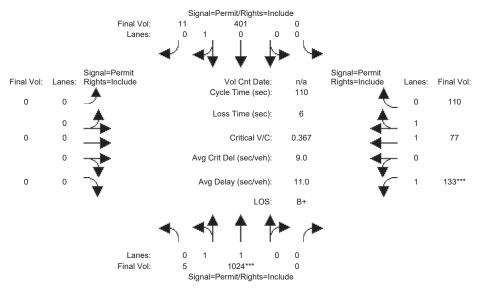
Intersection #2: Lafayette Street & Lewis Street



Street Name:	No	La:	fayett	e Stre	eet	nd	Lewis Street East Bound West Bound					,,nd
Movement:	L ·	- T	– R	L -	- T	- R	L -	- T	- R	L -	- T	- R
Min. Green: Y+R:	10		0 4.0	. 0	10		0	0 4.0	0	10	10	10
Volume Module						'			'			
Base Vol:	5	1018	0	0	399	11	0	0	0	129	77	110
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	1018	0	0	399	11	0	0	0	129	77	110
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	1018	0	0	399	11	0	0	0	129	77	110
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:		1018	0	0	399	11	0	0	0	129	77	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	5	1018	0	0	399	11	0	0	0	129	77	110
PCE Adj:			1.00	1.00		1.00		1.00	1.00	1.00	1.00	1.00
MLF Adj:			1.00	1.00		1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:			0		399	11	0	0	0	129	77	110
Saturation F												
Sat/Lane:					1900			1900	1900		1900	1900
Adjustment:				0.92		0.92		1.00	0.92	0.92		0.92
Lanes:						0.03		0.00	0.00	1.00		1.00
Final Sat.:			0			51	-	0	0	1750		1750
Capacity Ana	_											
,	0.27		0.00	0.00	0.22	0.22	0.00	0.00	0.00		0.04	0.06
0110 110 100		****								****		
	81.7		0.0	0.0		81.7	0.0	0.0	0.0		22.3	22.3
Volume/Cap:			0.00		0.29	0.29		0.00	0.00	0.36		0.31
Delay/Veh:			0.0	0.0		4.8	0.0	0.0	0.0	38.3		37.6
User DelAdj:			1.00	1.00		1.00	1.00		1.00	1.00		1.00
AdjDel/Veh:				0.0		4.8	0.0	0.0	0.0	38.3		37.6
LOS by Move:			A	A		A	A		A	D+	D+	D+
HCM2kAvgQ:			0	0	4	4	0	0	0	4	2	4
Note: Queue	report	ted is	the n	umber	oi ca	rs per	lane					

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing Plus Project AM

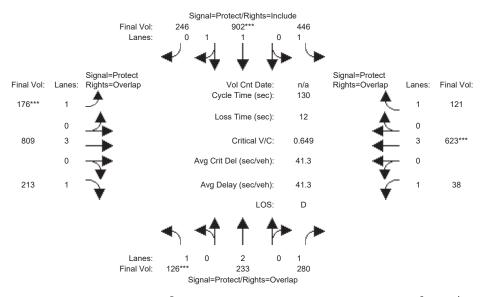
Intersection #2: Lafayette Street & Lewis Street



Street Name:							Lewis Street						
Approach:	No	rth Bo	und	Soi	ath Bo	und	Εá	ast Bo	ound	West Bound			
Movement:	L ·	- T	- R	L -	- T	- R	L -	- T	- R		- T		
Min. Green:				10			0	0	0	10	10	10	
Y+R:			4.0		4.0		4.0			4.0		4.0	
Volume Module													
Base Vol:		1018	0	Λ	399	11	0	0	0	129	77	110	
Growth Adj:			1.00		1.00	1.00		1.00	1.00	1.00		1.00	
Initial Bse:		1018	0	0.11	399	11	0.10	0	0	129	77	110	
Added Vol:		6	0	0	2	0	0	0	0	4	0	0	
PasserByVol:			0	0	0	0	0	0	0	0	0	0	
Initial Fut:			-	0	401	11	0	0	0	133	77	110	
			0										
User Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
		1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00	
PHF Volume:		1024	0	0	401	11	0	0	0	133	77	110	
Reduct Vol:		0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:			0	0	401	11	0	0	0	133	77	110	
PCE Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
MLF Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
FinalVolume:				. 0			. 0		0	133		110	
Saturation F				1000	1000	1000	1000	1000	1000	1000	1000	1000	
		1900	1900		1900			1900	1900		1900	1900	
Adjustment:			0.92		1.00	0.92		1.00	0.92		1.00	0.92	
		1.99	0.00		0.97	0.03		0.00	0.00		1.00	1.00	
Final Sat.:			0				0		0	1750		1750	
Capacity Ana													
Vol/Sat:	_		0.00	0 00	0 22	0.22	0 00	0.00	0.00	0 00	0.04	0.06	
			0.00	0.00	0.22	0.22	0.00	0.00	0.00	****		0.06	
Crit Moves:			0 0	0 0	01 0	01 0	0 0	0 0	0 0			00 0	
Green Time:				0.0		81.2	0.0		0.0		22.8	22.8	
Volume/Cap:			0.00		0.29	0.29		0.00	0.00		0.20	0.30	
Delay/Veh:			0.0	0.0		4.9	0.0	0.0	0.0		36.1	37.2	
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
AdjDel/Veh:			0.0	0.0	4.9	4.9	0.0	0.0	0.0		36.1	37.2	
LOS by Move:			A	A		A	A		A	D+	D+	D+	
HCM2kAvgQ:		6	0	0	5	5	0		0	4	2	4	
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane						

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing PM

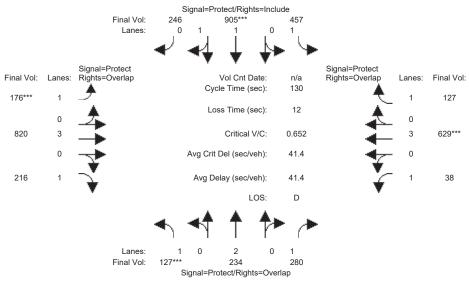
Intersection #1: LAFAYETTEE & EL CAMINO REAL



Street Name:		Laf	ayette	e Str	eet		El Camino Real						
Approach:						und	E	ast Bo	und	West Bound			
Movement:	L	- T	- R	L ·	- T	- R	L	- T	- R	L ·	- T		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10	
Y+R:		4.0			4.0			4.0		4.0		4.0	
Volume Module													
		233	280	446		246	176		213	38		121	
Growth Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	126	233	280	446	902	246	176	809	213	38	623	121	
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	126	233	280	446	902	246	176	809	213	38	623	121	
User Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	126	233	280	446	902	246	176	809	213	38	623	121	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:		233	280	446	902	246	176	809	213	38	623	121	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:			280	446		246		809	213	38	623	121	
Saturation F	iow M	odule:											
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.00	2.00	1.00	1.00	1.54	0.46	1.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:	1750	3800	1750	1750	2932	800	1750	5700	1750	1750	5700	1750	
Capacity Ana	lysis	Modul	e:	•			•		,				
Vol/Sat:	0.07	0.06	0.16	0.25	0.31	0.31	0.10	0.14	0.12	0.02	0.11	0.07	
Crit Moves:	****				****		****				****		
Green Time:		26.7	38.3	49.3	61.6	61.6	20.1	30.5	44.9	11.6	21.9	71.1	
Volume/Cap:	0.65	0.30	0.54	0.67	0.65	0.65	0.65	0.61	0.35	0.24	0.65	0.13	
Delay/Veh:	71.0	44.7	42.6	39.0	27.9	27.9	63.1	46.5	33.4	58.9	53.9	14.6	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	71.0	44.7	42.6	39.0	27.9	27.9	63.1	46.5	33.4	58.9	53.9	14.6	
LOS by Move:			D	D	С	С	E	D	C-	E+	D-	В	
HCM2kAvq0:	6		10	17		18	8	10	7	2	9	2	
Note: Queue													
~													

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing Plus Project PM

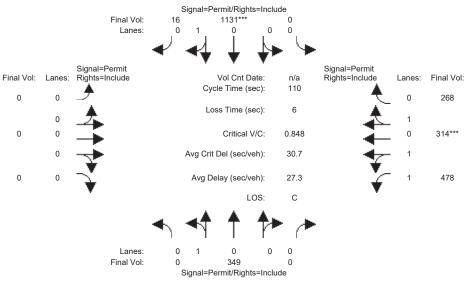
Intersection #1: LAFAYETTEE & EL CAMINO REAL



Street Name:	Lafayettee Street						El Camino Real						
	North Bound									West Bound			
Movement:	L - T - R			L - T - R			L - T - R			L - T - R			
Min. Green:		10			10	10		10			10	10	
Y+R:	4.0				4.0			4.0		4.0		4.0	
Volume Module			I	I		ı	I		I	1		1	
Base Vol:	126	233	280	446	902	246	176	809	213	38	623	121	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	126	233	280	446	902	246	176	809	213	38	623	121	
Added Vol:	1	1	0	11	3	0	0	11	3	0	6	6	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	127	234	280	457	905	246	176	820	216	38	629	127	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	127	234	280	457	905	246	176	820	216	38	629	127	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	127	234	280	457	905	246	176	820	216	38	629	127	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	127	234	280	457	905	246	176	820	216	38	629	127	
Saturation F	low Mo	odule:											
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.00	2.00	1.00	1.00	1.54	0.46	1.00	3.00	1.00	1.00	3.00	1.00	
Final Sat.:		3800	1750		2934	798		5700	1750		5700	1750	
Capacity Ana	lysis	Modul	e:										
Vol/Sat:	0.07	0.06	0.16	0.26	0.31	0.31	0.10	0.14	0.12	0.02	0.11	0.07	
Crit Moves:	****				***		****				****		
Green Time:	14.5	26.3	37.7	49.7	61.5	61.5	20.0	30.6	45.1	11.5	22.0	71.7	
Volume/Cap:	0.65	0.30	0.55	0.68	0.65	0.65	0.65	0.61	0.36	0.25	0.65	0.13	
Delay/Veh:	71.1	45.1	43.2	39.2	28.0	28.0	63.3	46.5	33.3	59.0	53.9	14.4	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	71.1	45.1	43.2	39.2	28.0	28.0	63.3	46.5	33.3	59.0	53.9	14.4	
LOS by Move:	E	D	D	D	C	C	E	D	C-	E+	D-	В	
HCM2kAvgQ:	6	4	10	17	18	18	8	10	7	2	9	3	
Note: Queue	report	ted is	the n	umber	of ca	rs per	lane						

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing PM

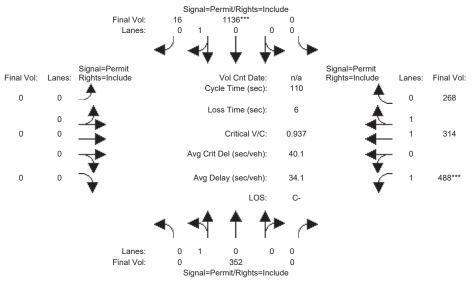
Intersection #2: Lafayette Street & Lewis Street



Street Name:	Lafayette Street North Bound South Bound						Lewis Street					
Approach: Movement:	North Bound L - T - R			South Bound L - T - R			East Bound L - T - R			West Bound L - T - R		
Min. Green:	10		0		10			0		10		10
Y+R:	4.0		4.0			4.0		4.0		4.0		4.0
Volume Module												
Base Vol:	0	349	0	0	1131	16	0	0	0	478	314	268
Growth Adj:		1.00	1.00		1.00	1.00		1.00	1.00	1.00		1.00
Initial Bse:	0	349	0	0	1131	16	0	0	0	478	314	268
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol: Initial Fut:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	349	0	0	1131	16	0	0	0	478	314	268
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:		349	0	0	1131	16	0	0	0	478	314	268
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:		349	0	0	1131	16	0	0	0	478	314	268
PCE Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:			0		1131	16	0	0	0	478	314	268
Saturation F												
Sat/Lane:				1900		1900		1900	1900		1900	1900
Adjustment:				0.92		0.92		1.00	0.92		1.00	0.92
Lanes:			0.00			0.02		0.00	0.00		0.84	0.78
Final Sat.:			0			26	. 0	0	0	2424		1359
Capacity Ana	_											
	0.00	0.18	0.00	0.00		0.60	0.00	0.00	0.00	0.20	0.20	0.20
Crit Moves:					****						****	
	0.0			0.0		78.4	0.0	0.0	0.0		25.6	25.6
Volume/Cap:		0.26	0.00		0.85	0.85		0.00	0.00	0.85		0.85
Delay/Veh:			0.0		16.7	16.7	0.0	0.0	0.0		46.0	46.0
User DelAdj:			1.00		1.00	1.00	1.00		1.00	1.00		1.00
AdjDel/Veh:				0.0		16.7	0.0	0.0	0.0	46.0		46.0
LOS by Move:			A	A		В	A		A	D	D	D
HCM2kAvgQ:			0	0	29	29	0	0	0	15	15	15
Note: Queue	repor	ted is	the n	umber	oi ca	rs per	ıane	•				

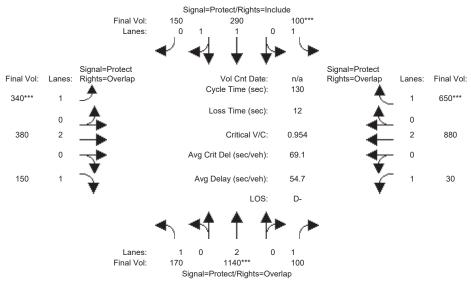
Mission Town Center TIA DN15-0483 Existing PM

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Existing Plus Project PM



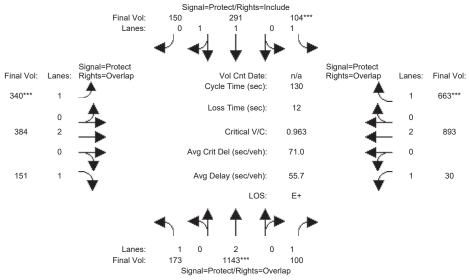
Street Name: Approach:	No	Lai rth Boi	fayett und	e Stre	Street South Bound L - T - R			Lewis East Bound L - T - R			Street West Bound L - T - R		
Movement:													
	10	10	0	. 0	10	10	0	0	0	10	10	10	
Y+R:		4.0			4.0				4.0	4.0			
Volume Module										1			
Base Vol:	0	349	0	0	1131	16	0	0	0	478	314	268	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	0	349	0	0	1131	16	0	0	0	478	314	268	
Added Vol:	0	_	0	0	5	0	0	0	0	10	0	0	
PasserByVol: Initial Fut:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	0	352	0	0	1136	16	0	0	0	488	314	268	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:		352	0	0	1136	16	0	0	0	488	314	268	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	0	352	0	0	1136	16	0	0	0	488	314	268	
PCE Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:				0		16	0	0	0	488		268	
Saturation F	low Mo	odule:											
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:				0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:					0.98			0.00	0.00		1.04	0.96	
Final Sat.:					1871				0		1972		
Capacity Ana													
Vol/Sat:	0.00	0.19	0.00	0.00		0.61	0.00	0.00	0.00		0.16	0.16	
Crit Moves:					****					****			
Green Time:				0.0			0.0		0.0		32.7	32.7	
Volume/Cap:			0.00		0.94	0.94		0.00	0.00		0.53	0.53	
Delay/Veh:			0.0		30.7	30.7	0.0	0.0	0.0		32.8	32.8	
User DelAdj:			1.00	1.00		1.00	1.00		1.00		1.00	1.00	
AdjDel/Veh:				0.0		30.7	0.0	0.0	0.0		32.8	32.8	
LOS by Move:	A	A		A	_	C	A		A	E	_	C-	
HCM2kAvgQ:			0	0	37	37	0		0	22	9	9	
Note: Queue	report	ted is	the n	umber	of ca	rs per	lane						

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background AM



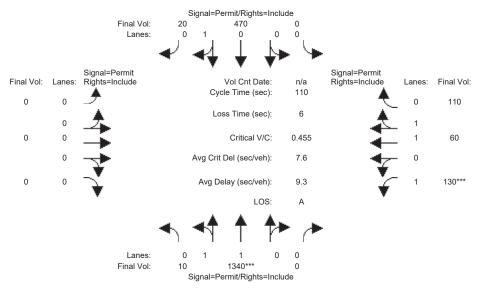
Street Name: Approach:	No	Laf rth Bo	ayette und	South Bound			El Cam East Bound			ino Real West Bound		
Movement:	L	- T	- R	L -	- T	- R	L ·	- T	- R	L -	- T	- R
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R: 		4.0			4.0			4.0	4.0		4.0	4.0
Volume Modul	e:			'		'			'	'		'
Base Vol:		1140	100	100	290	150	340	380	150	30	880	650
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	170	1140	100	100	290	150	340	380	150	30	880	650
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	170	1140	100	100	290	150	340	380	150	30	880	650
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	170	1140	100	100	290	150	340	380	150	30	880	650
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	170	1140	100	100	290	150	340	380	150	30	880	650
PCE Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	170	1140	100	100	290	150	340	380	150	30	880	650
Saturation F	low M	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	1.28	0.72	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:		3800	1750		2433	1259		3800	1750	1750	3800	1750
	1											
Capacity Ana	-											
Vol/Sat:		0.30	0.06	0.06	0.12	0.12		0.10	0.09	0.02	0.23	0.37
Crit Moves:		****		****			****					****
Green Time:		40.9	65.2	7.8		26.8		45.1	66.9		42.8	50.6
Volume/Cap:			0.11	0.95		0.58		0.29	0.17		0.70	0.95
Delay/Veh:		60.7		137.0		49.7		31.4	17.1		41.3	63.4
User DelAdj:			1.00	1.00		1.00		1.00	1.00	1.00		1.00
AdjDel/Veh:				137.0		49.7		31.4	17.1		41.3	63.4
LOS by Move:			В	F	D	D	F	С	В	D	D	E
HCM2kAvgQ:	7		2	7	-	9	19		3	1	16	32
Note: Queue	repor	ted is	the r	number	of ca	rs per	lane					

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background Plus Project AM



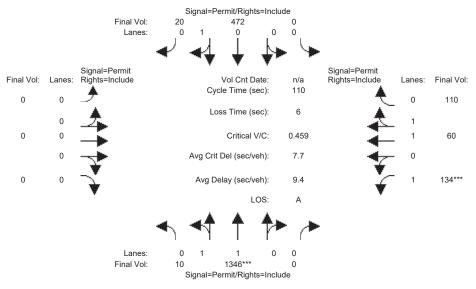
Street Name:		Laf	ayette	ee Str	eet		El Camino Real						
						und					est Bo	und	
Movement:	L	- T	- R	L ·	- T	- R	L ·	- T	- R	L ·	- T	- R	
		10		7	10	10		10			10	10	
Y+R:	4.0	4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Module			,						'			'	
Base Vol:	170	1140	100	100	290	150	340	380	150	30	880	650	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	170	1140	100	100	290	150	340	380	150	30	880	650	
Added Vol:	3	3	0	4	1	0	0	4	1	0	13	13	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	173	1143	100	104	291	150	340	384	151	30	893	663	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	173	1143	100	104	291	150	340	384	151	30	893	663	
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	173	1143	100	104	291	150	340	384	151	30	893	663	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	173	1143	100	104	291	150	340	384	151	30	893	663	
Saturation F	low M	odule:	,							•			
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.00	2.00	1.00	1.00	1.28	0.72	1.00	2.00	1.00	1.00	2.00	1.00	
Final Sat.:	1750	3800	1750	1750	2436	1256	1750	3800	1750	1750	3800	1750	
Capacity Ana	lysis	Modul	e:			·			•			·	
Vol/Sat:	0.10	0.30	0.06	0.06	0.12	0.12	0.19	0.10	0.09	0.02	0.24	0.38	
Crit Moves:		****		****			****					****	
Green Time:	22.0	40.6	64.7	8.0	26.6	26.6	26.2	45.3	67.3	24.1	43.1	51.2	
Volume/Cap:	0.58	0.96	0.11	0.96	0.58	0.58	0.96	0.29	0.17	0.09	0.71	0.96	
Delay/Veh:	57.9	62.5	17.6	137.9	50.0	50.0	90.8	31.3	17.0	44.4	41.3	64.8	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	57.9	62.5	17.6	137.9	50.0	50.0	90.8	31.3	17.0	44.4	41.3	64.8	
LOS by Move:	E+	E	В	F	D	D	F	С	В	D	D	E	
HCM2kAvgQ:	7	27	2	8	9	9	19	5	3	1	16	33	
Note: Queue	repor	ted is	the r	number	of ca	rs per	lane						

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background AM



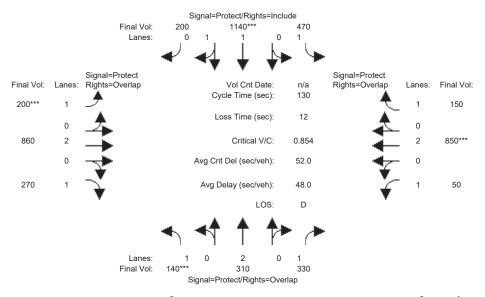
Approach: North Bound South Bound East Bound West Bound Movement: L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R L - T - R Min. Green: 10 10 0 0 10 10 0 0 0 10 10 10 10 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Min. Green: 10 10 0 0 10 10 0 0 0 10 10 10 10 Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Y+R: 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0
Volume Module:
Base Vol: 10 1340 0 0 470 20 0 0 130 60 110
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
Initial Bse: 10 1340 0 0 470 20 0 0 130 60 110
Added Vol: 0 0 0 0 0 0 0 0 0 0 0
PasserByVol: 0 0 0 0 0 0 0 0 0 0 0
Initial Fut: 10 1340 0 0 470 20 0 0 130 60 110
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
PHF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
PHF Volume: 10 1340 0 0 470 20 0 0 130 60 110
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 10 1340 0 0 470 20 0 0 130 60 110
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
FinalVolume: 10 1340 0 0 470 20 0 0 130 60 110
Saturation Flow Module:
Sat/Lane: 1900 1900 1900 1900 1900 1900 1900 190
Adjustment: 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92 0.92 1.00 0.92
Lanes: 0.02 1.98 0.00 0.00 0.96 0.04 0.00 0.00 0.00 1.00 1.00 1.00
Final Sat.: 28 3769 0 0 1816 77 0 0 0 1750 1900 1750
Capacity Analysis Module:
Vol/Sat: 0.36 0.36 0.00 0.00 0.26 0.26 0.00 0.00 0.00 0.0
Crit Moves: ****
Green Time: 86.0 86.0 0.0 0.0 86.0 86.0 0.0 0.0 18.0 18.0 18.0
Volume/Cap: 0.45 0.45 0.00 0.00 0.33 0.33 0.00 0.00 0.00 0.45 0.19 0.38
Delay/Veh: 4.2 4.2 0.0 0.0 3.7 3.7 0.0 0.0 0.0 42.7 39.9 41.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.0
AdjDel/Veh: 4.2 4.2 0.0 0.0 3.7 3.7 0.0 0.0 0.0 42.7 39.9 41.6
LOS by Move: A A A A A A A D D
HCM2kAvgQ: 8 8 0 0 5 5 0 0 0 5 2 4
Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background Plus Project AM



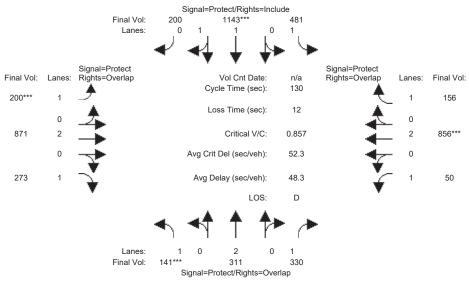
Street Name: Approach:	No:	La rth Bo	fayett und	stte Street South Bound L - T - R			L - T - R			S Street West Bound L - T - R		
Movement:												
Min. Green:	10	10	0	10	10	10					10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module												
		1340	0	0	470	20	0	0	0	130	60	110
Growth Adj:				1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
Initial Bse:			0	0	470	20	0	0	0	130	60	110
Added Vol:			0	0	2	0	0	0	0	4	0	0
PasserByVol:			0	0	0	0	0	0	0	0	0	0
Initial Fut:			0	0	472	20	0	0	0	134	60	110
User Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00		1.00	1.00
PHF Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
PHF Volume:			0	0	472	20	0	0	0	134	60	110
Reduct Vol:			0	0	0	0	0	0	0	0	0	0
Reduced Vol:			0	0	472	20	0	0	0	134	60	110
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:				0		20	0	0	0		60	110
Saturation F	low M	odule:		'					'			
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.02	1.98	0.00	0.00	0.96	0.04	0.00	0.00	0.00	1.00	1.00	1.00
Final Sat.:	28	3770	0	0	1816	77	0	0	0	1750	1900	1750
Capacity Anal	lysis	Modul	e:									·
Vol/Sat:	0.36	0.36	0.00	0.00	0.26	0.26	0.00	0.00	0.00	0.08	0.03	0.06
Crit Moves:		****								****		
Green Time:	85.6	85.6	0.0	0.0	85.6	85.6	0.0	0.0	0.0	18.4	18.4	18.4
Volume/Cap:	0.46	0.46	0.00	0.00	0.33	0.33	0.00	0.00	0.00	0.46	0.19	0.38
Delay/Veh:	4.3	4.3	0.0	0.0	3.8	3.8	0.0	0.0	0.0	42.5	39.5	41.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	4.3	4.3	0.0	0.0	3.8	3.8	0.0	0.0	0.0	42.5	39.5	41.3
LOS by Move:	A	A	A	A	A	A	A	A	A	D	D	D
HCM2kAvgQ:	8	8	0	0	5	5	0	0	0	5	2	4
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane					

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background PM



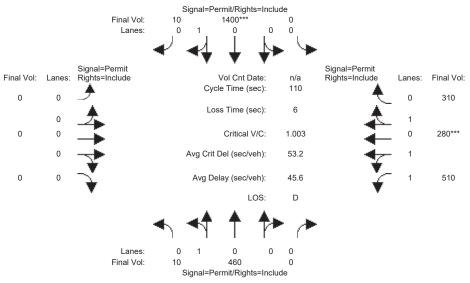
Street Name:		Lafayettee Street						El Camino Real					
Approach:						und	Εä	ast Bo	und	We	est Bo	und	
Movement:	L	- T	- R	L ·	- T	- R	L ·	- T	- R	L ·	- T		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10	
Y+R:		4.0			4.0			4.0		4.0		4.0	
Volume Module	e:												
Base Vol:	140		330		1140	200	200		270	50		150	
Growth Adj:		1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	140	310	330	470	1140	200	200	860	270	50	850	150	
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	140	310	330	470	1140	200	200	860	270	50	850	150	
User Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	140	310	330	470	1140	200	200	860	270	50	850	150	
Reduct Vol:			0	0	0	0	0	0	0	0	0	0	
Reduced Vol:			330	470	1140	200	200	860	270	50	850	150	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:			330	470	1140	200	200	860	270	50	850	150	
Saturation F	iow M	odule:											
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.00	2.00	1.00	1.00	1.68	0.32	1.00	2.00	1.00	1.00	2.00	1.00	
Final Sat.:	1750	3800	1750	1750	3192	560	1750	3800	1750	1750	3800	1750	
Capacity Anal				'									
Vol/Sat:	0.08	0.08	0.19	0.27	0.36	0.36	0.11	0.23	0.15	0.03	0.22	0.09	
Crit Moves:	****				***		****				***		
Green Time:			34.7	41.7	54.4	54.4	17.4	41.6	53.7	9.9	34.1	75.8	
Volume/Cap:	0.85	0.43	0.71	0.84	0.85	0.85	0.85	0.71	0.37	0.38	0.85	0.15	
Delay/Veh:	98.0	48.1	51.7	54.9	40.4	40.4	85.7	42.4	27.9	65.0	54.9	12.7	
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:			51.7		40.4	40.4		42.4	27.9		54.9	12.7	
LOS by Move:			D-	D-	D	D	F	D	C	E	D-	В	
HCM2kAvq0:	7		14	21	27	27	11		8	2		3	
Note: Queue									Ü	_		3	
	-1 -1					. 1-01							

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background Plus Project PM



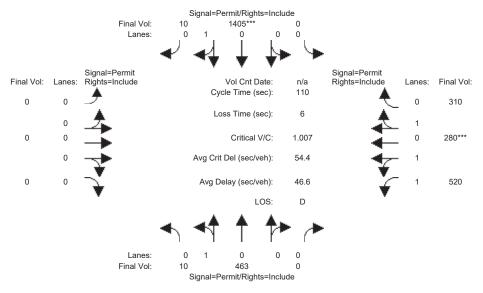
Street Name:		Laf	ayette	e Stre	eet		El Camino Real East Bound West Bound					
Approach:	No:	rth Bo	und	Soi	ıth Bo	und	Εá	ast Bo	und	We	est Bo	und
Movement:	L	- T	– R	L -	- T	- R	L -	- T	- R	L -	- T	
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0
Volume Module	e:											
Base Vol:	140	310	330	470	1140	200	200	860	270	50	850	150
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	140	310	330	470	1140	200	200	860	270	50	850	150
Added Vol:	1	1	0	11	3	0	0	11	3	0	6	6
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	141	311	330	481	1143	200	200	871	273	50	856	156
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	141	311	330	481	1143	200	200	871	273	50	856	156
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	141	311	330	481	1143	200	200	871	273	50	856	156
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	141	311	330	481	1143	200	200	871	273	50	856	156
Saturation F	low M	odule:		•						•		•
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	1.00	2.00	1.00	1.00	1.68	0.32	1.00	2.00	1.00	1.00	2.00	1.00
Final Sat.:	1750	3800	1750	1750	3193	559	1750	3800	1750	1750	3800	1750
Capacity Ana	lysis	Modul	e:	•						•		•
Vol/Sat:	0.08	0.08	0.19	0.27	0.36	0.36	0.11	0.23	0.16	0.03	0.23	0.09
Crit Moves:	***				****		****				****	
Green Time:	12.2	24.5	34.3	42.0	54.3	54.3	17.3	41.7	53.9	9.8	34.2	76.2
Volume/Cap:	0.86	0.43	0.72	0.85	0.86	0.86	0.86	0.71	0.38	0.38	0.86	0.15
Delay/Veh:	98.4	48.6	52.6	55.8	40.6	40.6	86.3	42.5	27.9	65.3	55.0	12.5
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	98.4	48.6	52.6	55.8	40.6	40.6	86.3	42.5	27.9	65.3	55.0	12.5
LOS by Move:	F	D	D-	E+	D	D	F	D	С	E	E+	В
HCM2kAvgQ:	7	5	14	22	27	27	11	16	8	2	19	3
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane					

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background PM



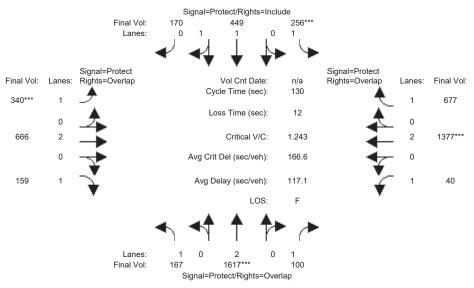
Street Name:	27	La	fayett	e Stre	eet	,	Lewis Street East Bound West Bound					
	NO:	rtn Boi - T	una	Sot	atn Bo	una – R	E a	ast Bo	una - R	w e	est Bo - T	
Movement:												
Min. Green:	10		0		10			0		10		10
Y+R:	4.0	4.0	4.0		4.0	4.0		4.0		4.0		4.0
Volume Module				ı		ı	1		ı	1		1
Base Vol:	10	460	0	0	1400	10	0	0	0	510	280	310
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	460	0	0	1400	10	0	0	0	510	280	310
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol: Initial Fut:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	460	0	0	1400	10	0	0	0	510	280	310
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	460	0	0	1400	10	0	0	0	510	280	310
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	460	0	0	1400	10	0	0	0	510	280	310
PCE Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:			0		1400	10	0	0	0	510	280	310
Saturation F	low M	odule:										
Sat/Lane:				1900		1900		1900	1900		1900	1900
Adjustment:			0.92	0.92		0.92	0.92		0.92		1.00	0.92
Lanes:			0.00			0.01	0.00	0.00	0.00	1.42		0.86
Final Sat.:			0			13	0	0	0		1364	1510
Capacity Ana	_											
Vol/Sat:	0.25	0.25	0.00	0.00		0.74	0.00	0.00	0.00	0.21	0.21	0.21
Crit Moves:					****						****	
	81.5		0.0	0.0	81.5	81.5	0.0	0.0	0.0		22.5	22.5
Volume/Cap:	0.33	0.33	0.00		1.00	1.00	0.00	0.00	0.00		1.00	1.00
Delay/Veh:			0.0		38.9	38.9	0.0	0.0	0.0	71.5		71.5
User DelAdj:			1.00	1.00		1.00	1.00		1.00	1.00		1.00
AdjDel/Veh:			0.0	0.0	38.9	38.9	0.0	0.0	0.0	71.5	71.5	71.5
LOS by Move:			A	A		D+	A		A	E	E	E
J ~	5		0	0	52	52	0	0	0	19	19	19
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane					

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Background Plus Project PM



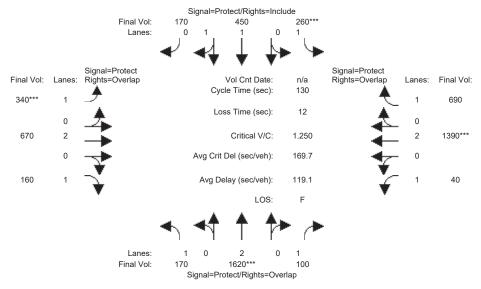
Street Name:							Lewis Street East Bound West Bound					
Approach:	NO:	rtn Bo	una	Sot	ıtn Bo	una	- E:	ast Bo	una			
Movement:		- T				- R					- T	
		10		0				0			10	10
Y+R:	4.0				4.0		4.0		4.0	4.0		4.0
Volume Module												
Base Vol:	10	460	0	0	1400	10	0	0	0	510	280	310
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	460	0	0	1400	10	0	0	0	510	280	310
Added Vol:	0	3	0	0	5	0	0	0	0	10	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	463	0	0	1405	10	0	0	0	520	280	310
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:		463	0	0	1405	10	0	0	0	520	280	310
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	463	0	0	1405	10	0	0	0	520	280	310
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:			0	0	1405	10	0	0	0	520		310
Saturation F	low M	odule:		'		'						
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.02	0.98	0.00	0.00	0.99	0.01	0.00	0.00	0.00	1.44	0.71	0.85
Final Sat.:	40	1856	0	0		13	0	0	0	2509	1351	1496
Capacity Anal						'	'					
Vol/Sat:	0.25	0.25	0.00	0.00	0.75	0.75	0.00	0.00	0.00	0.21	0.21	0.21
Crit Moves:					***						***	
Green Time:	81.4	81.4	0.0	0.0	81.4	81.4	0.0	0.0	0.0	22.6	22.6	22.6
Volume/Cap:	0.34	0.34	0.00	0.00	1.01	1.01	0.00	0.00	0.00	1.01	1.01	1.01
Delay/Veh:	5.1	5.1	0.0	0.0		40.1	0.0	0.0	0.0	72.6	72.6	72.6
User DelAdj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:			0.0	0.0	40.1	40.1	0.0	0.0	0.0		72.6	72.6
LOS by Move:			А	A		D	А		A	E	E	E
HCM2kAvqQ:	5		0	0	52	52	0	0	0	19	19	19
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane					
	-					-						

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumulative AM



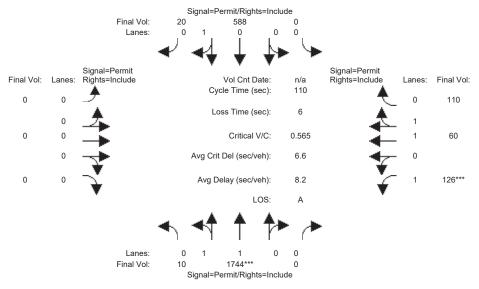
Street Name:	Mo	Lafayettee Street North Bound South Bound						El Camino Real East Bound West Bound					
Movement:	T.	LUI BO - T	una - P	J	acii Bo - T	_ P	т	ASL BC - T	- P	T	281 BC - T		
Min. Green:	7	10	10	7	10	10	7	10	10	7	10	10	
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Volume Modul				' '			' '		'	'		'	
Base Vol:	170	1620	100	260	450	170	340	670	160	40	1390	690	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	170	1620	100	260	450	170	340	670	160	40	1390	690	
Added Vol:	-3	-3	0	-4		0	0		-1	0	-13	-13	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	167	1617	100	256	449	170	340	666	159	40	1377	677	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	167	1617	100	256	449	170	340	666	159	40	1377	677	
Reduct Vol:			0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	167	1617	100	256	449	170	340	666	159	40	1377	677	
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:	167	1617	100	256		170	340		159		1377	677	
Saturation F	low M	odule:											
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:	1.00	2.00	1.00	1.00	1.42	0.58	1.00	2.00	1.00	1.00	2.00	1.00	
Final Sat.:					2693			3800	1750	1750	3800	1750	
Capacity Ana	lysis	Modul	e:										
Vol/Sat:			0.06	0.15	0.17	0.17		0.18	0.09	0.02	0.36	0.39	
Crit Moves:		****		****			****				****		
Green Time:	21.8	44.5	58.2	15.3	38.0	38.0	20.3	44.5	66.3		37.9	53.2	
Volume/Cap:	0.57	1.24	0.13	1.24	0.57	0.57	1.24	0.51	0.18	0.22	1.24	0.95	
Delay/Veh:	57.6	159	21.4	200.9	41.2	41.2	191.3	35.5	17.6	55.9	163	59.7	
User DelAdj:			1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00	
AdjDel/Veh:	57.6	159	21.4	200.9		41.2	191.3	35.5	17.6	55.9	163	59.7	
LOS by Move:			C+	F		D	F	D+	В	E+		E+	
HCM2kAvgQ:				20		11			4	2	46	33	
Note: Queue	repor	ted is	the r	number	of ca	rs per	r lane						

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumulative Plus Project AM



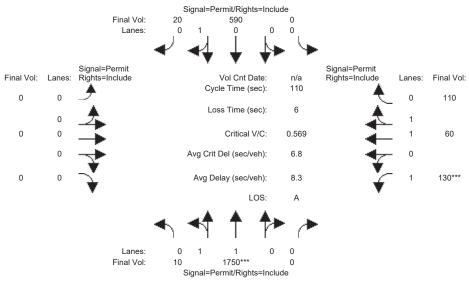
Approach:	No:	rth Bo	und	tee Street South Bound L - T - R			L - T - R			West Bound		
Movement:												
		10		7			7	10	10	7		10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Modul												
Base Vol:		1620	100	260	450	170	340	670	160	40	1390	690
Growth Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	170	1620	100	260	450	170	340	670	160	40	1390	690
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	170	1620	100	260	450	170	340	670	160	40	1390	690
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	170	1620	100	260	450	170	340	670	160	40	1390	690
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:		1620	100	260	450	170	340	670	160	40	1390	690
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	170	1620	100	260	450	170	340	670	160	40	1390	690
Saturation F	low M	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:			0.92	0.92	1.00	0.92		1.00	0.92		1.00	0.92
Lanes:			1.00	1.00	1.42	0.58		2.00	1.00		2.00	1.00
Final Sat.:			1750		2695	1018		3800	1750		3800	1750
Capacity Ana	_											
Vol/Sat:			0.06	0.15		0.17			0.09	0.02	0.37	0.39
Crit Moves:											****	
Green Time:		44.3		15.4		37.8		44.6	66.6		38.0	53.5
Volume/Cap:			0.13	1.25		0.57		0.51	0.18		1.25	0.96
Delay/Veh:				203.3			194.3		17.5	56.0		62.0
User DelAdj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00
AdjDel/Veh:		162		203.3			194.3		17.5	56.0	166	62.0
LOS by Move:			C+	F	D	D	F	D+	В	E+	F	E
	7		2	21		11	26		4	2	47	34
Note: Queue	repor	tea is	tne r	number	oi ca	ırs pei	r lane	•				

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumulative AM



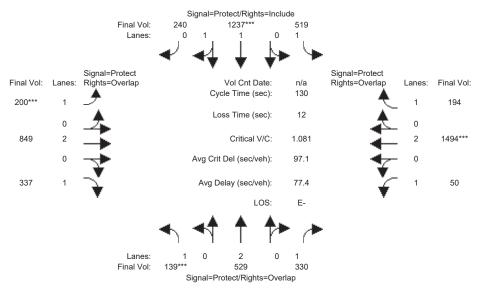
Street Name: Approach:	No:	La rth Bo	fayett und	ette Street South Bound R L - T - R			L - T - R			S Street West Bound L - T - 1		
Movement.												
Min. Green:	10	10	0	0	10	10				10		10
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module												
Base Vol:	10	1750	0	0	590	20	0	0	0	130	60	110
Growth Adj:				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	1750	0	0	590	20	0	0	0	130	60	110
Added Vol:	0	-6	0	0	-2	0	0	0	0	-4	0	0
PasserByVol:			0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	1744	0	0	588	20	0	0	0	126	60	110
User Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	1744	0	0	588	20	0	0	0	126	60	110
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:			0	0	588	20	0	0	0	126	60	110
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:			0	0	588	20	0	0	0	126	60	110
Saturation F	low M	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.01	1.99	0.00	0.00	0.96	0.04	0.00	0.00	0.00	1.00	1.00	1.00
Final Sat.:	22	3776	0	0	1832	62	0	0	0	1750	1900	1750
Capacity Anal	lysis	Modul	e:									
Vol/Sat:			0.00	0.00	0.32	0.32	0.00	0.00	0.00	0.07	0.03	0.06
Crit Moves:		****								****		
Green Time:	90.0	90.0	0.0	0.0	90.0	90.0	0.0	0.0	0.0	14.0	14.0	14.0
Volume/Cap:	0.56	0.56	0.00	0.00	0.39	0.39	0.00	0.00	0.00	0.56	0.25	0.49
Delay/Veh:	3.6	3.6	0.0	0.0	2.8	2.8	0.0	0.0	0.0	48.4	43.4	45.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	3.6	3.6	0.0	0.0	2.8	2.8	0.0	0.0	0.0	48.4	43.4	45.8
LOS by Move:			A	A	A	A	A	A	A	D	D	D
HCM2kAvgQ:	10	10	0	0	6	6	0	0	0	5	2	4
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane					

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumulative Plus Project AM



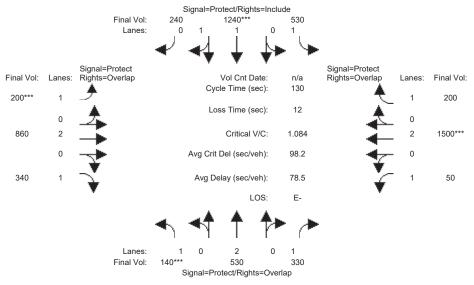
Street Name:	Lafayette Street							Lewis Street						
					South Bound					West Bound				
Movement:		- T				- R		- T			- T			
Min. Green:	10	10	0		10	10		0	0	10	10	10		
Y+R:	4.0		4.0			4.0		4.0		4.0		4.0		
Volume Module	1		ı	1		1	1		ı	ı		1		
Base Vol:	10	1750	0	0	590	20	0	0	0	130	60	110		
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
Initial Bse:	10	1750	0	0	590	20	0	0	0	130	60	110		
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0		
Initial Fut:		1750	0	0	590	20	0	0	0	130	60	110		
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
PHF Volume:	10	1750	0	0	590	20	0	0	0	130	60	110		
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0		
Reduced Vol:	10	1750	0	0	590	20	0	0	0	130	60	110		
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
FinalVolume:	10	1750	0		590	20	0	0	0	130	60	110		
Saturation F	low M	odule:	·			•			•			•		
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92		
Lanes:	0.01	1.99	0.00	0.00	0.96	0.04	0.00	0.00	0.00	1.00	1.00	1.00		
Final Sat.:	22	3777	0	0	1833	62	0	0	0	1750	1900	1750		
Capacity Ana	lysis	Modul	e:			•	-		•			•		
Vol/Sat:	0.46	0.46	0.00	0.00	0.32	0.32	0.00	0.00	0.00	0.07	0.03	0.06		
Crit Moves:		****								****				
Green Time:	89.6	89.6	0.0	0.0	89.6	89.6	0.0	0.0	0.0	14.4	14.4	14.4		
Volume/Cap:	0.57	0.57	0.00	0.00	0.40	0.40	0.00	0.00	0.00	0.57	0.24	0.48		
Delay/Veh:	3.8	3.8	0.0	0.0	2.9	2.9	0.0	0.0	0.0	48.3	43.1	45.4		
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00		
AdjDel/Veh:	3.8	3.8	0.0	0.0	2.9	2.9	0.0	0.0	0.0	48.3	43.1	45.4		
LOS by Move:	A	A	A	A	A	A	A	A	A	D	D	D		
HCM2kAvgQ:	10	10	0	0	6	6	0	0	0	5	2	4		
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane.							

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumulative PM



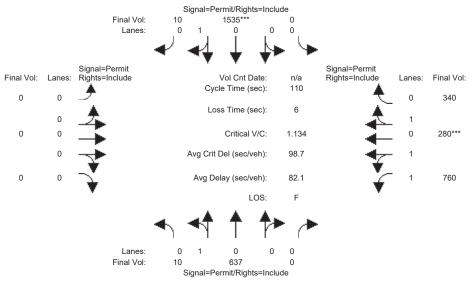
Street Name:	Lafayettee Street						El Camino Real East Bound West Bound						
Approach:	No	rth Bo	und	Soi	uth Bo	und	Ŀа	ast Bo	una	We	est Bo	und	
Movement:	L	- T	– R	L -	- T	- R	L ·	- T	- R	L ·	- T	- R	
		10				10			10			10	
Y+R:		4.0	4.0	4.0	4.0	4.0		4.0			4.0		
Volume Modul													
	140	530	330	530	1240	240	200	860	340	50	1500	200	
Growth Adj:			1.00	1.00		1.00		1.00	1.00		1.00	1.00	
Initial Bse:			330		1240	240	200		340		1500	200	
Added Vol:			0		-3	0	0		-3	0	-6	-6	
PasserByVol:	0	0		0		0	0		0	0	0	0	
Initial Fut:			330			240	200		337		1494	194	
User Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
PHF Adj:			1.00		1.00	1.00		1.00	1.00		1.00	1.00	
			330		1237	240	200	849	337		1494	194	
PHF Volume: Reduct Vol:	139	229		0	0	240	0		0		0	0	
Reduced Vol:	120	E 2 0	330		1237		200	0.40	337	E 0	1494		
PCE Adj:				1.00		1.00		1.00	1.00	1 00	1.00	1.00	
MLF Adj:			1.00	1.00		1.00		1.00	1.00		1.00	1.00	
FinalVolume:				519		240		849		50		194	
rinarvorume:													
Saturation F													
Sat/Lane:				1900	1900	1900	1900	1900	1900	1900	1900	1900	
Adjustment:						0.92	0.92	1.00	0.92		1.00	0.92	
Lanes:			1.00		1.65	0.35	1.00	2.00	1.00	1.00	2.00	1.00	
Final Sat.:						609			1750		3800		
Capacity Ana				1		'	1		ı	1		ı	
Vol/Sat:	-			0.30	0.39	0.39	0.11	0.22	0.19	0.03	0.39	0.11	
Crit Moves:					****		****				****		
Green Time:		20.0	31.8	37.0	47.4	47.4	13.7	49.2	58.7	11.9	47.3	84.3	
Volume/Cap:			0.77		1.08	1.08	1.08		0.43		1.08	0.17	
Delay/Veh:			58.3		90.6		147.4		25.9		90.6	9.4	
User DelAdj:			1.00				1.00		1.00		1.00	1.00	
AdjDel/Veh:						90.6			25.9		90.6	9.4	
LOS by Move:									C	E		A	
HCM2kAvgQ:	9	12	14	30		41	14	14	10	2		3	
Note: Queue :										2		3	
			2		- 50			-					

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumulative Plus Project PM



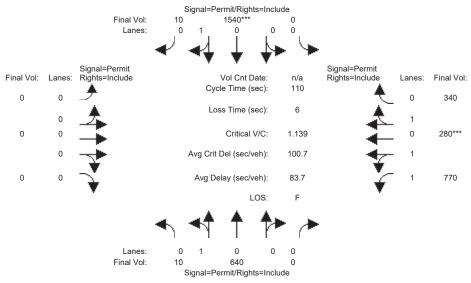
Street Name: Approach:	No:	Laforth Bo	ayette und	ee Stre	eet uth Bo	und	Ea	E ast Bo	l Cami und	ino Real West Bound		
Movement:	L ·	- T	- R	Γ .	- T	- R	L ·	- T	- R	L -	- T	- R
Min. Green:		10		7					10			
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Volume Module												
Base Vol:	140	530	330	530	1240	240	200	860	340	50	1500	200
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	140	530	330	530	1240	240	200	860	340	50	1500	200
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	140	530	330	530	1240	240	200	860	340	50	1500	200
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	140	530	330	530	1240	240	200	860	340	50	1500	200
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	140	530	330	530	1240	240	200	860	340	50	1500	200
PCE Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	140	530	330	530	1240	240	200	860	340	50	1500	200
Saturation F	low M	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900		1900	1900
Adjustment:			0.92	0.92		0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:			1.00			0.35		2.00	1.00		2.00	1.00
Final Sat.:						608		3800	1750		3800	1750
Capacity Ana	_											
Vol/Sat:		0.14	0.19	0.30				0.23	0.19	0.03	0.39	0.11
Crit Moves:					****		****				***	
Green Time:						47.4			58.9		47.3	84.6
Volume/Cap:			0.78	1.06		1.08		0.60	0.43		1.08	0.18
Delay/Veh: 1				102.3			148.6		25.8		91.7	9.3
User DelAdj:				1.00		1.00	1.00		1.00		1.00	1.00
AdjDel/Veh: 1							148.6		25.8			9.3
LOS by Move:				F	_	F	F		С	_	F	A
HCM2kAvgQ:			14	31		41	14		10	2	41	3
Note: Queue	repor	ted is	the r	number	of ca	rs per	lane	•				

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumulative PM



Street Name: Approach:	No	Lai rth Boi	fayett und	e Street South Bound L - T - R			Ea	ast_Bo	Lewis	Street West Bound L - T - R			
Movement:													
Min. Green:	10	10	0	. 0	10	10	0	0	0	10	10	10	
Y+R:		4.0			4.0			4.0		4.0		4.0	
Volume Module	1												
Base Vol:	10	640	0	0	1540	10	0	0	0	770	280	340	
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Initial Bse:	10	640	0	0	1540	10	0	0	0	770	280	340	
Added Vol:	0	-3	0	0	-5	0	0	0	0	-10	0	0	
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0	
Initial Fut:	10	637	0	0	1535	10	0	0	0	760	280	340	
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
PHF Volume:	10	637	0	0	1535	10	0	0	0	760	280	340	
Reduct Vol:		0	0	0	0	0	0	0	0	0	0	0	
Reduced Vol:	10	637	0	0	1535	10	0	0	0	760	280	340	
PCE Adj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
FinalVolume:			0		1535	10	0	0	0	760		340	
Saturation F	low Mo	odule:											
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900		
Adjustment:				0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	
Lanes:					0.99			0.00	0.00		0.57	0.75	
Final Sat.:					1887		-		0		1083	1315	
Capacity Ana													
Vol/Sat:	0.34	0.34	0.00	0.00		0.81	0.00	0.00	0.00	0.26	0.26	0.26	
Crit Moves:					****						****		
		78.9		0.0			0.0		0.0		25.1	25.1	
Volume/Cap:			0.00		1.13	1.13		0.00	0.00		1.13	1.13	
Delay/Veh:			0.0		85.5	85.5	0.0	0.0		113.4		113.4	
User DelAdj:			1.00	1.00		1.00		1.00	1.00	1.00		1.00	
AdjDel/Veh:				0.0		85.5	0.0	0.0		113.4		113.4	
LOS by Move:	A	A	A		_	F	A		A	F	F	F	
HCM2kAvgQ:			0	0	71	71	0	-	0	27	27	27	
Note: Queue	report	ted is	the n	umber	of ca	rs per	lane	•					

Level Of Service Computation Report 2000 HCM Operations (Future Volume Alternative) Cumulative Plus Project PM



Street Name:	Mar	La	fayett	e Stre	eet		Lewis Street East Bound West Bound					
Approach: Movement:	L NO.	run Bo - T	una - R	L ·	aun Bo - T	– R	L -	ast Bo - T	- R	L -	est bo - T	
				•			•					
Min. Green:	10		0		10			0		10		10
Y+R:	4.0	4.0	4.0		4.0	4.0		4.0		4.0		4.0
Volume Module												
Base Vol:	10	640	0	0	1540	10	0	0	0	770	280	340
Growth Adj:	1.00	1.00	1.00		1.00	1.00		1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	640	0	0	1540	10	0	0	0	770	280	340
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol: Initial Fut:	10	640	0	0	1540	10	0	0	0	770	280	340
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	10	640	0	0	1540	10	0	0	0	770	280	340
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:			0	0	1540	10	0	0	0	770	280	340
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:			0		1540	10	0	0	0	770	280	340
Saturation F	low M	odule:										
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92	0.92	1.00	0.92
Lanes:	0.02	0.98	0.00	0.00		0.01	0.00	0.00	0.00	1.69	0.56	0.75
Final Sat.:			0			12	0	0	0		1075	1305
Capacity Ana	lysis	Modul	e:									
Vol/Sat:	0.34	0.34	0.00	0.00		0.82	0.00	0.00	0.00	0.26	0.26	0.26
Crit Moves:					****						****	
Green Time:	78.8	78.8	0.0	0.0	78.8	78.8	0.0	0.0	0.0	25.2	25.2	25.2
Volume/Cap:	0.48	0.48	0.00		1.14	1.14	0.00	0.00	0.00	1.14	1.14	1.14
Delay/Veh:	7.0	7.0	0.0	0.0	87.5	87.5	0.0	0.0	0.0	115.3	115	115.3
User DelAdj:			1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:			0.0	0.0	87.5	87.5	0.0	0.0	0.0	115.3	115	115.3
LOS by Move:			A	A		F	A		A	F	F	F
HCM2kAvgQ:	9		0	0	72	72	0	0	0	28	28	28
Note: Queue	repor	ted is	the n	umber	of ca	rs per	lane					