3.11 - Transportation

3.11.1 - Introduction

This section describes the existing transportation setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the Transportation Impact Report, prepared by Hexagon Transportation Consultants, Inc. and included in this EIR as Appendix H.

3.11.2 - Environmental Setting

Roadway Network

Regional access to the project site is provided via Interstate 680 (I-680), I-880, and State Route 237 (SR-237). Direct access to the site is provided via Hammond Way, Railroad Avenue, and Sinnott Lane. Other major facilities in the vicinity of the project site include Great Mall Parkway, Main Street, and Abel Street. These facilities are described as follows.

Interstate 680

I-680 is a north/south freeway traversing the eastern portion of Milpitas. This freeway connects the inland East Bay communities to the north with San Jose to the south. I-680 has six lanes plus a southbound high occupancy vehicle (HOV) lane north of SR-237, and eight lanes south of SR-237.

I-880

I-880 is a north/south freeway providing regional access from East Bay cities to San Jose, where it becomes SR-17 and continues into Santa Cruz County. Within the City of Milpitas, I-880 is primarily a six-lane freeway. North of SR-237, this facility is eight lanes.

SR-237/Calaveras Boulevard

SR-237/Calaveras Boulevard is an east/west arterial that links I-880 and I-680 and generally provides six travel lanes (four on the overcrossing over the Union Pacific Railroad tracks). West of I-880, this facility becomes a freeway with four mixed flow lanes and two High Occupancy Vehicle (HOV) lanes. Calaveras Boulevard accommodates a significant amount of regional through traffic during the peak commute hours. Milpitas staff estimate that approximately 50 percent of the peak-hour traffic between I-680 and I-880 is generated outside of Milpitas. The predominant direction of travel is westbound in the morning and eastbound during the afternoon.

Great Mall Parkway

Great Mall Parkway is a six lane, east/west, divided arterial connecting Capital Avenue to I-880. In general, this roadway operates within capacity and does not experience significant peak-hour congestion except at its intersection with Montague Expressway. West of I-880, Great Mall Parkway becomes Tasman Drive.

Main Street

Main Street is a north/south roadway connecting Montague Expressway to residential areas north of Calaveras Boulevard. This roadway consists of four travel lanes from Montague Expressway to just north of Curtis Avenue, where it transitions to a two-lane facility with parking on both sides. Main Street currently operates within capacity, but experiences peak-hour congestion at its intersection with Montague Expressway.

Abel Street

Abel Street is a four-lane north/south arterial beginning at South Main Street and terminating at North Milpitas Boulevard. This roadway provides a two-way center left-turn lane along some segments. This facility is signalized at major cross streets, where left-turn pockets are provided. On-street parking is generally prohibited, except adjacent to residential frontage. With the exception of certain movements at major intersections, this facility generally operates within its design capacity.

Railroad Avenue

Railroad Avenue is a two-lane north/south roadway that begins as a cul-du-sac at the northern limits of the project site and ends at North Main Street. It provides access to the surrounding industrial properties.

Hammond Way

Hammond Way is a two-lane north/south roadway that begins at Sinnott Lane at the southern limits of the project site and ends at West Curtis Avenue. It provides access to the surrounding industrial properties.

Sinnott Lane

Sinnott Lane is a two-lane east/west roadway that begins at Hammond Way and ends at Bothell Avenue. It provides access to the surrounding industrial properties.

Level of Service

Level of service (LOS) is a qualitative measure of traffic operations, ranging from LOS A (free-flow condition) to LOS F (forced-flow conditions). The levels of service at signalized intersections were evaluated using TRAFFIX software with Congestion Management Program (CMP) defaults. This method uses the 2000 Highway Capacity Manual methodology to estimate the average control delay per vehicle in seconds. This average delay can then be correlated to a level of service as shown in Table 3.11-1.

Table 3.11-1: Intersection Level of Service Definitions

Level of Service	Description	Average Control Delay per Vehicle (sec.)
A	Signal progression is extremely favorable. Most vehicles arrive during the green phase and do not stop at all. Short cycle lengths may also contribute to the very low vehicle delay.	10.0 or less
B	Operations characterized by good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average vehicle delay.	10.1 to 20.0
C	Higher delays may result from fair signal progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant, though may still pass through the intersection without stopping.	20.1 to 35.0
D	The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable signal progression, long cycle lengths, or high volume-to-capacity (V/C) ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	This is considered the limit of acceptable delay. These high delay values generally indicate poor signal progression, long cycle lengths, and high volume-to-capacity (V/C) ratios. Individual cycle failures occur frequently.	55.1 to 80.0
F	This level of delay is considered unacceptable by most drivers. This condition often occurs with oversaturation, that is, when arrival flow rates exceed the capacity of the intersection. Poor progression and long cycle lengths may also be major contributing causes of such delay levels.	greater than 80.0
Source: Hexagon Transportation Consultants, Inc., 2012.		

Roadway Segments

For 2030 conditions, the traffic operations at the study segments were calculated based on volume-to-capacity (v/c) ratios, which can be correlated to level of service. Table 3.11-2 shows the roadway types, capacity assumptions, and LOS thresholds that were used for this analysis.

Table 3.11-2: City of Milpitas Roadway Level of Service Definitions

Facility	Lane Capacity	Levels of Service					
		A	B	C	D	E	F
Freeway	2,000	1,200	1,400	1,600	1,800	2,000	>2,000
Expressway	1,100	660	770	880	990	1,100	>1,100
Major Arterial	1,000	600	700	800	900	1,000	>1,000
Arterial	900	540	630	720	810	900	>900
Source: Hexagon Transportation Consultants, Inc., 2012.							

Level of Service Standards

For CMP intersections and roadway segments, the minimum acceptable level of service is LOS E. At intersections and roadway segments in Milpitas that are not CMP intersections, the minimum acceptable level of service is LOS D. Calaveras Boulevard, Montague Expressway, I-880, and I-680 are the CMP roadways in the project vicinity.

Study Intersections

The impacts of the development were evaluated relative to the level of service policies and methodologies applicable in the City of Milpitas. Because the project is expected to generate more than 100 peak-hour trips, the analysis also was conducted in accordance with the requirements of the Valley Transportation Authority (VTA), the administering agency for the CMP of Santa Clara County. CMP guidelines were followed for CMP designated intersections and freeway segments. The following signalized intersections were analyzed for this project. Each CMP intersection is denoted with an asterisk (*).

1. Abel Street and Marylinn Drive
2. Abel Street and Weller Lane
3. Main Street and Weller Lane
4. Abel Street and Calaveras Boulevard*
5. Milpitas Boulevard and Calaveras Boulevard*
6. Abel Street and Curtis Avenue
7. Main Street and Curtis Avenue
8. Abel Street and Great Mall Parkway
9. Main Street and Great Mall Parkway
10. Abel Street and Main Street
11. Great Mall Parkway and I-880 Northbound Ramps
12. Tasman Drive and I-880 Southbound Ramps

The study intersections were selected on the basis of discussions with City of Milpitas staff. The intersections were analyzed during the weekday AM and PM peak hours of traffic (referred to as the commute hours), which occur from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. These periods represent the most congested traffic conditions of an average weekday. Exhibit 3.11-1 depicts the locations of the study intersections.

Existing Intersection Operations

Existing PM peak-hour traffic volumes for the CMP intersections were obtained from the CMP Monitoring Report for Santa Clara County. All other existing peak-hour traffic volumes were obtained from traffic counts conducted in January of 2011 and January 2012.

The operations of the study intersections were evaluated using TRAFFIX software to determine their levels of service (LOS). The lane configurations used for the calculations are shown in Exhibit

3.11-2. The intersection turn movement volumes are shown in Exhibit 3.11-3. Table 3.11-3 presents the results of the signalized intersection level of service calculations. All City of Milpitas intersections operate at LOS D or better and the CMP intersections operate at LOS E or better.

Table 3.11-3: Existing Intersection Levels of Service

Study Number	Intersection	Peak Hour	Count Date	Existing	
				Average Delay	LOS
1	Abel St and Marylinn Drive	AM	01/05/11	18.8	B
		PM	01/05/11	19.0	B
2	Abel St and Weller Lane	AM	01/11/12	7.4	A
		PM	01/11/12	9.1	A
3	Main St and Weller Lane	AM	01/11/12	9.3	A
		PM	01/11/12	12.8	B
4	Abel St and Calaveras Boulevard*	AM	01/05/11	43.5	D
		PM	09/28/10	57.2	E
5	Milpitas Boulevard and Calaveras Boulevard*	AM	01/05/11	39.5	D
		PM	09/28/10	44.1	D
6	Able St and Curtis Avenue	AM	01/06/11	11.2	B
		PM	01/06/11	9.1	A
7	Main St and Curtis Avenue	AM	01/06/11	19.7	B
		PM	01/06/11	20.4	C
8	Abel St and Great Mall Parkway	AM	01/05/11	27.9	C
		PM	01/05/11	25.1	C
9	Main St and Great Mall Parkway	AM	01/05/11	17.4	B
		PM	01/05/11	22.6	C
10	Abel St and Main Street	AM	01/05/11	10.1	B
		PM	01/05/11	8.1	A
11	I-880 NB Ramps and Great Mall Parkway	AM	01/05/11	30.2	C
		PM	01/05/11	22.1	C
12	I-880 SB Ramps and Tasman Drive	AM	01/05/11	18.3	B
		PM	01/05/11	24.6	C

Note:
* Denotes CMP Intersection.
Source: Hexagon Transportation Consultants, 2012.

Observed Existing Traffic Conditions

Traffic conditions in the field were observed in order to identify existing operational deficiencies and to confirm the accuracy of calculated levels of service. The purpose of this effort was (1) to identify any existing traffic problems that may not be directly related to intersection level of service, and (2) to identify any locations where the level of service calculations do not accurately reflect level of service in the field. Based on the field observations, the level of service analysis appears to accurately reflect actual existing traffic conditions. However, the following operational issues were observed:

- Calaveras Boulevard experiences long vehicle queues westbound during the AM commute hours and eastbound during the PM commute hours. Sometimes, these queues do not clear Calaveras Boulevard's intersections with Milpitas Boulevard and Abel Street in a single signal cycle. During the PM peak hour at the intersection of Calaveras Boulevard and Abel Street, the northbound right-turn queues on Abel Street sometimes spill out of the turn pocket, and the westbound left turn from Calaveras Boulevard to southbound Abel Street occasionally spills out of the turn pocket.
- I-880 experiences congestion at its ramp meters northbound and southbound at the Tasman Drive/Great Mall Parkway interchange. The vehicle queues from the I-880 ramp meters nearly extended to Great Mall Parkway and Tasman Drive. However, during the observations, the queues did not spill back to the point where surface street operations were adversely impacted.

Existing Site Access

The project site currently takes primary access from Railroad Avenue and secondary access from Bothelo Lane.

Public Transit

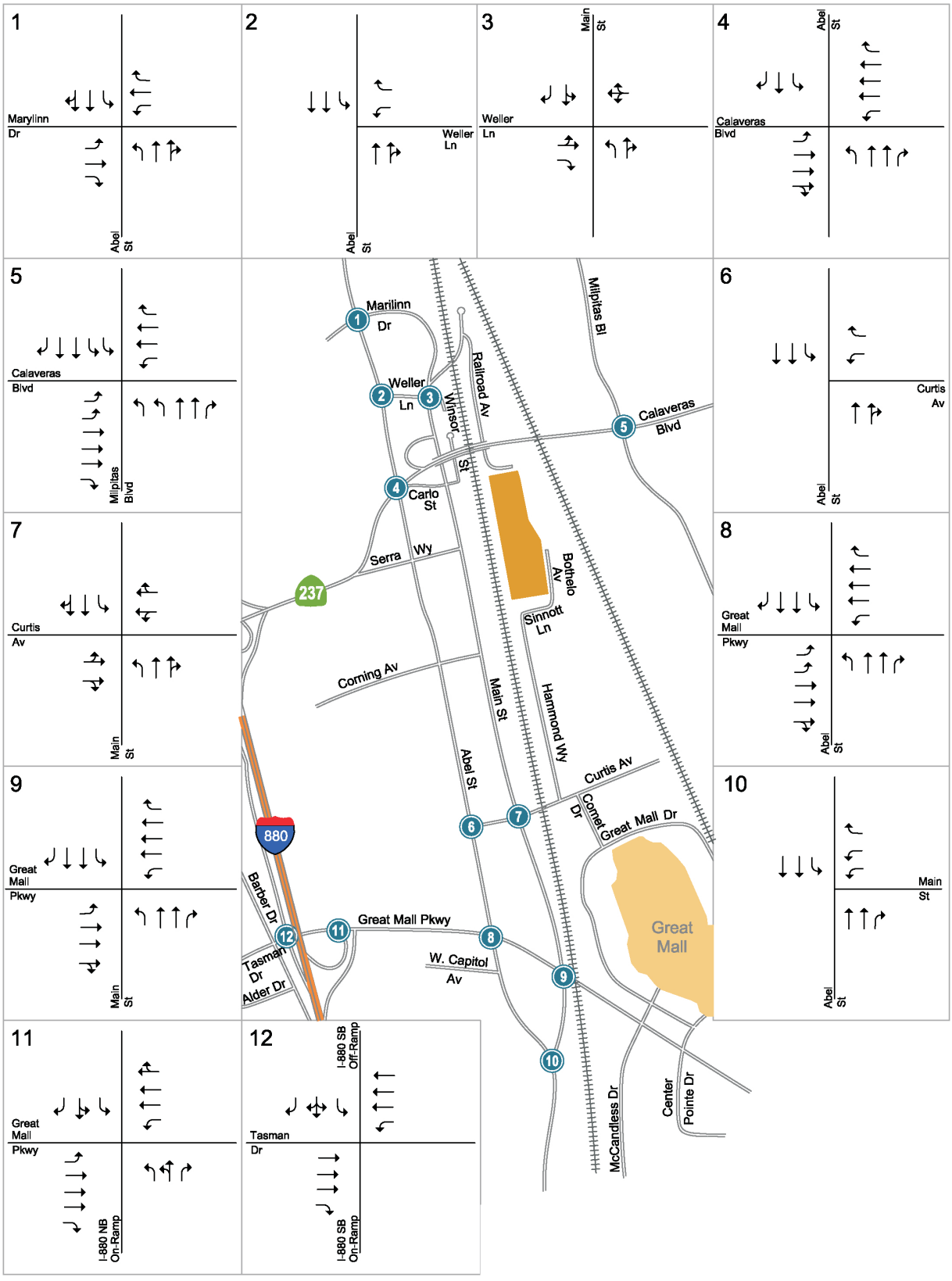
Santa Clara Valley Transportation Authority

The Santa Clara Valley Transportation Authority (VTA) provides existing bus service on the surrounding roadway network. Bus stops for Routes 47 and 66 are located on Main Street, near Weller Lane. These stops are an approximately 0.5-mile walk from the project site. The Great Mall/Main Transit Center, which provides numerous light rail and bus connections, is located approximately 1 mile south of the project site. The light rail connects North First Street in San Jose to Alum Rock Avenue via center lane medians on Tasman Drive, Great Mall Parkway, and Capitol Avenue. Exhibit 3.11-4 shows the existing transit service. Table 3.11-4 summarizes the service frequencies for the transit routes in the study area.

Source: Hexagon Transportation Consultants, Inc., February 2012.

Michael Brandman Associates

Exhibit 3.11-1
Project Site Location and Study Intersections

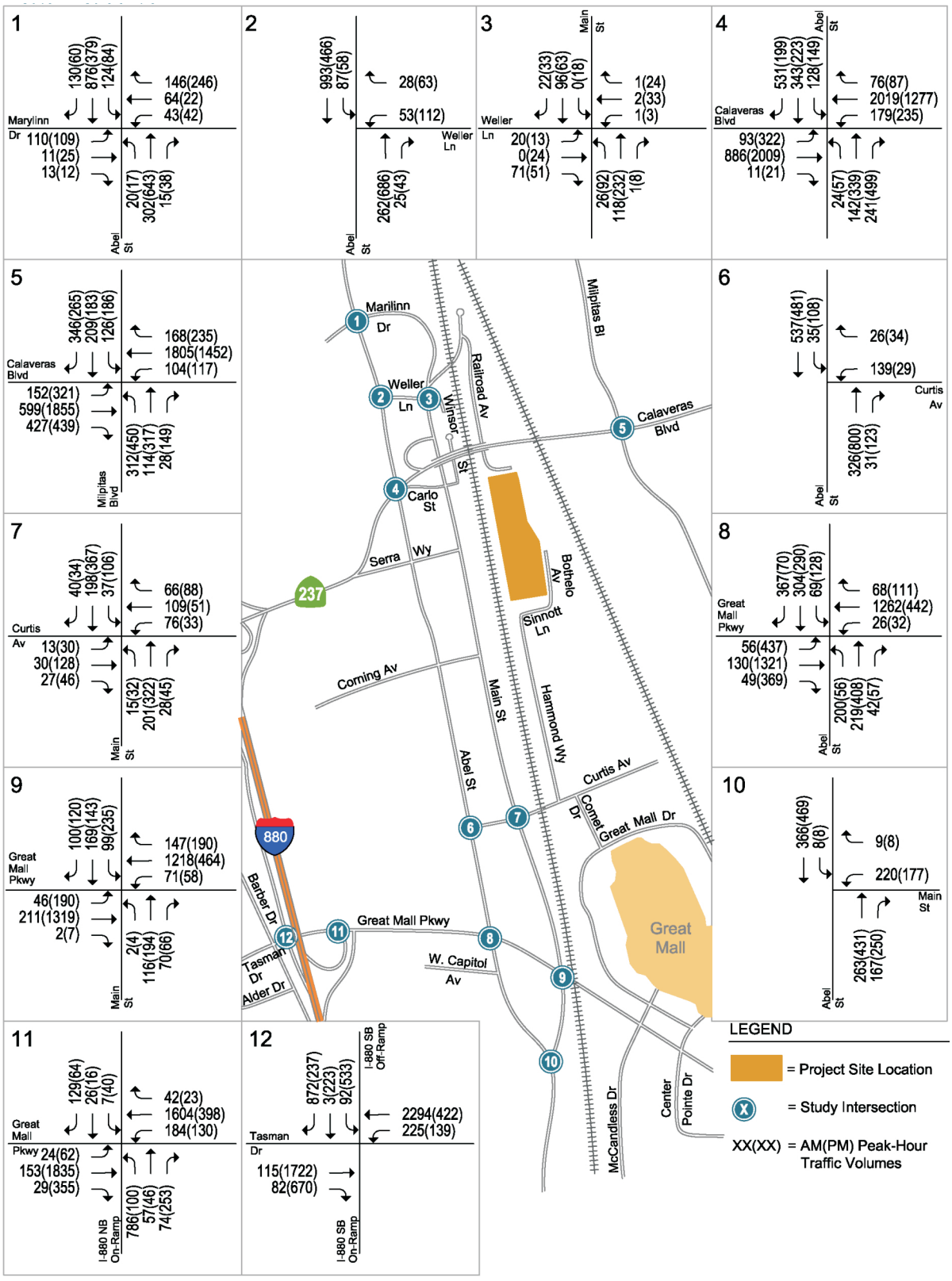


Source: Hexagon Transportation Consultants, Inc., February 2012.

NORTH

Michael Brandman Associates

Exhibit 3.11-2
Existing Lane Configurations



Source: Hexagon Transportation Consultants, Inc., February 2012.

NORTH

Michael Brandman Associates

Exhibit 3.11-3
Existing Traffic Volumes

Source: Hexagon Transportation Consultants, Inc., February 2012.

NORTH

0

Michael Brandman Associates

Exhibit 3.11-4
Existing Transit Facilities

Table 3.11-4: Valley Transportation Agency Bus Route Summary

Route	Route Description	Weekday Hours of Operation	Headway (minutes)
46	Great Mall/Main Transit Center to Washington & Escuela via Yellowstone	6:30 a.m. to 7:10 p.m.	25 to 30
47	Great Mall/Main Transit Center to McCarthy Ranch	6:30 a.m. to 9:50 p.m.	25 to 30
66	Kaiser San Jose to Milpitas/Dixon Road	5:30 a.m. to 12:00 p.m.	10 to 20
70	Capitol Light Rail Station to Great Mall/Main Transit Center	5:20 a.m. to 11:30 p.m.	15 to 20
71	Eastridge Transit Center to Great Mall/Main Transit Center via White Road	5:30 a.m. to 10:15 p.m.	15 to 20
77	Eastridge Transit Center to Great Mall/Main Transit Center via King Road	5:20 a.m. to 9:00 p.m.	15 to 20
104	Express - Penitencia Creek Transit Center to Palo Alto - Westbound	6:00 a.m. to 7:50 a.m.	45 to 50
104	Express - Penitencia Creek Transit Center to Palo Alto - Eastbound	3:15 p.m. to 6:00 p.m.	45 to 50
180	Express - Fremont BART Station to Great Mall/Main	5:45 a.m. to 10:00 p.m.	25 to 30
181	Express - Fremont BART Station to Diridon Transit Center	5:30 p.m. to 11:45 p.m.	15 to 20
321	Westbound Great Mall/Main Transit Center to Lockheed Martin/Moffett Park	8:10 a.m.	—
321	Eastbound Great Mall/Main Transit Center to Lockheed Martin/Moffett Park	6:27 p.m.	—

Notes:
[1] Approximate headways during commute periods, in minutes
Route 321 has only one trip in each direction.
Source: Hexagon Transportation Consultants, 2012.

Bay Area Rapid Transit

VTA is currently constructing an extension of the Bay Area Rapid Transit (BART) system from Warm Springs (Fremont) to Berryessa (San Jose). The BART tracks would be located approximately 700 feet east of the project site, paralleling the east side of the Union Pacific Railroad Milpitas Yard. The closest station would be the Milpitas station, located near the intersection of Montague Expressway/ Great Mall Parkway, approximately 1.5 miles south of the project site. Service is scheduled to commence in 2014. When operational, the BART extension would provide passenger service to destinations in Alameda, Contra Costa, San Francisco, and San Mateo Counties.

Bicycles

The nearest bike lanes to the project site are provided on Main Street and Weller Lane. Marylinn Drive is designated as a bike route. There are no bike lanes on Railroad Avenue, Sinnott Lane, or Hammond Way. However, the volume of traffic on these streets is relatively low, and suitable for

shared use between bikes and motor vehicles. Exhibit 3.11-5 shows the existing bikeways in the project vicinity.

Pedestrian Access

There are no sidewalks on Railroad Avenue, Sinnott Lane, or Hammond Way, which are the public streets that immediately surround the project site. Sidewalks are provided on Main Street and West Curtis Avenue. These are approximately 0.5 mile north and south of the project site. On Main Street, sidewalks are provided on both sides of the street and crosswalks are provided at signalized intersections. Although Main Street is approximately one block west of the project site, the existing rail line precludes direct pedestrian access to the nearby commercial uses.

Rail

Union Pacific Railroad operates several rail facilities in the project vicinity, which are summarized as follows:

- **Warm Springs Subdivision:** The Warm Springs Subdivision is a single-track rail line linking Niles Junction (Fremont) with San Jose. The line is used exclusively for freight rail service. The Warm Springs Subdivision has two existing at-grade crossings in the project vicinity: North Main Street and Curtis Avenue.
- **Milpitas Subdivision/Milpitas Yard:** The Milpitas Subdivision is a single-track rail line linking Niles Junction (Fremont) with Milpitas. The line parallels the Warm Springs Subdivision and primarily serves the Milpitas Yard, located immediately east of the project site. The line is inactive south of the Milpitas Yard limits.
- **Milpitas Automobile Distribution Facility:** The Milpitas Automobile Distribution Facility is located south of the project site and is adjacent to the Milpitas Yard. The approximately 40-acre facility receives deliveries of new automobiles, and classifies and stores them onsite for distribution.

3.11.3 - Regulatory Framework

State

California Department of Transportation

Caltrans has established performance standard for all state highway facilities as the transition between LOS C and D. If a state highway facility operates below the transition between LOS C and D, the Caltrans threshold is to maintain the measure of effectiveness.

Source: Hexagon Transportation Consultants, Inc., February 2012.

NORTH

Michael Brandman Associates

Exhibit 3.11-5
Existing Bikeways

Local

City of Milpitas

General Plan

The City of Milpitas General Plan establishes the following principles and policies related to transportation that are applicable to the proposed project:

- **Principle 2.b-G-1:** Support jobs/housing balance programs at the local and regional scale intended to reduce the distance needed to commute.
- **Policy 2.d-I-1:** Coordinate capital improvement planning for all municipal service infrastructure with the location and timing of growth.
- **Principle 3.a-G-1:** Continue to utilize the City's adopted Level of Service standards in evaluating development proposals and capital improvements.
- **Principle 3.a-G-2:** Maintain acceptable service standards for a major streets and intersections.
- **Policy 3.a-I-1:** Strive to maintain CMP LOS standards and goals for the CMP Roadway System in Milpitas.
- **Policy 3.a-I-2:** For collectors and arterials east of Interstate 880 operating at baseline (1991) LOS F, require any development project that impacts the facility at or greater than one percent of facility capacity to implement mitigation measures to reduce the development project's impacts below the one percent level. If an identified location cannot be mitigated, measures designed to improve system-wide levels of service can be implemented. These system-wide improvement strategies will be contained in the Citywide Deficiency Plan.
- **Policy 3.a-I-3:** Recognize that the City's development pattern and deficiencies in the regional network have resulted in substandard service levels on certain streets where capacity cannot be increased.
- **Policy 3.a-I-4:** On streets where substandard service levels are anticipated, investigate and implement improvement projects that will enhance traffic operations.
- **Principle 3.b-G-1:** Develop a street network integrated with the pattern of living, working and shopping areas, and which provides for safe, convenient, and efficient vehicular movement within the City and to other parts of the region.
- **Principle 3.b-G-4:** Use the "Major Improvements Needed" subsection as a basis for identifying, scheduling, and implementing roadway improvements as development occurs in the future.
- **Policy 3.b-I-1:** Require new development to pay its share of street and other traffic improvements based on its impacts.
- **Policy 3.b-I-2:** Require all projects that generate more than 100 peak-hour (AM or PM) trips to submit a transportation impact analysis that follows guidelines established by CMP.
- **Principle 3.c-G-1:** Promote measures that increase transit use and lead to improved utilization of the existing transportation system.

- **Principle 3.c-G-2:** Cooperate with other agencies to promote local and regional transit serving Milpitas.
- **Principle 3.d-G-1:** Promote walking and bicycling for transportation and recreation purposes by providing a comprehensive system of sidewalks, bicycle lanes, and routes and off-street trails that connects all parts of the City.
- **Principle 3.d-G-2:** Provide adequate bicycle parking and end-of-trip support facilities for bicyclists at centers of public and private activity.
- **Principle 3.d-G-3:** Promote intermodal commuting options.
- **Principle 3.d-G-4:** Encourage a mode shift to non-motorized transportation by expanding current pedestrian and bicycle facilities.
- **Policy 3.d-I-2:** Develop connections between the off-street trail system and on-street bicycle system to fully integrate these facilities. Maximize linkages to other trail and bikeway systems to provide alternative transportation routes for pedestrians and bicyclists.
- **Policy 3.d-I-3:** View all public capital improvement projects as opportunities to enhance the bicycle and pedestrian systems, and incorporate bicycle and pedestrian facilities into the design of such projects wherever feasible.
- **Policy 3.d-I-9:** Require developers to make new projects as bicycle and pedestrian "friendly" as feasible, especially through facilitating pedestrian and bicycle movements within sites and between surrounding activity centers.
- **Policy 3.d-I-10:** Encourage developer contributions toward pedestrian and bicycle capital improvement projects and end-of-trip support facilities.
- **Policy 3.d-I-11:** Make improvements to roads, signs, and traffic signals as needed to improve bicycle travel.
- **Policy 3.d-I-12:** Discourage speed bumps and other street features that hinder bicycling on public streets and private parking lots.
- **Policy 3.d-I-14:** Include evaluation of bicycle facility needs in all planning applications for new developments and major remodeling or improvement projects.
- **Policy 3.d-I-15:** Encourage new and existing developments to provide end-of-trip facilities such as secure bicycle parking, on-site showers and clothing storage lockers, etc.
- **Policy 3.d-I-20:** Monitor proposed developments and work with applicants to design projects that preserve the integrity of the identified trail routes.
- **Policy 3.d-I-24:** Where appropriate, require new development provide public access points to the trail system and/or contribute to staging areas.
- **Policy 3.d-I-26:** Require sidewalks on both sides of the street as a condition of development approval, where appropriate with local conditions.

Santa Clara County Valley Transportation Authority

Congestion Management Program

The VTA CMP establishes that minimum acceptable level for CMP monitored intersections is LOS E. In cases where intersections currently operate below LOS E, the following standards are used:

1. Exacerbation of unacceptable LOS F operations by increasing the critical delay by more than 4 seconds and increasing the V/C ratio by 0.01 or more. Critical delay and critical V/C represent the delay and V/C associated with the critical movements of the intersection, or the movements that require the most traffic signal green time.
2. An increase in the V/C ratio of 0.01 or more at an intersection with unacceptable LOS F operations when the change in critical delay is negative (decreases). This can occur if the critical movements change.

3.11.4 - Methodology

Hexagon Transportation Consultants prepared a Transportation Impact Analysis for the proposed project that evaluated project-related impacts on transportation. The complete report is provided in Appendix H. Summaries of key aspects of the analysis are provided on the following pages.

Data Collection

The data for the study locations were obtained through field observations, previous traffic studies, the City of Milpitas, the City of San Jose, current traffic counts (see Appendix H), and the VTA CMP Monitoring and Conformance Report. The following data were collected from these sources:

- Existing traffic volumes
- Lane geometries
- Signal timing and phasing
- A list of approved projects (ATI)
- Year 2030 forecast traffic volumes

The project impacts were evaluated for the following scenarios:

Scenario 1: Existing Conditions. Existing traffic volumes were obtained from current AM and PM peak-hour traffic counts.

Scenario 2: Background Conditions. Background traffic volumes were estimated by adding to existing peak-hour volumes the projected volumes from approved but not yet completed developments. The latter component is contained in the City of Milpitas Approved Trips Inventory (ATI) and the City of San Jose Approved Trips Inventory.

Scenario 3: Existing Plus Project Conditions. Projected peak-hour traffic volumes were estimated by adding to existing traffic volumes the additional traffic generated by the project. Existing Plus

Project conditions were evaluated relative to existing conditions in order to determine potential project impacts.

Scenario 4: Background Plus Project Conditions. Projected peak-hour traffic volumes were estimated by adding to background traffic volumes the additional traffic generated by the project. Background Plus Project conditions were evaluated relative to background conditions in order to determine potential project impacts.

Scenario 5: Cumulative Conditions. Cumulative conditions were represented by year 2030 traffic volumes on the roadway network. Traffic volumes were obtained from the City of Milpitas Travel Demand Forecast (TDF) model. In accordance with City of Milpitas requirements, the impact of the proposed project was measured on roadway segments (rather than intersections) in the project vicinity.

According to CMP guidelines, a freeway segment should be studied when a proposed development would add traffic to a segment greater than 1 percent of its capacity. Table 3.11-5 shows this comparison. (The methods used to assign project traffic to the roadway network are described in the Project Impacts and Recommendations section of this report.) The capacity of a mixed-flow lane as specified by the Highway Capacity Manual is 2,200 vehicles per hour (vph) on four-lane facilities, and 2,300 vph on facilities with six or more lanes. High Occupancy Vehicle (HOV) lanes and auxiliary lanes were not included for this calculation. Based on this comparison, the project would not create a significant impact on freeway segments and no additional analysis is required.

Table 3.11-5: Freeway Segment Evaluation

Freeway	Segment	Direction	No. of Lanes	Percent of Capacity (vphpl)	Percent of Capacity	Project Trips	
						AM	PM
I-680	Scott Creek Road to Jacklin Road	SB	3	6,900	69	2	4
I-680	Jacklin Road to SR-237	SB	3	6,900	69	1	3
I-680	SR-237 to Yosemite Drive	SB	4	9,200	92	4	2
I-880	Dixon Landing Road to SR-237	SB	4	9,200	92	3	12
I-880	SR-237 to Great Mall Parkway	SB	3	6,900	69	0	0
I-880	Great Mall Parkway to Montague Expressway	SB	3	6,900	69	11	6
SR-237	West of I-880	WB	3	6,900	69	10	6
I-680	Scott Creek Road to Jacklin Road	NB	3	6,900	69	4	3
I-680	Jacklin Road to SR-237	NB	3	6,900	69	3	2
I-680	SR-237 to Yosemite Drive	NB	4	9,200	92	1	4
I-880	Dixon Landing Road to SR-237	NB	4	9,200	92	11	6
I-880	SR-237 to Great Mall Parkway	NB	3	6,900	69	0	0

Table 3.11-5 (cont.): Freeway Segment Evaluation

Freeway	Segment	Direction	No. of Lanes	Percent of Capacity (vphpl)	Percent of Capacity	Project Trips	
						AM	PM
I-880	Great Mall Parkway to Montague Expressway	NB	3	6,900	69	3	11
SR-237	West of I-880	EB	2	4,400	44	3	11

Notes:
* Capacity was based on the ideal capacity cited in the 2000 Highway Capacity Manual.
This assignment is for scoping purposes and does not include credit for the existing uses onsite. Actual project traffic on the freeway would be less than what is shown here.
Source: Hexagon Transportation Consultants, 2012.

Project Traffic Estimate

The amount of traffic associated with a development is estimated using a three-step process: (1) trip generation, (2) trip distribution, and (3) trip assignment. In the first step, the amount of traffic entering and exiting the site is estimated on a peak-hour basis. In the second step, the directions of approach and departure of project traffic are estimated. In the third step, the trips are assigned to specific streets and intersections. This process is described in the following sections.

Near-Term Trip Generation

The amount of traffic generated by the proposed project was estimated by applying the appropriate trip generation rates to the size of the development. The trip generation rates used to estimate project traffic were those from the publication entitled Trip Generation, 8th Edition, by the Institute of Transportation Engineers (ITE). Based on these rates, the proposed project would generate 1,647 daily vehicle trips, with 127 trips occurring during the AM peak hour and 163 trips occurring during the PM peak hour. Traffic that is currently generated from the existing onsite uses was measured directly in the field (via traffic counts) and was subtracted from the overall project trip generation. After accounting for existing traffic from the site (which is already on the public street system), the proposed project would generate 1,233 net daily vehicle trips, with 98 net trips occurring during the AM peak hour and 107 net trips occurring during the PM peak hour. The near-term project trip generation estimates are presented in Table 3.11-6.

Table 3.11-6: Near-Term Trip Generation

Scenario	Use	Count	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Total	In	Out	Rate	Total	In	Out
Proposed Project	Single Family Homes	98	9.57	938	0.75	74	19	55	1.01	100	62	38
	Townhomes	122	5.81	709	0.44	54	9	45	0.52	63	43	20
	Subtotal	*220*	—	*1,647*	—	*127*	*28*	*99*	—	*163*	*105*	*58*
Existing	Preston Pipelines	—	—	(414)	—	(29)	(15)	(14)	—	(56)	(20)	(36)

Table 3.11-6 (cont.): Near-Term Trip Generation

Scenario	Use	Count	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Total	In	Out	Rate	Total	In	Out
Net Trip Generation		**—**	**—**	**1,233**	**—**	**98**	**13**	**85**	**—**	**107**	**85**	**22**

Notes:
"Count" represents dwelling units.
Existing Preston Pipelines AM and PM peak-hour trip generation based on counts performed at existing driveways. Daily trip generation extrapolated from PM peak-hour count using ITE data.
Source: Hexagon Transportation Consultants, 2012.

Trip Distribution & Assignment

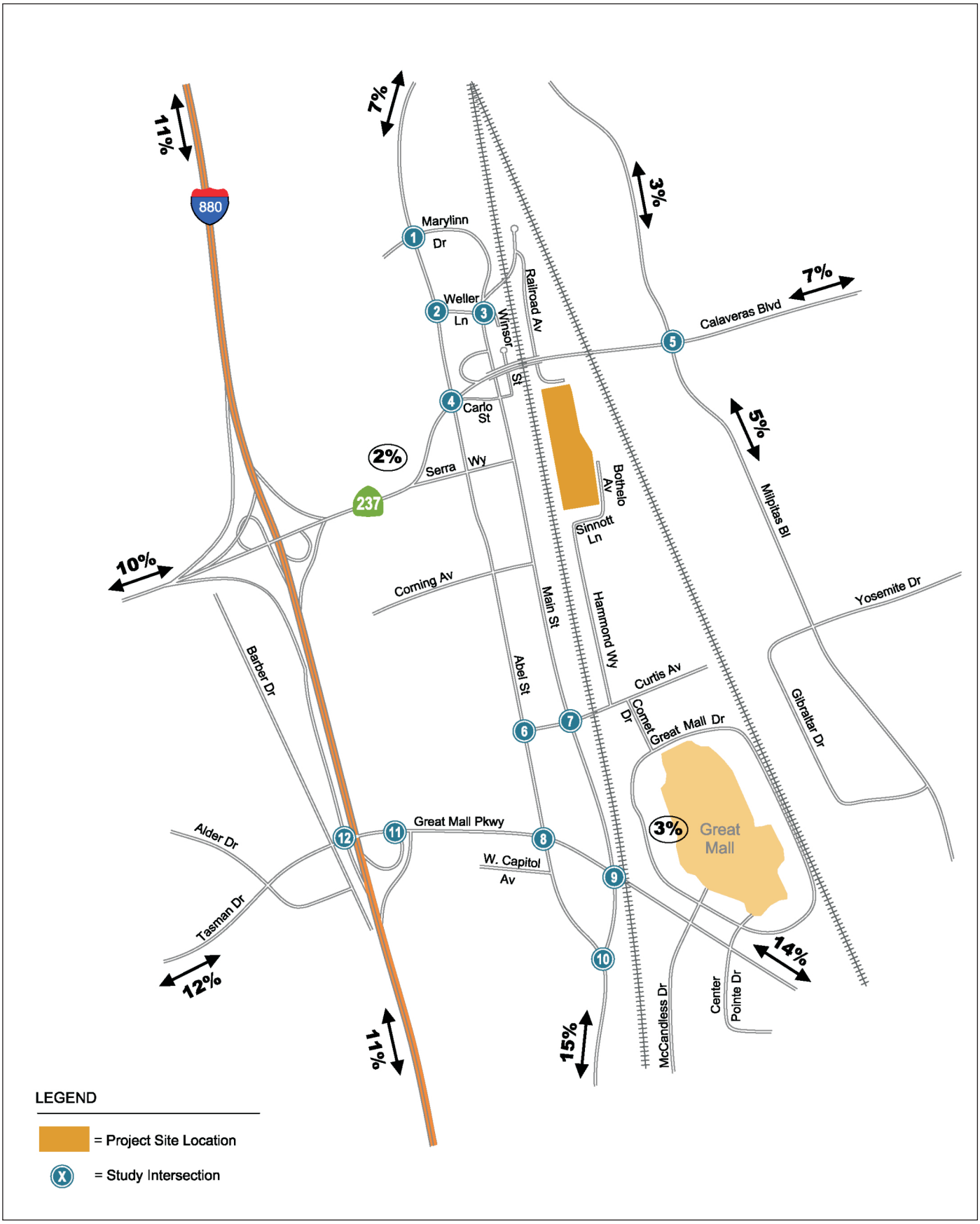
The proposed project's trip distribution pattern estimate was based on a select zone analysis from the City of Milpitas Travel Demand Forecast Model. Separate distributions were developed for the proposed residential uses and the existing onsite industrial uses. These are shown graphically in Exhibit 3.11-6 and Exhibit 3.11-7. The trips generated by the proposed project were assigned to the roadway network based on the residential directional distribution for the AM and PM peak hours. Trips generated by the existing industrial uses were subtracted at each intersection movement for the AM and PM peak hours. Exhibit 3.11-8 shows the net project trip assignment (proposed project traffic minus existing use traffic). The traffic volumes under (1) existing plus project and (2) background plus project conditions are shown in Exhibit 3.11-9 and Exhibit 3.11-10, respectively.

Year 2030 Traffic Volumes

The previously approved land use for the project site under year 2030 conditions includes warehouse uses (prior Sun Microsystems building) and industrial uses (Preston Pipelines). The Preston Pipelines buildings are currently occupied. In the prior Sun Microsystems building, 48,700 square feet are unoccupied. For this reason, traffic from the unoccupied portion this building was estimated using ITE rates.

The proposed project includes 98 single-family homes and 122 town homes. For the purposes of estimating the effect of the proposed land use change, the traffic impacts of the proposed project were evaluated relative to the prior land use. The net project traffic volumes for the year 2030 analysis were calculated using a three-step process as follows:

- Traffic Generation. A comparison of the trip generation between the proposed project and the previously assumed year 2030 land uses is shown in Table 3.11-7. The proposed change in land use would increase the trip generation from the site by 84 trips during the AM peak hour and 91 trips during the PM peak hour.
- Traffic Distribution & Assignment. The directions of approach and departure of the proposed and prior land uses were estimated along major travel corridors. The peak-hour trips generated by the proposed and prior land uses were assigned to specific street segments in accordance with their trip distributions.



Source: Hexagon Transportation Consultants, Inc., February 2012.

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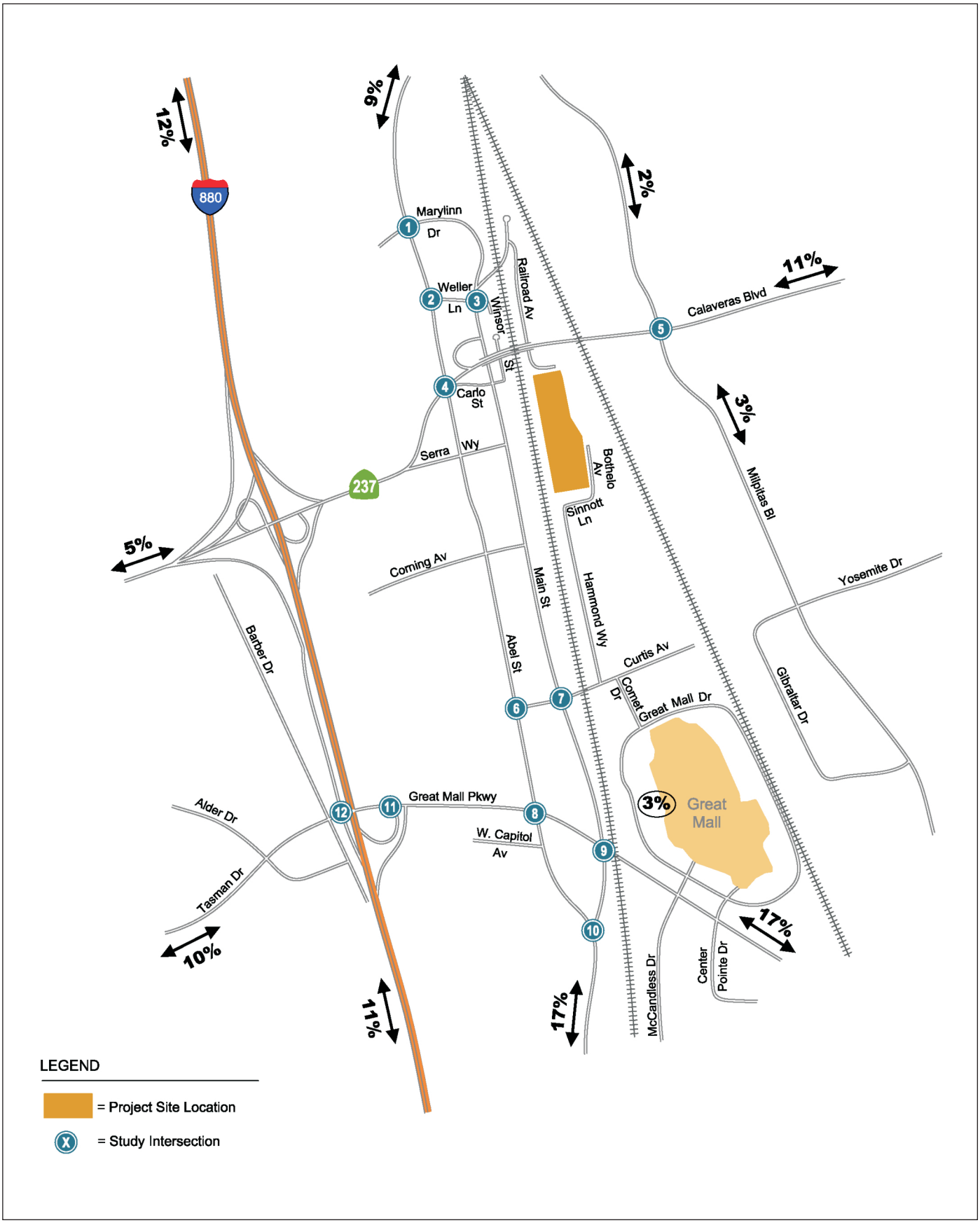
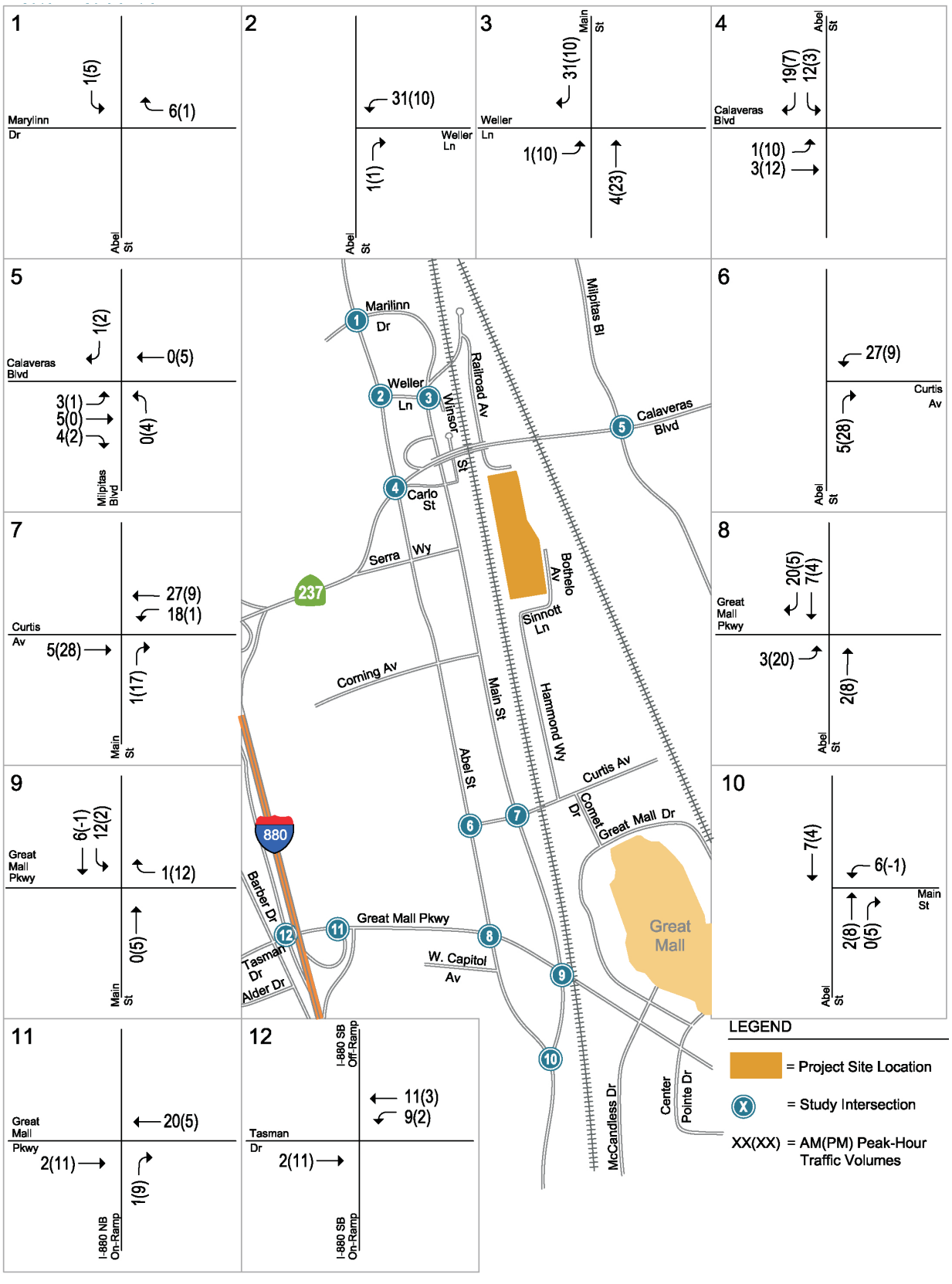
Exhibit 3.11-6
Proposed Project Trip Distribution (Residential)



Source: Hexagon Transportation Consultants, Inc., February 2012.

Michael Brandman Associates

Exhibit 3.11-7
Existing Industrial Use Trip Distribution

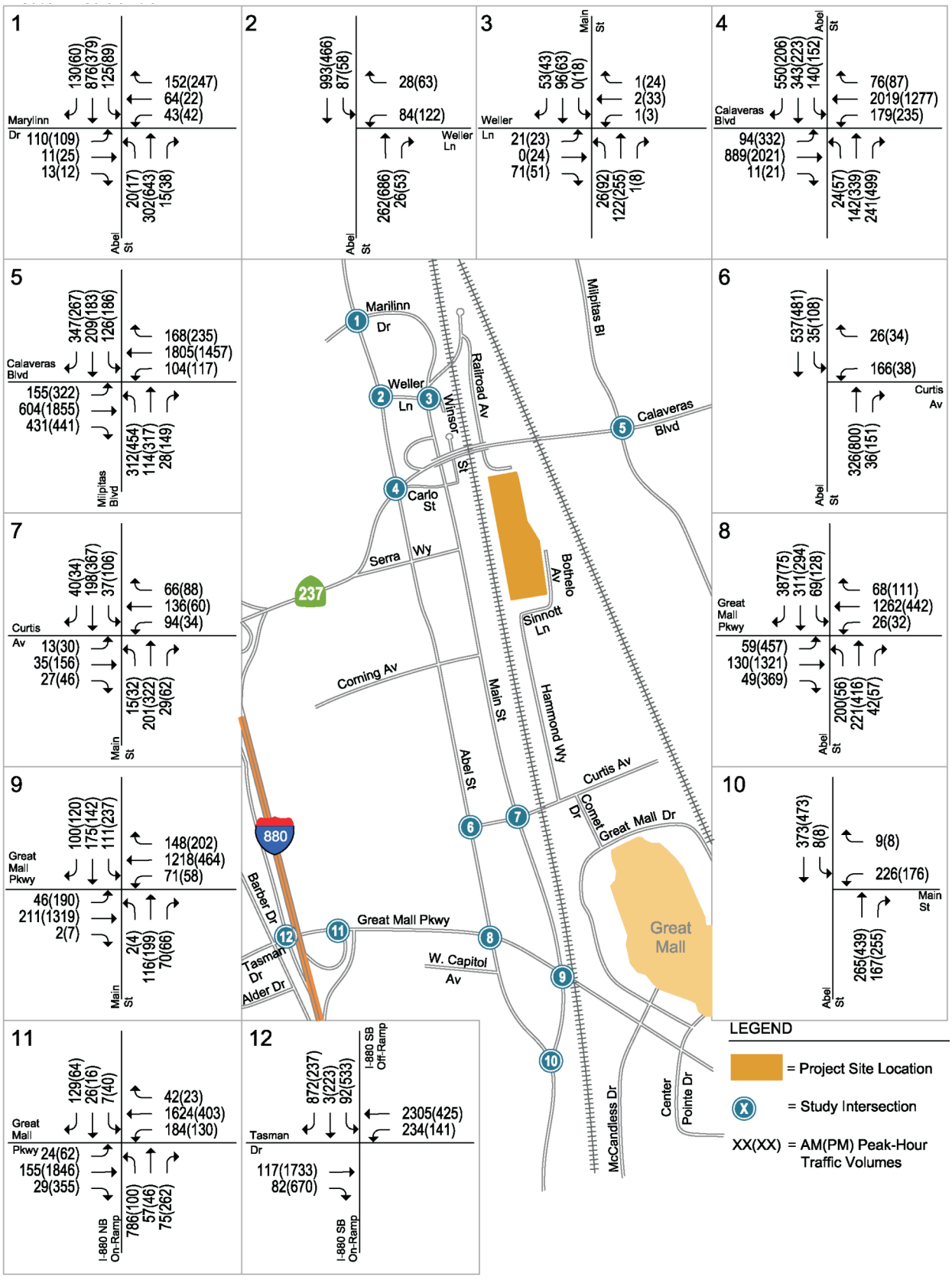


Source: Hexagon Transportation Consultants, Inc., February 2012.

NORTH

Michael Brandman Associates

Exhibit 3.11-8
Net Project Trip Assignment



Source: Hexagon Transportation Consultants, Inc., February 2012.

NORTH

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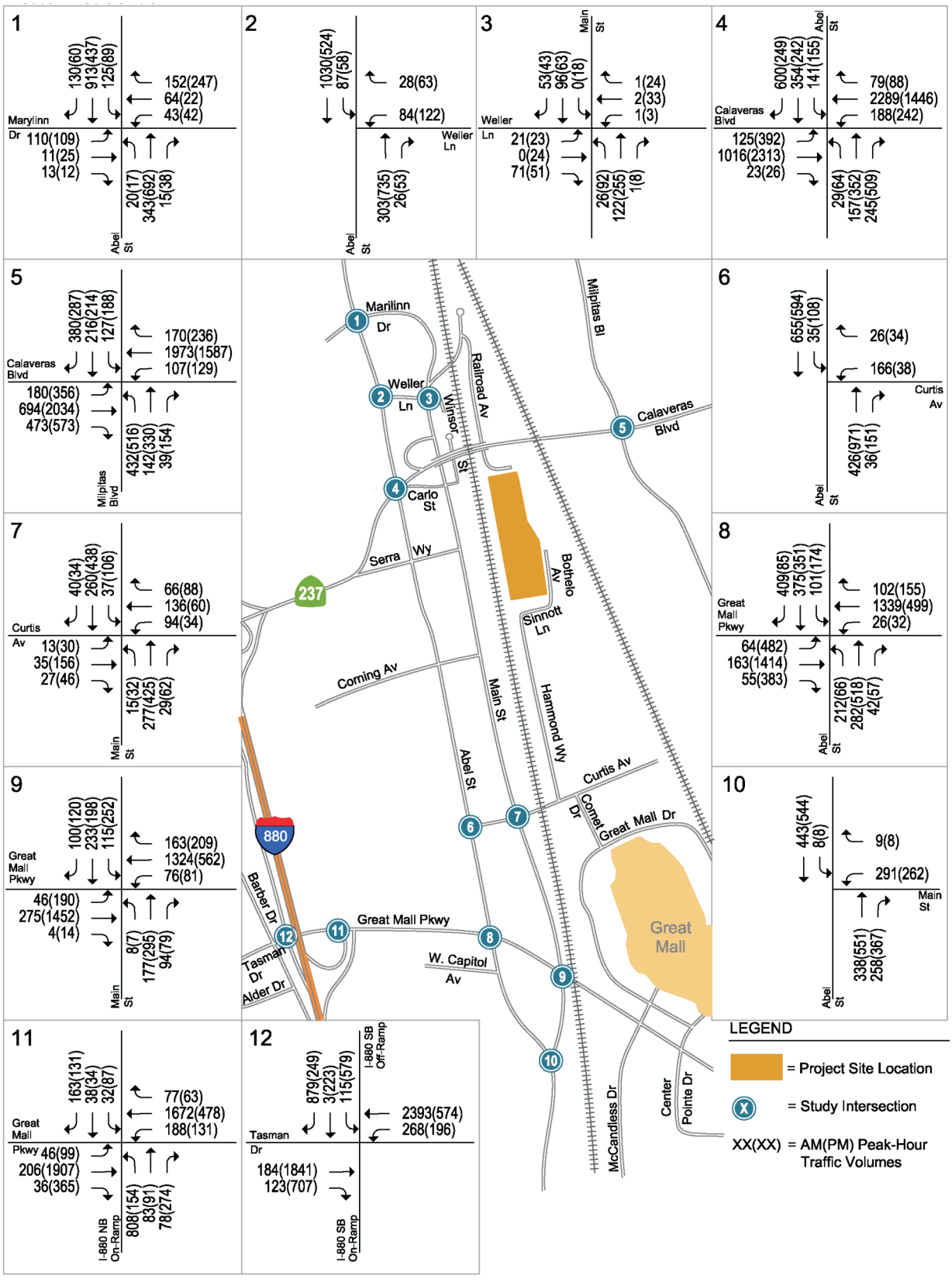
Exhibit 3.11-9
Existing Plus Project Traffic Volumes



Source: Hexagon Transportation Consultants, Inc., February 2012.

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Michael Brandman Associates

Exhibit 3.11-10
Background Plus Project Traffic Volumes

- Traffic Volume Tabulation. For each roadway link, the projected peak-hour traffic volumes with the proposed project were estimated by subtracting the trips generated by the prior land use from year 2030 traffic volumes, and adding the estimated traffic generated by the proposed project.

Table 3.11-7: Year 2030 Trip Generation

Scenario	Use	Count	Daily		AM Peak Hour				PM Peak Hour			
			Rate	Trips	Rate	Total	In	Out	Rate	Total	In	Out
Proposed Project	Single Family Homes	98	9.57	938	0.75	74	19	55	1.01	100	62	38
	Townhomes	122	5.81	709	0.44	54	9	45	0.52	63	43	20
	Subtotal	*220*	—	*1,647*	—	*127*	*28*	*99*	—	*163*	*105*	*58*
Existing	Preston Pipelines	—	—	(414)	—	(29)	(15)	(14)	—	(56)	(20)	(36)
	Warehouse	48.7	3.56	(173)	0.30	(15)	(12)	(17)	0.32	(16)	(4)	(12)
	Subtotal	—	—	*(587)*	—	*(44)*	*(27)*	*(17)*	—	*(72)*	*(24)*	*(48)*
Net Trip Generation		**—**	**—**	**1,059**		**84**	**1**	**83**	**—**	**91**	**81**	**10**

Notes:
"Count" represents dwelling units for single-family homes and townhomes and units of 1,000 square feet for warehouse (e.g., 48.7 = 48,700).
Existing Preston Pipelines AM and PM peak-hour trip generation based on counts performed at existing driveways. Daily trip generation extrapolated from PM peak-hour count using ITE data.
Warehouse trip generation represents unoccupied portion of the former Sun Microsystems building. Traffic estimated using ITE rates for a 48,700-square-foot warehouse.
Source: Hexagon Transportation Consultants, 2012.

3.11.5 - Thresholds of Significance

According to Appendix G, Environmental Checklist, of the CEQA Guidelines, transportation impacts resulting from the implementation of the proposed project would be considered significant if the project would:

a) Exceed the capacity of the existing circulation system, based on an applicable measure of effectiveness (as designated in a general plan policy, ordinance, etc.), taking into account all relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? (Refer to Section 7, Effects Found Not To Be Significant.)

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?

f) Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

3.11.6 - Project Impacts and Mitigation Measures

Existing Plus Project Traffic Conditions

Impact TRANS-1: The proposed project would not contribute new trips to transportation facilities that operate below acceptable level of service during Existing Plus Project Conditions.

Impact Analysis

The Existing Plus Project scenario represents the addition of the proposed project's trips to existing roadway volumes. This scenario is intended to identify how the project's trips in isolation would impact intersections in the project vicinity.

The results of the signalized intersection level of service analysis for the Existing Plus Project scenario are provided in Table 3.11-8. It should be noted that at some study intersections, the average delay under project conditions is shown to be better than under no project conditions. This occurs because the intersection delay is a weighted average of all intersection movements. The addition of project traffic to movements with delays lower than the average intersection delay (such as right turns) can reduce the average delay for the entire intersection. The detailed TRAFFIX level of service calculation sheets are included in Appendix H. All City of Milpitas intersections would operate at LOS D or better and the CMP intersections would operate at LOS E or better. As such, the proposed project would not result in any significant impacts to the study intersections under Existing Plus Project Conditions. Impacts would be less than significant.

Table 3.11-8: Existing Plus Project Intersection Operations

Intersection	Peak Hour	Existing		Existing Plus Project		Δ Critical Delay	Δ v/c
		Average Delay	LOS	Average Delay	LOS		
Abel Street/Marylinn Drive	AM	18.8	B	18.8	B	0.0	0.000
	PM	19.0	B	19.1	B	0.1	0.004
Abel Street/Weller Lane	AM	7.4	A	9.3	A	1.3	0.021
	PM	9.1	A	9.4	A	0.4	0.010
Main Street/Weller Lane	AM	9.3	A	9.1	A	0.1	0.001
	PM	12.8	B	12.7	B	-0.3	0.015

Table 3.11-8 (cont.): Existing Plus Project Intersection Operations

Intersection	Peak Hour	Existing		Existing Plus Project		Δ Critical Delay	Δ v/c
		Average Delay	LOS	Average Delay	LOS		
Abel Street/Calaveras Boulevard*	AM	43.5	D	44.3	D	1.1	0.012
	PM	57.2	E	57.8	E	0.7	0.004
Milpitas Boulevard/ Calaveras Boulevard*	AM	39.5	D	39.4	D	0.0	0.001
	PM	44.1	D	44.4	D	0.6	0.005
Abel Street/Curtis Avenue	AM	11.2	B	12.0	B	0.6	0.020
	PM	9.1	A	9.2	A	0.1	0.015
Main Street/Curtis Avenue	AM	11.2	B	12.0	B	0.6	0.020
	PM	20.4	C	20.7	C	0.2	0.020
Abel Street/Great Mall Parkway	AM	27.9	C	28.2	C	0.5	0.013
	PM	25.1	C	25.3	C	0.2	0.002
Main Street/Great Mall Parkway	AM	17.4	B	17.8	B	0.6	0.008
	PM	22.6	C	22.7	C	0.1	0.003
Abel Street/Main Street	AM	10.1	B	10.2	B	0.0	0.003
	PM	8.1	A	8.0	A	-0.1	0.002
I-880 NB Ramps/Great Mall Parkway	AM	30.2	C	30.3	C	0.1	0.004
	PM	22.1	C	22.5	C	0.5	0.002
I-880 SB Ramps and Tasman Drive	AM	18.3	B	18.3	B	0.0	0.002
	PM	24.6	C	24.7	C	0.1	0.001

Note:
* Denotes CMP Intersection
Source: Hexagon Transportation Consultants, Inc., 2012.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Baseline Traffic Conditions

Impact TRANS-2: The proposed project would not contribute new trips to transportation facilities that operate below acceptable level of service during Baseline Conditions.

Impact Analysis

Traffic volumes for "Baseline" conditions comprise volumes from existing traffic counts plus traffic generated by other approved developments in the vicinity of the site. This scenario is intended to identify how trips generated by the proposed project and other reasonable foreseeable projects would impact intersections in the project vicinity. Traffic volume and roadway network assumptions are described below.

Roadway Network Assumptions

The City of Milpitas has a long-range plan to install a raised center median and add landscaping along South Main Street and South Abel Street between Great Mall Parkway and Montague Expressway. The plan is on file with the City. At the intersection of South Abel Street/South Main Street, the plan would reduce the number of westbound left-turn lanes on South Main Street from two lanes under existing conditions to one lane. Aside from this, all other intersection geometries will remain the same as under existing conditions.

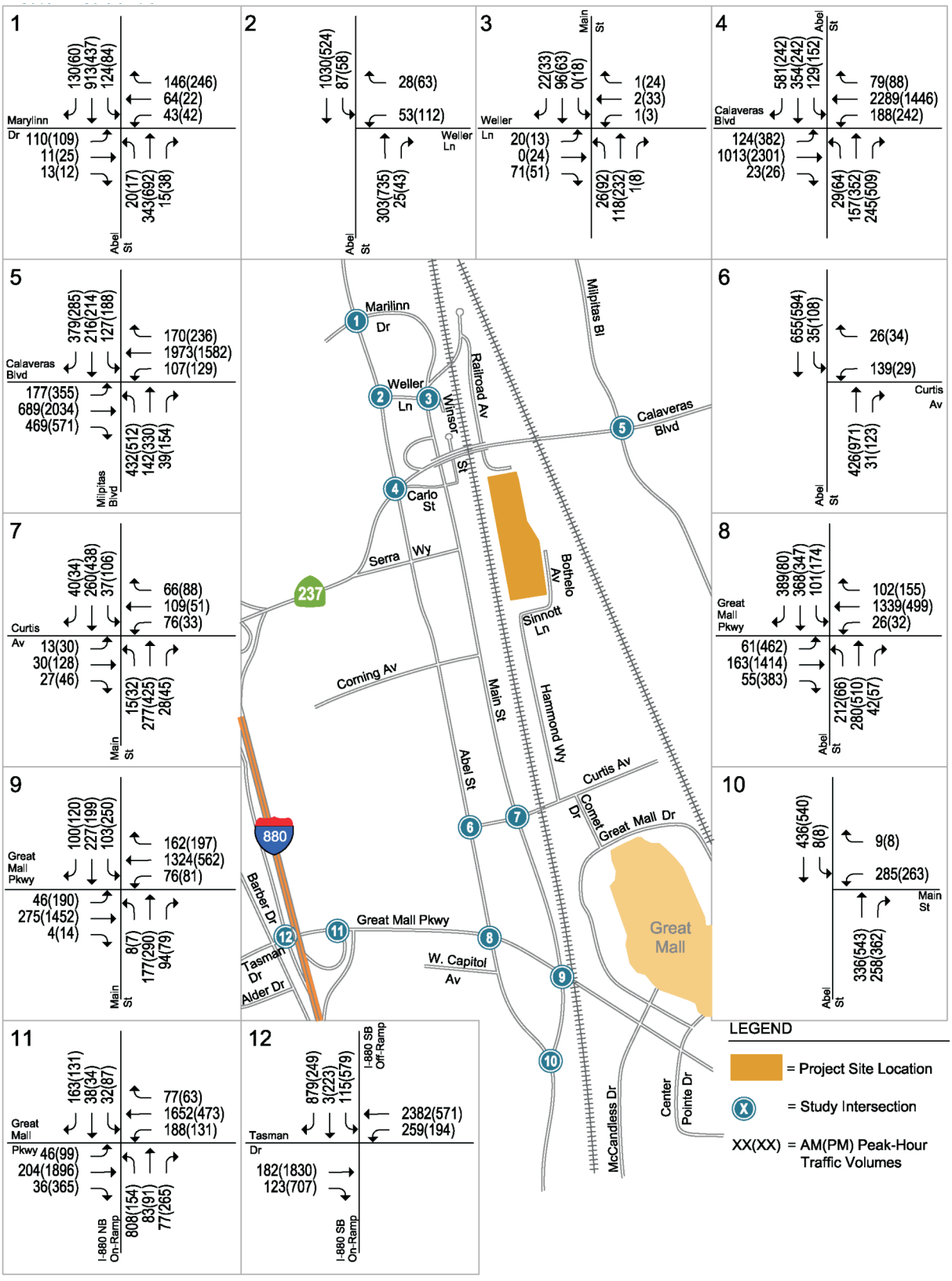
Approved Developments and Background Traffic Volumes

Background peak-hour traffic volumes were calculated by adding to existing volumes the estimated traffic from approved but not yet constructed developments. The list of approved but not yet constructed developments and the corresponding traffic volumes were supplied by the cities of Milpitas and San Jose and can be found in Appendix H. Background traffic volumes are shown in Exhibit 3.11-11.

Intersection Levels of Service

Intersection level of service calculations were conducted to evaluate the operating levels of the key signalized intersections under background conditions.

Table 3.11-9 presents the results of the signalized intersection level of service calculations under background conditions. It should be noted that, at some study intersections, the average delay under project conditions is shown to be better than under no project conditions. This occurs because the intersection delay is a weighted average of all intersection movements. The addition of project traffic to movements with delays lower than the average intersection delay (such as right turns) can reduce the average delay for the entire intersection. The TRAFFIX level of service calculation sheets are included in Appendix H. All City of Milpitas intersections would operate at LOS D or better and the CMP intersections would operate at LOS E or better. Impacts would be less than significant.



Source: Hexagon Transportation Consultants, Inc., February 2012.

NORTH

Michael Brandman Associates

Exhibit 3.11-11
Background Traffic Volumes

Table 3.11-9: Baseline Plus Project Intersection Operations

Intersection	Peak Hour	Baseline		Baseline Plus Project		Δ Critical Delay	Δ v/c
		Average Delay	LOS	Average Delay	LOS		
Abel Street/Marylinn Drive	AM	19.0	B	19.0	B	0.0	0.000
	PM	19.1	B	19.2	B	0.1	0.004
Abel Street/Weller Lane	AM	7.5	A	9.0	A	1.2	0.021
	PM	8.8	A	9.1	A	0.4	0.010
Main Street/Weller Lane	AM	9.3	A	9.1	A	0.1	0.001
	PM	12.8	B	12.7	B	-0.3	0.015
Abel Street/Calaveras Boulevard*	AM	49.1	D	50.5	D	2.2	0.012
	PM	66.1	E	67.1	E	1.2	0.004
Milpitas Boulevard/ Calaveras Boulevard*	AM	48.8	D	48.8	D	0.2	0.001
	PM	50.9	D	51.5	D	1.2	0.005
Abel Street/Curtis Avenue	AM	10.2	B	9.2	A	0.1	0.015
	PM	9.1	A	9.2	A	0.1	0.015
Main Street/Curtis Avenue	AM	19.6	B	20.0	C	0.2	0.018
	PM	20.4	C	20.5	C	0.2	0.020
Abel Street/Great Mall Parkway	AM	28.7	C	28.9	C	0.6	0.013
	PM	27.8	C	28.0	C	0.1	0.002
Main Street/Great Mall Parkway	AM	18.1	B	18.4	B	0.5	0.008
	PM	23.7	C	23.8	C	0.1	0.003
Abel Street/Main Street	AM	12.4	B	12.5	B	0.0	0.005
	PM	11.2	B	11.1	B	0.0	0.002
I-880 NB Ramps/Great Mall Parkway	AM	31.8	C	32.0	C	0.2	0.004
	PM	23.2	C	23.4	C	0.2	0.002
I-880 SB Ramps/Tasman Drive	AM	18.9	B	19.0	B	0.0	0.002
	PM	29.8	C	30.0	C	0.4	0.001

Notes:
* Denotes CMP Intersection
LOS includes planned improvements at Main/Abel under background conditions.
Source: Hexagon Transportation Consultants, Inc., 2012.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Year 2030 Traffic Conditions

Impact TRANS-3: The proposed project may contribute new trips to transportation facilities that operate below acceptable levels of service during Year 2030 Conditions.

Impact Analysis

This impact analysis presents a summary of the traffic conditions that would occur under cumulative conditions. The analysis of cumulative conditions was based on projected roadway link volumes using year 2030 land use data. AM and PM peak-hour volumes were developed using the City of Milpitas Travel Demand Forecast (TDF) model, which is a sub-area model of the VTA CMP TDF model.

2030 Network Assumptions

The year 2030 roadway network includes planned transportation improvements. The improvements included in the City of Milpitas TDF model have a high probability of receiving funding in the future. Within the study area, the following improvements were included:

- I-880 Widening Projects. I-880 will be widened to include a High Occupancy Vehicle lane in each direction from Montague Expressway north into Alameda County.
- Calaveras Boulevard. Calaveras Boulevard will be widened to six lanes between Milpitas Boulevard and Abel Street. Operational improvements are also planned for intersections on Calaveras Boulevard between I-680 and I-880.
- Montague Expressway. Montague Expressway will be widened to provide eight lanes between Great Mall Parkway and I-880. The intersection of Montague Expressway and Great Mall Parkway is planned for grade separation.

Planned improvements outside the study area are described in the VTA Valley Transportation Plan (VTP) 2030, which is on file with the City of Milpitas. It should be noted that some VTP 2030 projects in the City of Milpitas have been identified for VTP 2030 funding. However, the City is still responsible for the 20 percent local match. Therefore, additional monetary contributions for these projects are necessary.

Roadway Operations

Year 2030 conditions with the proposed project were evaluated relative to year 2030 conditions with the prior land use designation in order to determine potential impacts. The impacts of the proposed land use change are summarized in Table 3.11-10 and Table 3.11-11 for the AM and PM peak hours, respectively.

Table 3.11-10: Year 2030 AM Peak Hour Roadway Segment Operations

Roadway	Segment	Direction	LOS	Volumes		Project Trips		Capacity		Volume/Capacity		LOS		Adverse Impact?
				No Project	Plus Project	abs	% /a/	No Project	Plus Project	No Project	Plus Project	No Project	Plus Project	
Calaveras Boulevard	I-880–Abbot Avenue	Eastbound	E	1,872	1,874	2	0.1	3,600	3,600	0.52	0.52	A	A	No
	Abbot Avenue–Abel Street	Eastbound	E	1,937	1,940	3	0.1	3,600	3,600	0.54	0.54	A	A	No
	Abel Street–Milpitas Boulevard	Eastbound	E	1,097	1,109	12	0.4	2,700	2,700	0.41	0.41	A	A	No
	Milpitas Boulevard–Hillview Drive	Eastbound	E	864	869	5	0.2	2,700	2,700	0.32	0.32	A	A	No
	Hillview Drive–I-680	Eastbound	E	790	795	5	0.2	2,700	2,700	0.29	0.29	A	A	No
	I-880–Abbott Avenue	Westbound	E	3,106	3,124	18	0.7	2700	2700	1.16	1.16	F	F	No
	Abbott Avenue–Abel Street	Westbound	E	3,011	3,030	19	0.7	2700	2700	1.12	1.12	F	F	No
	Abel Street–Milpitas Boulevard	Westbound	E	3,050	3,049	-1	0.0	2700	2700	1.13	1.13	F	F	No
	Milpitas Boulevard–Hillview Drive	Westbound	E	2,451	2,450	-1	0.0	2700	2700	0.91	0.91	E	E	No
	Hillview Drive–I-680	Westbound	E	2,634	2,633	-1	0.0	2700	2700	0.98	0.98	E	E	No
Abel Street	Milpitas Boulevard–Calaveras Boulevard	Northbound	D	974	975	1	0.1	1,800	1,800	0.54	0.54	A	A	No

Table 3.11-10 (cont.): Year 2030 AM Peak Hour Roadway Segment Operations

Roadway	Segment	Direction	LOS	Volumes		Project Trips		Capacity		Volume/Capacity		LOS		Adverse Impact?
				No Project	Plus Project	abs	% /a/	No Project	Plus Project	No Project	Plus Project	No Project	Plus Project	
Abel Street (*cont.*)	Calaveras Boulevard–Great Mall Parkway	Northbound	D	1,350	1,352	2	0.1	1,800	1,800	0.75	0.75	C	C	No
	Great Mall Parkway–S. Main Street	Northbound	D	893	895	2	0.1	1,800	1,800	0.50	0.50	A	A	No
	Milpitas Boulevard–Calaveras Boulevard	Southbound	D	2,155	2,186	31	1.7	1,800	1,800	1.20	1.21	F	F	Yes
	Calaveras Boulevard–Great Mall Parkway	Southbound	D	1,646	1,672	26	1.4	1,800	1,800	0.91	0.93	E	E	Yes
	Great Mall Parkway–S. Main Street	Southbound	D	717	724	7	0.4	1,800	1,800	0.40	0.40	A	A	No
Great Mall Parkway	I-880–S. Main Street	Eastbound	D	904	904	0	0.0	2,700	2,700	0.33	0.33	A	A	No
	S. Main Street–Montague Expressway	Eastbound	D	1,661	1,672	11	0.4	2,700	2,700	0.62	0.62	B	B	No
	I-880–S. Main Street	Westbound	D	3,552	3,571	19	0.7	2,700	2,700	1.32	1.32	F	F	No
	S. Main Street–Montague Expressway	Westbound	D	2,341	2,340	-1	0.0	2,700	2,700	0.87	0.87	D	D	No
Main Street	Marylinn Drive–Calaveras Boulevard Ramp	Northbound	D	302	303	1	0.1	900	900	0.34	0.34	A	A	No
	Calaveras Boulevard Ramp–	Northbound	D	183	185	2	0.2	900	900	0.20	0.21	A	A	No

Table 3.11-10 (cont.): Year 2030 AM Peak Hour Roadway Segment Operations

Roadway	Segment	Direction	LOS	Volumes		Project Trips		Capacity		Volume/Capacity		LOS		Adverse Impact?
				No Project	Plus Project	abs	% /a/	No Project	Plus Project	No Project	Plus Project	No Project	Plus Project	
	Carlo St Ramp													
	Carlo Street Ramp–Curtis Avenue	Northbound	D	545	545	0	0.0	900	900	0.61	0.61	B	B	No
	Curtis Avenue–Great Mall Parkway	Northbound	D	744	740	-4	-0.2	1,800	1,800	0.41	0.41	A	A	No
	Great Mall Parkway–Abel Street	Northbound	D	830	827	-3	-0.2	1,800	1,800	0.46	0.46	A	A	No
	Abel Street–Cedar Way	Northbound	D	1,712	1,711	-1	-0.1	1,800	1,800	0.95	0.95	E	E	No
	Cedar Way–Montague Expressway	Northbound	D	1,782	1,781	-1	-0.1	1,800	1,800	0.99	0.99	E	E	No
	Marylinn Drive–Calaveras Boulevard Ramp	Southbound	D	628	659	31	3.4	900	900	0.70	0.73	B	C	No
	Calaveras Boulevard Ramp–Carlo Street Ramp	Southbound	D	1,372	1,372	0	0.0	900	900	1.52	1.52	F	F	No
	Carlo Street Ramp–Curtis Avenue	Southbound	D	1,506	1,506	0	0.0	900	900	1.67	1.67	F	F	No
	Curtis Avenue–Great Mall Parkway	Southbound	D	1,700	1,716	16	0.9	1,800	1,800	0.94	0.95	E	E	No
	Great Mall Parkway–Abel Street	Southbound	D	1,111	1,116	5	0.3	1,800	1,800	0.62	0.62	B	B	No
	Abel Street–Cedar Way	Southbound	D	1,697	1,709	12	0.7	1,800	1,800	0.94	0.95	E	E	No

Table 3.11-10 (cont.): Year 2030 AM Peak Hour Roadway Segment Operations

Roadway	Segment	Direction	LOS	Volumes		Project Trips		Capacity		Volume/Capacity		LOS		Adverse Impact?
				No Project	Plus Project	abs	% /a/	No Project	Plus Project	No Project	Plus Project	No Project	Plus Project	
	Cedar Way–Montague Expressway	Southbound	D	1,977	1,989	12	0.7	1,800	1,800	1.10	1.11	F	F	No

Notes:
/a/ = project trips as a percent of roadway capacity
/b/ = CMP route
Source: Hexagon Transportation Consultants, 2012.

Table 3.11-11: Year 2030 PM Peak Hour Roadway Segment Operations

Roadway	Segment	Direction	LOS	Volumes		Project Trips		Capacity		Volume/Capacity		LOS		Adverse Impact?
				No Project	Plus Project	abs	% /a/	No Project	Plus Project	No Project	Plus Project	No Project	Plus Project	
Calaveras Boulevard	I-880–Abbot Avenue	Eastbound	E	3,842	3,861	19	0.5	3,600	3,600	1.07	1.07	F	F	No
	Abbot Avenue–Abel Street	Eastbound	E	3,611	3,632	21	0.6	3,600	3,600	1.00	1.01	F	F	No
	Abel Street–Milpitas Boulevard	Eastbound	E	3,191	3,193	2	0.1	2,700	2,700	1.18	1.18	F	F	No
	Milpitas Boulevard–Hillview Drive	Eastbound	E	2,475	2,474	-1	0.0	2,700	2,700	0.92	0.92	E	E	No
	Hillview Drive–I-680	Eastbound	E	2,710	2,709	-1	0.0	2,700	2,700	1.00	1.00	F	F	No
	I-880–Abbott Avenue	Westbound	E	2,456	2,460	4	0.1	2700	2700	0.91	0.91	E	E	No

Table 3.11-11 (cont.): Year 2030 PM Peak Hour Roadway Segment Operations

Roadway	Segment	Direction	LOS	Volumes		Project Trips		Capacity		Volume/Capacity		LOS		Adverse Impact?
				No Project	Plus Project	abs	% /a/	No Project	Plus Project	No Project	Plus Project	No Project	Plus Project	
Calaveras Boulevard (*cont.*)	Abbott Avenue–Abel Street	Westbound	E	2,441	2,446	5	0.2	2700	2700	0.90	0.91	E	E	No
	Abel Street–Milpitas Boulevard	Westbound	E	1,841	1,851	10	0.4	2700	2700	0.68	0.69	B	B	No
	Milpitas Boulevard–Hillview Drive	Westbound	E	1,282	1,286	4	0.1	2700	2700	0.47	0.48	A	A	No
	Hillview Drive–I-680	Westbound	E	1,186	1,190	4	0.1	2700	2700	0.44	0.44	A	A	No
Abel Street	Milpitas Boulevard–Calaveras Boulevard	Northbound	D	1,971	1,981	10	0.6	1,800	1,800	1.10	1.10	F	F	No
	Calaveras Boulevard–Great Mall Parkway	Northbound	D	2,000	2,027	27	1.5	1,800	1,800	1.11	1.13	F	F	Yes
	Great Mall Parkway–S. Main Street	Northbound	D	383	391	8	0.4	1,800	1,800	0.21	0.22	A	A	No
	Milpitas Boulevard–Calaveras Boulevard	Southbound	D	1,338	1,345	7	0.4	1,800	1,800	0.74	0.75	A	A	No
	Calaveras Boulevard–Great Mall Parkway	Southbound	D	1,511	1,518	7	0.4	1,800	1,800	0.84	0.84	D	D	No
	Great Mall Parkway–S. Main Street	Southbound	D	966	970	4	0.2	1,800	1,800	0.54	0.54	A	A	No

Table 3.11-11 (cont.): Year 2030 PM Peak Hour Roadway Segment Operations

Roadway	Segment	Direction	LOS	Volumes		Project Trips		Capacity		Volume/Capacity		LOS		Adverse Impact?
				No Project	Plus Project	abs	% /a/	No Project	Plus Project	No Project	Plus Project	No Project	Plus Project	
Great Mall Parkway	I-880–S. Main Street	Eastbound	D	3,931	3,950	19	0.7	2,700	2,700	1.46	1.46	F	F	No
	S. Main Street–Montague Expressway	Eastbound	D	2,819	2,818	-1	0.0	2,700	2,700	1.04	1.04	F	F	No
	I-880–S. Main Street	Westbound	D	1,406	1,409	3	0.1	2,700	2,700	0.52	0.52	A	A	No
	S. Main Street–Montague Expressway	Westbound	D	1,558	1,569	11	0.4	2,700	2,700	0.58	0.58	A	A	No
Main Street	Marylinn Drive–Calaveras Boulevard Ramp	Northbound	D	1038	1,059	21	2.3	900	900	1.15	1.18	F	F	Yes
	Calaveras Boulevard Ramp–Carlo St Ramp	Northbound	D	963	974	11	1.2	900	900	1.07	1.08	F	F	Yes
	Carlo Street Ramp–Curtis Avenue	Northbound	D	1,488	1,488	0	0.0	900	900	1.65	1.65	F	F	No
	Curtis Avenue–Great Mall Parkway	Northbound	D	1,771	1,786	15	0.8	1,800	1,800	0.98	0.99	E	E	No
	Great Mall Parkway–Abel Street	Northbound	D	1,280	1,284	4	0.2	1,800	1,800	0.71	0.71	C	C	No
	Abel Street–Cedar Way	Northbound	D	1,711	1,723	12	0.7	1,800	1,800	0.95	0.96	E	E	No
	Cedar Way–Montague Expressway	Northbound	D	2,014	2,026	12	0.7	1,800	1,800	1.12	1.13	F	F	No

Table 3.11-11 (cont.): Year 2030 PM Peak Hour Roadway Segment Operations

Roadway	Segment	Direction	LOS	Volumes		Project Trips		Capacity		Volume/Capacity		LOS		Adverse Impact?
				No Project	Plus Project	abs	% /a/	No Project	Plus Project	No Project	Plus Project	No Project	Plus Project	
	Marylinn Drive–Calaveras Boulevard Ramp	Southbound	D	406	413	7	0.8	900	900	0.45	0.46	A	A	No
	Calaveras Boulevard Ramp–Carlo Street Ramp	Southbound	D	1,002	1,002	0	0.0	900	900	1.11	1.11	F	F	No
	Carlo Street Ramp–Curtis Avenue	Southbound	D	1,177	1,177	0	0.0	900	900	1.31	1.31	F	F	No
	Curtis Avenue–Great Mall Parkway	Southbound	D	1,331	1,326	-5	-0.3	1,800	1,800	0.74	0.74	C	C	No
	Great Mall Parkway–Abel Street	Southbound	D	803	799	-4	-0.2	1,800	1,800	0.45	0.44	A	A	No
	Abel Street–Cedar Way	Southbound	D	1,809	1,809	0	0.0	1,800	1,800	1.01	1.01	F	F	No
	Cedar Way–Montague Expressway	Southbound	D	1,933	1,933	0	0.0	1,800	1,800	1.07	1.07	F	F	No

Notes:
/a/ = project trips as a percent of roadway capacity
/b/ = CMP route
Source: Hexagon Transportation Consultants, Inc, 2012.

Potential Impacts

As shown in Table 3.11-10 and Table 3.11-11, the proposed project would result in the following significant impacts:

Abel Street – Milpitas Boulevard to Calaveras Boulevard, Southbound

During the AM peak hour, the roadway segment would operate at LOS F under year 2030 no project conditions. The level of service standard for this roadway segment is LOS D. The project would add traffic equal to 1.7 percent of the roadway capacity. According to the City of Milpitas, this is a significant impact.

Abel Street –Calaveras Boulevard to Great Mall Parkway, Southbound

During the AM peak hour, the roadway segment would operate at LOS E under year 2030 no project conditions. The level of service standard for this roadway segment is LOS D. The project would add traffic equal to 1.4 percent of the roadway capacity. According to the City of Milpitas, this is a significant impact.

Abel Street –Calaveras Boulevard to Great Mall Parkway, Northbound

During the PM peak hour, the roadway segment would operate at LOS F under year 2030 no project conditions. The level of service standard for this roadway segment is LOS D. The project would add traffic equal to 1.5 percent of the roadway capacity. According to the City of Milpitas, this is a significant impact.

Main Street –Marylinn Drive to Calaveras Boulevard, Northbound

During the PM peak hour, the roadway segment would operate at LOS F under year 2030 no project conditions. The level of service standard for this roadway segment is LOS D. The project would add traffic equal to 2.3 percent of the roadway capacity. According to the City of Milpitas, this is a significant impact.

Main Street –Calaveras Boulevard to Carlo Street, Northbound

During the PM peak hour, the roadway segment would operate at LOS F under year 2030 no project conditions. The level of service standard for this roadway segment is LOS D. The project would add traffic equal to 1.2 percent of the roadway capacity. According to the City of Milpitas, this is a significant impact.

Potential Mitigation Measures

To mitigate the year 2030 project impacts to Main Street and Abel Street would require widening each roadway by one additional through lane. There is insufficient right-of-way to widen these streets without removal of sidewalks or nearby existing buildings. Therefore, full mitigation of these impacts would be infeasible.

However, as partial mitigation for the impacts, the project could participate in the Calaveras Boulevard Widening Traffic Impact Fee. The purpose of the Calaveras Boulevard fee is to fund the widening of the bridge section of Calaveras Boulevard between Milpitas Boulevard and Abel Street from four lanes to six lanes. Participation in this fee program, and construction of the improvements, would help reduce overall travel times in the project vicinity and serve as partial mitigation for project impacts. This recommendation is reflected in Mitigation Measure TRANS-3.

However, as previously noted, feasible improvements are not available for Abel Street or Main Street; therefore, impacts would not be fully mitigated. As such, the residual significance of this impact is significant and unavoidable.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-3 Prior to issuance of each building permit for the proposed project, the project applicant shall provide the City of Milpitas with all transportation-related fees in accordance with the latest adopted fee schedule. Such fees are anticipated to include but not to be limited to the Calaveras Boulevard Widening Traffic Impact Fee.

Level of Significance After Mitigation

Significant unavoidable impact.

Roadway Safety

Impact TRANS-4: The proposed project may substantially increase hazards due to a design feature or incompatible uses.

Impact Analysis

This impact will evaluate the potential for the proposed project to substantially increase hazards due to a design feature or incompatible uses. Relevant topics include site access and circulation and onsite circulation.

Site Access and Circulation

The proposed site plan shows one driveway on Railroad Avenue and one driveway on Hammond Way. Both driveways would have security gates that would be operated by remote control or key cards. As part of the project, the existing cul-de-sac on Railroad Avenue would be extended approximately 150 feet to the east.

The driveway on Railroad Avenue would be located at the end of the cul-de-sac. The driveway would be approximately 22 feet wide at its throat and would accommodate inbound and outbound project traffic. The security gate would be located approximately 80 feet from Railroad Avenue. This driveway would include a pull-out area for guests. It is anticipated that this driveway would accommodate 57 AM peak-hour trips and 73 PM peak-hour trips. Given the very low traffic volume

on Railroad Avenue, this driveway would operate with little delay. There are no apparent sight distance conflicts at this driveway, and the gate location would not likely cause inbound vehicle queues to spill back onto the public street.

The southern project driveway would be located at the southern limits of the project site directly opposite Hammond Way. The driveway would form the north leg of a T-intersection at Hammond Way and Sinnott Lane. The driveway would be approximately 24 feet wide at its throat and accommodate inbound and outbound project traffic. The security gate would be located approximately 95 feet from the public street. The driveway would also include a pull-out area for guests. It is anticipated that this driveway would accommodate 70 AM peak-hour trips and 90 PM peak-hour trips. Given the very low traffic volume on Hammond Way and Sinnott Lane, this driveway would operate with little delay and vehicle conflicts would be infrequent. There are no apparent sight distance conflicts at this driveway and the gate location would not likely cause inbound vehicle queues to spill back onto the public street.

It is recommended that all project driveways be reviewed by City staff prior to final design to insure the sight lines are free and clear of obstructions. Any landscaping and signage should be located in such a way to insure an unobstructed view for drivers entering and exiting the site. This recommendation is reflected in Mitigation Measure TRANS-4a.

Onsite Circulation

Onsite, the two project driveways would be connected by a 22-foot-wide, two-way, north/south drive aisle. This drive aisle would connect to nine two-way onsite drive aisles (hereafter referred to as motor courts), which would provide direct access to residences. The motor courts would run east/west and would be 22 feet wide, with at least 27 feet provided between opposing buildings. The motor courts drive aisles would range in length from approximately 240 feet to 380 feet. Resident parking would be provided in private garages. All guest parking would be either parallel parking or at 90 degrees to the drive aisles. In areas where 90-degree guest parking is shown, the adjacent drive aisles would be 25 feet wide. There are no proposed dead-end parking aisles or roadways. Because of the low traffic volumes onsite, the onsite intersections would operate with little delay. At the southern end of the project site, the main north/south drive aisle would turn east/west and have two 90-degree bends in the roadway. Assuming that vehicles drive at an appropriate speed and slow in advance of each turn, there is adequate sight distance and clearance between opposing vehicles around of each of these 90-degree bends. However, it is possible that some drivers would attempt to drive through the 90-degree bends at higher speeds using the entire drive aisle (rather than staying in their designated lane). As such, it is recommended that the two 90-degree bends on the main drive aisle onsite have painted centerlines to help guide opposing vehicles around the turns. In addition, the curves should be signed as 10 miles per hour. These recommendations are reflected in Mitigation Measure TRANS-4b.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM TRANS-4a Prior to issuance of building permits, the project applicant shall prepare and submit plans to the City of Milpitas for review and approval demonstrating that all driveways have adequate site distances and are free and clear of obstructions. Any landscaping and signage shall be located in such a way to insure an unobstructed view for drivers entering and exiting the site. The approved plans shall be incorporated into the proposed project.

MM TRANS-4b Prior to issuance of building permits, the project applicant shall prepare and submit plans to the City of Milpitas for review and approval demonstrating the two 90-degree bends on the main drive aisle onsite have painted centerlines and be signed as 10 miles per hour. The approved plans shall be incorporated into the proposed project.

Level of Significance After Mitigation

Less than significant impact.

Emergency Access

Impact TRANS-5: The proposed project may result in inadequate emergency access.

Impact Analysis

Vehicular access to the proposed project would occur at two locations, as shown on Exhibit 2-4:

- **Railroad Avenue (Primary):** The existing Railroad Avenue cul-de-sac at the northwest corner of the project site would be modified to provide access to a private driveway that would serve as the primary access point. This access point would be controlled with a gate. (Note that the gate would be equipped with an override device that allows emergency responders to gain access).
- **Hammond Way (Secondary):** A secondary access point would be located at north end of Hammond Way. This access point would effectively serve as the third (north) leg of the Hammond Way/Sinnott Lane intersection, and would be controlled with a gate. (Note that the gate would be equipped with an override device that allows emergency responders to gain access).

Both of the project site access points require at-grade railroad crossings of the Union Pacific single-track freight line located west of the project site. As such, emergency response to the project site may be temporarily delayed due to train movements on this track.

Citygate Associates reviewed the proposed project to determine if the project site could be served by adequate emergency fire access. The complete analysis is provided in Impact PSR-1 in Section 3.10, Public Services and Recreation. A summary of Citygate's findings is provided below.

The Milpitas Fire Department operates four fire stations, which range from 0.8 mile to 3.1 miles from the project site; refer to Exhibit 3.10-1 in Section 3.10, Public Services and Recreation. At a constant speed of 35 miles per hour, a fire unit can travel 2.33 miles in 4 minutes. At a constant speed of 25 miles per hour, a fire unit can travel 1.66 miles.

Station No. 1 is within 1.5 miles or well under 4 minutes travel time to the project. Stations No. 3 and No. 4 are within 2.5 miles driving distance, which is also within a best practices recommendation of 8 minutes travel for follow-on units to serious emergencies. Milpitas Fire Station No. 1 also houses the Fire Department's ladder truck, and is within 2.5 miles of the project, according to the Insurance Service Office classification system.

There are three at-grade railroad crossings that can impede fire apparatus travel. Blocking all three at-grade crossings at once on a single-track line means a single train has to be stalled and be 1.27 miles (6,730 feet) long or about 100 to 130 cars, depending on the type of rail cars used. However, even if a long train blocked all three at-grade crossings near the project site, all four fire stations can still reach the Great Mall parking lot and then north through the parking lot to West Curtis Avenue without encountering an at-grade train crossing; refer to Exhibits 3.10-2 through 3.10-5 in Section 3.10, Public Services and Recreation. Therefore, while the response routes to the site could be interrupted, there is an alternate path.

In published fire service deployment best practice recommendations, there are no suggested time requirements for an Emergency Vehicle Access to meet. As an alternate route, it is commonly understood that access is compromised by distance, terrain, or closed gates to be opened. In any event, the response time will be delayed.

Therefore, an alternate emergency vehicle route to the project does exist, using mostly public streets, which also means residents in the project could be easily evacuated over the same alternate response routes. The use of Emergency Vehicle Access routing, while it does cause delays, only slows response times to the project area from better than desired to at or slightly past the City's goal point for first due and multiple unit responses.

Given the above findings, Citygate Associates does not see a response route or time issue that would prevent the project from being considered under the City's adopted Fire Code, General Plan, Development Policies, or other national best practice publications for fire service deployment.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Public Transit, Bicycles, and Pedestrians

Impact TRANS-6: The proposed project may conflict with adopted policies, plans, or programs supporting alternative transportation.

Impact Analysis

This impact will assess project impacts on public transit, bicycles, and pedestrian modes of transportation, as well as any plans associated with these topics.

Public Transit

VTA provides existing bus service on the surrounding roadway network. Bus stops for Routes 47 and 66 are located on Main Street, near Weller Lane. These stops are an approximately 0.5-mile walk from the project site. The Great Mall/Main Transit Center, which provides numerous light rail and bus connections, is located approximately 1 mile south of the project site. As such, public transit stops are within reasonable walking or bicycling distance from the project site.

According to the United States Census, transit trips comprise approximately 3 percent of the total commute mode share in the City of Milpitas. For the proposed project, this would equate to approximately four to five new transit trips during the AM and PM peak hours. This volume of riders would not exceed the carrying capacity of the existing bus and rail service near the project site. Therefore, no major improvements to the existing transit facilities would be necessary in conjunction with the proposed project. Impacts would be less than significant.

Bicycles

The nearest bike lanes to the project site are provided on Main Street and Weller Lane. Both of these are approximately 0.5 mile from the project site and a 3-minute ride (assuming a 10 mile-per-hour average bike speed). In addition, Marylinn Drive is designated as a bike route. There are no bike lanes on Railroad Avenue, Sinnott Lane, or Hammond Way. However, there is a future bike path shown in the Milpitas Bikeways Master Plan proposed along Railroad Avenue and Ford Creek north of the project site. The proposed project involves the construction of a bicycle/pedestrian trail along the segment of Ford Creek adjacent to the project site and, therefore, furthers this improvement contemplated within the Bikeways Master Plan.

The volume of traffic on Railroad Avenue, Sinnott Lane, and Hammond Way is relatively low and suitable for shared use between bikes and motor vehicles. According to the U.S. Census, bicycle trips comprise less than 1 percent of the total commute mode share in the City of Milpitas. For the proposed project, this would equate to approximately one to two new bike trips during the AM and PM peak hours. The low volume of bicycle trips generated by the project would not exceed the

bicycle-carrying capacity of streets surrounding the site, and the increase in bicycle trips, by itself, would not require new offsite bicycle facilities.

Finally, the proposed project involves the construction of new residential uses. Such uses would include garages and other covered areas associated with each dwelling unit suitable for storing bicycles. The proposed project would include a new private open space area adjacent to Calaveras Boulevard. Because of the recreational characteristics of this area, Mitigation Measure TRANS-6a requires the provision of a bicycle rack with capacity for a minimum of 10 bicycles to be provided. With the implementation of mitigation, impacts would be less than significant.

Pedestrians

According to the United States Census, pedestrian trips comprise approximately 1.3 percent of the total commute mode share in the City of Milpitas. For the proposed project, this would equate to approximately one or two new pedestrian commute trips during the AM and PM peak hours. In addition, the project would generate some pedestrian trips to or from transit stops, schools, shopping centers, and recreational areas.

There are no sidewalks on Railroad Avenue, Sinnott Lane, or Hammond Way (near the project site), which are the public streets that immediately surround the project site. Sidewalks are provided on Main Street and on Hammond Way, near Curtis Avenue. These facilities are approximately 2,100 feet north and 2,400 feet south of the project site, respectively. Assuming a typical walk speed of 4 feet per second, it would take approximately 9 minutes to walk to the pedestrian facilities on Main Street and approximately 10 minutes to walk to the pedestrian facilities on Hammond Way.

On Main Street, sidewalks are provided on both sides of the street and crosswalks are provided at signalized intersections. Although Main Street is approximately one block west of the project site, the existing Union Pacific rail line precludes direct pedestrian access to the nearby commercial uses. There are existing crossing gates for the railroad tracks on Railroad Avenue and Curtis Avenue. The rail crossing at Curtis Avenue includes sidewalks and Americans with Disabilities Act (ADA)-compliant wheelchair ramps. The rail crossing on Main Street does not include pedestrian facilities. To reach most nearby destinations on foot, many residents would find it quicker to cross the tracks illegally at the existing opening in the fence on Sinnott Lane, which is located near the southern limits of the project site. This opening does not include crossing gates or ADA-compliant ramps. Union Pacific discourages additional at-grade crossings and, as such, would not likely allow the installation of pedestrian enhancements at this crossing.

Accordingly, it is recommended that the project applicant coordinate with City staff to develop a plan to preclude direct pedestrian access to Sinnott Lane on the opposite side of the Union Pacific rail line. This would require constructing a fence on either of the railroad tracks from the southern project boundary to Curtis Avenue. This recommendation is reflected in Mitigation Measure TRANS-6b.

The project applicant is proposing to provide a pedestrian path between the project site and Main Street on the west side of Railroad Avenue (see Exhibit 3.11-12). In addition, the project applicant is proposing to provide a pedestrian path between the project site and Curtis Avenue on the east side of Hammond Way (see Exhibit 3.11-13). These proposed paths would provide an ADA-compliant route between the project site and the existing pedestrian facilities. Mitigation Measure LU-2 in Section 2.7, Land Use requires the applicant to implement these streetscape improvements.

The existing rail lines on both sides of the project are a significant barrier to pedestrian accessibility. With the proposed sidewalk projects along Railroad Avenue and Hammond Way, the walking distances from the project site to retail areas are generally comparable to those found in other parts of Milpitas.

However, from a planning perspective, the site's geographic proximity to Midtown presents an opportunity to provide a strong connection between the residential and retail uses. It has been suggested by City staff that a grade-separated crossing over or under the Union Pacific railroad tracks would enhance pedestrian accessibility in the project vicinity. Potential locations for this could include Sinnott Lane or East Carlo Street. Another option would be to acquire property along the west side of the Union Pacific railroad tracks. The design and location of a grade-separated crossing would require a detailed design study involving the City of Milpitas, surrounding property owners, and Union Pacific. Additional land use changes to the City General Plan on either side of the tracks may also be contemplated to maximize the potential benefits. The cost of a grade-separated crossing would be significant and possibly qualify for matching funds from regional, state, and federal agencies. Variables affecting the design would include the walk times to and from existing and future land uses, visual impacts, the layout of ADA-compliant ramps, and right-of-way acquisition. The design would also likely require extensive feedback from the public and surrounding property owners. Given the planning considerations and cost, a grade-separated pedestrian crossing is likely beyond the scope and cost feasibility of any single development project. As such, a grade-separated pedestrian crossing is not considered feasible at the time of this writing.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

Implement Mitigation Measure LU-2 and:

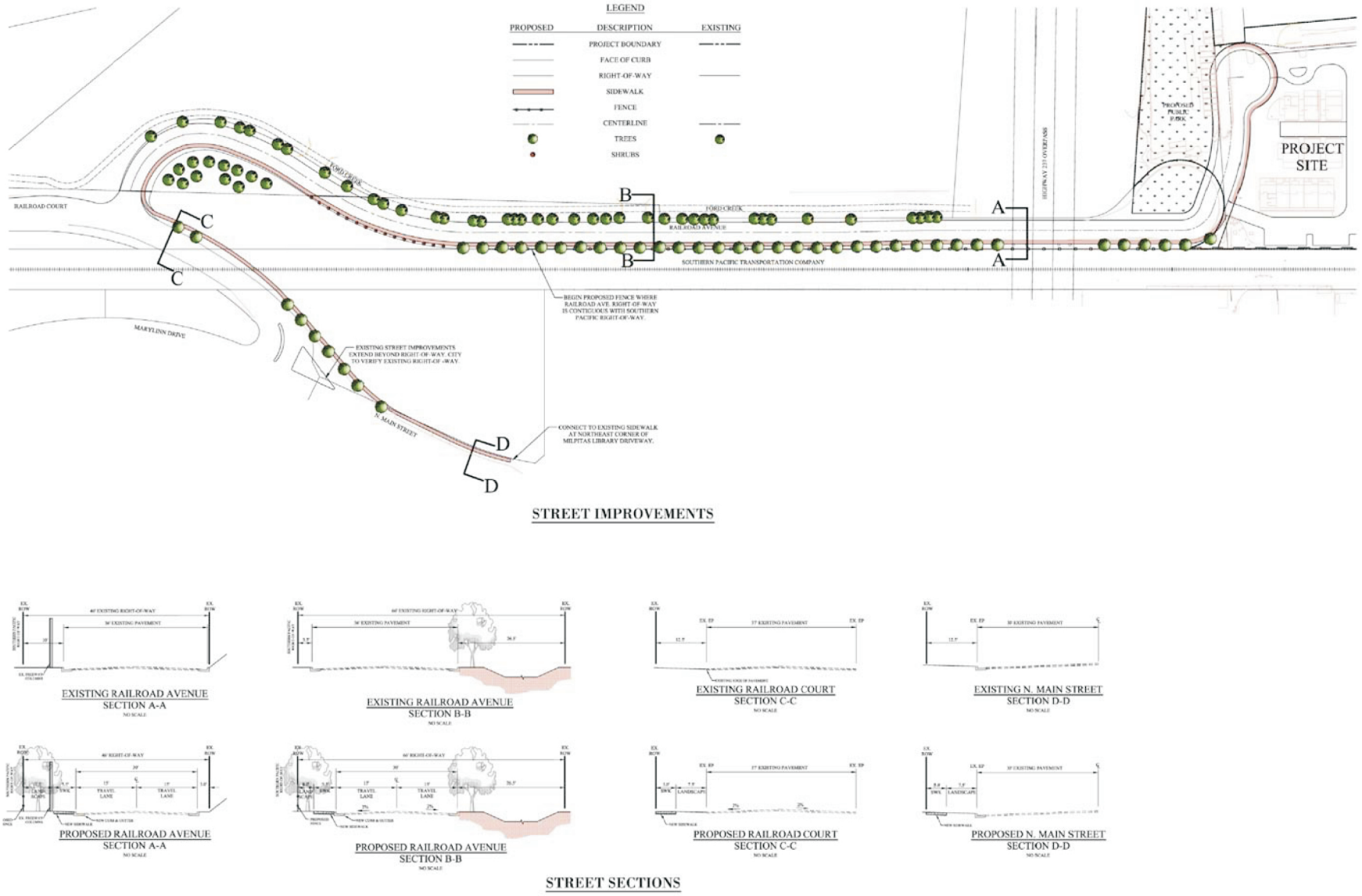
MM TRANS-6a Prior to issuance of grading permits for the proposed project, the improvement plans for the private open space area shall depict at least one bicycle rack with space for a minimum of 10 bicycles located in an accessible and convenient area. The approved improvement plans shall be incorporated into the proposed project.

MM TRANS-6b Prior to approval of the final map, the project applicant shall prepare and submit plans to the City of Milpitas for review and approval that depicts fencing along either side of the Union Pacific Railroad Warm Springs Subdivision railroad right-of-way

to deter pedestrian crossings of the tracks. The fence shall extend from the southern project boundary to Curtis Avenue. The property owner (or Home Owners Association) shall be responsible for maintaining the fence. The approved plans shall be incorporated into the proposed project.

Level of Significance After Mitigation

Less than significant impact.



Source: Hexagon Transportation Consultants, Inc., February 2012, Ruggeri, Jensen, Azar.

NORTH

Michael Brandman Associates

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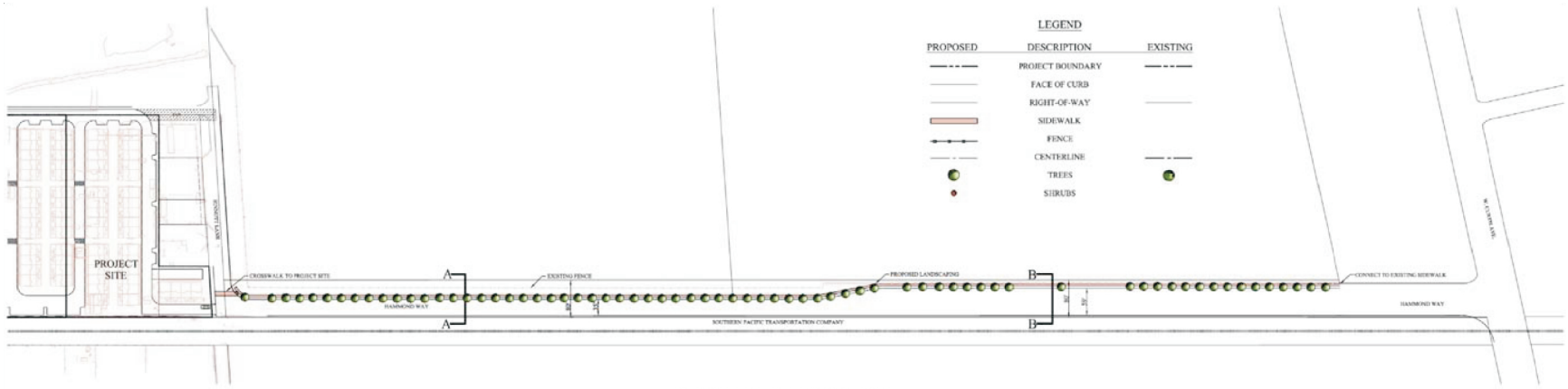
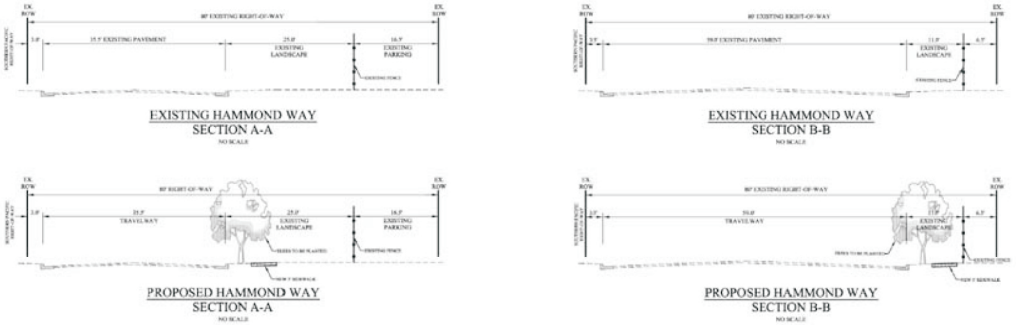
Exhibit 3.11-12
Railroad Avenue Street Improvements



STREET IMPROVEMENTS



STREET SECTIONS

Source: Hexagon Transportation Consultants, Inc., February 2012, Ruggeri, Jensen, Azar.

NORTH

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Exhibit 3.11-13
Hammond Way Street Improvements

3.12 - Utility Systems

3.12.1 - Introduction

This section describes the existing utility systems setting and potential effects from project implementation on the site and its surrounding area. Descriptions and analysis in this section are based on information contained in the City of Milpitas General Plan, the Milpitas Municipal Code, 2010 Urban Water Management Plan, Sewer Master Plan, and the Public Works Department. Information was also gathered from the Santa Clara Valley Water District (SCVWD) Integrated Water Resources Planning Study and the City of Milpitas 2010 Urban Water Management Plan. Water and sewer information was provided by the Preston Development Water & Sewer Analysis prepared by RMC and included as Appendix I. Drainage information was provided by the Hydrology and Water Quality Review prepared by Schaaf & Wheeler and included as Appendix E. Additional information was provided by the Pacific Gas and Electric Company 10-K Annual Report, the California Integrated Waste Management Board website, and responses to questionnaires sent to utility providers. Utility provider response letters are provided in Appendix I.

3.12.2 - Environmental Setting

Water

The City of Milpitas provides potable water supply and distribution to a service area of approximately 14 square miles.

Water Infrastructure

Milpitas's water distribution system includes 200 miles of water main, 4,300 valves, 1,600 fire hydrants, five water tanks totaling 16.24 million gallons of capacity, four pump stations, 16 pressure regulator valves, and one well.

Water Supply

According to the 2010 Urban Water Management Plan for Milpitas, the City purchases treated water from two wholesalers, the San Francisco Public Utilities Commission (SFPUC) and the SCVWD, and receives recycled water from the San Jose/Santa Clara Water Pollution Control Plant. The City also maintains an emergency well system. The City anticipates relying on these water sources over the next 20 years. The project site is located within an area receiving water from the Santa Clara Valley Water District. Table 3.12-1 summarizes future projections for each source.

Table 3.12-1: City of Milpitas Water Supply Sources (2015–2035)

Source	Hundred Cubic Feet				
	2015	2020	2025	2030	2035
San Francisco Public Utilities Commission	4,503,944	4,503,944	4,503,944	4,503,944	4,503,944
Santa Clara Valley Water District	1,610,294	1,907,955	2,513,035	3,122,995	4,001,337

Table 3.12-1 (cont.): City of Milpitas Water Supply Sources (2015–2035)

Source	Hundred Cubic Feet				
	2015	2020	2025	2030	2035
Water Pollution Control Plant (recycled)	483,088	580,682	673,396	766,110	863,703
Total Supply	**6,597,326**	**6,992,581**	**7,690,375**	**8,393,049**	**9,368,984**

Note:
Data provided from Table 4-2 of the 2010 City of Milpitas Urban Water Management Plan.
Source: City of Milpitas, 2011.

Santa Clara Valley Water District (SCVWD)

Approximately one-third of Milpitas's drinking water originates from the SCVWD. SCVWD water is provided primarily to the commercial and industrial areas of the City (west of Interstate 880 [I-880], south of Calaveras Boulevard, and west of I-680), including the project site. Most of the City's future water-use increases are projected to occur within the SCVWD service area. SCVWD's water supply comes from a variety of sources. Approximately half of the water is from local groundwater aquifers, while the other half is imported from the Sierra Nevada Mountains through pumping stations in the Sacramento-San Joaquin River Delta. Small amounts of local surface water and recycled water are also utilized. According to the 2003 Integrated Water Resources Planning Study, the SCVWD can provide approximately 440,800 acre-feet during a year of average weather conditions. According to the Santa Clara Valley Water District's 2010 Urban Water Management Plan, countywide water demand is projected to increase by about 47,000 acre-feet or 12 percent over the next 25 years.

Groundwater

The City has one emergency well that meets all drinking water standards and is permitted for unlimited use. City practice is that groundwater is utilized during emergencies only. A second emergency well is currently under construction. Groundwater is not included as an existing or planned source of water available to the City of Milpitas.

Recycled Water

The City of Milpitas is a member agency in the South Bay Water Recycling Program and receives recycled water from the San Jose/Santa Clara Water Pollution Control Plant for non-potable irrigation, industrial use, and other purposes. Recycled water accounts for approximately 7 percent of Milpitas's water usage. The City's recycled water system consists of 20 miles of pipeline serving 181 service connections.

Recycled Water Conveyance Facilities

The proposed project is not located in a recycled water service area. The nearest existing recycled water pipelines are located approximately 0.5 mile south of the project site within W. Curtis Avenue and 0.2 mile east of the project site within Topaz Street.

Water Use

Table 3.12-2 shows the projected water use between 2015 and 2035.

Table 3.12-2: Projected Water Use (2015–2035)

Hundred Cubic Feet				
2015	**2020**	**2025**	**2030**	**2035**
5,543,315	6,241,110	7,212,166	8,183,222	9,159,157

Note:
Data provided from Table 3-11 of the Urban Water Management Plan.
Source: City of Milpitas, 2011.

Water Balance

Table 3.12-3 shows a supply and demand comparison in a normal year scenario, Table 3.12-4 shows a single dry year scenario, and Table 3.12-5 shows a multiple dry year scenario. Although the City has planned for adequate supplies to meet demands through 2035, the City may be impacted by drought shortages, during which water wholesalers may not have supplies to meet demands, and some form of water allocation may be anticipated. The Urban Water Management Plan identifies various water shortage contingency strategies, including voluntary and mandatory rationing and supplemental groundwater pumping.

Table 3.12-3: Projected Supply and Demand – Normal Year

Category	Year (hundred cubic feet)				
	2015	**2020**	**2025**	**2030**	**2035**
Supply	6,597,326	6,992,581	7,690,375	8,393,049	9,368,984
Demand	5,543,315	6,241,110	7,212,166	8,183,222	9,159,157
Difference	1,054,011	751,471	478,209	209,827	209,827

Note:
Data provided from Table 5-11 of the Urban Water Management Plan
Source: City of Milpitas, 2011.

Table 3.12-4: Projected Supply and Demand – Single Dry Water Year

Category	Year (hundred cubic feet)				
	2015	**2020**	**2025**	**2030**	**2035**
Supply	5,831,656	6,226,911	6,924,705	7,627,379	8,603,314
Demand	5,543,315	6,241,110	7,212,166	8,183,222	9,159,157
Difference	288,341	(14,199)	(287,461)	(555,843)	(555,843)

Note:
Data provided from Table 5-12 of the Urban Water Management Plan
Source: City of Milpitas, 2011.

Table 3.12-5: Projected Supply and Demand – Multiple Dry Year Period

Multiple Dry Water Years	Category	Year (hundred cubic feet)				
		Multiple Dry Water Years				
		2015	2020	2025	2030	2035
Year 1	Supply	5,831,656	6,226,911	6,924,705	7,627,379	8,603,314
	Demand	5,543,315	6,241,110	7,212,166	8,183,222	9,159,157
	Difference	288,341	(14,199)	(287,461)	(555,843)	(555,843)
Year 2	Supply	5,336,222	5,731,477	6,429,271	7,131,945	8,107,880
	Demand	5,543,315	6,241,110	7,212,166	8,183,222	9,159,157
	Difference	(207,093)	(509,633)	(782,895)	(1,051,277)	(1,051,277)
Year 3	Supply	5,336,222	5,731,477	6,429,271	7,131,945	8,107,880
	Demand	5,543,315	6,241,110	7,212,166	8,183,222	9,159,157
	Difference	(207,093)	(509,633)	(782,895)	(1,051,277)	(1,051,277)

Note:
Data provided from Table 5-13 of the Urban Water Management Plan
Source: City of Milpitas, 2011.

Existing Facilities and Water Demand

Water distribution lines currently serve the six parcels that comprise the project site.

Based on existing land use activities on the project site, the 2009 City of Milpitas Water Master Plan Update indicates that the project site is estimated to demand 24,895 gallons per day of water.

Wastewater

The City of Milpitas collects wastewater flows from approximately 6,000 acres within the City planning area. Effluent is transmitted through 172.5 miles of sewer main to the San Jose/Santa Clara Water Pollution Control Plant.

Treatment Plant

The San Jose/Santa Clara Water Pollution Control Plant provides wastewater treatment and disposal services to a 300-square-mile service area encompassing the cities of San Jose, Santa Clara, Milpitas, Campbell, Cupertino, Los Gatos, Saratoga, and Monte Sereno. The plant is located in San Jose, at the southernmost tip of the San Francisco Bay, west of Milpitas. The plant has the capacity to treat 167 million gallons of wastewater per day. The majority of treated water is discharged as fresh water through Artesian Slough into South San Francisco Bay. Approximately 10 percent of treated water is diverted to South Bay Water Recycling pipelines for use in landscaping, agricultural irrigation, and industrial applications. The plant receives 116.6 million gallons per day on average.

Wastewater treatment services are governed by an agreement between the cities of San Jose and Santa Clara (as joint owners of the plant) and the City of Milpitas. Under terms of the agreement, the City

pays a capital share (in proportion to the City's capacity rights and the total plant capacity). As of 2009, Milpitas's capacity allocation was 14.25 million gallons per day.

Existing Facilities and Wastewater Generation

Wastewater collection lines currently serve the six parcels that comprise the project site. Four of the parcels are served by a 21-inch-diameter sewer line located within Main Street, while the other two parcels are served by a 24-inch-diameter sewer located within Calaveras Boulevard.

Based on existing land use activities on the project site, the 2009 City of Milpitas Sewer Master Plan indicates that the project site is estimated to generate 8,396 gallons per day of effluent.

Storm Drainage

The City of Milpitas collects and disposes its stormwater via a storm drainage network consisting of catch basins, conveyance piping, pump stations, and outfalls to creeks. Storm drainage infrastructure within the City includes 123 miles of piping, 3,490 catch basins, approximately 4.5 miles of drainage ditches and creeks, and 13 stormwater pump stations. The City has jurisdiction over Wrigley-Ford Creek, Ford Creek, and Wrigley Creek. SCVWD has jurisdiction over Coyote Creek, Penitencia Creek, and Berryessa Creek.

Storm Drainage Conveyance Facilities

The project site is served by existing storm drainage infrastructure (inlets and piping) that discharges runoff into the City's municipal storm drain system via Ford Creek. The City's storm drain system includes lines located within Hammond Way, Sinnott Lane, and Railroad Avenue. The site can be divided into two drainage basins defined by areas contributing to the Union Pacific Railroad conveyance in the northwest, and Ford Creek outfalls to the east. Onsite lands in the northwest sub-basin total approximately 3.7 acres and are sloped to the west. Stormwater from this drainage basin is conveyed overland parallel to the Union Pacific railway and enters a City of Milpitas-owned underground drainage system approximately 190 feet north of the site. Runoff is piped to the east in a 24-inch reinforced concrete pipe before it outlets to Ford Creek. The eastern and southern portions of the site are sloped to the east and discharge to one of seven Ford Creek outfalls. Outfalls range in diameter from 30 to 36 inches. Drainage from the 14.4-acre area sub-basin is conveyed to Ford Creek either by overland flow or through a limited onsite pipe network.

Solid Waste

The City of Milpitas Public Works department oversees solid waste and recycling services in the City. Republic Services is contracted with the City to provide solid waste and recycling collection. Accepted materials include aluminum cans, plastics, corrugated cardboard, newspapers, magazines, tin and steel cans, and mixed paper.

Landfill Capacity

Solid waste from Milpitas is landfilled at the Newby Island Landfill, located on Dixon Landing Road in San Jose. The landfill characteristics are summarized in Table 3.12-6. As shown in the table, Newby Island Land fill has approximately 18.3 million cubic yards of remaining capacity. Note that the landfill operator has applied to the City of San Jose to increase disposal capacity by 15 million cubic yards.

Table 3.12-6: Newby Island Landfill Summary

Landfill	Location	Permitted Daily Throughput (tons)	Cubic Yards		Anticipated Closure Date
			Permitted Capacity	Remaining Capacity	
Newby Island Landfill	San Jose	4,000	50.8 million	18.3 million	2025
Source: City of San Jose, 2007.					

Waste Diversion

Table 3.12-7 summarizes Milpitas's disposal rate targets, as identified by Cal Recycle.

Table 3.12-7: Milpitas Disposal Rate Targets

Pounds per Day			
Population		Employment	
Target	Annual	Target	Annual
6.3	4.4	9.7	7.8
Source: Cal Recycle, 2012.			

Energy

Pacific Gas and Electric Company (PG&E) provides electricity and natural gas service to Milpitas. Each energy source is discussed below.

Electricity

PG&E provides electricity service to all or part of 47 counties in California, including Sonoma County, constituting most of the northern and central portions of the State. PG&E operates approximately 160,000 circuit miles of transmission and distribution lines. PG&E is interconnected with electric power systems in the western Electricity Coordinating Council, which includes 14 western states; Alberta and British Columbia, Canada; and parts of Mexico. In 2010, PG&E delivered 83,908 gigawatt-hours of electricity to its customers.

Natural Gas

PG&E provides natural gas service to all or part of 39 counties in California, including Napa County, constituting most of the northern and central portions of the State. As of December 31, 2010, PG&E

provided electricity to approximately 4.3 million customers. PG&E obtains more than 59 percent of its natural gas supplies from western Canada and the balance from U.S. sources. PG&E operates approximately 49,000 miles of transmission and distribution pipelines. In 2010, PG&E delivered 842 billion cubic feet (Bcf) of natural gas to its customers.

3.12.3 - Regulatory Framework

State

California Green Building Standards Code

The California Green Building Standard Code was adopted January 12, 2009. The purpose of this code is to improve public health, safety, and general welfare by enhancing the design and construction of buildings through the use of building concepts having a positive environmental impact and encouraging sustainable construction practices in the following categories:

- Planning and design
- Energy efficiency
- Water efficiency and conservation
- Material conservation and resource efficiency
- Environmental air quality

The Code addresses exterior envelope, water efficiency, and material conservation components. The aim is to reduce energy usage in non-residential buildings by 20 percent by 2015 and help meet reductions contemplated in AB 32. With the 2008 Building Code, a 15-percent energy reduction over the 2007 edition is expected. Compliance was mandatory as of January 1, 2011.

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code Sections 10610-10656) requires that all urban water suppliers with at least 3,000 customers prepare urban water management plans and update them every 5 years. The act requires that urban water management plans include a description of water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions. Specifically, urban water management plans must:

- Provide current and projected population, climate, and other demographic factors affecting the supplier's water management planning;
- Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier;
- Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage;
- Describe plans to supplement or replace that source with alternative sources or water demand management measures;

- Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis (associated with systems that use surface water);
- Quantify past and current water use;
- Provide a description of the supplier's water demand management measures, including schedule of implementation, program to measure effectiveness of measures, and anticipated water demand reductions associated with the measures;
- Assess the water supply reliability.

Pursuant to the Urban Water Management Planning Act, the City of Milpitas maintains an Urban Water Management Plan.

Model Water Efficient Landscape Ordinance

The Model Water Efficient Landscape Ordinance was adopted by the Office of Administrative Law in September 2009 and requires local agencies to implement water efficiency measures as part of its review of landscaping plans. Local agencies can either adopt the Model Water Efficient Landscape Ordinance or incorporate provisions of the ordinance into code requirements for landscaping. For new landscaping projects of 2,500 square feet or more that require a discretionary or ministerial approval, the applicant is required to submit a detailed "Landscape Documentation Package" that discusses water efficiency, soil management, and landscape design elements.

California Integrated Waste Management Act

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed AB 939, the California Integrated Waste Management Act of 1989, effective January 1990. The legislation required each local jurisdiction in the State to set diversion requirements of 25 percent by 1995 and 50 percent by 2000; established a comprehensive statewide system of permitting, inspections, enforcement, and maintenance for solid waste facilities; and authorized local jurisdictions to impose fees based on the types or amounts of solid waste generated. In 2007, SB 1016, Wiggins, Chapter 343, Statutes of 2008, introduced a new per capita disposal and goal measurement system that moves the emphasis from an estimated diversion measurement number to using an actual disposal measurement number as a per capita disposal rate factor. As such, the new disposal-based indicator (pounds per person per year) uses only two factors: a jurisdiction's population (or in some cases employment) and its disposal as reported by disposal facilities. The City of Milpitas's disposal rate goal is 6.3 pounds per person per year and 9.7 pounds per employee per year.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned telecommunication, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. It is the responsibility of the CPUC to (1) assure California utility customers have safe, reliable utility service

at reasonable rates, (2) protect utility customers from fraud, and (3) promote a healthy California economy. The Public Utilities Code, adopted by the legislature, defines the jurisdiction of the CPUC.

Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Title 24, Part 6, of the California Code of Regulations establishes California's Energy Efficiency Standards for Residential and Nonresidential Buildings. The standards were updated in 2008. The 2008 standards set a goal of reducing growth in electricity use by 561.2 gigawatt-hours per year (GWh/y) and growth in natural gas use by 19 million therms per year (therms/y). The savings attributable to new nonresidential buildings are 151.2 GWh/y of electricity savings and 3.3 million therms. For nonresidential buildings, the standards establish minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC]; and water heating systems), indoor and outdoor lighting, and illuminated signs.

Local

City of Milpitas General Plan

The General Plan establishes the following guiding principles and implementing policies associated with public services and utilities that are applicable to the proposed project:

- **Guiding Principle 2.d-G-1:** Provide all possible community facilities and utilities of the highest standards commensurate with the present and anticipated needs of Milpitas, as well as any special needs of the region.
- **Implementing Policy 2.d-I-1:** Coordinate capital improvement planning for all municipal service infrastructure with the location and timing of growth.
- **Guiding Principal 4.d-G-1:** Assure reasonable protection of beneficial uses of creeks and South San Francisco Bay, and protect environmentally sensitive areas.
- **Guiding Principle 4.d-G-2:** Comply with regulatory requirements pertaining to water quality.
- **Guiding Principle 4.d-G-3:** Continuously improve implementation of stormwater pollution-prevention activities.
- **Guiding Principle 4.d-G-4:** Mitigate the effects that land development can have on water quality.
- **Guiding Principle 4.d-G-5:** Protect and enhance the quality of water resources in the Planning Area.
- **Guiding Principle 4.d-G-6:** Promote conservation and efficiency in the use of water.
- **Implementing Policy 4.d-P-1:** Implement a comprehensive municipal stormwater pollution-prevention program in compliance with requirements of the Water Board's stormwater NPDES permit.
- **Implementing Policy 4.d-P-5:** Where possible, avoid new outfalls to natural or earthen channels.

- **Implementing Policy 4.d-P-7:** Applicable projects shall minimize directly connected impervious area by limiting the overall coverage of paving and roofs, directing runoff from impervious areas to adjacent pervious areas, and selecting permeable pavements and surface treatments.
- **Implementing Policy 4.d-P-8:** Applicable projects shall incorporate facilities (BMPs) to treat stormwater before discharge from the site. The facilities shall be sized to meet regulatory requirements.
- **Guiding Principle 4.h-G-1:** Undertake efforts to reduce the generation of waste, increase recycling and slow the filling of local and regional landfills, in accord with the California Integrated Waste Management Act of 1989.
- **Implementing Policy 4.h-I-1:** Implement measures specified in the City's Source Reduction and Recycling Element and the City's Household Hazardous Waste Element.

Milpitas Municipal Code

Chapter 200 of Title V of the Milpitas Municipal Code provides regulations regarding the accumulation, preparation, storage, collection, transportation, and disposal or processing of solid waste, recyclables, and yard trimmings.

Also included in the Municipal Code is the Water Efficient Landscape Ordinance. Prompted by the 1987–1993 droughts, the State adopted a Model Water Efficient Landscape Ordinance and required local agencies to implement the requirements. The City adopted Ordinance 238 in response. In 2009, the State adopted a revised Model Ordinance and the City adopted Ordinance 238.3 in response. The Ordinance restricts new and rehabilitated landscaping for public agency projects, private commercial and industrial projects, common-area landscaping in single-family and multi-family subdivisions, and planned unit developments to maximum applied water allowances. It also requires the preparation of landscape documentation packages for new and rehabilitated landscapes.

3.12.4 - Methodology

Michael Brandman Associates (MBA) used the Preston Development Water & Sewer Analysis prepared by RMC (Appendix I) and the Hydrology and Water Quality Review prepared by Schaaf & Wheeler (Appendix E). Additionally, MBA reviewed relevant City documents, including the General Plan, the Municipal Code, the Sewer Master Plan, and the Urban Water Management Plan. MBA also reviewed documents and websites produced by the San Jose/Santa Clara Water Pollution Control Plant, the SCVWD, the California Integrated Waste Management Board, and PG&E.

3.12.5 - Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to utilities and service systems are significant environmental effects, the following questions are analyzed and evaluated. 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 storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

g) Comply with federal, state, and local statutes and regulations related to solid waste?

To determine whether impacts to energy usage are significant environmental effects, the following question was analyzed and evaluated.

- Would the project result in inefficient, wasteful, or unnecessary consumption of energy?

3.12.6 - Project Impacts and Mitigation Measures

Water

Impact US-1: The proposed project may not be served with adequate long-term water supplies.

Impact Analysis

This impact addresses the adequacy of existing and future sources of water supplies, as well as infrastructure.

The proposed project would construct up to 220 dwelling units on a site currently used for industrial purposes. Table 3.12-8 summarizes the proposed project's net increase in water demand relative to existing land use activities. These estimates are based on land use generation rates set forth in the 2009 City of Milpitas Water Master Plan Update. As shown in the table, the proposed project would yield a net increase of 38,769 gallons of water on a daily basis and 14.15 million gallons of effluent on an annual basis.

Table 3.12-8: Water Demand Estimate

Water Demand (gallons)					
Existing Land Use Activities		**Proposed Project**		**Net Increase**	
Daily	**Annually**	**Daily**	**Annually**	**Daily**	**Annually**
24,895	9.09 million	63,664	23.24 million	38,769	14.15 million
Source: RMC, 2012.					

The proposed project's 14.15 million gallon/year increase translates to 43.4 acre-feet/year. As previously shown in Table 3.11-1, SCVWD's annual water supply to the City of Milpitas is projected to increase from 1,610,294 hundred cubic feet (3,697 acre-feet) in 2015 to 4,001,337 hundred cubic feet (9,185 acre-feet) in 2035. The proposed project's net increase in annual demand (43.4 acre-feet) would be well within the supply growth forecast between 2015 and 2035 (5,488 acre-feet).

Water distribution lines currently serve the six parcels that comprise the project site. RMC modeled the capacity of these existing water lines to serve the increased demand attributable to the proposed project and found that they met minimum pressure criteria to serve the proposed project. The City's Water Master Plan identifies some improvements, including a new turnout and water supply reservoir and pump station. The project will be required to contribute a fair-share cost toward these improvements in the form of a Water Impact Fee, which is reflected in Mitigation Measure US-1. With the implementation of mitigation, impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM US-1 Prior to issuance of building permits, the project applicant shall pay the Water Impact Fee to the City of Milpitas.

Level of Significance After Mitigation

Less than significant impact.

Wastewater

Impact US-2: The proposed project may require additional wastewater treatment or offsite conveyance facilities.

Impact Analysis

Table 3.12-9 provides an estimate of the proposed project's net increase in wastewater demand relative to existing land use activities. These estimates are based on land use generation rates set forth in the 2009 City of Milpitas Sewer Master Plan. As shown in the table, the proposed project would yield a net increase of 53,578 gallons of effluent on a daily basis and 19.20 million gallons of effluent on an annual basis.

Table 3.12-9: Wastewater Generation Estimate

Wastewater Generation (gallons)					
Existing Land Use Activities		**Proposed Project**		**Net Increase**	
Daily	**Annually**	**Daily**	**Annually**	**Daily**	**Annually**
8,396	3.06 million	60,974	22.26 million	53,578	19.20 million
Source: RMC, 2012.					

Wastewater produced by the proposed project would continue to be collected by the City of Milpitas via existing sewer lines and directed to the San Jose/Santa Clara Water Pollution Control Plant. On average, the plant receives 116.6 million gallons per day. The plant has a total capacity of 167 million gallons per day, of which Milpitas is allocated 14.25 million gallons per day. The proposed project's daily net increase in wastewater generation would be 0.054 million gallons per day, well within the unused allotment available to the City of Milpitas.

Wastewater collection lines currently serve the six parcels that comprise the project site. Four of the parcels are served by a 21-inch-diameter sewer line located within Main Street, while the other two parcels are served by a 24-inch-diameter sewer located within Calaveras Boulevard. RMC modeled the capacity of these existing sewer lines to serve the increased effluent generated by the proposed project and found that they had adequate capacity to serve the proposed project. Recently, the City rehabilitated the Main Sewer Lift Station and acquired additional sewer capacity. The project will be required to contribute a fair-share cost toward these improvements in the form of a Wastewater Impact Fee, which is reflected in Mitigation Measure US-2. As such, no additional wastewater treatment or offsite conveyance facilities would be needed as a result of project implementation. With the implementation of mitigation, impacts would be less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM US-2 Prior to issuance of building permits, the project applicant shall pay the Wastewater Impact Fee to the City of Milpitas.

Level of Significance After Mitigation

Less than significant impact.

Storm Drainage

Impact US-3: **The proposed project would provide adequate onsite storm drainage facilities and would not require the construction of offsite facilities.**

Impact Analysis

The proposed project's 220 dwelling units would be located within an area that currently contains developed industrial uses and is drained by the existing storm drainage system serving the project site. The existing drainage infrastructure would be either replaced or upgraded to serve the proposed project.

Detailed grading and storm drainage utility plans have not been provided at the time of this study, but the preliminary plan is to drain the entire site directly to Ford Creek utilizing the existing outfalls. The post project flow rates are based on the total site drainage area and the proposed changes in land use. As a result of the proposed project, the entire site will decrease in imperviousness from 87 percent to 68 percent, thereby reducing onsite drainage needs. Table 3.12-10 compares the existing stormwater runoff rates with the results of an analysis for post-project peak runoff rates.

Table 3.12-10: Existing and Proposed Peak Stormwater Flow Rates

Sub-Basin	Peak Stormwater Flow Rates (cfs)		
	2-Year Storm	10-Year Storm	100-Year Storm
Existing Conditions			
Railroad (Northwest)	2	4	6
Ford Creek (East)	5	9	12
Total	7	13	18
Proposed Project Conditions			
Entire Site	5	8	12

Note:
cfs = cubic feet per second
Source: Schaaf & Wheeler, 2012.

As shown in Table 3.12-10, the total runoff from the site for the 100-year storm decreases from 18 to 12 cfs. As such, the proposed project's drainage patterns would not contribute to downstream flooding and would not exceed existing storm drain capacity. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

Solid Waste

Impact US-4: **The proposed project may generate substantial amounts of solid waste during both construction and operations.**

Impact Analysis

Solid waste would be generated by construction and operational activities. Each is discussed below.

Construction Waste Generation

Short-term construction waste generation is summarized in Table 3.12-11. The estimate of 16,986 cubic yards was calculated using standard demolition and residential construction waste generation rates provided by the U.S. Environmental Protection Agency.

Table 3.12-11: Demolition and Construction Solid Waste Generation

Category	Waste Generation Rate	Square Feet	Construction Waste Generation
Non- Residential Demolition	155 pounds/square foot	144,000	11,160 tons
Residential Construction	4.38 pounds/square foot	444,000	973 tons
		Total	**12,133 tons 16,986 cubic yards**

Notes:
Each residential dwelling unit assumed to average 2,000 square feet.
1 ton = 2,000 pounds
1 cubic yard = 1.4 tons
Source: U.S. Environmental Protection Agency, 1998; Michael Brandman Associates, 2012.

Although 16,986 cubic yards of construction waste would be well within the remaining 18.3 million cubic yards of available capacity at the Newby Island Sanitary Landfill, mitigation is proposed that would require the project applicant to retain a contractor to recycle construction and demolition debris. The implementation of this mitigation measure would reduce potential impacts to a level of less than significant.

Operational Waste Generation

Operational solid waste generation estimates were calculated using a standard residential waste generation rate provided by the City of Milpitas Design Guidelines. As shown in Table 3.12-12, the proposed project is estimated to generate 15.5 cubic yards of solid waste daily and 5,690 cubic yards annually.

Table 3.12-12: Operational Waste Generation

Units	Waste Generation Rate	Waste Generation	
		Daily	Annually
220	5.9 pounds/unit/day	0.5 ton 15.5 cubic yards	235.2 tons 5,690 cubic yards

Notes:
1 ton = 2,000 pounds
1 cubic yard = 100 pounds of solid waste and 45 pounds of recyclable materials
Source: City of Milpitas, 2012; Michael Brandman Associates, 2012.

Because of the project design and layout, it is anticipated that one or more centralized solid waste and recycling facilities will be necessary to serve the project. As such, mitigation is proposed that would require the project applicant to provide such facilities prior to issuance of occupancy permits. The implementation of this mitigation measure would afford project residents the opportunity to recycle recoverable materials instead of disposing of them in the waste stream, consistent with the City's General Plan principles and policies. Therefore, solid waste impacts would be reduced to a level of less than significant.

Level of Significance Before Mitigation

Potentially significant impact.

Mitigation Measures

MM US-4a Prior to issuance of building permits, the project applicant shall retain a qualified contractor to perform construction and demolition debris recycling with the objective of diverting a minimum of 50 percent of the waste stream from landfills. The project applicant shall provide documentation to the satisfaction of the City of Milpitas demonstrating that construction and demolition debris was recycled.

MM US-4b Prior to issuance of occupancy permits, the project applicant shall provide one or more centralized solid waste and recycling facilities within the project boundaries. Such facilities shall be enclosed and screened from public view and shall provide containers or dumpster identifying whether they are intended for solid waste or recyclable materials. The solid waste and recycling facilities shall adhere to City of Milpitas and the franchise waste hauler's design standards for such facilities.

Level of Significance After Mitigation

Less than significant impact.

Energy

Impact US-5: **The proposed project would not result in the inefficient, unnecessary, or wasteful consumption of energy.**

Impact Analysis

This impact assesses whether the proposed project would result in the inefficient, wasteful, or unnecessary use of energy.

The project site is currently served with electricity and natural gas service provided by Pacific Gas and Electric Company. Existing facilities and connections would be either replaced or upgraded to serve the proposed project.

Table 3.12-13 summarizes the estimated annual electricity and natural gas consumption estimates for the proposed project. The demand figures shown in the table are derived from the most recent PG&E 10-K annual report.

Table 3.12-13: Energy Demand Estimate

Proposed Project	Energy Source	Consumption Rate	Estimated Annual Demand
220 Dwelling Units	Electricity	6,953 kWH/unit	1.5 million kWH
	Natural Gas	48,000 cf/unit	10.6 million cf

Notes:
kWH = kilowatt hours
cf = cubic feet
Consumption rates provided by PG&E 10-K annual report.
Source: Michael Brandman Associates, 2012.

The proposed project design standards will be subject to the most recently adopted edition of the Title 24 energy efficiency standards at the time building permits are sought. The Title 24 standards include a number of requirements associated with energy conservation and, therefore, ensure that the proposed project would not result in the inefficient, wasteful, or unnecessary use of energy. Impacts would be less than significant.

Level of Significance Before Mitigation

Less than significant impact.

Mitigation Measures

No mitigation is necessary.

Level of Significance After Mitigation

Less than significant impact.

SECTION 4: CUMULATIVE EFFECTS

4.1 - Introduction

CEQA Guidelines Section 15130 requires the consideration of cumulative impacts within an EIR when a project's incremental effects are cumulatively considerable. Cumulatively considerable means that " . . . the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects." In identifying projects that may contribute to cumulative impacts, the CEQA Guidelines allow the use of a list of past, present, and reasonably anticipated future projects, producing related or cumulative impacts, including those which are outside of the control of the lead agency.

In accordance with CEQA Guidelines Section 15130(b), " . . . the discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, the discussion need not provide as great [a level of] detail as is provided for the effects attributable to the project alone." The discussion should be guided by standards of practicality and reasonableness, and it should focus on the cumulative impact to which the identified other projects contribute rather than on the attributes of other projects that do not contribute to the cumulative impact.

The proposed project's cumulative impacts were considered in conjunction with other proposed and approved projects in the cities of Milpitas, San Jose, Santa Clara, and Fremont at the time of Notice of Preparation issuance on February 28, 2012. Table 4-1 provides a list of the other projects considered in the cumulative analysis.

Table 4-1: Cumulative Projects

Jurisdiction	Project	Characteristics	Status
City of Milpitas	North McCarthy Boulevard (Equity Office)	424,814 square feet of office space in six five-story buildings; one parking garage	Approved
	Robson Single Family Homes (Los Coches Street)	83 dwelling units on 4.98 acres	Under Construction
	Sinclair Frontage Road (Sinclair Renaissance)	The project includes 80 single-family dwellings on 9.65 acres	Under Construction
	600 Barber Lane (Landmark Tower	375 dwelling units and 148,805 square feet of commercial space in 18 stories on three acres	Approved
	Fairfield Residential	374 apartment units	Under Construction

Table 4-1 (cont.): Cumulative Projects

Jurisdiction	Project	Characteristics	Status
	Coyote Creek Townhomes	285 townhomes	Under Construction
	Centria West	366 dwelling units on a 5.2 acre parcel	Under Construction
	Shea Properties (1201 S. Main)	204 dwelling units on 2.72 acres wrapped around a parking garage	Approved
	McCandless Mixed Use Project	Mixed Use project with 1,154 dwelling units; includes 87,023 square feet of office space	Approved
	DR Horton Harmony Project	Mixture of 276 townhomes and condominiums	Approved
	Trumark Company Homes	134 dwelling units	Approved
	Citation Homes	732 dwelling units	Approved
	Milpitas Station	303 dwelling units	Approved
	826 Calaveras Ridge Drive	Request to construct a new 5,989 square foot single family home	Pending
	Multi-family Towers (Capitol Avenue)	Request to allow three, twelve-story towers with 460 dwelling units within transit area	Approved
	Milpitas Walmart Expansion	19,000 square-foot expansion of existing Walmart store in McCarthy Ranch	Approved
City of Fremont	3111 Washington	Development of 16 duet homes	Open for Public Comment
	Adventist/Robson Subdivision	9-lot single-family residential subdivision	Approved
	Artist Walk	Mixed Use Project consisting of 228 Residential units and 28,000 square feet of retail space	Open for Public Comment
	Auto Mall Commons II	Development of 13 townhomes in Irvington Planning Area	Building Permit Under Review
	Camden Condo CUP and Tract Map	192-unit condominium development	Open for Public Comment
	Centerville Grove Map Extension	Development of 15-unit townhomes	Approved
	Central Park Terraces (Formerly Central Park South	Development of 145 detached single family homes	Under Construction
	Central Park Terrace Apartments	Development of 40-unit apartment building	Building Permit Review

Table 4-1 (cont.): Cumulative Projects

Jurisdiction	Project	Characteristics	Status
	Crown Court	27-unit townhouse-style residential condominium development	Approved
	Hirsch Property	Development of 33 single-family homes	Open for Public Comment
	Irvington Village	62 condominiums, 53 townhouses, 100 townhouse-style condominiums, and 68 podium-style condominium	Under Construction
	Lunare Townhomes	Construction of 38 Townhomes and demolition of existing buildings in Irvington Planning Area	Under Construction
	Mission Ridge Townhomes (Formerly Tesoro Townhomes)	Development of 54 townhomes	Under Construction
	Mission Villas	16-unit, paired single-family residential development	Approved
	Mowry-Guardino Lennar PD	Development of 16 unit development	Approved
	Niles Townhomes	Development of 15 townhomes	Open for Public Comment
	Oracle Common	Development of 8 townhomes	Building Permit Review
	Patterson Ranch	Development of 500 Residential Units	Approved
	Sabercat Neighborhood Center	Mixed-use development consisting of 158 for-sale residential condominium units	Approved
	Thornton Condominiums	Development of 46-unit residential condominium development	Approved
	Urban Housing Fremont	Development of a 294 housing unit project	Under Construction
	Villa D'Este	Development of 33 new single-family dwellings with 11 having secondary units and 243 multifamily condominiums	Under Construction
	Villas at Florio	Development of a 22-lot townhouse development	Building Permit Review
City of San Jose	Newby Island Sanitary Landfill and Recyclery Expansion	Expansion of landfill facility	Approved; In litigation

Table 4-1 (cont.): Cumulative Projects

Jurisdiction	Project	Characteristics	Status
City of Santa Clara	49ers Santa Clara Stadium	68,500-seat stadium	Approved/Under Construction
	Agnew Road Condominiums	Development of 48 Townhouse Condominium Units	Approved
	El Camino Real Mixed Use Development	Mixed Use Development with 3,025 square feet of retail and 40 dwelling units	Approved
Source: City of Milpitas, 2012; City of Fremont, 2012; City of San Jose, 2012; City of Santa Clara, 2012.			

4.2 - Cumulative Impact Analysis

The cumulative impact analysis below is guided by the requirements of CEQA Guidelines Section 15130. Key principles established by this section include:

- A cumulative impact only occurs from impacts caused by the proposed project and other projects. An EIR should not discuss impacts that do not result from the proposed project.
- When the combined cumulative impact from the increment associated with the proposed project and other projects is not significant, an EIR need only briefly explain why the impact is not significant; detailed explanation is not required.
- An EIR may determine that a project's contribution to a cumulative effect impact would be rendered less than cumulatively considerable if a project is required to implement or fund its fair share of mitigation intended to alleviate the cumulative impact.

The cumulative impact analysis that follows relies on the principles as the basis for determining the significance of the proposed project's cumulative contribution to various impacts.

Aesthetics, Light, and Glare

The geographic scope of the cumulative aesthetics, light, and glare analysis is the area surrounding the project site. This is the area within view of the project and, therefore, most likely to experience changes in visual character or experience light and glare impacts.

As shown in Table 4-1, there are a number of proposed development projects in the project vicinity, all of which have the potential to alter the visual character of the area. These projects would be subject to design and landscaping requirements to ensure that they do not degrade visual character in the region. The proposed project consists of the redevelopment of the project site with as many as 220 dwelling units. A private park would be developed within an open space area consisting of 1.2

acres immediately adjacent to Calaveras Boulevard. Residences would be oriented in rows with front facades facing landscaped paseos and rear facades facing looped motor courts. The design and appearance of the residences would be varied, incorporating design features to reflect Cape Cod, Craftsman, and Contemporary American West architectural styles. The buildings elevations would have varied architectural elements to break up the mass of the buildings. Approximately 300 square feet of open space would be provided for each dwelling unit. Mitigation is proposed requiring the proposed project to submit a landscaping and open space plan to the City of Milpitas for review and approval. In addition, given the industrial and commercial nature of the surrounding area, the proposed project would likely benefit the visual character of the surrounding area with the introduction of high-quality building materials and the provision of landscaping throughout. Therefore, the proposed project, in conjunction with other planned or approved projects, would not have cumulatively considerable aesthetic impacts.

The project site contains sources of light and glare from existing industrial land uses. The proposed project would implement new lighting onsite in the form of building-mounted lighting, street lighting, and security lighting. The project's lighting would not introduce significant new sources of nighttime lighting because the existing industrial land use onsite already employs exterior lighting. Furthermore, lighting would be implemented in a manner minimizing unwanted spillover effects, thus conforming to lighting standards of the City of Milpitas.

Air Quality/Greenhouse Gas Emissions

The geographic scope of the cumulative air quality analysis is the San Francisco Bay Area Air Basin. Air pollution is regarded as a regional issue; therefore, this would be the area most likely to be impacted by project emissions.

The uses of the project would be consistent with the land use and vehicle miles traveled assumptions contained in the Bay Area Quality Management District (BAAQMD) Clean Air Plan. Other development projects may or may not be consistent with the Clean Air Plan land use and vehicle miles traveled assumptions. However, because the proposed project would be consistent with the assumptions, it would not have a cumulative contribution to inconsistency with the Clean Air Plan.

The proposed project's construction emissions would not exceed BAAQMD daily emissions thresholds. Construction activities associated with other development projects would make a minimal contribution to cumulative emissions because the timing of those activities would overlap minimally, if at all, with the proposed project. Therefore, it is reasonable to conclude that construction emissions from the proposed project would not combine with emissions from other development projects to cause cumulatively considerable air quality impacts.

The proposed project's operational emissions would not exceed the BAAQMD's significance thresholds for criteria pollutants, would not create any carbon monoxide hotspots on surrounding roadways, and would not expose sensitive receptors to unhealthy levels of toxic air contaminants.

Operational activities associated with other planned and approved projects would emit air pollutants, which, depending on the nature of the project, may or may not exceed BAAQMD thresholds. However, because the proposed project's operational emissions would not exceed BAAQMD thresholds, its air emissions would be within the regional air emissions budget and, therefore, can be assumed not to be cumulatively considerable.

The proposed project would result in a net increase of greenhouse gas emissions. However, when existing emissions from the Preston Pipeline light industrial land use activities are "netted out," the proposed project's net increase in greenhouse gas emissions would not exceed the BAAQMD's threshold of 1,100 metric tons of carbon dioxide equivalents. Other planned and approved projects would emit greenhouse gases, and it is reasonable to assume that such projects would implement greenhouse gas emissions reduction measures. With the implementation of these measures, the proposed project and other planned or approved projects would not emit cumulatively considerable amounts of greenhouse gas emissions.

Biological Resources

The geographic scope of the cumulative biological resources analysis is the project vicinity. Biological impacts tend to be localized; therefore, the area near the project site would be most affected by project activities.

Development projects in the project vicinity may have the potential to impact special-status species. These projects would be required to mitigate for impacts. The proposed project would have the potential to adversely affect special-status species (nesting birds). Mitigation is proposed to reduce potential impacts on species to a level of less than significant. Therefore, the proposed project, in conjunction with other projects, would not have cumulatively considerable special-status species impacts.

The project site contains existing industrial land uses associated with the Preston Pipeline company, located adjacent to Ford Creek. The proposed project would maintain Ford Creek as is; no improvements are proposed within the creek itself. To prevent runoff associated with construction of the proposed residential project from affecting riparian habitat associated with the creek, the project will implement the required NPDES permit and associated SWPPP to ensure that stormwater from the project site. Therefore, the proposed project, in conjunction with other projects, would not have cumulatively considerable riparian habitat impacts.

Development projects in the project vicinity may result in tree removal activities that would be subject to the City of Milpitas tree preservation ordinance. These projects would be required to comply with the ordinance requirements, including providing replacement trees. The proposed project would result in tree removal, and mitigation is proposed to ensure the replacement or proper landscaping of the proposed project as specified by the tree preservation ordinance. A provision of the mitigation measure requires that removed trees be replaced at a ratio of no less than 1:1.

Therefore, the proposed project, in conjunction with other projects, would not have cumulatively considerable conflicts with local biological ordinances and policies.

Cultural Resources

The geographic scope of the cumulative cultural analysis is the project vicinity. Cultural impacts tend to be localized; therefore, the area near the project site would be most affected by project activities.

Development projects in the project vicinity may have the potential to impact subsurface cultural and paleontological resources. These projects would be required to mitigate for impacts. Mitigation is proposed to reduce potential impacts on species to a level of less than significant. Therefore, the proposed project, in conjunction with other projects, would not have cumulatively considerable impacts to previously undiscovered historic resources.

Geology, Soils, and Seismicity

The geographic scope of the cumulative geology, soils, and seismicity analysis is the project vicinity. Geologic, soil, and seismic impacts tend to be localized; therefore, the area near the project site would be most affected by project activities.

Development projects in the project vicinity may have the potential to be exposed to seismic hazards. These projects would be required to mitigate for impacts through compliance with applicable laws and geotechnical study recommendations. The project site may be exposed to strong ground shaking during an earthquake. Mitigation is proposed requiring the proposed project to comply with the California Building Standards Code seismic design requirements. Seismic design requirements account for Peak Ground Acceleration, soil profile, and other site conditions, and they establish corresponding design standards intended primarily to protect public safety and secondly to minimize property damage. Project construction activities would implement standard stormwater pollution prevention mitigation measures to ensure that earthwork activities do not result in substantial erosion offsite and, therefore, would not contribute to areawide erosion problems. It is reasonable to assume that other development projects would implement mitigation measures for erosion that would reduce project-level impacts to a less than significant level. Therefore, the proposed project, in conjunction with other projects, would not have cumulatively considerable geologic, seismic, or soil impacts.

Hazards and Hazardous Materials

The geographic scope of the cumulative hazards and hazardous materials analysis is the project vicinity. Adverse affects of hazards and hazardous materials tend to be localized; therefore, the area near the project site would be most affected by project activities.

The Phase I ESA and Phase II ESA identified a number of issues associated with past and present uses of the project site that could result in the potential exposure of persons and environment to hazardous materials, including contaminated soil, contaminated groundwater, contaminated soil vapor, asbestos-, mercury-, and CFC-containing materials, and lead paint. The proposed project has

incorporated a number of mitigation measures to remediate issues related to these recognized environmental constraints. Other development projects may also result in the potential exposure of persons and the environment to hazardous materials. However, such effects are highly localized and would not be likely to overlap with the proposed project. It is reasonable to assume that other projects would implement mitigation that would require proper abatement of potential hazards; therefore, cumulative impacts are anticipated to be less than significant, and the proposed project, in conjunction with other projects, would not have cumulatively considerable hazards and hazardous materials impacts.

The proposed project would not result in the use of substantial quantities of hazardous materials or impair emergency response or evacuation; therefore, the proposed project would not have cumulatively considerable effects on these issue areas. As such, the proposed project would not have the potential to cause an incremental contribution to hazards in the Milpitas area. It is reasonable to assume that other projects would implement mitigation that would require proper abatement of potential hazards; therefore, cumulative impacts are anticipated to be less than significant, and the proposed project, in conjunction with other projects, would not have cumulatively considerable hazards and hazardous materials impacts.

Hydrology and Water Quality

The geographic scope of the cumulative hydrology and water quality analysis is the project vicinity. Hydrologic and water quality impacts tend to be localized; therefore, the area near the project site would be most affected by project activities.

Development projects in the project vicinity may have the potential to create sources of short-term and long-term water pollution. These projects would be required to mitigate for impacts by providing stormwater pollution prevention measures. The proposed project would involve short-term construction and long-term operational activities that would have the potential to degrade water quality in downstream water bodies. Mitigation is proposed that would require implementation of various construction and operational water quality control measures that would prevent the release of pollutants into downstream waterways.

Development projects in the project vicinity may have the potential to increase impervious surface coverage and, therefore, may result in increased runoff volumes in downstream waterways. These projects would be required to provide drainage facilities that collect and detain runoff such that offsite releases are controlled and do not create flooding. The proposed project would either replace or upgrade the existing drainage infrastructure to serve the proposed project. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on hydrology and water quality.

Development projects in the project vicinity may expose structures to the FEMA 100-year floodplain (and potentially a 100-year flood hazard). These projects would be required to design their facilities

in a manner that does not expose structures or individuals to flooding. The proposed project is partially located within a 100-year floodplain. Mitigation is proposed that would require the project applicant to submit grading plans to the City of Milpitas demonstrating that onsite structures would be elevated above the 100-year floodplain in accordance with the provisions of the City Municipal Code. As such, in conjunction with other planned and approved projects, this project would not have a cumulatively considerable impact on hydrology and water quality.

Land Use

The geographic scope of the cumulative land use analysis is the Milpitas area. Land-use decisions are made at the City-level; therefore, the Milpitas area is an appropriate geographic scope.

Development projects in the Milpitas area would be required to demonstrate consistency with all applicable General Plan, Zoning Ordinance, and Midtown Specific Plan requirements. This would ensure that these projects comply with applicable planning regulations. The project site is designated "Manufacturing and Warehousing" by the City of Milpitas General Plan and zoned "Light Industrial" by the Milpitas Zoning Ordinance. The project site is within the boundaries of the Midtown Specific Plan. The proposed project would include a General Plan Amendment to change the land use designation from "Manufacturing and Warehousing" to "Multi-Family Residential High Density" and "Parks and Open Space." In addition, the proposed project includes Rezoning of the project site from "Light Industrial" to "Multi-Family High Density Residential (R3) with Site and Architectural Overlay" and "Parks and Open Space (POS)," which would entail an amendment to the Midtown Specific Plan. The land use designation changes would allow the development of the proposed residential and park space uses. According to the City's General Plan, the Multi-Family Residential High Density land use designation permits 12 to 20 units per gross acre. This density range is intended to accommodate a variety of housing types ranging from row houses to triplexes and four-plexes, stacked townhouses, and walk-up garden apartments. As such, the residential uses for the proposed project are consistent with the General Plan's prescribed uses for the Multi-Family Residential High Density land use designation. The residential uses for the proposed project are consistent with the Midtown Specific Plan's prescribed uses and density for the Multi-Family Residential High Density land use designation. The height of the proposed project's residential units would be within the Zoning Ordinance's allowable limit, since it would not exceed 35 feet. Additionally, the proposed lot area, width, and setbacks would conform to the applicable development standards. The proposed density of 14.2 units per gross acre is within the allowable range of 12 to 20 units per gross acre authorized under the R3 zoning district. As such, the proposed project would be consistent with applicable provisions and ordinances of the City of Milpitas General Plan, Midtown Specific Plan, and Municipal Code. The proposed project, in conjunction with other planned or approved projects, would not have a cumulatively considerable impact on land use.

Noise and Vibration

The geographic scope of the cumulative noise analysis is the project vicinity, including surrounding sensitive receptors. Noise impacts tend to be localized; therefore, the area near the project site would be most affected by project activities.

Construction activities associated with the proposed project would not result in substantial sources of noise at nearby receptors. Other planned and approved projects would be required to evaluate construction noise impacts and implement mitigation, if necessary, to minimize noise impacts. In addition, the timing of construction activities associated with other development projects would overlap minimally, if at all, with the proposed project. Furthermore, because noise is a highly localized phenomenon, even if construction activities did overlap in time with the proposed project, distance would diminish any additive effects. Finally, construction noise would generally be limited to daytime hours and would be short-term in duration. Therefore, it is reasonable to conclude that construction noise from the proposed project would not combine with noise from other development projects to cause cumulatively considerable noise impacts.

The proposed project's construction and operational vibration levels would not exceed annoyance thresholds. Because vibration is a highly localized phenomenon, there would be no possibility for vibration associated with the project to combine with vibration from other projects because of their distances from the project site. Therefore, the proposed project would not contribute to a cumulatively considerable vibration impact.

As discussed in Section 3.9, Noise, the proposed project's vehicular trips would not make a substantial incremental contribution to ambient noise levels under near term with project conditions. In addition, other projects would be required to evaluate offsite roadway noise and, if necessary, mitigate for such impacts. Furthermore, the proposed project's contribution to vehicular noise levels would not exceed the applicable thresholds of significance, which take into account the existing noise levels. Thus, the proposed project would not combine with other projects to cause a cumulatively considerable increase in ambient roadway noise.

Public Services and Recreation

The geographic scope of the cumulative public services analysis is the service area of each of the providers serving the proposed project. Because of differences in the nature of the public service and utility topical areas, they are discussed separately.

Fire Protection and Emergency Medical Services

The geographic scope of the cumulative fire protection and emergency medical services analysis is the Milpitas Fire Department service area, which encompasses the City of Milpitas.

The Fire Department indicated that it would have adequate resources to meet the demand generated by the proposed project. Mitigation is proposed that would require the proposed project's site plan to

be reviewied for consistency with building, fire, and city development standards within the Milpitas Municipal Code. Other development projects in Milpitas would be reviewed for impacts on fire protection and emergency medical services and would be required to address any potential impacts with mitigation. Because demand for fire protection and emergency medical services is highly dependent on a number of factors that vary substantially by project (hours of operation, fire prevention measures, occupancy by sensitive populations, etc.), it is unlikely that there would be substantial overlap in demand between these projects and the proposed project that would result in a cumulatively considerable impact. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on fire protection and emergency medical services.

Police Protection

The geographic scope of the cumulative police protection analysis is the Milpitas Police Department jurisdictional area, which encompasses the City of Milpitas.

The Police Department did not indicate that new or expanded facilities would be necessary to serve the proposed project and did not indicate that the proposed project would directly result in a decrease in police protection. The proposed project, therefore, would not create a need for new or expanded police protection facilities and would not result in a physical impact on the environment. The Police Department indicated that because of the proposed project's location, vandalism may be an issue. Mitigation is proposed that would require the proposed project to implement onsite security measures. Other development projects in Milpitas would be reviewed for impacts on police protection and would be required to address any potential impacts with mitigation. Because demand for police protection is highly dependent on a number of factors that vary substantially by project (clientele, hours of operation, crime prevention measures, etc.), it is unlikely that there would be substantial overlap in demand that would result in a cumulatively considerable impact. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on police protection.

Schools

The proposed project includes a General Plan Amendment, which would change the land use designation of the project site form industrial (which does not produce students) to residential. The proposed project's 32 students would not have been factored into the General Plan buildout generation; however, the addition of 32 students would result in an estimated student population of 10,911 at General Plan buildout, which is still below the total School District capacity of 11,466. In addition, this and all projects in the City of Milpitas are subject to a state-mandated school fee for new residential development at the time of building permit issuance. As such, this project, in conjunction with other future projects, would not have a cumulatively considerable impact on schools.

Parks, Trails, and Community Facilities

The proposed project is projected to add approximately 744 residents to the City's population; this population increase would be expected to have a corresponding increase in City park facility usage. As a part of the project, open space amenities will be provided, including 1.2 acres of land immediately adjacent to Calaveras Boulevard at the north end of the project site for the development of a park. The proposed project also includes the potential for an area adjacent to Ford Creek to be used for recreational purposes, including a bicycle route to connect Railroad Avenue and Hammond Way. Mitigation Measures PSR-4a and PSR-4b has been incorporated requiring the project applicant to coordinate with the City to determine the amount of park land and/or in-lieu fees required to be provide pursuant to City of Milpitas Municipal Code, to which all development projects are subjected. As such, this project, in conjunction with other future projects, would not have a cumulatively considerable impact on park, trails, and community facilities.

Library

As previously mentioned, the project is projected to increase the City of Milpitas's population by 744 persons. The additional 220 residences would represent a 1.1-percent increase in population, which is considered a negligible amount of population growth. As such, this project, in conjunction with other future projects, would not have a cumulatively considerable impact on library facilities.

Transportation

The geographic scope of the cumulative transportation analysis is the roadway network in Milpitas and adjacent portions of Fremont. These are the roadways that were evaluated in Section 3.10, Transportation.

All new development projects listed in Table 4-1 would generate new vehicle trips that may trigger or contribute to unacceptable intersection operations, roadway operations, freeway operations, or queuing. All projects would be required to mitigate for their fair share of impacts. The proposed project consists of as many as 220 dwelling units that would be developed onsite. The proposed project would add traffic equal to 1.2 to 3.4 percent of the roadway capacity and adjacent roadway segments would operate at a Level of Service F under cumulative conditions. To mitigate the year 2030 project impacts, Main Street and Abel Street would require widening each roadway by one additional through lane. As partial mitigation for the impacts, the project could participate in the Midtown Specific Plan traffic impact fee to fund transportation improvements necessary for the Midtown planning area. However, there is insufficient right-of-way to widen these streets without removal of sidewalks or nearby existing buildings and mitigation of these impacts would be infeasible. As such, the proposed project, in conjunction with other future projects, would have a cumulatively considerable impact on transportation facilities.

The proposed project would provide adequate emergency access and would not create any roadway hazards. The proposed site plan shows one driveway on Railroad Avenue and one driveway on Hammond Way. Onsite, there are no proposed dead-end parking aisles or roadways. Because of the

low traffic volumes onsite, the onsite intersections would operate with little delay. The proposed project would create four to five new transit trips during the AM and PM hours; this volume of riders would not exceed the carrying capacity of the existing bus and rail service near the project site. This project, as with other projects, would also be required to demonstrate that adequate emergency access is available; roadway safety hazards are not created; and public transit, bicycle, and pedestrian access are provided. Therefore, the proposed project, in conjunction with other projects, would not have any cumulatively considerable impacts on these transportation-related areas.

Utility Systems

The geographic scope of the cumulative public utilities analysis is the service area of each of the providers serving the proposed project. Because of differences in the nature of the public service and utility topical areas, they are discussed separately.

Potable Water

The geographic scope of the cumulative potable water analysis is the Santa Clara Valley Water District (SCVWD) service area, which encompasses the urbanized portions of Santa Clara County. SCVWD is the wholesale water provider for a significant portion of the City of Milpitas, including where most of the projects listed in Table 4-1 are located. SCVWD is projected to have adequate supplies under normal year conditions through 2035.

The proposed project is estimated to demand 63,664 gallons per day of potable water, which is a net increase of 38,769 gallons per day over the existing site's usage. The proposed project's net increase in water demand is within projected supply increases forecasted by the 2010 City of Milpitas Urban Water Management Plan, which also accounts for existing water demand and future demand from other pending and approved projects. As mitigation, the proposed project is required to pay the City's standard Water Impact Fee. All future projects also would be required to demonstrate that potable water supply sources are available, and these projects may be required to implement water conservation measures and pay applicable fees. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on potable water supply.

Wastewater

The geographic scope of the cumulative wastewater analysis is the San Jose/Santa Clara Water Pollution Control Plant service area, which collects wastewater from Milpitas, San Jose, and Santa Clara and has a treatment capacity of 167 million gallons per day.

The estimated wastewater generation of the proposed project is 60,974 gallons per day, a net increase of 53,578 gallons per day relative to existing wastewater generation of the project site. Based on the current and planned future available capacity, the plant could readily accommodate the proposed project's wastewater flows, as well as those from other future projects, without a need for new or expanded facilities. Accordingly, the proposed project would be served by adequate wastewater

treatment and conveyance. As mitigation, the proposed project is required to pay the City's standard Wastewater Impact Fee. All future projects would be required to demonstrate that sewer service is available to ensure that adequate sanitation can be provided and pay applicable fees. Therefore, the proposed project, in conjunction with other planned and approved projects, would not have a cumulatively considerable impact on wastewater.

Storm Drainage

The geographic scope of the cumulative storm drainage analysis is the downstream waterways that receive runoff from the project site.

All future development projects in the project vicinity would be required to provide drainage facilities that collect and detain runoff such that offsite releases are controlled and do not create flooding. The project site is currently primarily impervious surfaces. The proposed project would provide open space and landscaping areas. Accordingly, the proposed project would implement Mitigation Measure HYD-5b to ensure that downstream waterways have adequate capacity to accept runoff from the proposed project; therefore, no incremental contribution to potential cumulative impacts would occur. The proposed project would implement standard pollution prevention measures during construction to ensure that downstream water quality impacts are minimized to the greatest extent possible. In addition, the proposed project would provide water quality measures to prevent pollution during store operations.

Therefore, the proposed project, in conjunction with other projects, would not have a cumulatively considerable impact on storm drainage.

Solid Waste

The geographic scope of the cumulative solid waste analysis is the City of Milpitas.

Future development projects would generate construction and operational solid waste and, depending on the volumes and end uses, would be required to implement recycling and waste reduction measures. The proposed project is anticipated to generate 16,986 cubic yards of solid waste during construction and 5,690 cubic yards annually during operations. Mitigation is included that would require the project applicant to retain a qualified contractor to perform construction and demolition debris recycling and to provide the installation of onsite facilities necessary to collect and store recyclable materials. These practices would divert substantial quantities of materials from the solid waste stream and contribute to conserving landfill capacity, thereby extending the operational life of such facilities. Accordingly, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on solid waste.

Energy

The geographic scope of the cumulative electricity analysis is the Pacific Gas and Electric (PG&E) service area, which encompasses all or part of 47 counties in California, constituting most of the northern and central portions of the State.

Future development projects in the PG&E service area would be required to comply with Title 24 energy efficiency standards. The proposed project would demand an estimated 1.5 million kWh of electricity and 10.6 million cubic feet of natural gas on an annual basis. The proposed project's structures would be designed in accordance with Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs. The incorporation of the Title 24 standards and other energy conservation measures into the project would ensure that the project would not result in the inefficient, unnecessary, or wasteful consumption of energy. Therefore, the proposed project, in conjunction with other future projects, would not have a cumulatively considerable impact on energy consumption.

SECTION 5: ALTERNATIVES TO THE PROPOSED PROJECT

5.1 - Introduction

In accordance with CEQA Guidelines Section 15126.6, this Environmental Impact Report (EIR) contains a comparative impact assessment of alternatives to the proposed project. The primary purpose of this section is to provide decision makers and the general public with a reasonable number of feasible project alternatives that could attain most of the basic project objectives, while avoiding or reducing any of the project's significant adverse environmental effects. Important considerations for these alternatives analyses are noted below (as stated in CEQA Guidelines Section 15126.6).

- An EIR need not consider every conceivable alternative to a project;
- An EIR should identify alternatives that were considered by the lead agency, but rejected as infeasible during the scoping process;
- Reasons for rejecting an alternative include:
    - Failure to meet most of the basic project objectives;
    - Infeasibility; or
    - Inability to avoid significant environmental effects.

5.1.1 - Significant Unavoidable Impacts

The proposed project would result in the following significant unavoidable impact:

- **Year 2030 Traffic:** The proposed project would contribute new trips to transportation facilities that are anticipated to operate below acceptable levels of service during Year 2030 Conditions. Mitigation is proposed requiring the applicant to pay all transportation-related development fees to fund planned transportation improvements; however, feasible improvements are not available for all impacted facilities. Therefore, the residual significance of this impact is significant and unavoidable.

5.1.2 - Alternatives to the Proposed Project

The three alternatives to the proposed project analyzed in this section are as follows:

- **No Project/Existing Land Use Activities Alternative:** The proposed project would not be implemented and the current land use activities on the project site would continue for the foreseeable future.
- **Reduced Density Alternative:** A medium-density residential project consisting of 164 dwelling units would be developed on the project site. This represents a 25-percent reduction in dwelling units relative to the proposed project.

- **Mixed Use Center Alternative:** A horizontal mixed-use center consisting of 80,000 square feet of commercial uses and 160 apartments would be developed on the project site. As part of this alternative, Carlo Street would be extended across the Union Pacific Warm Springs Subdivision to provide direct access to the project site.

Three alternatives to the proposed project are analyzed below. These analyses compare the proposed project and each individual project alternative. In several cases, the description of the impact may be the same under each alternative when compared with the CEQA Thresholds of Significance (i.e., both the project and the alternative would result in a less than significant impact). The actual degree of impact may be slightly different between the proposed project and each alternative, and this relative difference is the basis for a conclusion of greater or lesser impacts.

5.2 - Project Objectives

As stated in Section 2, Project Description, the objectives of the proposed project are to:

- Promote economic growth through new capital investment, an expanded population base, and payment of development fees.
- Provide new residential opportunities to accommodate forecasted population growth within the City of Milpitas.
- Provide single-family and townhouse product types in one development that would cater to various segments of the community.
- Facilitate the logical and orderly transition of an underutilized light industrial site to higher-and-better residential uses.
- Provide a high-quality residential development project that offers recreational and open space amenities for residents.
- Promote land use compatibility with neighboring light industrial and commercial uses through appropriate site planning measures.

5.3 - Alternative 1 – No Project/Existing Land Use Activities Alternative

Under the No Project/Existing Land Use Activities Alternative, the proposed project would not be implemented and the existing light industrial land use activities on the project site would continue for the foreseeable future. As such, this alternative would not require approval of any project entitlements, including the proposed General Plan Amendment, Midtown Specific Plan Amendment, and zone change.

All existing characteristics of the project site would remain unchanged, including existing buildings, outdoor storage activities, vehicular access, and related items.

The purpose of this alternative is to evaluate the CEQA-required No Project Alterative in order to provide decision makers and the public with what would be reasonably expected to occur if the proposed project does not advance.

5.3.1 - Impact Analysis

The project site would remain in its existing condition and no changes would occur. The existing light industrial land use activities would continue for the foreseeable future. The proposed project would result in a significant unavoidable impact associated with transportation, which would be avoided by the No Project/Existing Land Use Alternative. In addition, the proposed project would result in potentially significant impacts on air quality; biological resources; cultural resources; hydrology and water quality; noise and vibration; public services and recreation; transportation; and utilities, all of which could be mitigated to a level of less than significant. None of these potentially significant impacts would occur under the No Project/Existing Land Use Alternative.

5.3.2 - Conclusion

The No Project/Existing Land Use Alternative would avoid the proposed project's significant unavoidable impacts and would have less impact on all environmental topical areas. However, this alternative would not advance any of the project objectives, including those related to economic growth and an expanded tax base, additional residential housing opportunities, enhanced housing diversity in the Midtown area, and recreational and open space opportunities. As such, the No Project/Existing Land Use Alternative would not achieve any of the benefits of the proposed project. However, this alternative does not increase any costs for police or fire service providers.

5.4 - Alternative 2 – Reduced Density Alternative

Under the Reduced Density Alternative, 164 dwelling units would be developed on the project site, which represents a 25-percent reduction in dwelling unit count. The 25-percent reduction in dwelling units would be applied equally to single-family and townhome units. The reduction in dwelling units would be offset with 1.8 acres of additional open space, for a total of 3.0 acres. This alternative would have an average density of 13.2 dwelling units per acre compared with the proposed project's average density of 15.5 dwelling units per acre.

This alternative would require approval of the same entitlements sought by the proposed project, including the proposed General Plan Amendment, Midtown Specific Plan Amendment, and zone change.

Table 5-1 summarizes the Reduced Density Alternative. The purpose of this alternative is to evaluate a lower-density residential development on the project site in a manner that may reduce trip generation and demands for public services and utilities.

Table 5-1: Reduced Density Alternative Summary

Scenario	Land Use	Count
Reduced Density Alternative	Single Family	73 dwelling units
	Townhome	91 dwelling units
	Open Space	3.0 acres
	Subtotal	*164 dwelling units – Residential (13.2 dwelling units/acre)* *3.0 acres – Open Space*
Proposed Project	Single Family	98 dwelling units
	Townhome	122 dwelling units
	Open Space	1.2 acres
	Subtotal	*220 dwelling units – Residential (15.5 dwelling units/acre)* *1.2 acres – Open Space*
Difference	**Total**	**(56 dwelling units – Residential)** **1.8 acres – Open Space**
Source: Michael Brandman Associates, 2012.		

5.4.1 - Impact Analysis

Aesthetics, Light, and Glare

This alternative would result in the development of 164 dwelling units and 3 acres of open space. The appearance of the resulting project would be similar to that of the proposed project; therefore, the underlying change in visual character would be similar. Additional open space would be provided in areas where the number of dwelling units and parking would be reduced. Exterior lighting fixtures would be installed and would require adherence to the City of Milpitas performance standards to reduce potential light spillage impacts to a level of less than significant. Therefore, this alternative would have aesthetics, light, and glare impacts similar to the proposed project.

Air Quality/Greenhouse Gas Emissions

Under this alternative, construction activities would be similar to the proposed project and would result in a comparable amount of pollutant emissions. Similar to the proposed project, this alternative would require mitigation to ensure construction emissions are below Bay Area Air Quality Management District's (BAAQMD's) thresholds. From an operational emissions perspective, this alternative would generate fewer daily trips relative to the proposed project. This would result in fewer emissions of criteria pollutants on a daily basis. Similar to the proposed project, this alternative would require mitigation to ensure daily operational emissions were less than significant. Nonetheless, the reduction in trips would result in fewer operational emissions and, therefore, would have less severe impacts.

This alternative would result in fewer greenhouse gas emissions relative to the proposed project. Although this was found to be a less than significant impact after mitigation for the proposed project,

this alternative would lessen the severity of this impact. Therefore, this alternative would have fewer greenhouse gas emissions impacts than the proposed project because it would result in fewer vehicle trips as well as a reduced number of dwelling units.

Biological Resources

Under this alternative, ground-disturbing activities would occur on all portions of the project site. Accordingly, this alternative would have the potential to impact special-status species (such as nesting birds). Similar to the proposed project, this alternative would require mitigation that involves pre-construction surveys for nesting birds. With the implementation of these mitigation measures, impacts on biological resources would be reduced to a level of less than significant. Because ground-disturbing activities would not change under this alternative, impacts to biological resources would be similar to the proposed project.

Cultural Resources

This alternative would result in ground-disturbing activities similar to the proposed project. As such, it would have the potential to damage or destroy undiscovered cultural resources or burial sites. Mitigation similar to that of the proposed project would be implemented to ensure that undiscovered cultural resources would not be adversely affected by this alternative's construction activities. Therefore, this alternative would have cultural resources impacts similar to the proposed project.

Geology, Soils, and Seismicity

This alternative would result in the development of 164 dwelling units and 3 acres of open space. Similar to the proposed project, mitigation would be implemented requiring compliance with the California Building Standards Code's seismic design criteria to reduce impacts associated with ground shaking. Construction activities associated with this alternative would result in ground disturbance that could create erosion. Mitigation similar to that of the proposed project would be implemented to ensure that standard erosion control measures are implemented to reduce potential impacts to a level of less than significant. Therefore, this alternative would have geology, soils, and seismicity impacts similar to the proposed project.

Hazards and Hazardous Materials

This alternative would result in construction and operational activities similar to the proposed project. The project site contains several recognized environmental constraints; therefore, this alternative would be susceptible to hazards associated with the past and present use. Mitigation similar to that of the proposed project would be implemented to address these issues. As with the proposed project, this alternative would not handle substantial quantities of hazardous materials, create aviation hazards, impair emergency response or evacuation, or create exposure to wildland fires. Impacts related to hazards and hazardous materials resulting from this alternative would be similar to the proposed project.

Hydrology and Water Quality

This alternative would result in construction activities on less acreage than the proposed project. Construction activities would result in ground disturbance that could cause stormwater pollution. Operational activities may also cause stormwater pollution. Mitigation similar to that of the proposed project would be implemented to ensure that standard stormwater quality control measures are implemented during construction and operations to reduce potential impacts to a level of less than significant. In addition, the project site is susceptible to flooding; therefore, this alternative would implement similar mitigation to correct this condition. Accordingly, this alternative would have less impact on hydrology and water quality than the proposed project because of the reduced ground-disturbance area.

Land Use

The Reduced Density Alternative would develop a residential development on the project site but with 56 fewer dwelling units. Similar entitlements would be necessary, including a General Plan amendment, Specific Plan amendment, zone change, tentative subdivision map, conditional use permit, and site development permit. As with the proposed project, this alternative would implement similar mitigation to achieve consistency with the applicable provisions of the General Plan and Midtown Specific Plan. As such, this alternative would have land use impacts similar to the proposed project.

Noise and Vibration

This alternative would result in the development of 164 dwelling units and 3 acres of open space. Construction activities would be similar in nature to the proposed project. Because the proposed project's construction noise impacts were found to be less than significant, this alternative's impacts would also be less than significant. Furthermore, because operational noise impacts were found to be less than significant for the proposed project, this alternative's impacts would be less than significant.

This alternative would result in fewer daily trips than the proposed project and, therefore, would result in a corresponding decrease in offsite vehicular noise. The proposed project's offsite vehicular noise impacts were found to be less than significant; therefore, this alternative's impacts would also be less than significant. However, this alternative would result in less roadway noise, which would reduce the severity of the impact.

In summary, this alternative would generate less vehicular noise and, therefore, would have fewer noise impacts than the proposed project.

Public Services and Recreation

This alternative would result in a reduction of 56 dwelling units relative to the proposed project. Areas within the project site not utilized for residential uses would be landscaped or utilized as open space. The reduction in dwelling units would be expected to result in less demand for police protection, fire protection, and emergency medical services. Mitigation similar to that of the

proposed project would be implemented to address the dedication of park land or payment of in-lieu fees. Proposed open space would be increased by 1.8 acres under this alternative. As such, this alternative would demand fewer resources, which would reduce the severity of the impact. Therefore, this alternative would have fewer impacts on public services and recreation than the proposed project.

Transportation

Trip generation for this alternative is provided in Table 5-2. This alternative would generate fewer daily trips than the proposed project. While this alternative would result in fewer trips, it would still contribute additional vehicle trips to roadway segments that are projected to operate at unacceptable levels in 2030. Mitigation similar to that of the proposed project would be implemented; however, it would not reduce this impact to a level of less than significant because the improvements are not feasible. Therefore, impact significance would remain significant and unavoidable. Nonetheless, this alternative would lessen the severity of the impact because it would generate fewer peak-hour trips.

Table 5-2: Reduced Density Alternative Trip Generation Summary

Scenario	Use	Count	Daily		AM Peak Hour		PM Peak Hour	
			Rate	Trips	Rate	Trips	Rate	Trips
Reduced Density	Single Family	73 dwelling units	9.57	699	0.97	71	1.01	74
	Townhome	91 dwelling units	5.81	529	0.44	40	0.52	47
	Subtotal	—	—	1,228	—	111	—	121
	Existing Trip Generation	—	—	(414)	—	(29)	—	(56)
	Net Trip Generation	—	—	*814*	—	*82*	—	*65*
Proposed Project	Net Trip Generation	—	—	1,233	—	98	—	107
Difference	**Net Trip Generation**	**—**	**—**	**(419)**	**—**	**(16)**	**—**	**(42)**

Note:
Table 3.10-6 provides Existing Trip Generation values and Proposed Project Net Trip Generation values.
Source: Michael Brandman Associates, 2012.

Similar to the proposed project, this alternative would provide bicycle storage and enhanced pedestrian facilities. Finally, this alternative would implement mitigation similar to the proposed project to ensure all vehicular access points would operate safely and efficiently. Therefore, this alternative would have fewer impacts on transportation than the proposed project.

Utility Systems

This alternative would result in a reduction of 56 dwelling units relative to the proposed project. The reduction in dwelling units would be expected to result in less consumption of water and energy and

less generation of wastewater and solid waste. To promote water conservation in the additional landscaped areas, this alternative would implement water efficiency measures similar to those of the proposed project. Therefore, this alternative would have fewer impacts on utility systems than the proposed project.

5.4.2 - Conclusion

The Reduced Density Alternative would result in the same significant unavoidable impacts as the proposed project, although the severity of these impacts would be substantially lessened. In addition, this alternative would lessen the severity of other impacts, including those associated with air quality and greenhouse gas emissions, hydrology and water quality, noise and vibration, public services and recreation, transportation, and utility systems.

This alternative would advance most of the project objectives, albeit to a lesser degree than the proposed project, because it would result in fewer residential dwelling units. For example, this alternative would include fewer dwelling units, resulting in a reduced population base, costs to supplying services such as police and fire, and tax base relative to the proposed project.

5.5 - Alternative 3 – Mixed Use Center Alternative

The Mixed Use Center Alternative consists of the development of 80,000 square feet of commercial uses and 160 apartments in a horizontal mixed-use center on the project site. The mixed-use center would be intended to complement existing and proposed commercial, residential, and mixed-use activities within the Midtown Specific Plan area, including at the Great Mall of the Bay Area and the Serra Way Shopping Center, south and west of the project site, respectively.

The 80,000 square feet of commercial uses would consist of 50,000 square feet of neighborhood commercial uses and 30,000 square feet of office uses located in two- and three-story structures located in the northern portion of the project site. The neighborhood commercial uses would be located on the ground floor and would be occupied by end uses such as small retail and restaurants. The office uses would be located on the upper floors and would be occupied by end uses such as professional services.

The 160 apartments would be located in several two- and three-story structures located in the southern portion of the project site, adjacent to Sinnott Lane. The apartments would be physically separated from the commercial uses by sound walls and landscaping to abate noise and provide for privacy and security. Direct pedestrian and bicycle access would be provided between the apartments and the commercial uses.

Vehicular access and parking for the commercial and residential uses would be segregated, with the commercial uses taking access from Railroad Avenue and the residential uses taking access from Hammond Way and Sinnott Lane. Bothelo Avenue would be extended to Railroad Avenue and improved to a pedestrian mall/service corridor/emergency vehicle access with gates or bollards

located at either end to limit vehicular access to authorized vehicles only. Surface parking would be provided for the commercial uses, while the apartments would make use of both surface and ground-floor parking beneath three-story buildings.

Because this alternative contemplates a mixed-use center on the project site, it would require the extension of Carlo Street across the Union Pacific Railroad Warm Springs Subdivision to connect to Railroad Avenue. Because of the limited amount of land available on either side of the railroad tracks, the Carlo Street crossing would be at-grade. To compensate for the introduction of a new at-grade railroad crossing, the existing N. Main Street grade crossing located 0.3 mile to the north would be closed.

This alternative would require approval of similar entitlements sought by the proposed project, including a proposed General Plan Amendment, Midtown Specific Plan Amendment, and zone change.

Table 5-3 summarizes the Mixed Use Center Alternative. The purpose of this alternative is to evaluate the conceptual development of mixed uses on the project site in a manner that may better promote land use compatibility with nearby commercial and industrial uses, while also creating opportunities for reduced trip generation.

Table 5-3: Mixed Use Center Alternative Summary

Scenario	Land Use	Count
Mixed Use Center Alternative	Neighborhood Commercial	50,000 square feet
	Office	30,000 square feet
	Apartments	160 dwelling units
	Subtotal	*80,000 square feet – Commercial* *160 dwelling units – Residential*
Proposed Project	Single Family	98 dwelling units
	Townhome	122 dwelling units
	Open Space	1.2 acres
	Subtotal	*220 dwelling units – Residential* *1.2 acres – Open Space*
Difference	**Total**	**80,000 square feet – Commercial** **(60 dwelling units – Residential)** **(1.2 acres – Open Space)**
Source: Michael Brandman Associates, 2012.		

5.5.1 - Impact Analysis

Aesthetics, Light, and Glare

This alternative would result in the development of a mixed-use development consisting of 80,000 square feet of commercial space and 160 apartments. Building heights would range from two to three stories. This alternative would have an appearance that is significantly different from the proposed project because it would include commercial land uses. Therefore, the underlying change in visual character would be greater. Landscaping would be provided along project frontages and within the parking areas. Signage would be proposed for the commercial uses that is not contemplated as part of the proposed project. Exterior lighting fixtures would be installed and would require adherence to the City of Milpitas's performance standards to reduce potential light spillage impacts to a level of less than significant. Therefore, this alternative would have greater aesthetics, light, and glare impacts than the proposed project.

Air Quality/Greenhouse Gas Emissions

This alternative would result in an additional 80,000 square feet of commercial space and 60 fewer dwelling units compared with the proposed project. No open space would be included within this alternative. Construction activities would be similar to the proposed project and would result in a comparable amount of pollutant emissions. Similar to the proposed project, this alternative would require mitigation to ensure construction emissions are below BAAQMD's thresholds. From an operational emissions perspective, this alternative would generate greater daily trips relative to the proposed project. This would result in greater emissions of criteria pollutants on a daily basis. Similar to the proposed project, this alternative would require mitigation to ensure daily operational emissions were less than significant. Nonetheless, the increase in trips would result in greater operational emissions and would increase the severity of impacts.

Because this alternative would develop 80,000 square feet of retail space, it would be expected to receive daily truck deliveries not required under the proposed project. Although the proposed project's air toxic impacts were found to be less than significant, the truck deliveries would further increase the severity of these impacts.

This alternative would result in greater greenhouse gas emissions relative to the proposed project, because the proposed commercial use square footage would result in increased traffic trips. Although this was found to be a less than significant impact after mitigation, this alternative would increase the severity of this impact.

In summary, the Mixed Use Alternative would emit greater criteria pollutants, air toxics, and greenhouse gases than the proposed project. Therefore, this alternative would have greater air quality impacts than the proposed project.

Biological Resources

Under this alternative, ground-disturbing activities would occur on all portions of the project site. Accordingly, this alternative would have the potential to impact special-status species (such as nesting birds). Similar to the proposed project, this alternative would require mitigation that involves pre-construction surveys for nesting birds. With the implementation of these mitigation measures, impacts on biological resources would be reduced to a level of less than significant. Because ground-disturbing activities would be similar under this alternative, impacts to biological resources would be similar to the proposed project.

Cultural Resources

This alternative would result in ground-disturbing activities similar to those of the proposed project. As such, it would have the potential to damage or destroy undiscovered cultural resources or burial sites. Mitigation similar to that of the proposed project would be implemented to ensure that undiscovered cultural resources would not be adversely affected by this alternative's construction activities. However, no open space is proposed under this alternative. Therefore, this alternative would have greater potential to damage or destroy undiscovered cultural resources or burial sites, resulting in cultural resources impacts greater than the proposed project.

Geology, Soils, and Seismicity

This alternative would result in an additional 80,000 square feet of commercial space and 60 fewer dwelling units compared with the proposed project. Similar to the proposed project, mitigation would be implemented requiring compliance with the California Building Standards Code's seismic design criteria to reduce impacts associated with ground shaking. Construction activities associated with this alternative would result in ground disturbance that could create erosion. Mitigation similar to that of the proposed project would be implemented to ensure that standard erosion control measures are implemented to reduce potential impacts to a level of less than significant. Therefore, this alternative would have geology, soils, and seismicity impacts similar to the proposed project.

Hazards and Hazardous Materials

This alternative would result in construction and operational activities similar to the proposed project with the exception of the proposed 80,000 square feet of commercial space. The project contains several recognized environmental constraints; therefore, this alternative would be susceptible to hazards associated with the project site's past and present uses. Mitigation similar to that of the proposed project would be implemented to address these issues. As with the proposed project, this alternative would not handle substantial quantities of hazardous materials, create aviation hazards, impair emergency response or evacuation, or create exposure to wildland fires. Impacts related to hazards and hazardous materials resulting from this alternative would be similar to the proposed project.

Hydrology and Water Quality

This alternative would result in construction activities on greater acreage than the proposed project Construction activities would result in ground disturbance that could cause stormwater pollution. Operational activities may also cause stormwater pollution. Mitigation similar to that of the proposed project would be implemented to ensure that standard stormwater quality control measures are implemented during construction and operations to reduce potential impacts to a level of less than significant. In addition, the project site is susceptible to flooding; therefore, this alternative would implement similar mitigation to correct this condition. Accordingly, this alternative would have impacts on hydrology and water quality greater than the proposed project because of the increased ground disturbance area.

Land Use

The Mixed Use Alternative would develop a commercial and residential development on the project site, albeit with 60 fewer dwelling units and 80,000 square feet of commercial space. Similar entitlements would be necessary, including a General Plan amendment, Specific Plan amendment, zone change, tentative subdivision map, conditional use permit, and site development permit. As with the proposed project, this alternative would implement similar mitigation to achieve consistency with the applicable provisions of the General Plan and Midtown Specific Plan. As such, this alternative would have land use impacts similar to the proposed project.

Noise and Vibration

This alternative would result in the development of 80,000 square feet of commercial space and 160 dwelling units. Construction activities would be similar in nature to the proposed project. Because the proposed project's construction noise impacts were found to be less than significant, this alternative's impacts would also be less than significant. However, the introduction of commercial uses could result in potentially significant operational noise impacts that would not occur under the proposed project.

This alternative would result in greater daily trips than the proposed project and, therefore, would result in a corresponding increase in offsite vehicular noise. The proposed project's offsite vehicular noise impacts were found to be less than significant; therefore, this alternative's impacts would also be less than significant. However, this alternative would result in increased roadway noise, which would increase the severity of the impact.

In summary, this alternative would generate increased vehicular noise and, therefore, would have greater noise impacts than the proposed project.

Public Services and Recreation

This alternative would result in a reduction of 60 dwelling units relative to the proposed project. However, it would also include 80,000 square feet of commercial space that were not considered under the proposed project. Additionally, no open space would be provided under this alternative. Although 80,000 square feet of commercial uses are also proposed, the reduction in dwelling units

would be expected to result in less demand for police protection, fire protection, and emergency medical services. Mitigation similar to that of the proposed project would be implemented to address the dedication of park land or payment of in-lieu fees. This alternative would demand fewer resources, which would reduce the severity of the impact. Therefore, this alternative would have fewer impacts on public services and recreation than the proposed project.

Transportation

Trip generation for this alternative is provided in Table 5-4. This alternative would generate greater daily trips than the proposed project. Under this alternative, 52 additional PM peak-hour trips would be generated relative to the proposed project. Mitigation similar to that of the proposed project would be implemented; however, it would not reduce this impact to a level of less than significant because the improvements are not feasible. Therefore, impact significance would remain significant and unavoidable. Accordingly, this alternative would increase the severity of the impact because it would generate additional PM peak-hour trips.

Table 5-4: Mixed Use Center Alternative Trip Generation Summary

Scenario	Use	Count	Daily		AM Peak Hour		PM Peak Hour	
			Rate	Trips	Rate	Trips	Rate	Trips
Mixed Use Alternative	Apartment	160 dwelling units	6.65	1,064	0.51	82	0.62	99
	Neighborhood Commercial	50,000 square feet	42.94	2,147	1.00	50	3.73	187
	Office	30,000 square feet	11.01	330	1.55	47	1.49	45
	Subtotal	—	—	3,541	—	179	—	331
	Internal Capture Adjustment (35%)	—	—	(1,239)	—	(63)	—	(116)
	Adjusted Subtotal	—	—	2,302	—	116	—	
	Existing Trip Generation	—	—	(414)	—	(29)	—	(56)
	Net Trip Generation	—	—	*1,888*	—	*87*	—	*159*
Proposed Project	Net Trip Generation	—	—	1,233	—	98	—	107
Difference	**Net Trip Generation**	**—**	**—**	**655**	**—**	**(11)**	**—**	**52**

Notes:
Table 3.10-6 provides Existing Trip Generation values and Proposed Project Net Trip Generation values.
Internal Capture adjustment of 35% applied to unadjusted trip generation in accordance with Trip Generation, 2nd Edition.
Source: Michael Brandman Associates, 2012.

Similar to the proposed project, this alternative would provide bicycle storage and enhanced pedestrian facilities. Finally, this alternative would require additional access and safety

improvements, such as a new at-grade railroad crossing, compared with the proposed project to ensure all vehicular access points would operate safely and efficiently. Therefore, this alternative would have greater impacts on transportation than the proposed project.

Utility Systems

This alternative would result in a reduction of 60 dwelling units relative to the proposed project. The reduction in dwelling units would be expected to result in less consumption of water and energy and less generation of wastewater and solid waste. However, the proposed 80,000 square feet of commercial space would generate additional water and energy demands as well as additional generation of wastewater and solid waste in place of the reduced demand because of the reduced number of dwelling units. Therefore, this alternative would have impacts on utility systems similar to the proposed project.

5.5.2 - Conclusion

The Mixed Use Center Alternative would result in the same significant unavoidable impacts as the proposed project, and the severity of these impacts relating to air quality and transportation would be increased. In addition, this alternative would increase the severity of other impacts, including those associated with aesthetics, light, and glare; air quality and greenhouse gas emissions; cultural resources; hydrology and water quality; noise and vibration; and transportation. Otherwise, this alternative would have impacts similar to the proposed project.

This alternative would advance most of the project objectives, albeit to a lesser degree than the proposed project, because it would result in a reduced number of dwelling units. For example, this alternative would generate fewer housing opportunities and less housing diversity at the project site. Although the proposed commercial space under this alternative would contribute to an expanded tax base, fewer open space and recreational opportunities would be provided under the Mixed Use Alternative.

5.6 - Environmentally Superior Alternative

The qualitative environmental effects of each alternative in relation to the proposed project are summarized in Table 5-5.

Table 5-5: Summary of Alternatives

Environmental Topic Area	No Project/ Existing Land Use Activities Alternative	Reduced Density Alternative	Mixed Use Center Alternative
Aesthetics, Light, and Glare	Less Impact	Similar Impact	Greater Impact
Air Quality/Greenhouse Gas Emissions	Less Impact	Less Impact	Greater Impact
Biological Resources	Less Impact	Similar Impact	Similar Impact

Table 5-5 (cont.): Summary of Alternatives

Environmental Topic Area	No Project/ Existing Land Use Activities Alternative	Reduced Density Alternative	Mixed Use Center Alternative
Cultural Resources	Less Impact	Similar Impact	Greater Impact
Geology, Soils, and Seismicity	Less Impact	Similar Impact	Similar Impact
Hazards and Hazardous Materials	Less Impact	Similar Impact	Similar Impact
Hydrology and Water Quality	Less Impact	Less Impact	Greater Impact
Land Use	Less Impact	Similar Impact	Similar Impact
Noise and Vibration	Less Impact	Less Impact	Greater Impact
Public Services and Recreation	Less Impact	Less Impact	Less Impact
Transportation	Less Impact	Less Impact	Greater Impact
Utility Systems	Less Impact	Less Impact	Similar Impact
Source: Michael Brandman Associates, 2012.			

CEQA Guidelines Section 15126(e)(2) requires an EIR to identify an environmentally superior alternative. If the No Project Alternative is the environmentally superior alternative, the EIR must also identify an environmentally superior alternative from among the other alternatives.

In this case, the No Project/Existing Land Use Activities Alternative avoids the proposed project's significant unavoidable impact associated with transportation, because it would not generate any new trips and would have less impact on all topical areas relative to the proposed project. As such, one of the remaining two alternatives must be identified as the environmentally superior alternative.

The Reduced Density Alternative would generate fewer daily, AM peak-hour, and PM peak-hour trips than the proposed project and, therefore, would lessen the severity of the proposed project's significant unavoidable impact associated with transportation. In contrast, the Mixed Use Center Alternative would generate more daily and PM peak-hour trips than the proposed project and only slightly fewer AM peak-hour trips. As such, the Reduced Density Alternative is the environmentally superior alternative.

5.7 - Alternatives Rejected From Further Consideration

The following alternative was initially considered, but rejected from further consideration for the reasons described below.

5.7.1 - No Project/No Development Alternative

CEQA Guidelines Section 15126.6(e)(3) sets forth considerations in evaluating a "No Project Alternative." In cases where the project constitutes a land development project, the No Project Alternative is the "circumstance under which the project does not proceed." For many projects, the No Project Alternative represents a "No Development" scenario, in which no development occurs for the foreseeable future. However, CEQA Guidelines Section 15126.6(e)(3)(B) establishes that "If disapproval of the project under consideration would result in predictable actions by others such as the proposal of some other project, this 'no project' consequence should be discussed."

The project site is currently committed to light industrial land use activities and the property owner has the legal ability to continue these activities for the foreseeable future. As such, if the proposed project did not advance, it would be expected that the property would continue to be used for light industrial land use activities. (Refer to the "No Project/Existing Land Use Activities Alternative" for further discussion.) Therefore, a "No Project/No Development Alternative" was rejected from further consideration because it does not represent a potentially feasible alternative.

5.7.2 - Alternative Location

The following discussion will first describe the CEQA requirements for evaluation of alternative project locations and then evaluate potential alternative locations.

CEQA Guidelines Section 15126.6(f)(2) sets forth considerations to be used in evaluating an alternative location. The section states that the "key question" is whether any of the significant effects of the project would be avoided or substantially lessened by relocating the project. The CEQA Guidelines identify the following factors that may be taken into account when addressing the feasibility of an alternative location:

1). Site suitability
2). Economic viability
3). Availability of infrastructure
4). General Plan consistency
5). Other plans or regulatory limitations
6). Jurisdictional boundaries
7). Whether the project applicant can reasonably acquire, control, or otherwise have access to the alternative site

The CEQA Guidelines establishes that only locations that would accomplish this objective should be considered as alternative locations for the proposed project. Based on review of the General Plan land use map, zoning map, and aerial photographs, there are no alternative sites within the City of Milpitas that meet the criteria identified previously. Furthermore, the project applicant (KB Home) does not own, control, or otherwise have access to a site with characteristics similar to the project site

and which can support a project with similar attributes that is located with the Milpitas city limits. Therefore, an alternative location was rejected from further consideration.

5.7.3 - Carlo Street Grade Separated Extension Alternative

Milpitas City staff requested that the Draft EIR evaluate an alternative consisting of a grade-separated extension of Carlo Street across the Union Pacific Railroad Warm Springs Subdivision to provide access to the project site. The extension would connect to either Railroad Avenue or Hammond Way in addition to providing vehicular access to the project site.

The BNSF Railway-Union Pacific Railroad Guidelines for Railroad Grade Separation Projects was reviewed to identify relevant considerations in exploring this concept. The guidelines establish relevant standards for new grade separations, including:

- Use of overhead structures is emphasized instead of underpass structure because of safety concerns, impacts on railroad operations, and limitation on future replacement. (Note that groundwater occurs at depths of 5 to 15 feet below ground surface at the project site, which makes an undercrossing more challenging from an engineering perspective as well; refer to Section 3.7, Hydrology and Water Quality.)
- Overhead structures must provide a minimum clearance of 23 feet, 4 inches from the top of the highest rail, in accordance with the Code of Federal Regulations
- All piers and abutments must be located outside of the railroad right-of-way, or, if not feasible, they must be located a minimum distance of 25 feet from the centerline of the nearest track.

Based on these standards and a review of aerial photographs of the project vicinity, there are approximately 270 lineal feet between the Carlo Street/Main Street intersection and the railroad centerline. Although this distance would be sufficient to allow an overhead grade separation to be used (beginning at the east approach of the Carlo Street/Main Street intersection), the gradient will be 10 percent or more.

On the east side of the railroad tracks, there is no obvious "landing point." Thus, three alignments are being considered, which are depicted on Exhibit 5-1:

- **Alignment A:** Curve 90 degrees to the north to join the existing alignment of Railroad Avenue south of the Calaveras Boulevard overcrossing. Driveway access to the project site would be provided near the Calaveras Boulevard overcrossing at the bottom of the ramp, which would likely entail the use of retaining walls to protect the earthen embankment. This alignment would require a ramp with a gradient of 10 percent or more on the east side of the tracks, due to the proximity of the Calaveras Boulevard overcrossing. The 1.2-acre private open space area would be either substantially reduced in size or eliminated outright under this alignment. Generally, this

design would be rather unconventional, the steep ramps may be difficult for heavy vehicles to navigate, and the location of the driveway may create sight distance problems.

- **Alignment B:** Continue straight across into the western portion of the project site to a "T" intersection left side of the intersection would provide access to Railroad Avenue, while the right side would provide driveway access to the project site. As with the first option, this would require a ramp with a gradient of 10 percent or more on the east side of the tracks to accommodate the "T" intersection. The 1.2-acre private open space area would be either substantially reduced in size or eliminated outright under this alignment. Generally, this design would be rather unconventional, the steep ramps may be difficult for heavy vehicles to navigate, and the T-intersection may create sight distance problems.
- **Alignment C:** Curve 90 degrees to the south and provide a public roadway connection to Hammond Way. This option presents the least number of engineering challenges, as there would be sufficient room to allow a ramp with a gradient of 5 percent or less, but would effectively eliminate 1.8 acres of the project site (or roughly 28 dwelling units [1.8 acres x 15.5 dwelling units per acre]).

On the west side of the tracks, there would likely be a need to acquire the gas station and mini-mart property at the northeast corner of Main Street/Carlo Street to allow for continued access to Winsor Street by virtue of the existing Carlo Street/Winsor Street intersection being eliminated by the overhead structure. This, in turn, would create two closely spaced public roadways along Main Street, which is less than optimal from a safety or operations perspective.

The estimated cost for building the overhead structure and associated roadway connections and acquiring the gas station and mini-mart property is expected to be a minimum of $25 million and perhaps as high as $40 million[1].

Finally, it should be noted that both the Draft EIR's evaluation of emergency access found that existing roadways allow for adequate emergency response times to the project site and are sufficient in terms of facilitating safe ingress and egress. Thus, a grade separated extension of Carlo Street would not avoid or substantially lessen any significant project impacts.

In summary, a grade-separated extension of Carlo Street does not constitute a feasible alternative because of (1) lack of nexus in terms of avoiding or substantially lessen any significant project impacts, (2) the cost would be prohibitive, (3) two of the options would involve unconventional designs and may create substantial safety or circulation problems, (4) the third option would eliminate a significant portion of the project site that may render the project to be economically non-viable, and (5) the acquisition of the gas station and minimart may be politically non-viable. Accordingly, Carlo Street Grade Separation Extension Alternative has been rejected from further consideration.

[1] This estimate is based on the cost of the under construction Kato Road grade crossing separation project in Fremont, which totals $22.1 million.

Source: NAIP California Imagery, 2010. MBA Field Survey and GIS Data, 2012.

NORTH

300 150 0 300

Feet

Michael Brandman Associates

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Exhibit 5-1
Carlo Street Grade Separated Extension Alignments

SECTION 6: OTHER CEQA REQUIRED SECTIONS

6.1 - Significant Unavoidable Impacts

CEQA Guidelines Section 15126.2(a)(b) requires an EIR to identify and focus on the significant environmental effects of the proposed project, including effects that cannot be avoided if the proposed project were implemented.

This section describes significant impacts, including those that can be mitigated but not reduced to a level of less than significant. Where there are impacts that cannot be alleviated without imposing a project alternative, their implications, and the reason why the project is being proposed, notwithstanding their effect, is described. With implementation of the proposed project, the following transportation impact that cannot be avoided would occur:

- **Year 2030 Traffic:** The proposed project would contribute new trips to transportation facilities that are anticipated to operate below acceptable levels of service during Year 2030 Conditions. Mitigation is proposed requiring the applicant to pay all transportation-related development fees to fund planned transportation improvements; however, feasible improvements are not available for all impacted facilities. Therefore, the residual significance of this impact is significant and unavoidable.

6.2 - Growth-Inducing Impacts

There are two types of growth-inducing impacts that a project may have: direct and indirect. To assess the potential for growth-inducing impacts, the project's characteristics that may encourage and facilitate activities that individually or cumulatively may affect the environment must be evaluated (CEQA Guidelines Section 15126.2(d)).

Direct growth-inducing impacts occur when the development of a project imposes new burdens on a community by directly inducing population growth, or by leading to the construction of additional developments in the same area. Also included in this category are projects that remove physical obstacles to population growth (such as a new road into an undeveloped area or a wastewater treatment plant with excess capacity that could allow additional development in the service area). Construction of these types of infrastructure projects cannot be considered isolated from the development they facilitate and serve. Projects that physically remove obstacles to growth, or projects that indirectly induce growth may provide a catalyst for future unrelated development in an area such as a new residential community that requires additional commercial uses to support residents.

The proposed project would develop as many as 220 new dwelling units onsite. The California Department of Finance estimated the City of Milpitas's population to be 66,966 and estimated the

average household size to be 3.381 as of January 1, 2012. Multiplying 220 dwelling units by 3.381 persons per household factors to 744 new residents. This amount of population growth equates to an increase of 1.1 percent relative to the 2012 population estimate. As such, this would not be considered a significant amount of population growth and, thus, would not be considered "growth inducing."

The project site is currently served by existing public services and utility infrastructure, and the proposed project would not require or result in the extension of such services or infrastructure to unserved areas. Accordingly, the proposed project would not result in indirect growth inducement.

6.3 - Significant Irreversible Changes

The environmental effects of the proposed project are summarized in Section ES, Executive Summary, and are analyzed in detail in Section 3, Environmental Impact Analysis, of this EIR.

As mandated by the CEQA Guidelines, the EIR must address any significant irreversible environmental change that would result from implementation of the proposed project. Specifically, pursuant to the CEQA Guidelines (Section 15126.2(c)), such an impact would occur if:

- The project would involve a large commitment of nonrenewable resources;
- Irreversible damage can result from environmental accidents associated with the project; and
- The proposed consumption of resources is not justified (e.g., the project results in the wasteful use of energy).

Development of the proposed project would result in an irretrievable commitment of non-renewable resources such as energy supplies and other construction-related materials. The energy resource demands would be used for construction, heating, and cooling of buildings; transportation of people and goods; heating and refrigeration; lighting; and other associated energy needs. However, the proposed project would implement a number of design features and mitigation measures that would reduce energy demand, water consumption, wastewater generation, and solid waste generation that would collectively reduce the demand for resources. This would result in the emission and generation of less pollution and effluent and lessen the severity of corresponding environmental effects. Although the proposed project would result in an irretrievable commitment of non-renewable resources, the commitment of these resources would not be significantly inefficient, unnecessary, or wasteful.

The proposed project would develop as many as 220 high-density dwelling units on the project site. The proposed residential uses would not handle large quantities of hazardous materials or engage in activities that have the potential to result in serious environmental accidents (chemical manufacturing, mineral extraction, refining, etc.). As such, the proposed project would not have the potential to cause serious environmental accidents.

The proposed project would result in greater demand for resources such as energy and water; however, such consumption would not be unusually high or disproportionate relative to similar land uses (refer to Section 3.12, Utility Systems for further discussion). The proposed project would implement a number of design features and mitigation measures to reduce energy and water consumption. These design features and mitigation measures exceed state and local requirements for energy and water conservation and demonstrate that the proposed project's consumption would not be unjustified.

6.4 - Energy Conservation

Public Resources Code Section 21100(b)(3) and CEQA Guidelines Section 15126.4 require EIRs to describe, where relevant, the wasteful, inefficient, and unnecessary consumption of energy caused by a project. In 1975, largely in response to the oil crisis of the 1970s, the State Legislature adopted AB 1575, which created the California Energy Commission (CEC). The statutory mission of the CEC is to forecast future energy needs, license thermal power plants of 50 megawatts or larger, develop energy technologies and renewable energy resources, plan for and direct State responses to energy emergencies, and—perhaps most importantly—promote energy efficiency through the adoption and enforcement of appliance and building energy efficiency standards. AB 1575 also amended Public Resources Code Section 21100(b)(3) to require EIRs to consider the wasteful, inefficient, and unnecessary consumption of energy caused by a project. Thereafter, the State Resources Agency created Appendix F of the CEQA Guidelines. Appendix F is an advisory document that assists EIR preparers in determining whether a project will result in the inefficient, wasteful, and unnecessary consumption of energy. For the reasons set forth below, this EIR concludes that the proposed project will not result in the wasteful, inefficient, and unnecessary consumption of energy, will not cause the need for additional natural gas or electrical energy-producing facilities, and, therefore, will not create a significant impact on energy resources.

6.4.1 - Regulatory Setting

Federal and state agencies regulate energy use and consumption through various means and programs. At the federal level, the United States Department of Transportation, the United States Department of Energy, and the United States Environmental Protection Agency are three federal agencies with substantial influence over energy policies and programs. Generally, federal agencies influence and regulate transportation energy consumption through establishment and enforcement of fuel economy standards for automobiles and light trucks, through funding of energy-related research and development projects, and through funding for transportation infrastructure improvements. At the State level, the California Public Utilities Commission (CPUC) and the CEC are two agencies with authority over different aspects of energy. The CPUC regulates privately owned utilities in the energy, rail, telecommunications, and water fields. The CEC collects and analyzes energy-related data, prepares statewide energy policy recommendations and plans, promotes and funds energy efficiency programs, and adopts and enforces appliance and building energy efficiency standards.

California is exempt under federal law from setting State fuel economy standards for new on-road motor vehicles. Some of the more relevant federal and State energy-related laws and plans are discussed below.

Federal Energy Policy and Conservation Act

The Federal Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the U.S. Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the United States Department of Transportation, is responsible for establishing additional vehicle standards and for revising existing standards. Since 1990, the fuel economy standard for new passenger cars has been 27.5 miles per gallon. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of their vehicles produced for sale in the United States. The Corporate Average Fuel Economy (CAFE) program, which is administered by United States Environmental Protection Agency, was created to determine vehicle manufacturers' compliance with the fuel economy standards. The United States Environmental Protection Agency calculates a CAFE value for each manufacturer, based on city and highway fuel economy test results and vehicle sales. On the basis of the information generated under the CAFE program, the United States Department of Transportation is authorized to assess penalties for noncompliance. In the course of its over 30-year history, this regulatory program has resulted in vastly improved fuel economy throughout the nation's vehicle fleet.

Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA)

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) promoted the development of inter-modal transportation systems to maximize mobility as well as address national and local interests in air quality and energy. ISTEA contained factors that Metropolitan Planning Organizations (MPOs) such as ABAG were required to address in developing transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values that were to guide transportation decisions in that metropolitan area. The planning process for specific projects would then address these policies. Another requirement was to consider the consistency of transportation planning with federal, state, and local energy goals. Through this requirement, energy consumption was expected to become a decision criterion, along with cost and other values that determine the best transportation solution.

The Transportation Equity Act for the 21st Century (TEA-21)

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds upon the initiatives established in the ISTEA legislation discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of good transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

State of California Energy Plan

The CEC is responsible for preparing the State Energy Plan, which identifies emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The plan calls for the State to assist in the transformation of the transportation system to improve air quality, reduce congestion, and increase the efficient use of fuel supplies with the least environmental and energy costs. To further this policy, the plan identifies a number of strategies, including providing assistance to public agencies and fleet operators, encouraging urban designs that reduce vehicle miles traveled, and accommodating pedestrian and bicycle access.

Title 24, Energy Efficiency Standards

Title 24, which was promulgated by the CEC in 1978 in response to a legislative mandate to create uniform building codes to reduce California's energy consumption, provides energy efficiency standards for residential and nonresidential buildings. According to the CEC, since the energy efficiency standards went into effect in 1978, it is estimated that California residential and nonresidential consumers have reduced their utility bills by at least $15.8 billion. The CEC further estimates that by 2011, residential and nonresidential consumers will save an additional $43 billon in energy costs.

In 2005, the CEC adopted new energy efficiency standards. All projects that apply for a building permit on or after October 2005 must adhere to the new 2005 standards. A copy of the 2005 Energy Efficiency Standards may be reviewed online at www.energy.ca.gov/title24/2005standards/ index/html. The 2005 Energy Efficiency Standards may also be reviewed at the Energy Efficiency Division, California Energy Commission, 1516 Ninth Street, MS-29, Sacramento, CA 95814-5512.

Because the adoption of Title 24 post-dates the adoption of AB 1575, it has generally been the presumption throughout the State that compliance with Title 24 (as well as compliance with the federal and State regulations discussed above) ensures that projects will not result in the inefficient, wasteful, and unnecessary consumption of energy. As is the case with other uniform building codes, Title 24 is designed to provide certainty and uniformity throughout the State while ensuring that the

efficient and non-wasteful consumption of energy is carried out through design features. Large infrastructure transportation projects that cannot adhere to Title 24 design-build performance standards may, depending on the circumstances, undertake a more involved assessment of energy conservation measures in accordance with some of the factors set forth in Appendix F of the CEQA Guidelines. As an example, pursuant to the California Department of Transportation CEQA implementation procedures and FHWA Technical Advisory 6640.8A, a detailed energy study is generally only required for large-scale infrastructure projects. However, for the vast majority of residential and nonresidential projects, adherence to Title 24 is deemed necessary to ensure that no significant impacts occur from the inefficient, wasteful, and unnecessary consumption of energy. As a further example, the adoption of federal vehicle fuel standards, which have been continually improved since their original adoption in 1975, have also protected against the inefficient, wasteful, and unnecessary use of energy.

6.4.2 - Energy Requirements of the Proposed Project

Short-term construction and long-term operational energy consumption are discussed below.

Short-Term Construction

The EPA regulates non-road diesel engines. The EPA has no formal fuel economy standards for non-road (e.g., construction) diesel engines but does regulate diesel emissions, which indirectly affects fuel economy. In 1994, EPA adopted the first set of emissions standards (Tier 1) for all new non-road diesel engines greater than 37 kilowatts (kws [50 horsepower]). The Tier 1 standards were phased in for different engine sizes between 1996 and 2000, reducing nitrogen oxide (NO_x) emissions from these engines by 30 percent. The EPA has since adopted more stringent emission standards for NO_x, hydrocarbons, and particulate matter from new non-road diesel engines. This program includes the first set of standards for non-road diesel engines less than 37 kw. It also phases in more stringent Tier 2 emission standards from 2001 to 2006 for all engine sizes and adds yet more stringent Tier 3 standards for engines between 37 and 560 kw (50 and 750 horsepower [hp]) from 2006 to 2008. These standards will further reduce non-road diesel engine emissions by 60 percent for NO_x and 40 percent for particulate matter (PM) from Tier 1 emission levels. In 2004, EPA issued the Clean Air Non-road Diesel Rule. This rule will cut emissions from non-road diesel engines by more than 90 percent, took effect beginning in 2008 and will be fully phased in by 2014. These emission standards are intended to promote advanced clean technologies for non-road diesel engines that improve fuel combustion, but they also result in slight decreases in fuel economy.

Table 6-1 provides an estimate of the project construction fuel consumption. The construction assumptions contained in the tables are the same as those used in the construction air quality analysis.

Table 6-1: Construction Fuel Consumption

Construction Phase	Fuel Consumption (gallons)
Demolition	16,118
Fine Grading	33,625
Mass Grading	45,394
Building Construction	25,399
Paving	958,542
Total	**1,017,566**
Source: Michael Brandman Associates, 2012.	

As shown in Table 6-1, construction activities associated with the proposed project are estimated to consume approximately 1,017,566 gallons of diesel fuel. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in other parts of the State. Therefore, it is expected that construction fuel consumption associated with the proposed project would not be any more inefficient, wasteful, or unnecessary than at other construction sites in the region.

Long-Term Operations

Transportation Energy Demand

Vehicle fuel efficiency is regulated at the federal level. Pursuant to the Federal Energy Policy and Conservation Act of 1975, the National Highway Traffic and Safety Administration is responsible for establishing additional vehicle standards and for revising existing standards. The fuel economy standard for new passenger cars has been 27.5 miles per gallon since 1990. The fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 miles per gallon since 1996. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is not determined for each individual vehicle model; rather, compliance is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the United States.

Table 6-2 provides an estimate of the daily fuel consumed by vehicles traveling to and from the proposed project. These estimates were derived using the same assumptions used in the long-term vehicular air quality analysis in Section 3.2, Air Quality.

Table 6-2: Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips	Daily Vehicle Miles Traveled	Average Fuel Economy (miles per gallon)	Daily Consumption (gallons)
Passenger cars	55.2%	6,379	21.6	295
Light trucks	32.4%	3,744	17.2	218

Table 6-2 (cont.): Vehicle Fuel Consumption

Vehicle Type	Percent of Vehicle Trips	Daily Vehicle Miles Traveled	Average Fuel Economy (miles per gallon)	Daily Consumption (gallons)
Heavy trucks/ other	9.5%	1,098	6.1	180
Motorcycles	2.9%	335	50.0	7
Total	**100.0%**	**11,556**	—	700

Notes:
Daily trips and vehicle miles traveled provided by URBEMIS Air Quality Modeling output contained in Appendix B.
Average fuel economy provided by the United States Department of Transportation, Bureau of Transportation Statistics.
"Other" consists of urban buses, school buses, and motor homes.
Source: MBA, 2012.

As shown in Table 6-2, daily vehicular fuel consumption is estimated to be 700 gallons of fuel. Since the proposed project would be centrally located within Midtown Milpitas near existing services and employment centers, it can be reasoned that the proposed project's trips would not be significantly greater than the average regional trip length. Furthermore, the proposed project site is near existing and proposed transit services and would be accessible via bicycle and pedestrian connections as well. As such, it is expected that vehicular fuel consumption associated with the proposed project would be no less efficient, wasteful, or unnecessary than for any other similar land use in the region.

Building Energy Demand

The proposed project is estimated to demand 1.5 million kilowatt-hours of electricity and 10.6 million cubic feet of natural gas annually. These figures were derived from the most recent PG&E 10-K annual report. Refer to Impact US-5 in Section 3.11, Utility Systems for further discussion about the calculation used to arrive at this consumption estimate.

The proposed project's structures would be required to meet with the energy efficiency requirements of Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), indoor and outdoor lighting, and illuminated signs.

Collectively, these mandatory requirements would ensure that the project would not result in the inefficient, unnecessary, or wasteful consumption of energy. Impacts would be less than significant.

SECTION 7: EFFECTS FOUND NOT TO BE SIGNIFICANT

7.1 - Introduction

This section is based on the Notice of Preparation (NOP), dated February 28, 2012, and contained in Appendix A of this Environmental Impact Report (EIR). The NOP was prepared to identify the potentially significant effects of the proposed project and was circulated for public review between February 28, 2012 and March 28, 2012. In the course of this evaluation, certain impacts were found to be less than significant because the proposed project's characteristics would not create such impacts. This section provides a brief description of effects found not to be significant or less than significant, based on the NOP comments or more detailed analysis conducted as part of the EIR preparation process. Note that a number of impacts that are found to be less than significant are addressed in the various EIR topical sections (Sections 3.1 through 3.12) to provide a more comprehensive discussion of why impacts are less than significant, in order to better inform decision makers and the general public.

7.2 - Effects Found Not To Be Significant

7.2.1 - Aesthetics, Light, and Glare

Scenic Vistas

The project site contains developed industrial land uses associated with Preston Pipelines including 144,000 square feet of industrial buildings and outdoor storage activities. The project site does not contain any scenic vistas or features typically associated with scenic vistas (e.g., ridgelines, peaks, overlooks). The proposed project would redevelop the project site with 220 dwelling units, including landscaping and 1.2 acres of private open space. Accordingly, no scenic features would be adversely affected by the proposed project. Therefore, no impacts would occur.

State Scenic Highways

The nearest state highway to the project site is Calaveras Boulevard (State Route 237 [SR-237]), located directly to the north. In addition, Interstate 880 (I-880) is located approximately 0.6 mile to the west. In Santa Clara County, neither SR-237 nor I-880 is officially designated state scenic highways, nor are they eligible for such a designation. Therefore, the proposed project would not adversely affect views from a state scenic highway.

The City of Milpitas General Plan designates I-880 and Calaveras Boulevard (SR-237) as Scenic Connectors. The project site is not visible from I-880. The project site is directly south of and visible from Calaveras Boulevard (SR-237). Currently, views of the project site consist of the existing industrial building and outdoor storage activities. Calaveras Boulevard (SR-237) is higher in elevation than the proposed project; as such, views of the surrounding foothills are adversely affected

by the existing uses of the project site and would not be adversely affected in the future by the proposed project. Therefore, no impacts to views from Calaveras Boulevard (SR-237) would occur.

7.2.2 - Agriculture Resources

Important Farmland

The project site contains an existing industrial complex consisting of 144,000 square feet of industrial building space and outdoor storage activities. No agricultural activities are present onsite. Furthermore, the Farmland Mapping and Monitoring Program designate the project site as urban, built-up land. Therefore, the development of the proposed project would not result in the conversion of Important Farmland to non-agricultural use. No impacts would occur.

Williamson Act Contracts or Agricultural Zoning

The project site does not contain active agricultural land and, therefore, would not be eligible for a Williamson Act contract. The project site is currently designated "Light Industrial" by the Milpitas Zoning Ordinance, which is a non-agricultural zoning designation. The proposed project would involve re-zoning the project site to "Multi-Family High Density Residential (R3) with Site and Architectural Overlay" (14.2 acres) and "Parks and Open Space (POS)" (1.2 acres), both of which are non-agricultural zoning designations. These conditions preclude the possibility of the proposed project conflicting with an active Williamson Act contract or an agricultural zoning designation. No impacts would occur.

Forest Land

The project site does not contain any active forest land or support trees that may be commercially harvested. These conditions preclude the possibility of the proposed project converting forest land to non-forest use. No impacts would occur.

Forest Land Zoning

The project site is currently designated "Light Industrial" by the Milpitas Zoning Ordinance, which is a non-forest land zoning designation. The proposed project would involve re-zoning the project site to "Multi-Family High Density Residential (R3) with Site and Architectural Overlay" (14.2 acres) and "Parks and Open Space (POS)" (1.2 acres), both of which are non-forest land zoning designations. This condition precludes the possibility of the proposed project conflicting with forest land zoning. No impact would occur.

Environmental Pressures to Convert Agricultural Land to Non-Agricultural Use

The project site is surrounded by urban, built-up land uses and there are no agricultural lands located the vicinity. As such, the proposed project would not create environmental pressures to convert adjacent agricultural land to non-agricultural use. No impacts would occur.

7.2.3 - Biological Resources

Riparian Habitat or Other Sensitive Natural Community

The project site is in an urban, built-up condition, with minimal ornamental landscaping provided in the parking area, along the main building's front facade and along Ford Creek. Ford Creek is a small, ephemeral drainage that is located along a portion of the project site's eastern boundary. The drainage feature is contained in a culvert north and south of the project site and would not be considered to contain sensitive natural or riparian habitat. No other potentially sensitive natural or riparian communities are located within the project site. This condition precludes the possibility of the project causing adverse impacts to such communities. No impacts would occur.

Native Resident or Migratory Fish or Wildlife Species

The project site is surrounded on four sides by urban development and infrastructure. Ford Creek is a small, ephemeral drainage that is located along a portion of the project site's eastern boundary. The drainage feature is contained in a culvert north and south of the project site and is not suitable for the migration of fish or wildlife species. No other potential wildlife movement features exist on the project site (such as waterways, arroyos, or ridgelines). No wildlife nurseries exist on the project site. This condition precludes the possibility of adverse impacts on wildlife movement. No impacts would occur.

Habitat, Natural Community, or Other Conservation Plan

The proposed project site is not within the boundaries of any adopted Habitat Conservation Plans or Natural Community Conservation Plans. This condition precludes the possibility of adverse impacts resulting from implementation of the project. No impacts would occur.

7.2.4 - Geology, Soils, and Seismicity

Unstable Geologic Units or Soils

The project site contains flat relief and has been previously developed. As such, onsite soils have been engineered and are unlikely to be unstable. General Plan Implementing Policy 5.a-I-3 requires projects to comply with the guidelines prescribed in the City's Geotechnical Hazards Evaluation manual. In addition, a Geotechnical Report is required prior to the issuance of building permits and in accordance with Municipal Code Section XI-1-8.01. Through the incorporation of the guidelines and recommendations from the Geotechnical Hazards Evaluation manual and Geotechnical Report, any onsite unstable geologic units or soils would be abated. Impacts would be less than significant.

Expansive Soils

The project site has been previously developed. As such, onsite soils have been engineered and are unlikely to contain expansive properties. Furthermore, the Milpitas General Plan does not identify the site as containing expansive soils. No impacts would occur.

Septic or Alternative Wastewater Disposal Systems

The project site is currently served with sanitary sewer service provided by the City of Milpitas. Existing facilities and connections would be either replaced or upgraded to serve the proposed project. No septic or alternative wastewater disposal systems would be constructed. No impacts would occur.

7.2.5 - Hazards and Hazardous Materials

Exposure of Schools to Hazardous Materials

The proposed project consists of the development of 220 dwelling-units on the project site. Residential developments do not typically use, produce, or emit hazardous substances in quantities that could affect adjacent properties. No impacts would occur.

Airports

The project site is approximately 4 miles northeast of the San Jose International Airport, the nearest airport to Milpitas. In addition, the project site is not located within the boundaries of an airport land use plan. This distance precludes the possibility of the proposed project exposing persons residing or working in the project vicinity to aviation hazards. No impacts would occur.

Private Airstrips

There are no private airstrips in the project vicinity. Therefore, the development of the proposed project would not expose persons residing or working in the project area to aviation hazards associated with private airstrips. No impacts would occur.

Wildland Fires

The project site is surrounded by developed urban uses. The Cal Fire Very High Fire Hazard Severity Zone Map for Santa Clara County indicates that the project site is not located in an area designated as having a high susceptibility to wildland fires. Therefore, the development of the proposed project would not expose persons or structures to wildland fire hazards. No impacts would occur.

7.2.6 - Hydrology and Water Quality

Seiches, Tsunamis, or Mudflows

There are no inland water bodies that could potentially be susceptible to a seiche in the project vicinity. This precludes the possibility of a seiche inundating the project site.

The Association of Bay Area Government's interactive tsunami mapping feature indicates that only the coastal portions of Sonoma, Marin, San Francisco, and San Mateo Counties are susceptible to tsunamis. Areas located near the bay are not considered susceptible to tsunami inundation. This condition precludes the possibility of a tsunami inundating the project site.

There are no steep slopes that would be susceptible to a mudflow in the project vicinity, nor are there any volcanically active features that could produce a mudflow in the City of Milpitas. This precludes the possibility of a mudflow inundating the project site. No impacts would occur.

7.2.7 - Land Use

Conservation Plans

The project site is not within the boundaries of a habitat conservation plan or a natural community conservation plan. This condition precludes the possibility of the proposed project conflicting with the provisions of such a plan. No impacts would occur.

7.2.8 - Mineral Resources

Mineral Resources of Statewide or Local Importance

General Plan Figure 4-5 indicates that there are no mineral resource zones within the project site. Therefore, the development of the proposed project would not result in the loss of mineral resources of statewide or local importance. No impacts would occur.

7.2.9 - Noise

Aviation Noise

The project site is 4 miles from the San Jose International Airport, the nearest airport to Milpitas. In addition, the project site is not located within the boundaries of an airport land use plan. This distance precludes the possibility of the proposed project exposing persons residing or working in the project vicinity to excessive aviation noise. No impacts would occur.

7.2.10 - Population and Housing

Growth Inducement

The proposed project would develop as many as 220 residences. The California Department of Finance estimated the City of Milpitas's population to be 66,966 and estimated the average household size to be 3.381 as of January 1, 2012. Multiplying 220 dwelling units by 3.381 persons per household factors to 744 new residents. This amount of population growth equates to an increase of 1.1 percent relative to the 2012 population estimate, which is considered a negligible amount of population growth. Furthermore, the Association of Bay Area Governments Regional Housing Needs Allocation indicates that the City of Milpitas is responsible for the provision of 2,487 housing units between 2007 and 2014. The proposed project would assist the City in reaching this goal. Therefore, substantial direct population growth from the proposed project's dwelling units would not occur.

The project site is currently served by existing public services and utility infrastructure, and the proposed project would not require or result in the extension of such services or infrastructure to unserved areas. Accordingly, the proposed project would not result in indirect growth inducement.

In summary, the proposed project would not have the potential to cause substantial direct or indirect population growth.

Displacement of Persons or Housing

There are no dwelling units on the project site. Therefore, the project would not result in the displacement of persons or housing. No impacts would occur.

7.2.11 - Transportation

Air Traffic Patterns

The project site is approximately 4 miles north of the San Jose International Airport, the nearest airport to the project site. The roofline of the proposed dwelling units would not exceed 3.5 stories (approximately 35 feet). Given the distance from the airport and the height of the proposed structures, there would be no possibility of the proposed project altering air traffic patterns. No impacts would occur.

SECTION 8: PERSONS AND ORGANIZATIONS CONSULTED/ LIST OF PREPARERS

8.1 - Persons and Organizations Consulted

8.1.1 - Lead Agency

City of Milpitas

Planning and Neighborhood Services Department

Acting Director/Principal Housing Planner.....Felix Reliford
Senior Planner .....Sheldon Ah Sing

Building and Safety Department

Chief Building Official.....Keyvan Irannejad

Fire Department

Fire Chief.....Brian Sturdivant
Fire Marshal .....Albert Zamora

Police Department

Chief of Police (Former) ..... Dennis Graham

Public Works Department

Acting City Engineer and Public Works Director .....Kathleen Phalen
City Engineer and Public Works Director (Former) ..... Greg Armendariz

8.1.2 - Public Agencies

Local Agency

Santa Clara Valley Transportation Authority

Senior Environmental Planner.....Roy Molseed

8.1.3 - Applicant Team

KB Home South Bay

Senior Vice President .....Ray Panek
Forward Planner ..... Jed Bennett

Ruggeri, Jensen, Azar Engineers, Planners, Surveyors

Project Manager ..... Chris Patton, P.E., CPSWQ
Senior Planner .....John Moniz, CGBP

Hexagon Transportation Consultants, Inc.

President .....Gary Black
Project Manager .....Brett Walinski

ENGEO Incorporated

Principal ..... Jeffrey A. Adams, Ph.D., P.E., REA I
Principal Geologist..... Shawn Munger, CHG, REA II

8.2 - List of Preparers

8.2.1 - Lead Agency

City of Milpitas

Planning and Neighborhood Services Department

Acting Director/Principal Housing Planner.....Felix Reliford
Senior Planner .....Sheldon Ah Sing

8.2.2 - Lead Consultant

Michael Brandman Associates

Project Director ..... Jason M. Brandman
Project Manager .....Grant Gruber
Assistant Project Manager..... Janna Waligorski
Air Quality Scientist..... Dave Mitchell
Air Quality Scientist.....Chryss Meier
Biologist .....Angela McIntire
Noise Analyst .....Greg Tonkovich, AICP, INCE
Environmental Analyst.....Jason Hade
Environmental Analyst..... Ian McIntire
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Technical Editor/Word Processor..... Ed Livingston
GIS Technician..... Brandon Price
Administrative Assistant .....Alicia Yuen
Reprographics.....José Morelos
Reprographics.....Octavio Peréz

8.2.3 - Sub-Consultant

Citygate Associates, LLC

President .....David DeRoos
Fire Practice Principal ..... Stewart Gary
Associate ..... Eric Carlson

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