APPENDIX B

TECHNICAL MEMORANDUMS

Hexagon Transportation Consultants, Inc.

Memorandum

Date: September 16, 2024

To: Mr. Chris Ghione, City of Morgan Hill

From: Shikha Jain
Robert Del Rio

Subject: Morgan Hill TMP – Level of Service Analysis, Policy and Congestion Research

Hexagon Transportation Consultants, Inc. has completed a level of service (LOS) analysis for the Morgan Hill Transportation Master Plan (TMP). This memo describes the City's LOS standards, methodology, and intersection and segment operations under existing and year 2050 conditions. The intent of the operations analysis is to identify locations on the City's roadway network at which current and/or projected operations warrant a review of potential improvement. It should be noted that the operations analysis will be considered in conjunction with the evaluation of all other modes of travel and users of the roadway network when identifying any improvements as part of the TMP.

This memo also reviews auto LOS standards and congestion for cities in Santa Clara County that have recently updated their general plan or transportation analysis guidelines. The goal of this review is to provide information in the consideration of potential changes to the City of Morgan Hill's LOS standard.

Traffic Operations Analysis Scope

The traffic operations analysis consists of peak hour intersection level of service and average daily traffic volumes (ADT) roadway segment capacity analysis. The analysis utilizes standards and methodologies that are consistent with those of the City's General Plan, *Morgan Hill 2035 General Plan,* adopted in July 2016 which also utilizes level of service as its primary metric for the evaluation of the projected operation of the City's roadway system.

The analysis includes an analysis of AM and PM peak-hour traffic conditions for 87 intersections and ADT on 98 roadway segments. Figures 1 and 2 indicate the study intersections and roadway segments, respectively, included in the analysis. Traffic conditions were evaluated under the following scenarios.

- *Existing Conditions.* Existing conditions represent the existing traffic volumes on the existing roadway network. Existing conditions are represented by traffic counts collected in 2018- 2023 on the existing roadway network.
- *Year 2050 General Plan Conditions:* Year 2050 GP conditions represent future traffic volumes on the future transportation network. Year 2050 traffic volume forecasts were completed by Hexagon using the updated Morgan Hill's General Plan Transportation Demand Forecasting (TDF) Model. The model includes land use growth assumptions for Bay Area regions for year 2050 as provided by the Association of Bay Area Governments (ABAG) and refined by Santa Clara County Valley Transit Authority (VTA). Within Morgan Hill, the land use data input for the model is the planned development growth and transportation improvements adopted as part of the Morgan Hill 2035 General Plan (GP) that identified anticipated development growth for a Horizon Year of 2035.

Figure 1: Study Intersections

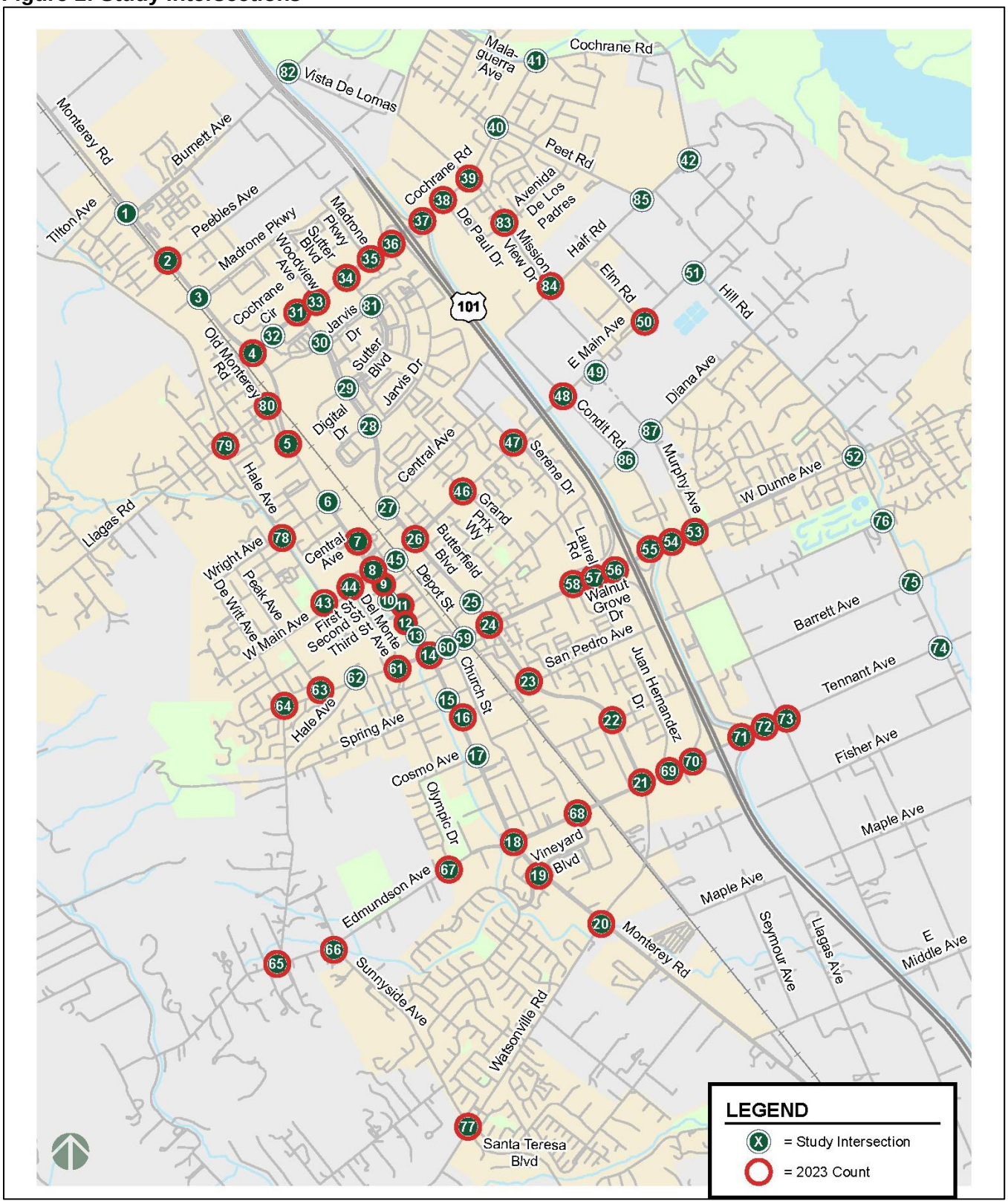
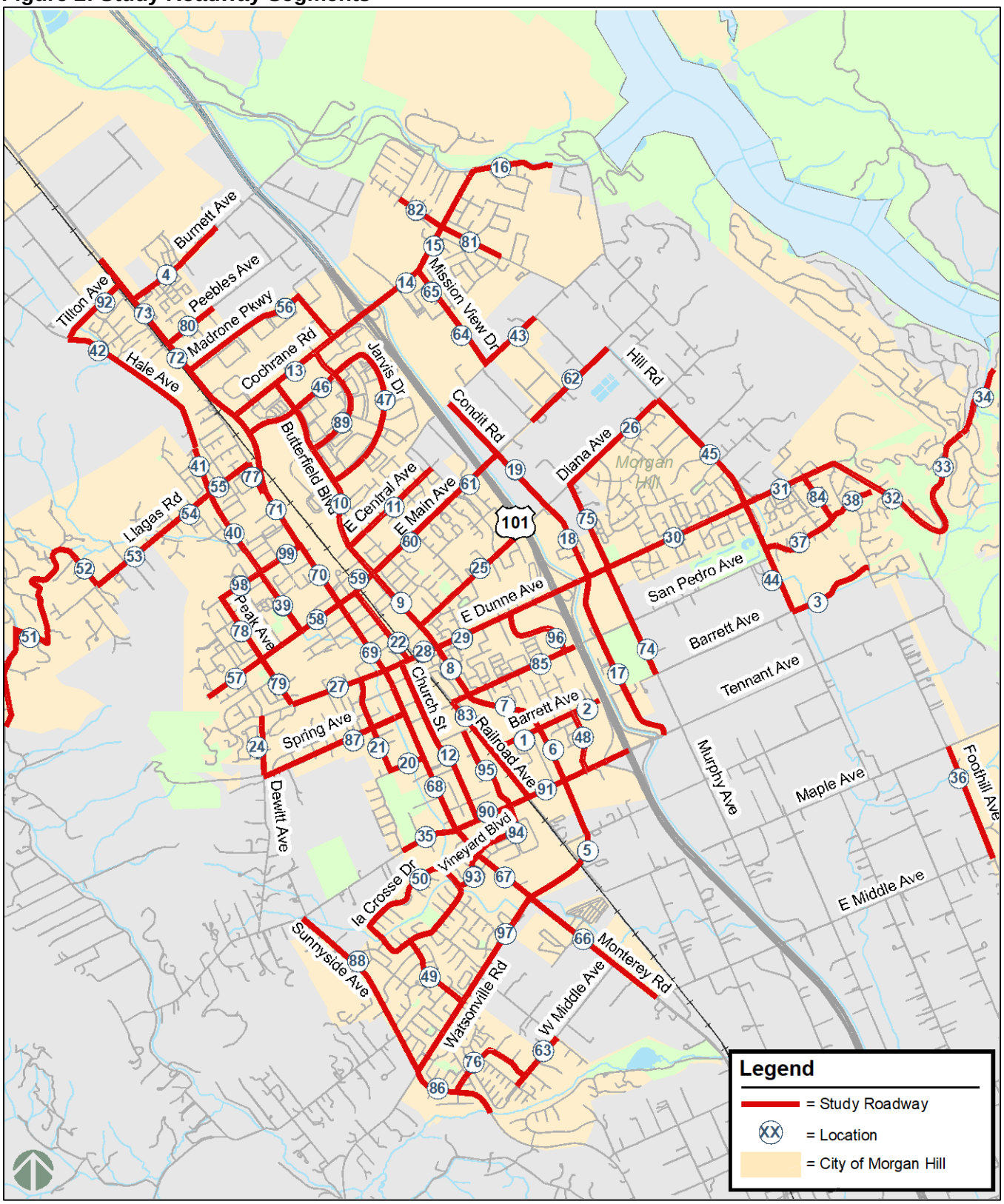


Figure 2: Study Roadway Segments



Morgan Hill Level of Service Standards and Analysis Methodologies

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The analysis methods are described below.

LOS Standards

Per the City of Morgan Hill General Plan, the LOS standard for most intersections and roadway segments in the City is LOS D. In the Downtown area, LOS F is considered acceptable, and at certain intersections, freeway ramps/zones, and segments as identified by Policy TR-3.4, LOS E is acceptable.

Policy TR 3.4: Level of Service Standards. Level of Service (LOS) policy and design criteria for roadway improvements, use a Tiered LOS Standard as follows:

- LOS F in Downtown at Main/Monterey, along Monterey Road between Main and Fifth Street, and along Depot Street at First through Fifth Streets. This LOS standard in the Downtown recognizes the unique nature of and goals for Downtown Morgan Hill as the transit hub of the City and as a center for shopping, business, entertainment, civic and cultural events, and higher-density, mixed-use living opportunities. This standard does not preclude the City, developers, and property owners from voluntarily implementing improvements and employing operational strategies to improve the level of service, especially at the Main/Monterey intersection, if and when land uses redevelop.

- LOS D for intersections and segments elsewhere; except

    - Allow LOS E for identified freeway ramps/ zones, road segments, and intersections that (1) provide a transition to and are located on the periphery of downtown; (2) are freeway zone intersections; and/or (3) where achieving LOS D could result in interim intersection improvements which would be “over-built” once the City’s circulation network has been completed, and/or would involve unacceptable impacts on existing buildings or existing or planned transportation facilities, including roads, sidewalks, bicycle and transit facilities; and/or would involve extraordinary costs to acquire land and existing buildings, and build the improvement in relation to benefits achieved; and/or the facility would be widened beyond requirements to serve local traffic, in that the facility accommodates a significant component of peak-hour subregional and regional through-traffic.

    - In order to reduce the incentive for regional travel to be drawn off the freeway and onto local neighborhood streets, protect neighborhoods, avoid overbuilding intersections, and create an incentive for using alternate modes of travel, LOS E during peak hours of travel is acceptable for the following identified freeway ramps, road segments, and intersections:

        - Main Avenue and Del Monte Avenue
        - Main Avenue and Depot Street
        - Dunne Avenue and Del Monte Avenue
        - Dunne Avenue and Monterey Avenue
        - Dunne Avenue and Church Street
        - Cochrane Road and Monterey Road
        - Tennant Avenue and Monterey Road
        - Tennant Avenue and Butterfield Boulevard
        - Cochrane Road Freeway Zone: from Madrone Parkway/Cochrane Plaza to Cochrane/DePaul Drive

- Dunne Avenue Freeway Zone: from Walnut Grove/East Dunne to Condit/East Dunne
- Tennant Avenue Freeway Zone: from Butterfield/Tennant to Condit/Tennant Freeway Ramps

Signalized Intersection Analysis Methodology

The peak hour intersection operations analysis was completed using TRAFFIX software, which utilizes the 2000 Highway Capacity Manual (HCM) method for signalized intersections. TRAFFIX evaluates signalized intersection operations based on the average delay time for all vehicles at the intersection. Since TRAFFIX is also the County's Congestion Management Program (CMP)-designated intersection level of service software, the City of Morgan Hill methodology employs the CMP default values for the analysis parameters, which include adjusted saturation flow rates to reflect conditions in Santa Clara County. The correlation between average delay and level of service for signalized intersections is shown in Table 1.

Table 1
Signalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay per Vehicle (sec.)
A	Operations with very low delay occurring with favorable progression and/or short cycle lengths.	up to 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	10.1 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.1 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.1 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable	55.1 to 80.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation, poor progression, or very long cycle lengths.	Greater than 80.0

Sources: Transportation Research Board, *2000 Highway Capacity Manual* (Santa Clara County and City of Gilroy adopted level of service methodology). *Traffic Level of Service Analysis Guidelines* , Santa Clara County Transportation Authority Congestion Management Program, June 2003.

Unsignalized Intersections

The methodology used to determine the level of service for unsignalized intersections is also TRAFFIX and the *2000 HCM* methodology for unsignalized intersection analysis. This method is applicable for both two-way and all-way stop-controlled intersections. For the analysis of stop-controlled intersections, the *2000 HCM* methodology evaluates intersection operations on the basis of average control delay time for all vehicles on the stop-controlled approaches. For the purpose of reporting the level of service for one- and two-way stop-controlled intersections, the delay and corresponding level of service for the stop-controlled minor street approach with the highest delay is reported. For all-way stop-controlled intersections, the reported average delay and the corresponding level of service is the average for all approaches at the intersection. The City uses a minimum acceptable level of service standard of LOS D for unsignalized intersections, in accordance with its adopted threshold of significance in its Guidelines

for Preparation of Transportation Impact Reports. The correlation between average delay and level of service for unsignalized intersections is shown in Table 2.

Signal Warrants

The level of service analysis at unsignalized intersections is supplemented with an assessment of the need for signalization of the intersection. The need for signalization of unsignalized intersections is assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the *California Manual on Uniform Traffic Control Devices for Streets and Highways (CA MUTCD)*, Part 4, Highway Traffic Signals, 2014. This method makes no evaluation of the intersection level of service but simply provides an indication of whether vehicular peak hour traffic volumes are, or would be, sufficient to justify the installation of a traffic signal. The decision to install a traffic signal should not be based purely on the warrants alone. Instead, the installation of a signal should be considered, and further analysis performed when one or more of the warrants are met. Additionally, engineering judgment is exercised on a case-by-case basis to evaluate the effect a traffic signal will have on certain types of accidents and traffic conditions at the subject intersection as well as at adjacent intersections. Intersections that meet the peak hour warrant are subject to further analysis before determining that a traffic signal is necessary. Other options, such as traffic control devices, signage, or geometric changes, may be preferable based on existing field conditions.

Table 2
Unsignalized Intersection Level of Service Definitions Based on Control Delay

Level of Service	Description	Average Control Delay per Vehicle (sec.)
A	Operations with very low delays occurring with favorable progression.	up to 10.0
B	Operations with low delays occurring with good progression.	10.1 to 15.0
C	Operations with average delays resulting from fair progression.	15.1 to 25.0
D	Operation with longer delays due to a combination of unfavorable progression of high V/C ratios.	25.1 to 35.0
E	Operation with high delay values indicating poor progression and high V/C ratios. This is considered to be the limited of acceptable delay.	35.1 to 50.0
F	Operation with delays unacceptable to most drivers occurring due to oversaturation and poor progression.	Greater than 50.0

Source: Transportation Research Board, 2000 Highway Capacity Manual, (Washington, D.C., 2000).

Roadway Segment Analysis Methodology

Traffic operations for local roadways were evaluated by comparing the average daily volumes (ADT) to the threshold capacities for various roadway types identified in the Highway Capacity Manual, Transportation Research Board 2000 (HCM 2000). The HCM 2000 thresholds are based on the local roadway functional classification, and these values provide a planning-level analysis of the relative traffic load and approximate capacity on a particular roadway. It is important to note that daily volume thresholds are used for planning purposes and traffic during the peak commute periods may result in worse operations than illustrated by the daily LOS. The relationship between roadway classifications and maximum ADT to achieve specific LOS levels is summarized in Table 3.

Table 3
Segment Level of Service Definitions Based on ADT

	Maximum Daily Volume (both directions except freeways)				
Roadway Type	LOS A	LOS B	LOS C	LOS D	LOS E
2-Lane Freeway	11,100	20,100	28,800	35,700	40,100
2-Lane Freeway with Auxiliary Lane	14,100	25,500	36,400	44,900	50,300
3-Lane Freeway	17,000	30,800	44,000	54,100	60,600
3-Lane Freeway with Auxiliary Lane	20,100	36,400	51,800	63,500	71,000
4-Lane Freeway	23,200	42,000	59,500	72,800	81,400
4-Lane Freeway with Auxiliary Lane	26,300	47,600	67,300	82,200	91,800
5-Lane Freeway	32,800	53,700	75,500	91,700	102,300
2-Lane Highway	1,200	2,900	7,900	16,000	20,500
4-Lane Multilane Highway	21,400	35,200	50,600	65,600	73,000
6-Lane Multilane Highway	32,100	52,800	76,200	98,000	109,000
2-Lane Undivided Arterial	N/A	N/A	9,100	16,700	17,700
2-Lane Divided Arterial	N/A	N/A	9,700	17,600	18,700
3-Lane Arterial (2 in one direction)	N/A	N/A	13,100	20,600	21,700
4-Lane Undivided Arterial	N/A	N/A	17,500	27,400	28,900
4-Lane Divided Arterial	N/A	N/A	19,200	35,400	37,400
5-Lane Divided Arterial (3 in one direction)	N/A	N/A	22,600	44,300	46,700
6-Lane Divided Arterial	N/A	N/A	27,100	53,200	56,000
8-Lane Divided Arterial	N/A	N/A	37,200	71,100	74,700
1-Lane Ramp	5,000	7,500	10,500	13,000	15,000
2-Lane Rural Road	3,100	6,200	9,400	13,200	15,600
2-Lane Collector	2,600	5,200	7,800	11,000	12,900
2-Lane Local Street	1,900	3,900	5,800	8,200	9,600

Source: City of Morgan Hill General Plan Updated Traffic Impact Analysis dated September 3, 2015.

Data Requirements

The data required for the analysis were obtained from recently completed traffic studies, traffic counts collected in 2023, the City of Morgan Hill, the 2021 CMP Monitoring and Conformance Report, and field observations. The following data were collected from these sources:

- lane configurations
- existing traffic volumes
- signal timing and phasing
- average speeds on freeway segments

Lane Configurations

Existing Conditions

The existing lane configurations at the study intersections and roadway segments were determined by observations in the field.

Year 2050 General Plan Conditions

The Year 2050 forecasts include land use growth and transportation improvements associated with the buildout of the City's General Plan. Several new roadways are planned in the General Plan conditions to provide for enhanced connectivity and circulation throughout the City. The roadway improvements presented in Table 4 are planned and assumed to be completed under Year 2050.

Table 4
General Plan Roadway Improvements

#	General Plan Roadway Improvements
1	Extension of Butterfield Boulevard as a 2-lane collector between Madrone Parkway and Cochrane Road
2	Extension of Hale Avenue/Santa Teresa Boulevard as a 2-lane multi-modal arterial between Main Avenue and Spring Avenue
3	Extension of Walnut Grove Drive as a 2-lane collector between Dunne Avenue and Diana Avenue
4	Tennant Avenue widened to a 4-lane arterial between Condit Road and Murphy Avenue
5	Monterey Road widened to a 4-lane arterial between Cochrane Road and Old Monterey Road
6	Modifications to intersection control and access at San Pedro Avenue and Monterey Road
7	Realignment of DeWitt Avenue as a 2-lane arterial with Sunnyside Avenue
8	Extension of Mission View Drive as a 2-lane collector between Cochrane Road and Vista del Lomas
9	Mission View Drive upgraded to a 2-lane multi-modal arterial between Cochrane Road and Half Road
10	Extension of Murphy Avenue/Mission View Drive as a 2-lane multi-modal arterial between Half Road and Diana Avenue
11	Cochrane Road widened to a 6-lane arterial between Monterey Road and Mission View Drive
12	Main Avenue widened to a 4-lane arterial between Depot Street and Butterfield Boulevard
13	Watsonville Road widened to a 4-lane arterial between La Alameda and Monterey Road
14	Extension of Serene Drive as a 2-lane collector between Jarvis Drive and Central Avenue
15	Extension of McKevly Lane as a 2-lane collector between Edmundson Avenue and La Crosse Drive
16	Tennant Avenue widened to a 6-lane arterial between US 101 and Butterfield Boulevard
17	Extension of Hill Road/Peet Road as a 2-lane collector between Half Road and Main Avenue
18	Extension of Juan Hernandez Drive to San Pedro Avenue

Source: City of Morgan Hill General Plan

Traffic Volumes

Existing Traffic Volumes

Existing conditions represent the existing peak-hour traffic volumes on the existing roadway network utilizing traffic counts collected in 2018-2023. A comparison of traffic counts collected in 2018-2019 (pre-COVID) to those collected in 2023 indicates that traffic patterns have normalized to pre-COVID conditions.

Year 2050 General Plan Traffic Volumes

Year 2050 traffic volume forecasts were completed by Hexagon based on the updated Morgan Hill's General Plan Transportation Demand Forecasting (TDF) Model. This model is a refinement of VTA's bi-county TDF model with a horizon year of 2050, i.e., it includes land use growth assumptions for Bay Area regions for year 2050 as provided by the Association of Bay Area Governments (ABAG) and refined by VTA. Within Morgan Hill, the land use data input for the model is the planned development growth adopted as part of the *Morgan Hill 2035 General Plan (GP), December 2017*, that identified anticipated development growth for a Horizon Year of 2035. The process of developing the updated TDF model is described in the *Morgan Hill TDF Model Update Memorandum, March 2024.*

Intersection Operations Analysis

The results of the intersection level of service and signal warrant analyses under existing and cumulative 2050 conditions are summarized in Table 5 and Figures 3 and 4.

Existing Conditions

The results of the level of service analysis indicate that the following two intersections operate at unacceptable levels of service during at least one peak hour under existing conditions when measured against the City of Morgan Hill's level of service standards:

16. Monterey Road and San Pedro Avenue (PM Peak Hour)
78. Hale Avenue and Wright Avenue (PM Peak Hour)

All of the remaining study intersections operate at acceptable levels of service during each of the peak hours under existing conditions.

The results of the signal warrant analysis indicate that the following unsignalized intersection operates unacceptably and has traffic volumes that meet thresholds warranting signalization during at least one peak hour.

16. Monterey Road and San Pedro Avenue (PM Peak Hour)*

* The reported levels of service do not reflect the recent construction of a median that restricts left-turns from San Pedro Avenue.

Year 2050 General Plan Conditions

The results of the level of service analysis indicate that the following 19 intersections are projected to operate at unacceptable levels of service during at least one peak hour under Year 2050 GP conditions when measured against the City of Morgan Hill's level of service standards:

7. Monterey Road and Central Avenue (AM and PM Peak Hours)
20. Monterey Road and Watsonville Road/Butterfield Boulevard (AM Peak Hour)
21. Butterfield Boulevard and Tennant Avenue (PM Peak Hour)
25. Butterfield Boulevard and Diana Avenue (AM Peak Hour)
40. Peet Road and Cochrane Road (AM Peak Hour)
47. Serene Drive and Main Avenue (AM and PM Peak Hours)
49. Murphy Avenue and Main Avenue (AM and PM Peak Hours)
51. Hill Road and Main Avenue (AM Peak Hour)
66. Sunnyside Avenue and Edmundson Avenue (AM and PM Peak Hours)
72. Condit Road and Tennant Avenue (AM and PM Peak Hours)
73. Murphy Avenue and Tennant Avenue (AM and PM Peak Hours)
74. Hill Road and Tennant Avenue (AM and PM Peak Hours)
75. Hill Road and Barrett Avenue (AM Peak Hour)
77. Santa Teresa Boulevard/Sunnyside Avenue and Watsonville Road (AM and PM Peak Hours)
78. Hale Avenue and Wright Avenue (AM and PM Peak Hours)
81. Sutter Boulevard and Jarvis Drive (AM and PM Peak Hours)
83. Mission View Drive and Avenida De Los Padres (PM Peak Hour)
84. Mission View Drive and Half Road (AM and PM Peak Hours)
87. Murphy Avenue and Diana Avenue (AM and PM Peak Hours)

The results of the signal warrant analysis indicate that the following 12 unsignalized intersections are projected to operate unacceptably and have traffic volumes that meet thresholds warranting signalization during at least one peak hour.

7. Monterey Road and Central Avenue (AM Peak Hour)
47. Serene Drive and Main Avenue (AM and PM Peak Hours)
49. Murphy Avenue and Main Avenue (AM and PM Peak Hours)
66. Sunnyside Avenue and Edmundson Avenue (AM and PM Peak Hours)
72. Condit Road and Tennant Avenue (AM and PM Peak Hours)
73. Murphy Avenue and Tennant Avenue (AM and PM Peak Hours)
74. Hill Road and Tennant Avenue (AM and PM Peak Hours)
75. Hill Road and Barrett Avenue (AM Peak Hour)
77. Santa Teresa Boulevard/Sunnyside Avenue and Watsonville Road (AM and PM Peak Hours)
78. Hale Avenue and Wright Avenue (AM and PM Peak Hours)
81. Sutter Boulevard and Jarvis Drive (AM and PM Peak Hours)
84. Mission View Drive and Half Road (AM Peak Hour)

Table 5
Intersection Level of Service Summary

Int. #	Intersection	LOS Standard	2023 Control	2050 Control	Peak Hour	Count Date	Year 2023 Warrant Met?	Year 2023 Delay[1]	Year 2023 LOS	Year 2050 Warrant Met?	Year 2050 Delay[1]	Year 2050 LOS
1	Monterey Road and Burnett Avenue	D	Signal	Signal	AM	03/28/19	--	15.0	B	--	16.3	B
					PM	03/28/19	--	9.7	A	--	21.3	C
2	Monterey Road and Peebles Avenue	D	Signal	Signal	AM	09/26/23	--	8.7	A	--	12.1	B
					PM	09/26/23	--	7.3	A	--	11.7	B
3	Monterey Road and Madrone Parkway	D	Signal	Signal	AM	02/28/19	--	9.4	A	--	18.7	B
					PM	02/28/19	--	9.8	A	--	50.9	D
4	Monterey Road and Cochrane Road	E	Signal	Signal	AM	09/26/23	--	30.3	C	--	27.8	C
					PM	09/26/23	--	33.0	C	--	41.3	D
5	Monterey Road and Old Monterey Road	D	Signal	Signal	AM	09/26/23	--	17.7	B	--	18.8	B
					PM	09/26/23	--	31.5	C	--	26.9	C
6	Monterey Road and Wright Avenue	D	Signal	Signal	AM	03/28/19	--	13.9	B	--	17.9	B
					PM	03/28/19	--	14.2	B	--	42.4	D
7	Monterey Road and Central Avenue	D	TWSC	TWSC	AM	09/26/23	No	18.5	C	**Yes**	**>120**	**F**
					PM	09/26/23	No	19.5	C	No	**>120**	**F**
8	Monterey Road and Main Avenue	F	Signal	Signal	AM	09/26/23	--	43.7	D	--	45.1	D
					PM	09/26/23	--	39.0	D	--	42.2	D
9	Monterey Road and First Street	F	TWSC	TWSC	AM	09/26/23	No	11.0	B	No	13.6	B
					PM	09/26/23	No	12.0	B	No	16.0	C
10	Monterey Road and Second Street	F	Signal	Signal	AM	03/28/19	--	10.6	B	--	11.3	B
					PM	03/28/19	--	12.6	B	--	11.3	B
11	Monterey Road and Third Street	F	TWSC	TWSC	AM	09/26/23	No	11.3	B	No	12.4	B
					PM	09/26/23	No	12.4	B	No	16.1	C
12	Monterey Road and Fourth Street	F	Signal	Signal	AM	09/26/23	--	7.9	A	--	8.8	A
					PM	09/26/23	--	8.9	A	--	8.8	A
13	Monterey Road and Fifth Street	F	TWSC	TWSC	AM	06/06/18	No	18.2	C	No	25.1	D
					PM	06/06/18	No	34.1	D	No	>120	F
14	Monterey Road and Dunne Avenue	E	Signal	Signal	AM	09/19/23	--	36.7	D	--	42.6	D
					PM	09/19/23	--	36.2	D	--	47.1	D
15	Monterey Road and Spring Avenue	D	Signal	Signal	AM	03/14/19	--	10.4	B	--	8.2	A
					PM	03/14/19	--	9.7	A	--	12.3	B
16	Monterey Road and San Pedro Avenue	D	OWSC	OWSC	AM	09/19/23	No	27.4	D	No	15.8	C
					PM	09/19/23	**Yes**	**75.9**	**F**	**Yes**	18.1	C
17	Monterey Road and Cosmo Avenue	D	Signal	Signal	AM	03/14/19	--	10.0	A	--	10.5	B
					PM	03/14/19	--	10.9	B	--	12.5	B
18	Monterey Road and Tennant Avenue/Edmundson Avenue	E	Signal	Signal	AM	09/19/23	--	29.5	C	--	30.7	C
					PM	09/19/23	--	41.8	D	--	42.4	D
19	Monterey Road and Vineyard Boulevard	D	Signal	Signal	AM	09/26/23	--	31.8	C	--	29.5	C
					PM	09/26/23	--	37.9	D	--	33.4	C
20	Monterey Road and Watsonville Road/Butterfield Boulevard	D	Signal	Signal	AM	09/19/23	--	42.0	D	--	**101.5**	**F**
					PM	09/19/23	--	35.8	D	--	38.2	D
21	Butterfield Boulevard and Tennant Avenue	E	Signal	Signal	AM	09/19/23	--	52.4	D	--	67.2	E
					PM	09/19/23	--	56.0	E	--	**85.1**	**F**
22	Butterfield Boulevard and Barrett Avenue	D	Signal	Signal	AM	09/19/23	--	11.4	B	--	18.2	B
					PM	09/19/23	--	11.0	B	--	14.9	B

Table 5 (Continued)
Intersection Level of Service Summary

Int. #	Intersection	LOS Standard	2023 Control	2050 Control	Peak Hour	Count Date	Year 2023 Warrant Met?	Year 2023 Delay[1]	Year 2023 LOS	Year 2050 Warrant Met?	Year 2050 Delay[1]	Year 2050 LOS
23	Butterfield Boulevard and San Pedro Avenue	D	Signal	Signal	AM	09/19/23	--	13.1	B	--	15.7	B
					PM	09/19/23	--	16.5	B	--	15.0	B
24	Butterfield Boulevard and Dunne Avenue	D	Signal	Signal	AM	09/19/23	--	44.1	D	--	50.4	D
					PM	09/19/23	--	41.9	D	--	52.4	D
25	Butterfield Boulevard and Diana Avenue	D	Signal	Signal	AM	05/08/18	--	21.3	C	--	**62.9**	**E**
					PM	05/08/18	--	20.4	C	--	29.7	C
26	Butterfield Boulevard and Main Avenue	D	Signal	Signal	AM	09/19/23	--	33.4	C	--	42.4	D
					PM	09/19/23	--	36.5	D	--	34.9	C
27	Butterfield Boulevard and Central Avenue	D	Signal	Signal	AM	05/08/18	--	17.3	B	--	19.3	B
					PM	05/08/18	--	11.0	B	--	11.1	B
28	Butterfield Boulevard and Jarvis Drive/Digital Drive	D	Signal	Signal	AM	05/08/18	--	11.7	B	--	25.1	C
					PM	05/08/18	--	12.8	B	--	13.5	B
29	Butterfield Boulevard and Sutter Boulevard	D	Signal	Signal	AM	05/08/18	--	7.6	A	--	22.4	C
					PM	05/08/18	--	18.1	B	--	42.1	D
30	Butterfield Boulevard and Jarvis Drive (North)	D	TWSC	TWSC	AM	05/08/18	No	11.9	B	No	13.8	B
					PM	05/08/18	No	12.1	B	No	14.4	B
31	Butterfield Boulevard and Cochrane Road	D	Signal	Signal	AM	09/26/23	--	16.4	B	--	25.8	C
					PM	09/26/23	--	10.9	B	--	39.1	D
32	Cochrane Circle and Cochrane Road	D	Signal	Signal	AM	05/08/18	--	10.5	B	--	10.2	B
					PM	05/08/18	--	10.9	B	--	10.1	B
33	Woodview Avenue and Cochrane Road	D	Signal	Signal	AM	03/07/23	--	15.5	B	--	21.0	C
					PM	03/07/23	--	12.4	B	--	22.5	C
34	Sutter Boulevard and Cochrane Road	D	Signal	Signal	AM	03/07/23	--	17.1	B	--	29.6	C
					PM	03/07/23	--	18.1	B	--	24.2	C
35	Madrone Parkway/Cochrane Plaza and Cochrane Road	E	Signal	Signal	AM	09/26/23	--	19.6	B	--	17.9	B
					PM	09/26/23	--	33.7	C	--	32.3	C
36	US 101 SB Ramps and Cochrane Road	E	Signal	Signal	AM	09/26/23	--	12.8	B	--	14.8	B
					PM	09/26/23	--	15.9	B	--	23.4	C
37	US 101 NB Ramps and Cochrane Road	E	Signal	Signal	AM	09/21/23	--	8.1	A	--	6.8	A
					PM	09/21/23	--	10.5	B	--	9.0	A
38	De Paul Drive and Cochrane Road	E	Signal	Signal	AM	09/21/23	--	17.9	B	--	20.4	C
					PM	09/21/23	--	19.0	B	--	41.3	D
39	Mission View Drive and Cochrane Road	D	Signal	Signal	AM	09/21/23	--	20.2	C	--	19.6	B
					PM	09/21/23	--	16.0	B	--	20.7	C
40	Peet Road and Cochrane Road	D	TWSC	TWSC	AM	09/14/21	No	13.0	B	No	**38.8**	**E**
					PM	09/14/21	No	12.0	B	No	12.7	B
41	Malaguerra Avenue and Cochrane Road	D	OWSC	OWSC	AM	09/14/21	No	9.3	A	No	9.9	A
					PM	09/14/21	No	8.9	A	No	8.9	A
42	Cochrane Road and Half Road	D	OWSC	OWSC	AM	09/14/21	No	8.8	A	No	9.6	A
					PM	09/14/21	No	8.7	A	No	8.7	A
43	Hale Avenue and Main Avenue	D	AWSC	Signal	AM	09/26/23	No	10.6	B	**Yes**	38.4	D
					PM	09/26/23	No	12.5	B	**Yes**	42.0	D
44	Del Monte Avenue and Main Avenue	E	TWSC	TWSC	AM	09/26/23	No	12.8	B	No	15.5	C
					PM	09/26/23	No	13.8	B	No	15.9	C

Table 5 (Continued)
Intersection Level of Service Summary

Int. #	Intersection	LOS Standard	2023 Control	2050 Control	Peak Hour	Count Date	Year 2023 Warrant Met?	Year 2023 Delay[1]	Year 2023 LOS	Year 2050 Warrant Met?	Year 2050 Delay[1]	Year 2050 LOS
45	Depot Street and Main Avenue	E	TWSC	TWSC	AM	06/06/18	No	20.3	C	No	25.7	D
					PM	06/06/18	No	21.0	C	No	27.9	D
46	Grand Prix Way and Main Avenue	D	TWSC	TWSC	AM	09/26/23	No	16.4	C	No	24.0	C
					PM	09/26/23	No	12.5	B	No	15.3	C
47	Serene Drive and Main Avenue	D	TWSC	TWSC	AM	09/26/23	No	17.2	C	**Yes**	**>120**	**F**
					PM	09/26/23	No	13.2	B	**Yes**	**>120**	**F**
48	Condit Road and Main Avenue	D	Signal	Signal	AM	09/26/23	--	35.3	D	--	40.6	D
					PM	09/26/23	--	24.6	C	--	54.5	D
49	Murphy Avenue and Main Avenue (Future)	D	Future	AWSC	AM	--	--	--	--	**Yes**	**66.8**	**F**
					PM	--	--	--	--	**Yes**	**78.1**	**F**
50	Elm Road and Main Avenue	D	AWSC	AWSC	AM	09/26/23	No	11.5	B	No	13.7	B
					PM	09/26/23	No	9.0	A	No	10.2	B
51	Hill Road and Main Avenue	D	AWSC	AWSC	AM	06/04/19	No	12.6	B	No	**35.8**	**E**
					PM	06/04/19	No	8.4	A	**Yes**	15.6	C
52	Hill Road and Dunne Avenue	D	Signal	Signal	AM	06/04/19	--	19.8	B	--	23.2	C
					PM	06/04/19	--	18.3	B	--	19.5	B
53	Murphy Avenue and Dunne Avenue	D	Signal	Signal	AM	09/21/23	--	17.5	B	--	22.0	C
					PM	09/21/23	--	18.0	B	--	21.5	C
54	Condit Road and Dunne Avenue	E	Signal	Signal	AM	09/19/23	--	36.7	D	--	41.1	D
					PM	09/19/23	--	36.3	D	--	35.7	D
55	US 101 NB Ramps and Dunne Avenue	E	Signal	Signal	AM	09/21/23	--	5.2	A	--	6.3	A
					PM	09/21/23	--	10.0	A	--	8.4	A
56	US 101 SB Ramps and Dunne Avenue	E	Signal	Signal	AM	09/19/23	--	20.8	C	--	22.8	C
					PM	09/19/23	--	16.8	B	--	23.2	C
57	Laurel Road and Dunne Avenue	E	TWSC	TWSC	AM	09/21/23	No	13.6	B	No	15.0	B
					PM	09/21/23	No	14.1	B	No	14.5	B
58	Walnut Grove Drive and Dunne Avenue	E	Signal	Signal	AM	09/19/23	--	19.7	B	--	20.9	C
					PM	09/19/23	--	33.7	C	--	33.0	C
59	Depot Street and Dunne Avenue	D	Closed	Closed	AM	--	--	--	--	--	--	--
					PM	--	--	--	--	--	--	--
60	Church Street and Dunne Avenue	E	Signal	Signal	AM	06/06/18	--	13.2	B	--	16.0	B
					PM	06/06/18	--	15.4	B	--	17.6	B
61	Del Monte Avenue and Dunne Avenue	E	TWSC	TWSC	AM	09/26/23	No	14.1	B	No	21.1	C
					PM	09/26/23	No	13.4	B	No	40.0	E
62	Hale Avenue and Dunne Avenue (Future)	D	Future	Roundabout	AM	--	--	--	--	--	16.4	C
					PM	--	--	--	--	--	16.0	C
63	Peak Avenue and Dunne Avenue	D	AWSC	AWSC	AM	09/26/23	No	10.7	B	No	10.8	B
					PM	09/26/23	No	17.1	C	No	25.1	D
64	Dewitt Avenue and Dunne Avenue	D	AWSC	AWSC	AM	09/26/23	No	8.8	A	No	8.3	A
					PM	09/26/23	No	8.3	A	No	10.3	B
65	Dewitt Avenue and Edmundson Avenue	D	AWSC	Closed	AM	09/26/23	No	12.5	B	--	--	--
					PM	09/26/23	**Yes**	14.0	B	--	--	--
66	Sunnyside Avenue and Edmundson Avenue	D	AWSC	AWSC	AM	09/26/23	No	19.7	C	**Yes**	**>120**	**F**
					PM	09/26/23	No	15.9	C	**Yes**	**>120**	**F**
67	Olympic Drive and Edmundson Avenue	D	OWSC	OWSC	AM	09/26/23	No	10.1	B	No	11.4	B
					PM	09/26/23	No	10.7	B	No	11.6	B

Table 5 (Continued)
Intersection Level of Service Summary

Int. #	Intersection	LOS Standard	2023 Control	2050 Control	Peak Hour	Count Date	Year 2023 Warrant Met?	Year 2023 Delay[1]	Year 2023 LOS	Year 2050 Warrant Met?	Year 2050 Delay[1]	Year 2050 LOS
68	Vineyard Boulevard and Tennant Avenue	D	Signal	Signal	AM	09/19/23	--	18.4	B	--	19.5	B
					PM	09/19/23	--	21.2	C	--	20.9	C
69	Juan Hernandez Drive and Tennant Avenue	E	Signal	Signal	AM	09/19/23	--	8.5	A	--	16.5	B
					PM	09/19/23	--	8.1	A	--	14.9	B
70	US 101 SB Ramps and Tennant Avenue	E	Signal	Signal	AM	09/19/23	--	17.0	B	--	40.4	D
					PM	09/19/23	--	14.7	B	--	16.1	B
71	US 101 NB Ramps and Tennant Avenue	E	Signal	Signal	AM	09/19/23	--	11.4	B	--	10.3	B
					PM	09/19/23	--	9.5	A	--	9.3	A
72	Condit Road and Tennant Avenue	E	OWSC	OWSC	AM	09/19/23	**Yes**	17.5	C	**Yes**	**>120**	**F**
					PM	09/19/23	**Yes**	17.9	C	**Yes**	**>120**	**F**
73	Murphy Avenue and Tennant Avenue	D	AWSC	AWSC	AM	09/19/23	**Yes**	21.4	C	**Yes**	**>120**	**F**
					PM	09/19/23	No	11.6	B	**Yes**	**>120**	**F**
74	Hill Road and Tennant Avenue	D	AWSC	AWSC	AM	06/04/19	**Yes**	12.5	B	**Yes**	**95.5**	**F**
					PM	06/04/19	No	10.1	B	**Yes**	**>120**	**F**
75	Hill Road and Barrett Avenue	D	TWSC	TWSC	AM	06/06/18	No	18.6	C	**Yes**	**43.9**	**E**
					PM	06/06/18	No	13.1	B	No	33.6	D
76	Hill Road and San Pedro Avenue	D	OWSC	OWSC	AM	06/04/19	No	13.3	B	No	19.9	C
					PM	06/04/19	No	10.4	B	No	18.2	C
77	Santa Teresa Boulevard/Sunnyside Avenue and Watsonville Road	D	AWSC	AWSC	AM	09/26/23	**Yes**	20.8	C	**Yes**	**>120**	**F**
					PM	09/26/23	**Yes**	25.7	D	**Yes**	**>120**	**F**
78	Hale Avenue and Wright Avenue	D	AWSC	AWSC	AM	09/26/23	No	15.4	C	**Yes**	**>120**	**F**
					PM	09/26/23	No	**56.4**	**F**	**Yes**	**>120**	**F**
79	Hale Avenue and Llagas Road	D	Signal	Signal	AM	09/26/23	--	14.7	B	--	19.8	B
					PM	09/26/23	--	16.8	B	--	26.3	C
80	Old Monterey Road and Llagas Road	D	AWSC	AWSC	AM	09/26/23	No	8.2	A	No	9.2	A
					PM	09/26/23	No	8.2	A	No	10.0	B
81	Sutter Boulevard and Jarvis Drive	D	TWSC	TWSC	AM	05/08/18	No	16.1	C	**Yes**	**36.5**	**E**
					PM	05/08/18	No	19.7	C	**Yes**	**>120**	**F**
82	Vista de Lomas and Burnett Avenue	D	OWSC	OWSC	AM	03/28/19	No	8.6	A	No	13.1	B
					PM	03/28/19	No	8.6	A	No	10.4	B
83	Mission View Drive and Avenida De Los Padres	D	OWSC	OWSC	AM	09/21/23	No	12.6	B	No	34.0	D
					PM	09/21/23	No	13.6	B	No	**110.8**	**F**
84	Mission View Drive and Half Road	D	AWSC	AWSC	AM	09/21/23	No	9.4	A	**Yes**	**58.8**	**F**
					PM	09/21/23	No	13.3	B	No	**>120**	**F**
85	Peet Road and Half Road	D	OWSC	TWSC	AM	09/14/21	No	8.5	A	No	15.1	C
					PM	09/14/21	No	8.7	A	No	15.5	C
86	Condit Road and Diana Avenue	D	TWSC	TWSC	AM	06/04/19	**Yes**	14.7	B	**Yes**	24.2	C
					PM	06/04/19	No	13.6	B	**Yes**	21.4	C
87	Murphy Avenue and Diana Avenue	D	OWSC	TWSC	AM	06/04/19	No	11.4	B	No	**>120**	**F**
					PM	06/04/19	No	9.9	A	No	**59.4**	**F**

Notes:
[1]The reported delay and corresponding level of service for signalized, roundabout, all-way stop-controlled intersections represent the average delay for all approaches at the intersection. The reported delay and corresponding level of service for one- and two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay.
Bold indicates unacceptable level of service and/or signal warrant met.
Bold and boxed indicate an adverse effect on intersection's operations.
AWSC = all-way stop-controlled; TWSC = two-way stop-controlled; OWSC = one-way stop-controlled

Figure 3: Year 2023 Intersection Levels of Service

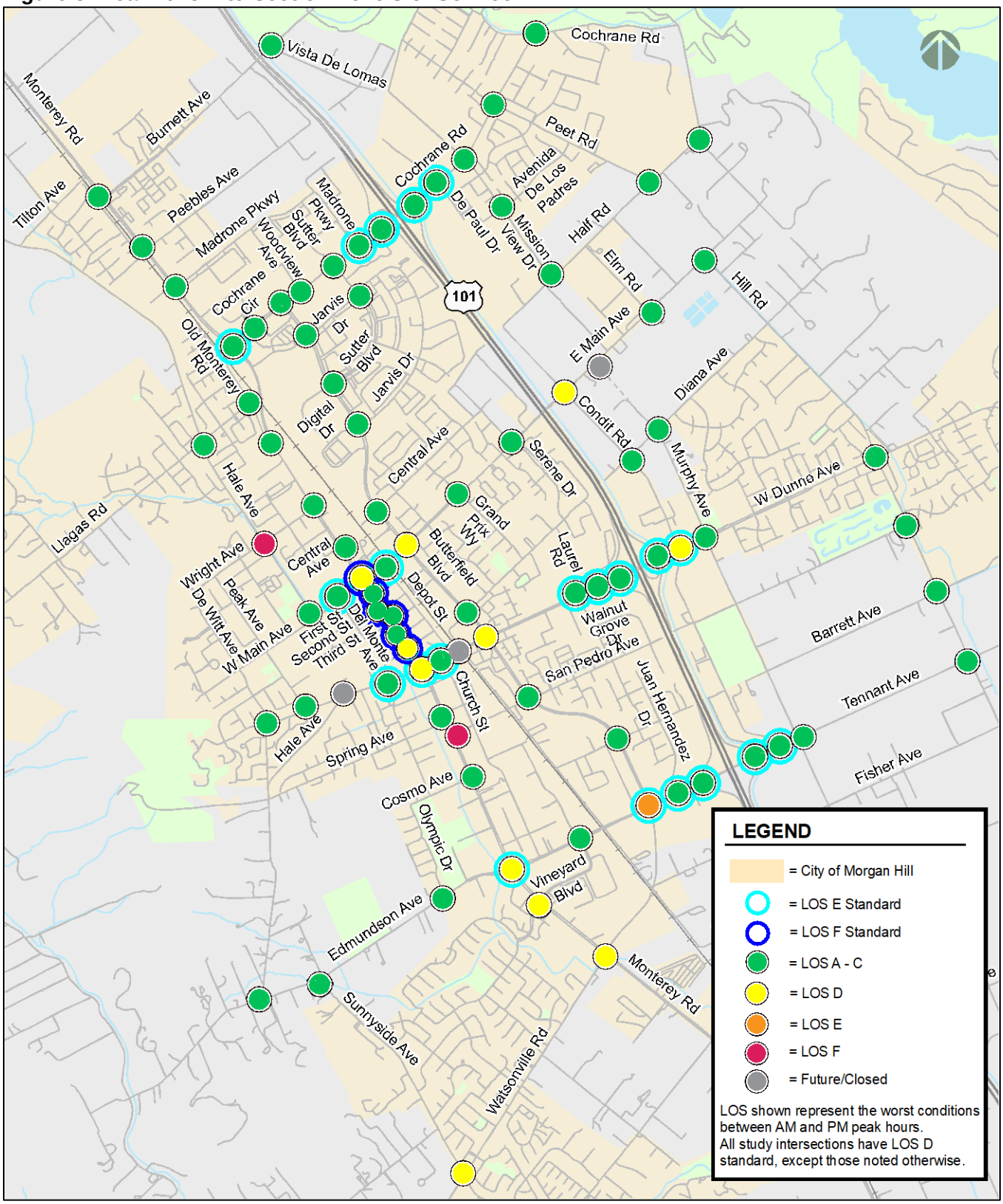
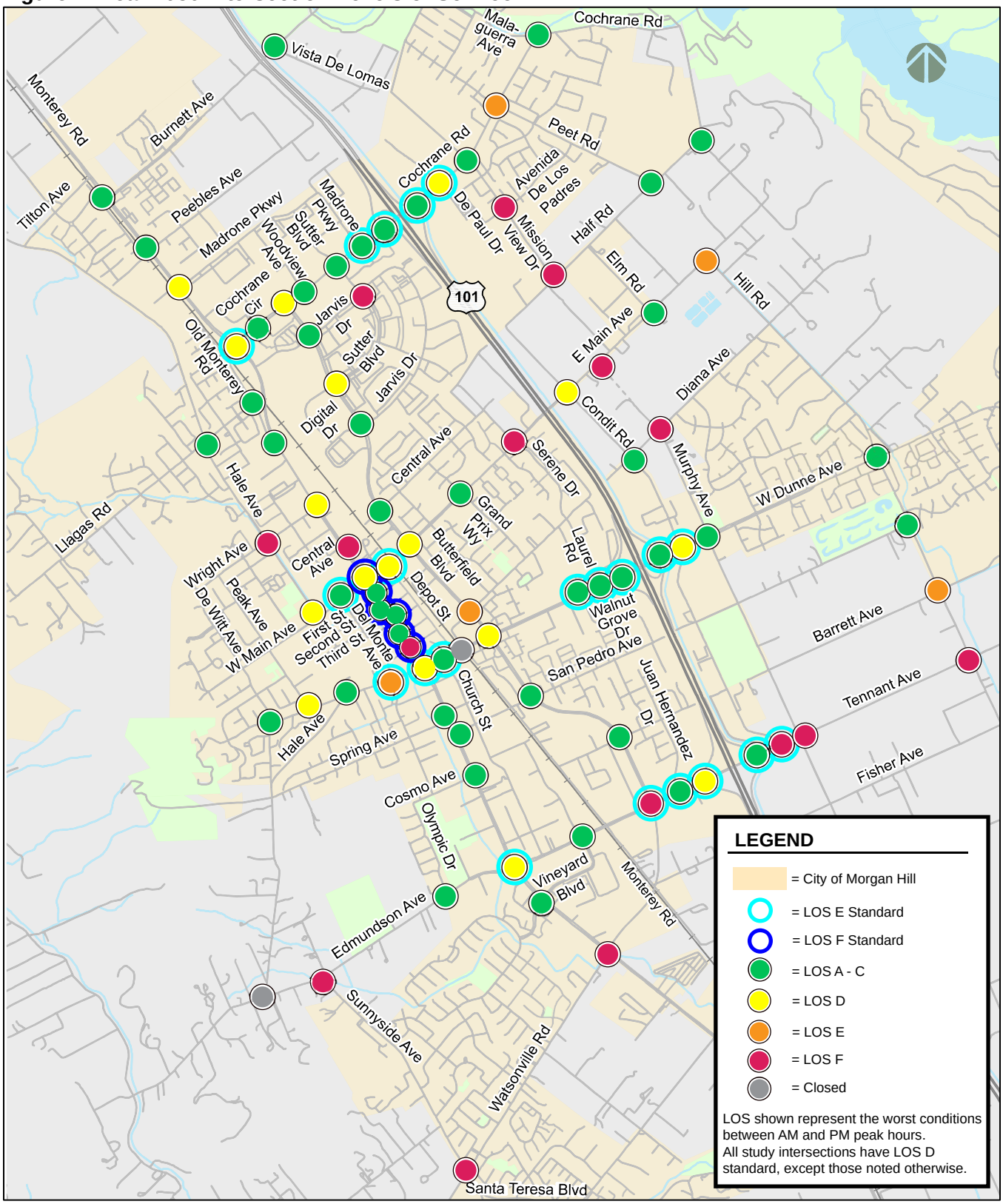


Figure 4: Year 2050 Intersection Levels of Service



Roadway Segment Operations Analysis

The results of the roadway segment level of service under existing and Year 2050 GP conditions are summarized in Table 6 and Figures 5 and 6.

Existing Conditions

The results of the level of service analysis indicate that all segments operate at LOS D or better under existing conditions.

Year 2050 General Plan Conditions

The results of the level of service analysis indicate that the following 9 segments are projected to operate at unacceptable levels of service during at least one peak hour under Year 2050 GP conditions when measured against the City of Morgan Hill's level of service standards:

9. Butterfield Boulevard between E. Dunne Avenue and Central Avenue
66. Monterey Road between E. Middle Avenue and Watsonville Road
67. Monterey Road between Watsonville Road and Vineyard Boulevard
68. Monterey Road between Vineyard Boulevard and Dunne Avenue
69. Monterey Road between Dunne Avenue and Main Avenue
70. Monterey Road between Main Avenue and Wright Avenue
71. Monterey Road between Wright Avenue and Cochrane Road
72. Monterey Road between Cochrane Road and Peebles Avenue
73. Monterey Road between Peebles Avenue and City Limit

Review of Level of Service Standards and Congestion in Other Cities

Hexagon has completed a review of the Santa Clara Valley Transit Authority (VTA), *Congestion Management Program (CMP), 2021,* and the level of service standards and congestion for cities in Santa Clara County that have recently updated their general plan or transportation analysis guidelines. Multi-modal level of service performance measures in the CMP and policies as part of city transportation analysis guidelines were also reviewed. The goal of this research is to support any potential changes to the City of Morgan Hill's LOS standard.

Santa Clara Valley Transit Authority (VTA), *Congestion Management Program (CMP), 2021*

VTA, as the designated Congestion Management Agency (CMA) in Santa Clara County, leads the county's Congestion Management Program (CMP). The CMP's goal is to develop a transportation improvement program to improve multimodal transportation system performance, land use decision-making, and air quality among local jurisdictions. The purpose of multimodal performance measures is to evaluate how well Santa Clara County's transportation system serves the public and contributes to economic development, environmental sustainability, and quality of life. The 2021 CMP includes multimodal transportation system performance measures like auto level of service, vehicle miles traveled, modal split, pedestrian and bicycle quality of service, transit vehicle delay, transit accessibility, air quality, duration of congestion, hours of delay per person per trip, travel time and travel time index, transit service guidelines, and travel pattern.

Table 6
Roadway Segment Level of Service Summary

#	Roadway	between	and	LOS Standard	Year 2023 Roadway Type	Year 2023 Date	Year 2023 ADT [1]	Year 2023 LOS	Year 2050 Roadway Type	Year 2050 ADT [1]	Year 2050 LOS
1	Barrett Avenue	Railroad Avenue	Butterfield Boulevard	D	2-Lane Collector	9/28/2023	1,050	A	2-Lane Collector	2,983	B
2	Barrett Avenue	Butterfield Boulevard	US 101	D	2-Lane Collector	9/14/2023	1,295	A	2-Lane Collector	4,457	B
3	Barrett Avenue	Trail Drive	Hill Road	D	2-Lane Collector	9/28/2023	1,596	A	2-Lane Collector	3,120	B
4	Burnett Avenue	Monterey Road	City Limit	D	2-Lane Collector	8/29/2023	5,089	B	2-Lane Collector	9,518	D
5	Butterfield Boulevard	Tennant Avenue	Monterey Road	D	4-Lane Divided Arterial	8/29/2023	16,818	C	4-Lane Divided Arterial	32,204	D
6	Butterfield Boulevard	Barrett Avenue	Tennant Avenue	D	4-Lane Divided Arterial	8/29/2023	14,621	C	4-Lane Divided Arterial	26,185	D
7	Butterfield Boulevard	Barrett Avenue	San Pedro Avenue	D	4-Lane Divided Arterial	8/29/2023	14,740	C	4-Lane Divided Arterial	29,680	D
8	Butterfield Boulevard	San Pedro Avenue	E. Dunne Avenue	D	4-Lane Divided Arterial	8/29/2023	15,122	C	4-Lane Divided Arterial	30,289	D
9	Butterfield Boulevard	E. Dunne Avenue	Central Avenue	D	4-Lane Divided Arterial	8/29/2023	18,705	C	4-Lane Divided Arterial	**35,977**	**E**
10	Butterfield Boulevard	Central Avenue	Cochrane Road	D	4-Lane Divided Arterial	8/29/2023	16,979	C	4-Lane Divided Arterial	29,795	D
11	E Central Avenue	Butterfield Boulevard	Serene Drive	D	2-Lane Collector	9/12/2023	633	A	2-Lane Collector	633	A
12	Church Street	Tennant Avenue	E. Dunne Avenue	D	2-Lane Collector	8/31/2023	2,488	A	2-Lane Collector	3,486	B
13	Cochrane Road	Monterey Road	US 101	D/E	5-Lane Divided Arterial	8/29/2023	16,800	C	6-Lane Divided Arterial	25,635	C
14	Cochrane Road	US 101	Mission View Drive	D/E	4-Lane Divided Arterial	8/29/2023	13,811	C	6-Lane Divided Arterial	16,693	C
15	Cochrane Road	Mission View Drive	Malaguerra Avenue	D	2-Lane Collector	8/29/2023	3,421	B	2-Lane Collector	3,445	B
16	Cochrane Road	Malaguerra Avenue	City Limit	D	2-Lane Rural Road	10/4/2023	1,792	A	2-Lane Rural Road	1,801	A
17	Condit Road	E. Dunne Avenue	Tennant Avenue	D	2-Lane Collector	9/14/2023	4,968	B	2-Lane Collector	5,581	C
18	Condit Road	Diana Avenue	E. Dunne Avenue	D	2-Lane Collector	9/28/2023	7,334	C	2-Lane Collector	9,362	D
19	Condit Road	Diana Avenue	City Limit	D	2-Lane Collector	9/14/2023	7,066	C	2-Lane Collector	8,273	D
20	Cosmo Avenue	Del Monte Avenue	Monterey Road	D	2-Lane Collector	9/26/2023	1,511	A	2-Lane Collector	1,511	A
21	Del Monte Avenue	Cosmo Avenue	E. Dunne Avenue	D	2-Lane Collector	9/26/2023	1,297	A	2-Lane Collector	1,830	A
22	Depot Street	E. Main Avenue	E. Dunne Avenue	D	2-Lane Collector	8/31/2023	2,261	A	2-Lane Collector	3,473	B
23					Left Blank for Future Use						
24	Dewitt Avenue	Spring Avenue	W. Dunne Avenue	D	2-Lane Undivided Arterial	8/31/2023	3,249	C	2-Lane Local Street	2,211	B
25	Diana Avenue	Butterfield Boulevard	US 101	D	2-Lane Collector	9/28/2023	2,489	A	2-Lane Collector	3,709	B
26	Diana Avenue	Murphy Avenue	Hill Road	D	2-Lane Collector	9/28/2023	963	A	2-Lane Collector	2,798	B
27	W. Dunne Avenue	Peak Avenue	Monterey Road	D	2-Lane Undivided Arterial	8/31/2023	6,705	C	4-Lane Undivided Arterial	7,131	C
28	E. Dunne Avenue	Monterey Road	Butterfield Boulevard	D	4-Lane Divided Arterial	8/29/2023	13,884	C	4-Lane Divided Arterial	17,936	C
29	E. Dunne Avenue	Butterfield Boulevard	Condit Road	D/E	4-Lane Divided Arterial	9/14/2023	22,448	D	4-Lane Divided Arterial	23,104	D
30	E. Dunne Avenue	Condit Road	Hill Road	D	4-Lane Divided Arterial	8/29/2023	10,347	C	4-Lane Divided Arterial	11,224	C
31	E. Dunne Avenue	Hill Road	Thomas Grade	D	2-Lane Undivided Arterial	9/28/2023	9,205	D	2-Lane Undivided Arterial	9,939	D
32	E. Dunne Avenue	Thomas Grade	Rustling Oak Court	D	2-Lane Collector	9/28/2023	6,375	C	2-Lane Collector	6,636	C
33	E. Dunne Avenue	Rustling Oak Court	Holiday Drive	D	2-Lane Collector	9/28/2023	6,027	C	2-Lane Collector	6,288	C
34	E. Dunne Avenue	Holiday Drive	Anderson Lake	D	2-Lane Collector	9/28/2023	231	A	2-Lane Collector	231	A
35	W. Edmundson Avenue	Olympic Drive	Monterey Road	D	2-Lane Divided Arterial	9/26/2023	5,108	C	2-Lane Divided Arterial	6,547	C
36	Foothill Avenue	Maple Avenue	City Limit	D	2-Lane Collector	9/28/2023	2,892	B	2-Lane Collector	4,083	B
37	Fountain Oaks Drive [2]	Hill Road	Saddleback Drive	D	2-Lane Collector	--	1,779	A	2-Lane Collector	2,025	A
38	Fountain Oaks Drive [2]	Saddleback Drive	Trail	D	2-Lane Collector	--	1,428	A	2-Lane Collector	1,473	A
39	Hale Avenue	W. Main Street	Wright Avenue	D	2-Lane Undivided Arterial	8/31/2023	4,701	C	2-Lane Undivided Arterial	10,855	D
40	Hale Avenue	Wright Avenue	Llagas Road	D	2-Lane Undivided Arterial	8/31/2023	10,258	D	2-Lane Undivided Arterial	14,334	D
41	Hale Avenue	Llagas Road	Via Loma	D	2-Lane Undivided Arterial	8/31/2023	8,861	C	2-Lane Undivided Arterial	13,898	D
42	Hale Avenue	Via Loma	Tilton Avenue	D	2-Lane Undivided Arterial	9/12/2023	8,857	C	2-Lane Undivided Arterial	14,196	D
43	Half Road	Mission View Drive	Elm Road	D	2-Lane Collector	9/28/2023	3,804	B	2-Lane Collector	3,902	B
44	Hill Road	Barrett Avenue	E. Dunne Avenue	D	2-Lane Undivided Arterial	9/28/2023	6,304	C	2-Lane Undivided Arterial	13,312	D
45	Hill Road	E. Dunne Avenue	E. Main Avenue	D	2-Lane Undivided Arterial	9/28/2023	5,320	C	2-Lane Undivided Arterial	9,126	D
46	Jarvis Drive	Monterey Road	Sutter Boulevard	D	2-Lane Local Street	9/12/2023	907	A	2-Lane Local Street	1,941	B
47	Jarvis Drive	Sutter Boulevard	Butterfield Boulevard	D	2-Lane Local Street	9/12/2023	1,620	A	2-Lane Local Street	1,620	A
48	Juan Hernandez Drive	Barrett Avenue	Tennant Avenue	D	2-Lane Collector	9/14/2023	1,484	A	2-Lane Collector	7,518	C
49	La Alameda Drive	Watsonville Road	La Crosse Drive	D	2-Lane Collector	9/26/2023	655	A	2-Lane Collector	655	A
50	La Crosse Drive	Vineyard Boulevard	Vineyard Boulevard	D	2-Lane Collector	9/26/2023	3,425	B	2-Lane Collector	3,425	B
51	Llagas Road	Woodland Avenue	Castle Lake Drive	D	2-Lane Collector	8/31/2023	638	A	2-Lane Collector	759	A
52	Llagas Road	Castle Lake Drive	Teresa Lane	D	2-Lane Collector	8/31/2023	1,280	A	2-Lane Collector	1,298	A
53	Llagas Road	Teresa Lane	Llagas Court	D	2-Lane Collector	8/31/2023	1,836	A	2-Lane Collector	2,015	A
54	Llagas Road	Llagas Court	Hale Avenue	D	2-Lane Collector	8/31/2023	3,077	B	2-Lane Collector	3,510	B
55	Llagas Road	Hale Avenue	Old Monterey Road	D	2-Lane Collector	8/31/2023	3,160	B	2-Lane Collector	4,110	B

Table 6
Roadway Segment Level of Service Summary

#	Roadway	between	and	LOS Standard	Year 2023 Roadway Type	Year 2023 Date	Year 2023 ADT [1]	Year 2023 LOS	Year 2050 Roadway Type	Year 2050 ADT [1]	Year 2050 LOS
56	Madrone Parkway	Monterey Road	Cochrane Road	D	2-Lane Collector	9/12/2023	4,791	B	2-Lane Collector	6,912	C
57	W. Main Avenue	John Telfer Drive	Hale Avenue	D	2-Lane Undivided Arterial	8/31/2023	6,112	C	2-Lane Undivided Arterial	6,198	C
58	W. Main Avenue	Hale Avenue	Monterey Road	D	2-Lane Undivided Arterial	8/31/2023	7,822	C	2-Lane Undivided Arterial	10,284	D
59	E. Main Avenue	Monterey Road	Butterfield Boulevard	D	2-Lane Undivided Arterial	8/31/2023	11,257	D	4-Lane Undivided Arterial	14,510	C
60	E. Main Avenue	Butterfield Boulevard	Serene Drive	D	2-Lane Undivided Arterial	9/14/2023	6,744	C	2-Lane Undivided Arterial	8,937	C
61	E. Main Avenue	Serene Drive	Condit Road	D	2-Lane Undivided Arterial	9/14/2023	7,113	C	2-Lane Undivided Arterial	13,231	D
62	E. Main Avenue	Live Oak HS	Elm Road	D	2-Lane Undivided Arterial	9/28/2023	2,511	C	2-Lane Undivided Arterial	4,190	C
63	W. Middle Avenue	Amberwood Lane	Walnut Drive	D	2-Lane Local Street	9/26/2023	1,037	A	2-Lane Local Street	1,037	A
64	Mission View Drive	Half Road	Avenida De Los Padres	D	2-Lane Collector	10/4/2023	6,686	C	2-Lane Undivided Arterial	12,495	D
65	Mission View Drive	Avenida de los Padres	Cochrane Road	D	2-Lane Collector	10/4/2023	7,058	C	2-Lane Undivided Arterial	12,677	D
66	Monterey Road	E. Middle Avenue	Watsonville Road	D	4-Lane Undivided Arterial	9/26/2023	18,484	D	4-Lane Undivided Arterial	**36,874**	**F**
67	Monterey Road	Watsonville Road	Vineyard Boulevard	D	4-Lane Undivided Arterial	8/31/2023	18,850	D	4-Lane Undivided Arterial	**30,752**	**F**
68	Monterey Road	Vineyard Boulevard	Dunne Avenue	D	4-Lane Undivided Arterial	8/31/2023	20,893	D	4-Lane Undivided Arterial	**31,950**	**F**
69	Monterey Road	Dunne Avenue	Main Avenue	D/F	4-Lane Undivided Arterial	11/14/23	17,257	C	4-Lane Undivided Arterial	**30,049**	**F**
70	Monterey Road	Main Avenue	Wright Avenue	D	4-Lane Undivided Arterial	8/31/2023	17,097	C	4-Lane Undivided Arterial	**31,465**	**F**
71	Monterey Road	Wright Avenue	Cochrane Road	D	3-Lane Arterial	9/12/2023	15,822	D	4-Lane Undivided Arterial	**30,401**	**F**
72	Monterey Road	Cochrane Road	Peebles Avenue	D	4-Lane Undivided Arterial	8/29/2023	19,915	D	4-Lane Undivided Arterial	**40,863**	**F**
73	Monterey Road	Peebles Avenue	City Limit	D	4-Lane Undivided Arterial	9/12/2023	19,073	D	4-Lane Undivided Arterial	**39,087**	**F**
74	Murphy Avenue	Barrett Avenue	E. Dunne Avenue	D	2-Lane Undivided Arterial	9/28/2023	4,031	C	2-Lane Undivided Arterial	6,618	C
75	Murphy Avenue	E. Dunne Avenue	Diana Avenue	D	2-Lane Undivided Arterial	9/28/2023	1,720	C	2-Lane Undivided Arterial	3,908	C
76	Native Dancer Drive	W. Middle Avenue	Santa Teresa Boulevard	D	2-Lane Collector	9/26/2023	317	A	2-Lane Collector	339	A
77	Old Monterey Road	Llagas Road	Monterey Road	D	2-Lane Collector	8/31/2023	4,651	B	2-Lane Collector	5,563	C
78	Peak Avenue	Wright Avenue	W. Main Avenue	D	2-Lane Collector	8/31/2023	3,320	B	2-Lane Collector	2,872	B
79	Peak Avenue	W. Main Avenue	W. Dunne Avenue	D	2-Lane Collector	8/31/2023	5,991	C	2-Lane Collector	5,991	C
80	Peebles Avenue	Monterey Road	City Limit	D	2-Lane Local Street	9/12/2023	1,449	A	2-Lane Local Street	3,395	B
81	Peet Road	Avenida de los Padres	Cochrane Road	D	2-Lane Undivided Arterial	10/4/2023	1,053	C	2-Lane Undivided Arterial	4,106	C
82	Peet Road	Cochrane Road	Morning Star Drive	D	2-Lane Local Street	10/4/2023	1,487	A	2-Lane Local Street	1,487	A
83	Railroad Avenue	San Pedro Avenue	Tennant Avenue	D	2-Lane Local Street	9/26/2023	1,167	A	2-Lane Local Street	1,420	A
84	Saddleback Drive	E. Dunne Avenue	Fountain Oaks Drive	D	2-Lane Local Street	9/28/2023	1,046	A	2-Lane Local Street	1,046	A
85	San Pedro Avenue	US 101	Railroad Avenue	D	2-Lane Collector	9/14/2023	2,864	B	2-Lane Collector	3,257	B
86	Santa Teresa Boulevard	Watsonville Road	City Limit	D	2-Lane Rural Road	9/26/2023	9,262	C	2-Lane Rural Road	11,590	D
87	Spring Avenue	Dewitt Avenue	Monterey Road	D	2-Lane Collector	8/31/2023	1,761	A	2-Lane Collector	1,857	A
88	Sunnyside Avenue	Edmundson Avenue	Watsonville Road	D	2-Lane Undivided Arterial	9/26/2023	6,616	C	2-Lane Undivided Arterial	10,692	D
89	Sutter Boulevard[3]	Cochrane Road	Butterfield Boulevard	D	4-Lane Undivided Arterial	8/29/2023	6,544	C	4-Lane Undivided Arterial	12,462	C
90	Tennant Avenue	Monterey Road	Vineyard Boulevard	D	4-Lane Divided Arterial	9/28/2023	12,906	C	4-Lane Divided Arterial	13,483	C
91	Tennant Avenue	Vineyard Boulevard	US 101	D/E	4-Lane Divided Arterial	8/29/2023	19,170	C	4-Lane Divided Arterial	19,640	D
92	Tilton Avenue	Hale Avenue	Monterey Road	D	2-Lane Collector	9/12/2023	6,040	C	2-Lane Collector	6,799	C
93	Vineyard Boulevard	La Crosse Drive	Monterey Road	D	2-Lane Collector	8/31/2023	6,528	C	2-Lane Collector	6,528	C
94	Vineyard Boulevard	Monterey Road	Tennant Avenue	D	2-Lane Collector	8/31/2023	7,152	C	2-Lane Collector	7,152	C
95	Vineyard Boulevard	Tennant Avenue	Mast Street	D	2-Lane Local Street	9/28/2023	1,718	A	2-Lane Local Street	1,718	A
96	Walnut Grove Drive	E. Dunne Avenue	San Pedro Avenue	D	2-Lane Collector	8/29/2023	2,769	B	2-Lane Collector	2,976	B
97	Watsonville Road	Santa Teresa Boulevard	Monterey Road	D	2-Lane Undivided Arterial	9/26/2023	14,395	D	4-Lane Undivided Arterial	15,619	C
98	Wright Avenue	Peak Avenue	Hale Avenue	D	2-Lane Collector	8/31/2023	4,893	B	2-Lane Collector	4,893	B
99	Wright Avenue	Hale Avenue	Monterey Road	D	2-Lane Collector	8/31/2023	5,837	C	2-Lane Collector	8,258	D

Notes:
[1] Includes both directions
[2] Counts were not available. Model forecasts were used.
[3] Used 4-lane undivided arterial threshold since threshold for a 4-lane divided collector is not available.

Figure 5: Year 2023 Roadway Segment Capacity

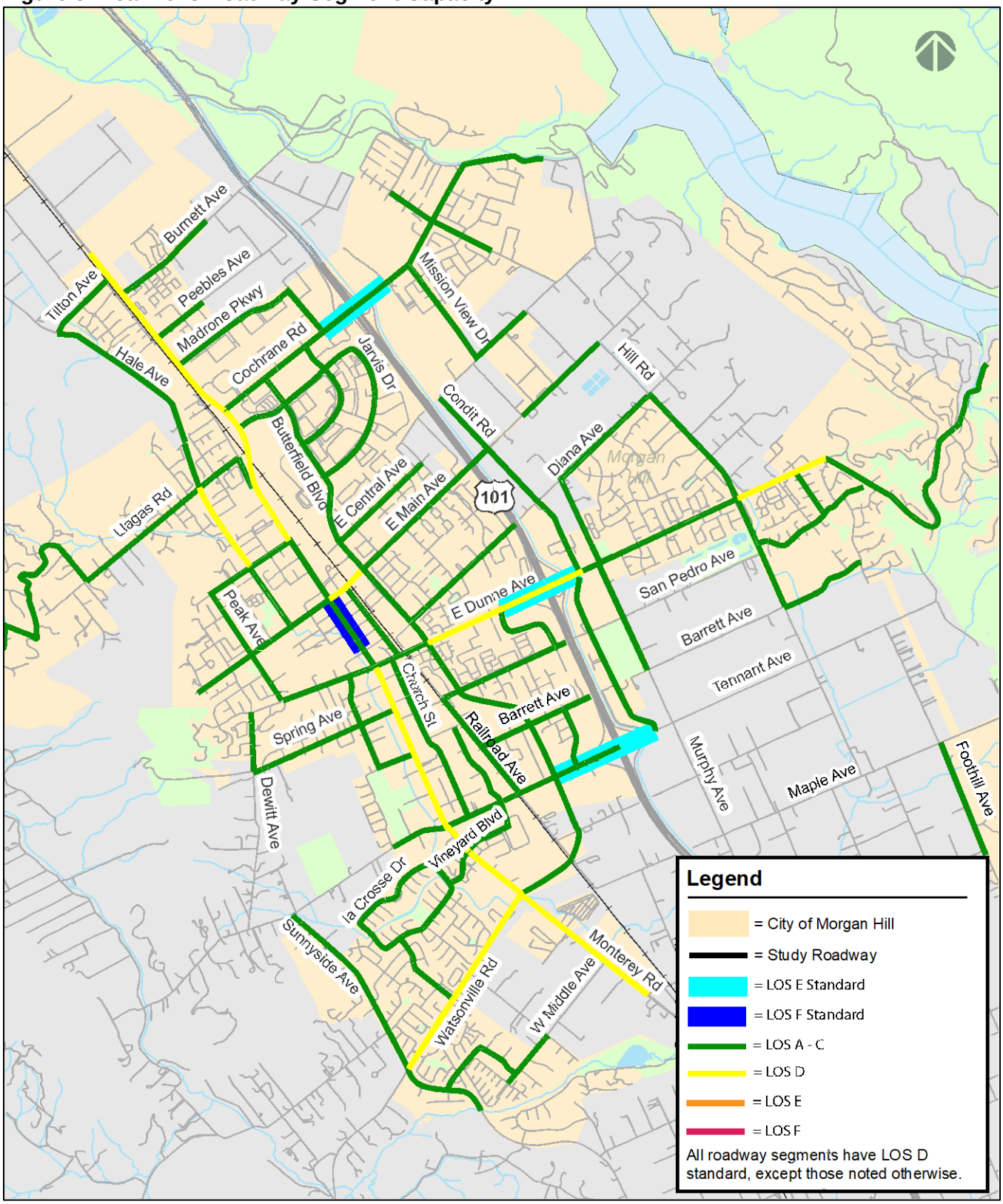
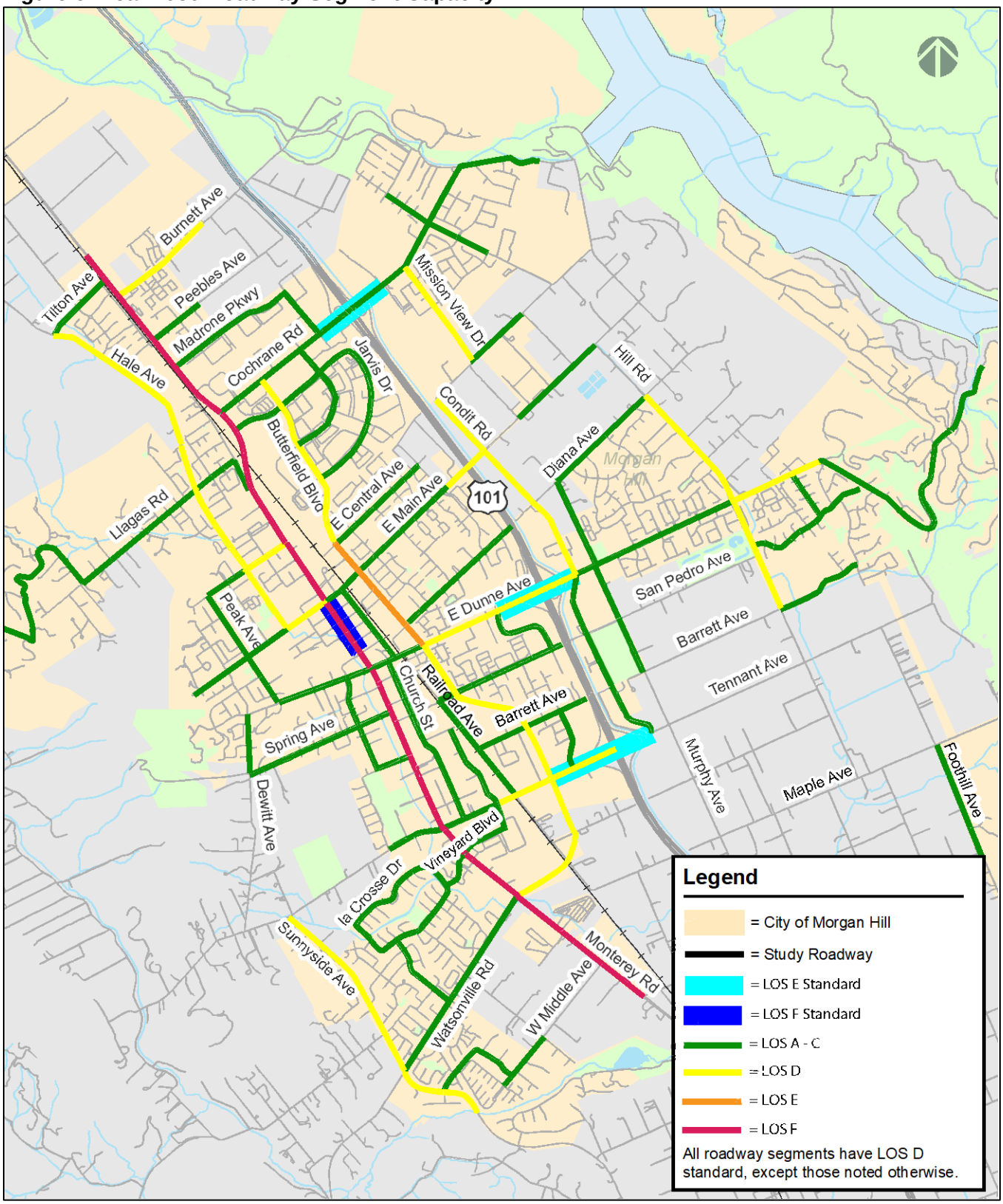


Figure 6: Year 2050 Roadway Segment Capacity



Other Cities LOS Standards

Table 7 provides the LOS policy and the percentage of intersections/roadway segments operating below the LOS threshold under general plan buildout conditions for Gilroy, Los Gatos, Sunnyvale, Milpitas, and Mountain View in Santa Clara County. The intersections operations analysis for the General Plan update for Milpitas was not available. The table also includes the City of Morgan Hill's LOS policy, and percentage of intersections that would operate below the LOS threshold under year 2050 conditions. As noted in the table, the general plans for these cities have different horizon years, however, the amount of projected growth for the general plan land uses (approximately 20 to 25 years) is similar to other jurisdictions.

As shown in Table 7, similar to Morgan Hill, the LOS threshold for Los Gatos, Sunnyvale, Milpitas, and Mountain View is LOS D. Furthermore, Sunnyvale, Milpitas, and Mountain View also allow LOS E or LOS F at some intersections. The LOS threshold for Gilroy is LOS C with LOS D acceptable at some intersections near commercial areas.

As described in the previous section, 28 percent of the study intersections in Morgan Hill are projected to operate at substandard levels of service under 2050 conditions. 38 percent of the study intersections in Gilroy, 30 percent of the study intersections in Sunnyvale, and 19 percent of the study roadway segments in Mountain View, are also projected to operate at a substandard level of service under each City's general plan buildout conditions. In case of operational deficiencies due to new development projects, Los Gatos, Sunnyvale, Milpitas, and Mountain View require intersection improvements if feasible, and if those improvements would not negatively impact multimodal facilities. These cities also allow multimodal improvements or use of transportation demand management (TDM) measures in lieu of intersection operational improvements. Gilroy allows an exception to the standard only if the City Council determines that operational improvements at the deficient intersection are infeasible.

Mountain View also requires an analysis of a proposed development project's impacts on pedestrian, bicycle, and transit operations. This includes inconsistency with existing and planned facilities and guidelines as well as the addition of vehicle trips to roadways operating at poor pedestrian levels of service or high bicycle level of traffic stress as identified by the City. For transit, this includes an increase in transit delay or a decrease in housing or jobs near active stops. These criteria are described in detail in the table below.

Table 7
Level of Service Policies of the Cities in Santa Clara County

City	Policy	Percent Intersections operating below threshold under GP Buildout conditions
Morgan Hill	***Policy TR 3.4:*** As the Level of Service (LOS) policy and design criteria for roadway improvements, use a Tiered LOS Standard as follows: •LOS F in the Downtown at Main/Monterey, along Monterey Road between Main and Fifth Street, and along Depot Street at First through Fifth Streets. •LOS D for intersections and segments elsewhere; except •Allow LOS E for identified freeway ramps/ zones, road segments and intersections that (1) provide a transition to and are located on the periphery of downtown; (2) are freeway zone intersections; and/or (3) where achieving LOS D could result in interim intersection improvements which would be "over-built" once the City's circulation network has been completed, and/or would involve unacceptable impacts on existing buildings or existing or planned transportation facilities, including roads, sidewalks, bicycle and transit facilities; and/or would involve extraordinary costs to acquire land and existing buildings, and build the improvement in relation to benefits achieved; and/or the facility would be widened beyond requirements to serve local traffic, in that the facility accommodates a significant component of peak-hour subregional and regional through-traffic.	28% (Year 2050)
Gilroy	***Policy M 5.1*** : Maintain traffic conditions at LOS C or better at Gilroy intersections and roadways, allowing some commercial and industrial areas (e.g., downtown Gilroy, First Street corridor) to operate at LOS D or better. Existing LOS D areas within City include the Gilroy Premium outlets, Gilroy Crossings, and Regency Commercial areas. Exceptions to this standard will be allowed only where the City Council determines that the improvements needed to maintain the City's standard level of service at specific locations are infeasible.	38% (Year 2040)
Los Gatos	***MOB-10.2*** **:** If a project will cause the current LOS for any project-affected intersection to drop by more than one level for an intersection currently at LOS A, B, or C, or to drop at all if the intersection is at LOS D or below, the project shall construct improvements and/or put TDM measures in place, as directed by the Town Engineer, so that the operation will remain at an acceptable level. These measures shall be implemented and maintained as a condition of approval of the project.	0% (Year 2040)
Sunnyvale	***Council Policy 1.2.8 Transportation Policy*** : The acceptable LOS standard for intersection operations is LOS "D" or better for Sunnyvale intersections, LOS "E" for locally designated intersections along regionally significant roadways and Regional transportation facilities as defined by the Congestion Management Program (CMP). To address an operational deficiency, a project must propose an improvement to the intersection which may include: 1. Traffic signal modifications, construction of additional turn lanes 2. Improvements to the pedestrian, bicycle facilities within the intersection or proximate to the intersection 3. Improved access to transit or transit facility proximate to the intersection 4. Transportation demand management (TDM) measures that will reduce the project traffic at the intersection and improve the deficiency	30% (Year 2035)

City	Policy	Percent Roadway Segments operating below threshold under GP Buildout conditions
Milpitas	***Transportation Analysis Guidelines, March 2022*** : The City's acceptable intersection operations standard is LOS "D". Develop offsetting improvements that recognize where traffic congestion cannot be mitigated and accept congestions levels that do not meet the citywide LOS or queueing standards. Examples of such standards may include, but are not necessarily limited to: • Where constructing facilities with enough capacity to meet the LOS standard is found to be unreasonably expensive, as determined collaboratively by Engineering and Planning. • Where conditions are worse than the adopted LOS standard and are caused primarily by traffic from adjacent jurisdictions. • Where maintaining the adopted LOS standard will be a disincentive to use transit and active transportation modes (i.e., walking and bicycling) or to the implementation of new transportation modes that would reduce vehicle travel.	--
Mountain View	**Multi-Modal Transportation Analysis Handbook, February 2021:** *Intersection Operations (LOS)* : Intersection operations analysis measures traffic operations and delay at signalized intersections and is usually expressed in LOS. The City's acceptable intersection operations standard is LOS "D" except in the Downtown and San Antonio areas, where the intersection operations standard is LOS "E." There are three possible approaches to address adverse effects at signalized intersections: • Reduce project vehicle-trips to eliminate the adverse effect and bring the intersections back to the background or baseline condition. The Santa Clara Countywide VMT Evaluation Tool (VMT Tool) can be used to select measures that would achieve the reduction of vehicle-trips. • Construct improvements to the affected intersection or other roadway segments of the Citywide transportation system to improve operations provided the proposed improvements are consistent with Mountain View plans and policies and do not result in other impacts or adverse effects. • Construct multi-modal improvements to increase transportation capacity for pedestrian, bicycle, and transit modes, and/or improve access to transit. *Pedestrian Operations* : 1. The project fails to provide accessible and safe pedestrian connections between buildings and adjacent streets and transit facilities. 2. A project disrupts existing or planned pedestrian facilities or conflicts with adopted City non-auto plans, guidelines, policies, or standards. 3. The project adds trips to an existing transportation facility (e.g., sidewalk) that does not meet current design standards. 4. The project increases vehicle trips to a roadway with a Pedestrian Quality of Service (PQOS) score of 3 or more. 5. For larger projects, the project does not result in improved Pedestrian Quality of Service (QOS) in the immediate vicinity and along routes to key destinations within the sphere of analysis. *Bicycle Operations:* 1. The project disrupts existing or planned bicycle facilities or conflicts with adopted City non-auto plans, guidelines, policies, or standards. 2. The project adds trips to an existing transportation facility (e.g. ,bikeway) that does not meet current design standards. The project increases vehicle trips to a roadway with a BLTS score of 3 or 4. 3. The project does not connect to the City's low-stress (LTS 1 to 2) bike network. 4. For larger projects, key network facilities (e.g., bikeways from project to major transit nodes) within the two-mile project sphere have a BLTS of 3 or 4. *Transit Operations:* 1. A project decreases the number of housing or jobs within one-half mile of existing active transit stop or transit corridor. This applies to all active transit stops in Mountain View. 2. The project disrupts existing or planned transit facilities and services or conflicts with adopted City non-auto plans, guidelines, policies, or standards. 3. For large projects, if the project results in transit delay on transit corridor travel time. 4. For larger projects, the project does not increase ridership on public transit services.	19% (Year 2030)

Hexagon Transportation Consultants, Inc.

Memorandum

Date: September 16, 2024

To: Mr. Chris Ghione, City of Morgan Hill

From: Shikha Jain
Robert Del Rio

Subject: Morgan Hill TMP – Roadway Capacity and Operations Recommendations

This memo provides an evaluation of the City's planned General Plan (GP) roadway network based on traffic projections associated with buildout of the City's GP growth. The evaluation includes a review of planned roadway capacity per the GP, along with recommendations for improvement of the existing and future roadway network and intersections. The evaluation was completed as part of the Morgan Hill Transportation Master Plan (TMP) effort to plan its future roadway system to meet the needs of the City's planned growth while providing safe opportunities for alternative modes of travel within the City.

2035 General Plan Roadway Network & Analysis Methodology

The current City of Morgan Hill General Plan, *Morgan Hill 2035 General Plan*, adopted in July 2016, is based on planned land use growth within the City projected for the year 2035. The GP includes the identification of a future roadway network to adequately serve traffic growth associated with the buildout of the GP land use.

The analysis utilizes standards and methodologies that are consistent with those of the GP. The City of Morgan Hill GP utilizes commute peak hour level of service for the evaluation of intersections and Average Daily Traffic (ADT) for the evaluation of roadway segments within the City. Therefore, this evaluation consists of a peak-hour intersection level of service analysis and a review of average daily traffic volumes (ADT) for the roadway segment capacity analysis.

Additional discussion of the City's GP TDF model and analysis of existing traffic conditions is provided in a separate memorandum, *Morgan Hill TMP – Level of Service Analysis, Policy and Congestion Research*, August 8, 2024.

General Plan Roadway Network Review

Table 1 provides a list of several roadway extensions and widenings that are planned as part of the GP to provide enhanced connectivity and circulation throughout the City.

Roadway Segment Analysis Methodology

Capacities for local roadways were evaluated by comparing the average daily volumes (ADT) to the threshold capacities for various roadway types identified in the Highway Capacity Manual, Transportation Research Board 2000 (HCM 2000). The HCM 2000 thresholds are based on the local roadway functional classification, and these values provide a planning-level analysis of the relative traffic load and approximate capacity on a particular roadway. It is important to note that daily volume thresholds are used for planning purposes, and traffic during the peak commute periods may result in worse operations than illustrated by the daily LOS.

Table 1
General Plan Roadway Improvements

#	General Plan Roadway Improvements
1	Extension of Butterfield Boulevard as a 2-lane collector between Madrone Parkway and Cochrane Road
2	Extension of Hale Avenue/Santa Teresa Boulevard as a 2-lane multi-modal arterial between Main Avenue and Spring Avenue
3	Extension of Walnut Grove Drive as a 2-lane collector between Dunne Avenue and Diana Avenue
4	Tennant Avenue widened to a 4-lane arterial between Condit Road and Murphy Avenue
5	Monterey Road widened to a 4-lane arterial between Cochrane Road and Old Monterey Road
6	Modifications to intersection control and access at San Pedro Avenue and Monterey Road
7	Realignment of DeWitt Avenue as a 2-lane arterial with Sunnyside Avenue
8	Extension of Mission View Drive as a 2-lane collector between Cochrane Road and Vista del Lomas
9	Mission View Drive upgraded to a 2-lane multi-modal arterial between Cochrane Road and Half Road
10	Extension of Murphy Avenue/Mission View Drive as a 2-lane multi-modal arterial between Half Road and Diana Avenue
11	Cochrane Road widened to a 6-lane arterial between Monterey Road and Mission View Drive
12	Main Avenue widened to a 4-lane arterial between Depot Street and Butterfield Boulevard
13	Watsonville Road widened to a 4-lane arterial between La Alameda and Monterey Road
14	Extension of Serene Drive as a 2-lane collector between Jarvis Drive and Central Avenue
15	Extension of McKevly Lane as a 2-lane collector between Edmundson Avenue and La Crosse Drive
16	Tennant Avenue widened to a 6-lane arterial between US 101 and Butterfield Boulevard
17	Extension of Hill Road/Peet Road as a 2-lane collector between Half Road and Main Avenue
18	Extension of Juan Hernandez Drive to San Pedro Avenue

Source: City of Morgan Hill General Plan

Roadway Segment Capacity Review

The evaluation of the planned GP roadway improvements focused only on the roadway widenings. The need for future roadway widenings is dictated by projected traffic volumes on the roadways. Therefore, the planned widening of a roadway may not be necessary if future (GP buildout) traffic projections do not warrant the need for the widening. The completion of new roadways or extension of existing roadways were presumed to be necessary for the purpose of providing connectivity throughout the City and/or to provide access to future development sites, and they are thus required regardless of projected traffic volumes.

Table 2 provides a summary of the projected capacity operations with and without the planned GP roadway widenings. The evaluation indicates that all roadways evaluated would operate at LOS D or better conditions, with the exception of Monterey Road between Wright Avenue and Cochrane Road, under Year 2050 conditions without the additional roadway capacity planned as part of the GP. Therefore, the TMP will include the recommendation that the future update of the GP Circulation Element remove all planned roadway widenings with the exception of the widening of Monterey Road to four lanes the entire length between Wright Avenue and Cochrane Road. The TMP also recommends that the right-of-way planned for the GP widenings be maintained and used for multi-modal facility improvement and/or expansion. The planned GP ROW could instead be used for facilities such as new bike lanes and sidewalks, protected bike lanes, wider sidewalks, and linear parks, for the purpose of expanding and improving the safety of all non-auto road users. In addition, limiting the widening of roadways to provide additional vehicular capacity may be an effective means in reducing the use of streets by regional cut-through traffic.

Intersection Operations Analysis

The intersection operations evaluation includes an analysis of AM and PM peak-hour traffic conditions for 87 intersections. Figure 1 indicates the study intersections. Traffic conditions were evaluated under Year 2050 General Plan Conditions. Year 2050 traffic volume forecasts were completed by Hexagon using the updated Morgan Hill's General Plan Transportation Demand Forecasting (TDF) Model. The evaluation of intersection operations reflects the recommendation that roadways not widened as described above. However, the analysis does include all planned GP intersection geometry improvements that are not associated with the planned GP roadway widenings.

Figure 1: Study Intersections

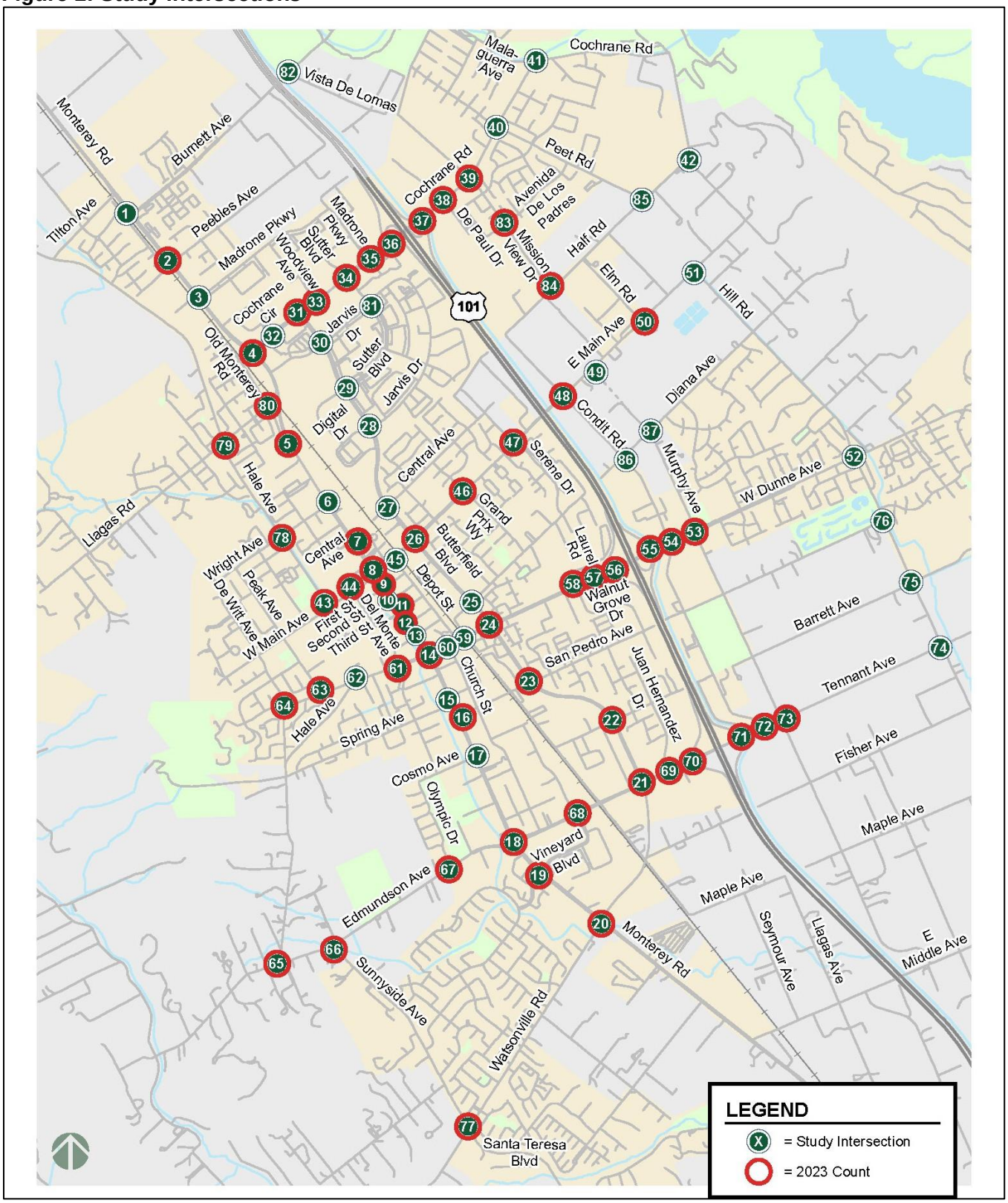


Table 2
Roadway Segment Capacity Review

#	Roadway	From	To	LOS Std	Year 2050 (General Plan Network) Roadway Type	ADT [1]	LOS	Year 2050 (General Plan Network) [No Widenings] Roadway Type	ADT [1]	LOS
13	Cochrane Road	Monterey Road	US 101	D/E	6-Lane Divided Arterial	25,635	C	5-Lane Divided Arterial	25,635	D
14	Cochrane Road	US 101	Mission View Drive	D/E	6-Lane Divided Arterial	16,693	C	4-Lane Divided Arterial	16,693	C
59	E. Main Avenue	Monterey Road	Butterfield Boulevard	D	4-Lane Undivided Arterial	14,510	C	2-Lane Undivided Arterial	14,510	D
71	Monterey Road	Wright Avenue	Cochrane Road	D	4-Lane Undivided Arterial	**30,401**	**F**	3-Lane Arterial	**30,401**	**F**
89	Sutter Boulevard[2]	Cochrane Road	Butterfield Boulevard	D	4-Lane Undivided Arterial	12,462	C	4-Lane Undivided Arterial	12,462	C
91	Tennant Avenue	Vineyard Boulevard	US 101	D/E	4-6 Lane Divided Arterial	19,640	D	4-Lane Divided Arterial	19,640	D
97	Watsonville Road	Santa Teresa Boulevard	Monterey Road	D	4-Lane Undivided Arterial	15,619	C	2-Lane Undivided Arterial	15,619	D

Note:
[1] Includes both directions
[2] Used 4-lane undivided arterial threshold since threshold for a 4-lane divided collector is not available.

Morgan Hill Level of Service Standards and Analysis Methodologies

Traffic conditions at the study intersections were evaluated using level of service (LOS). *Level of Service* is a qualitative description of operating conditions ranging from LOS A, or free-flow conditions with little or no delay, to LOS F, or jammed conditions with excessive delays. The analysis methods are described below.

LOS Standards

Per the City of Morgan Hill General Plan, the LOS standard for most intersections and roadway segments in the City is LOS D. In the Downtown area, LOS F is considered acceptable, and at certain intersections, freeway ramps/zones, and segments as identified by Policy TR-3.4, LOS E is acceptable.

Policy TR 3.4: Level of Service Standards. Level of Service (LOS) policy and design criteria for roadway improvements use a Tiered LOS Standard as follows:

- LOS F in Downtown at Main/Monterey, along Monterey Road between Main and Fifth Street, and along Depot Street at First through Fifth Streets. This LOS standard in the Downtown recognizes the unique nature of and goals for Downtown Morgan Hill as the transit hub of the City and as a center for shopping, business, entertainment, civic and cultural events, and higher-density, mixed-use living opportunities. This standard does not preclude the City, developers, and property owners from voluntarily implementing improvements and employing operational strategies to improve the level of service, especially at the Main/Monterey intersection, if and when land uses redevelop.

- LOS D for intersections and segments elsewhere, except

    - Allow LOS E for identified freeway ramps/zones, road segments, and intersections that (1) provide a transition to and are located on the periphery of Downtown; (2) are freeway zone intersections; and/or (3) where achieving LOS D could result in interim intersection improvements which would be “over-built” once the City’s circulation network has been completed, and/or would involve unacceptable impacts on existing buildings or existing or planned transportation facilities, including roads, sidewalks, bicycle and transit facilities; and/or would involve extraordinary costs to acquire land and existing buildings, and build the improvement in relation to benefits achieved; and/or the facility would be widened beyond requirements to serve local traffic, in that the facility accommodates a significant component of peak-hour subregional and regional through-traffic.

    - In order to reduce the incentive for regional travel to be drawn off the freeway and onto local neighborhood streets, protect neighborhoods, avoid overbuilding intersections, and create an incentive for using alternate modes of travel, LOS E during peak hours of travel is acceptable for the following identified freeway ramps, road segments, and intersections:

        - Main Avenue and Del Monte Avenue
        - Main Avenue and Depot Street
        - Dunne Avenue and Del Monte Avenue
        - Dunne Avenue and Monterey Avenue
        - Dunne Avenue and Church Street; also until closed: Dunne Avenue and Depot Street
        - Cochrane Road and Monterey Road

- Tennant Avenue and Monterey Road
- Tennant Avenue and Butterfield Boulevard
- Cochrane Road Freeway Zone: from Madrone Parkway/Cochrane Plaza to Cochrane/DePaul Drive
- Dunne Avenue Freeway Zone: from Walnut Grove/East Dunne to Condit/East Dunne
- Tennant Avenue Freeway Zone: from Butterfield/Tennant to Condit/Tennant Freeway Ramps

The level of service analysis at unsignalized intersections is supplemented with an assessment of the need for signalization of the intersection. The needs for signalization of unsignalized intersections are assessed based on the Peak Hour Volume Warrant (Warrant 3) described in the *California Manual on Uniform Traffic Control Devices for Streets and Highways (CA MUTCD)*, Part 4, Highway Traffic Signals, 2014.

The results of the intersection level of service and signal warrant analyses under Year 2050 conditions are summarized in Table 3.

Year 2050 General Plan Conditions

The results of the level of service analysis indicate that the following 19 intersections are projected to operate at unacceptable levels of service during at least one peak hour under Year 2050 GP conditions when measured against the City of Morgan Hill's level of service standards:

7. Monterey Road and Central Avenue (AM and PM Peak Hours)
20. Monterey Road and Watsonville Road/Butterfield Boulevard (AM Peak Hour)
21. Butterfield Boulevard and Tennant Avenue (PM Peak Hour)
25. Butterfield Boulevard and Diana Avenue (AM Peak Hour)
40. Peet Road and Cochrane Road (AM Peak Hour)
47. Serene Drive and Main Avenue (AM and PM Peak Hours)
49. Murphy Avenue and Main Avenue (AM and PM Peak Hours)
51. Hill Road and Main Avenue (AM Peak Hour)
66. Sunnyside Avenue and Edmundson Avenue (AM and PM Peak Hours)
72. Condit Road and Tennant Avenue (AM and PM Peak Hours)
73. Murphy Avenue and Tennant Avenue (AM and PM Peak Hours)
74. Hill Road and Tennant Avenue (AM and PM Peak Hours)
75. Hill Road and Barrett Avenue (AM Peak Hour)
77. Santa Teresa Boulevard/Sunnyside Avenue and Watsonville Road (AM and PM Peak Hours)
78. Hale Avenue and Wright Avenue (AM and PM Peak Hours)
81. Sutter Boulevard and Jarvis Drive (AM and PM Peak Hours)
83. Mission View Drive and Avenida De Los Padres (PM Peak Hour)
84. Mission View Drive and Half Road (AM and PM Peak Hours)
87. Murphy Avenue and Diana Avenue (AM and PM Peak Hours)

The results of the signal warrant analysis indicate that the following 12 unsignalized intersections are projected to operate unacceptably and have traffic volumes that meet thresholds warranting signalization during at least one peak hour.

7. Monterey Road and Central Avenue (AM Peak Hour)
47. Serene Drive and Main Avenue (AM and PM Peak Hours)
49. Murphy Avenue and Main Avenue (AM and PM Peak Hours)

66. Sunnyside Avenue and Edmundson Avenue (AM and PM Peak Hours)
72. Condit Road and Tennant Avenue (AM and PM Peak Hours)
73. Murphy Avenue and Tennant Avenue (AM and PM Peak Hours)
74. Hill Road and Tennant Avenue (AM and PM Peak Hours)
75. Hill Road and Barrett Avenue (AM Peak Hour)
77. Santa Teresa Boulevard/Sunnyside Avenue and Watsonville Road (AM and PM Peak Hours)
78. Hale Avenue and Wright Avenue (AM and PM Peak Hours)
81. Sutter Boulevard and Jarvis Drive (AM and PM Peak Hours)
84. Mission View Drive and Half Road (AM Peak Hour)

TMP Intersection Operations Improvement Recommendations

A review of feasible improvements to enhance intersection operations at all intersections projected to operate below City standards and/or meet signal warrants was completed. The review considered the effectiveness in improving operations and right-of-way restrictions. Table 3 provides a summary of projected intersection operations with the improvements that will be recommended as part of the TMP. It should be noted that the TMP will include additional improvements at intersections that were not projected to operate below city operating standards for the purpose of improving pedestrian and bicyclist safety and travel though out the City. Furthermore, improvements at additional intersections may be completed as part of conditions of approval of development projects, part of the City's Capital Improvement Program (CIP), or Traffic Impact Fee (TIF) program.

Table 3
TMP Intersection Operations Improvement Summary

		Year 2050 (With Recommended General Plan Network Adjustments)						Year 2050 (Improved)		
		LOS		Peak	Warrant					
#	Intersection	Std	Control	Hour	Met?	Delay[1]	LOS	Delay[1]	LOS	Recommended Improvement
7	Monterey Road and Central Avenue	D	TWSC	AM	**Yes**	**>120.0**	**F**	15.5	C	Left-turn restrictions from Central Avenue and enhanced pedestrian crossing across Monterey Road with a HAWK signal (a signal can be considered as an alternative)
				PM	No	**>120.0**	**F**	21.8	C	
20	Monterey Road and Watsonville Road/Butterfield Boulevard	D	Signal	AM	--	**101.5**	**F**	**101.5**	**F**	Dedicated NBR phase
				PM	--	38.2	D	38.2	D	
21	Butterfield Boulevard and Tennant Avenue	E	Signal	AM	--	67.2	E	**107.5**	**F**	Consider a policy change to allow LOS E operations along Butterfield Boulevard between Monterey Road and Cochrane Road to improve pedestrian and bike safety (curb extensions, removal of right-turn lanes, protected intersection)
				PM	--	**85.1**	**F**	**110.0**	**F**	
25	Butterfield Boulevard and Diana Avenue	D	Signal	AM	--	**62.9**	**E**	**62.9**	**E**	Signal coordination/adaptive signal control
				PM	--	29.7	C	29.7	C	
40	Peet Road and Cochrane Road	D	TWSC	AM	No	**38.8**	**E**	6.1	A	Install a 1-lane roundabout
				PM	No	12.7	B	6.2	A	
47	Serene Drive and Main Avenue	D	TWSC	AM	**Yes**	**>120.0**	**F**	17.2	B	Install a signal (consider a 1-lane roundabout if right-of-way can be acquired from the NW and NE corners in the future)
				PM	**Yes**	**>120.0**	**F**	19.4	B	
49	Murphy Avenue and Main Avenue (Future)	D	AWSC	AM	**Yes**	**66.8**	**F**	43.6	D	Install a signal with the future Murphy Avenue extension (a 1-lane roundabout could also be considered)
				PM	**Yes**	**78.1**	**F**	40.2	D	
51	Hill Road and Main Avenue	D	AWSC	AM	No	**35.8**	**E**	13.2	B	Install a signal with the future Hill Road extension (a 1-lane roundabout could also be considered)
				PM	**Yes**	15.6	C	18.8	B	
66	Sunnyside Avenue and Edmundson Avenue	D	AWSC	AM	**Yes**	**>120.0**	**F**	21.7	C	Install a 1-lane roundabout with the future DeWitt Avenue realignment
				PM	**Yes**	**>120.0**	**F**	34.9	D	
72	Condit Road and Tennant Avenue	E	OWSC	AM	**Yes**	**>120.0**	**F**	49.0	D	Install a signal in coordination with the two US 101/Tennant Avenue interchange intersections
				PM	**Yes**	**>120.0**	**F**	26.7	C	
73	Murphy Avenue and Tennant Avenue	D	AWSC	AM	**Yes**	**>120.0**	**F**	45.6	D	Install a signal
				PM	**Yes**	**>120.0**	**F**	50.4	D	
74	Hill Road and Tennant Avenue	D	AWSC	AM	**Yes**	**95.5**	**F**	37.8	D	Install a signal
				PM	**Yes**	**>120.0**	**F**	35.0	C	
75	Hill Road and Barrett Avenue	D	TWSC	AM	**Yes**	**43.9**	**E**	9.6	A	Install a 1-lane roundabout
				PM	No	33.6	D	10.1	B	
77	Santa Teresa Boulevard/Sunnyside Avenue and Watsonville Road	D	AWSC	AM	**Yes**	**>120.0**	**F**	36.5	D	Install a signal (consider a 1-lane roundabout with right-turn channelization if right-of-way can be acquired)
				PM	**Yes**	**>120.0**	**F**	42.4	D	
78	Hale Avenue and Wright Avenue	D	AWSC	AM	**Yes**	**>120.0**	**F**	42.0	D	Install a signal (signal design in progress)
				PM	**Yes**	**>120.0**	**F**	32.7	C	
81	Sutter Boulevard and Jarvis Drive	D	TWSC	AM	**Yes**	**36.5**	**E**	14.2	B	Restrict left-turns from Jarvis Drive
				PM	**Yes**	**>120.0**	**F**	12.5	B	
83	Mission View Drive and Avenida De Los Padres	D	OWSC	AM	No	34.0	D	15.5	B	Install a signal in the long-term
				PM	No	**110.8**	**F**	17.3	B	
84	Mission View Drive and Half Road	D	AWSC	AM	**Yes**	**58.8**	**F**	17.8	B	Install a signal
				PM	No	**>120.0**	**F**	16.0	B	
87	Murphy Avenue and Diana Avenue	D	OWSC	AM	No	**>120.0**	**F**	18.4	B	Install a signal (consider a roundabout with the future Murphy Avenue extension
				PM	No	**59.4**	**F**	16.1	B	

Notes:

[1]The reported delay and corresponding level of service for signalized, roundabout, all-way stop-controlled intersections represent the average delay for all approaches at the intersection. The reported delay and corresponding level of service for one- and two-way stop-controlled intersections are based on the stop-controlled approach with the highest delay.

Bold indicates unacceptable level of service and/or signal warrant met.

AWSC = all-way stop-controlled; TWSC = two-way stop-controlled; OWSC = one-way stop-controlled

Hexagon Transportation Consultants, Inc.

Draft Memorandum

Date: March 18, 2024

To: Mr. Chris Ghione, City of Morgan Hill

From: At van den Hout
Robert Del Rio

Subject: Morgan Hill Transportation Demand Forecasting Model Update

Hexagon Transportation Consultants, Inc. has completed an update of the City's General Plan Transportation Demand Forecasting (TDF) Model. The purpose of the model update and brief summary of the model components, input data, structure, and uses are presented in this memorandum.

Background

The City's original Travel Demand Forecasting (TDF) model was developed in 2009 as part of the efforts to complete the Circulation Element in 2010 of their General Plan. Over the years, the TDF model was updated several times to reflect current conditions and changes to the General Plan. While the TDF model performed well in simulation traffic conditions within the City, the model is unable to accurately project vehicle miles traveled (VMT), as required by CEQA, for trips with origins and destinations outside of City limits since it lacks a detailed representation of land uses and roadway network within Santa Clara County as a whole. Therefore, a new Morgan Hill TDF model (MH model) was developed, which is built on VTA's Bi-County TDF Model (VTA model). The new MH model is a refinement of the VTA model and provides more analytical detail and a higher level of accuracy of simulated travel in Morgan Hill. The work associated with this update involved:

1. Refining the existing VTA-modeled network to include many more zones and roadways in Morgan Hill
2. Converting the City's land use data that is expressed in square feet of commercial land development uses into jobs
3. Validate the MH model against existing (2023) observed traffic counts
4. Calculate VMT per resident and VMT per job to establish a new baseline to measure VMT transportation impacts.

Description of MH Model

The MH model is a computerized representation of travel patterns of 14 counties within the larger Bay Area: the nine Bay Area counties, the County of Santa Cruz, the County of San Benito, the County of Monterey, the County of San Joaquin, and County of Stanislaus. As mentioned earlier, the MH model is a refinement of the VTA model and has the following four model components:

Trip Generation: In this initial step, the model estimates the number of trips generated by different areas in the modeled area. The areas are defined as Traffic Analysis Zones (TAZs) and include residential dwelling units, shopping centers, hospitals, office buildings, etc.). Land use elements

such as the number of households, employed residents, population, and types of employment are essential factors in determining trip generation.

Trip Distribution: Based on the number of trips generated, the distribution model distributes these trips between the different TAZs. The distribution model considers factors like travel distance, the transportation network, and travel patterns. The distribution model determines where the trips start (origins) and are likely to go (destinations).

Mode Choice: In the third step, the model looks at the various transportation modes available (e.g., car, bus, train, walking, cycling) and predicts how travelers choose between them. Factors influencing mode choice include travel time, cost, convenience, auto availability, and personal preferences.

Trip Assignment: In the final step, trips are assigned to specific routes based on the transportation network. This involves determining which roads, highways, or public transit lines the trips will take. The vehicle trip assignment process considers factors like congestion, roadway capacity, travel time, and personal preference. Transit trips are assigned to available bus routes and rail services. Factors influencing the choice of transit modes include transit fares, frequency of service, distance to a bus stop or rail station, and travel time.

Model Input Assumptions

The main inputs to the MH model are the City's General Plan land use data and the transportation network. Each of these primary model components are discussed below.

Land Use

A primary input to the model is the land use data. This data is instrumental in estimating daily and peak-hour trip generation. The basis of the land use data input for the model is the planned development growth adopted as part of the Morgan Hill 2035 General Plan (GP), December 2017, that identified anticipated development growth for a Horizon Year of 2035 (see table below). The City's previous GP TDF model utilized a Base Year of 2015. Therefore, the old GP model reflected anticipated growth throughout the City for a 20-year period.

The development of the new MH model included a process of reviewing and updating the land use data contained within the old GP model to reflect current conditions in terms of existing traffic on roadways, developments that have been approved since 2015, and known pipeline development projects. The review and update process included the following:

- Review and correction of Year 2015 existing land use data
- Identification of development that has been completed and occupied between 2015 and 2023
- Identification of development that has been approved but not yet occupied since 2015 along with known pending development projects. City Planning staff provided a list of approved and pending development projects along with their status (see attachments).

Hexagon, in coordination with City staff, reviewed and adjusted the existing and future GP land use data for each TAZ within Morgan Hill. Table 1 below provides a comparison summary of the adjusted land use for the City. As indicated in the table, the updated GP land use data reflects:

Table 1
Morgan Hill Land Use Data Comparison

	Final GP EIR		2015 GP TDF Model		Adjusted Land Use		Adjusted LU - 2015 GP TDF Model	
Categories	2015	2035	2015	2035	2023	2035	2023	2035
Residential Uses								
Housing Units	14,969	22,400	15,701	23,132	16,742	25,013	1,041	1,881
Non-Residential Uses								
Retail & Service (s.f.)	2,729,825	3,902,930	2,744,825	3,920,177	2,825,326	4,349,913	80,501	429,736
Office (s.f.)	521,788	1,150,486	521,788	1,150,486	521,788	959,845	0	-190,641
Industrial (s.f.)	5,935,000	7,712,385	5,935,478	7,712,863	6,700,813	8,896,897	765,335	1,184,033
Public Facilities (s.f.)	463,000	750,377	458,159	750,535	458,159	732,282	0	-18,253

- An additional 1,881 residential units
- An additional 430,000 s.f. of retail/service space
- A reduction of 191,000 s.f. of office space
- An additional 1,184,000 s.f. of industrial space
- A reduction of 18,000 s.f. of public facilities

The continued refinement of the new MH model will require that the City complete a review of the adjusted GP growth and reallocate planned growth to align with the total citywide planned GP development growth. The reallocation process will involve reducing growth in TAZs throughout the City to account for the additional residential units and/or building square footage outlined above.

The residential land use input categories used in the model include single-family, multi-family, and retirement dwelling units. The old GP model land use types of commercial services are expressed in square feet of building size for various land use types, such as medical offices, hotels, motels, R&D, auto dealerships, and others. The new MH model uses employment (number of jobs) to reflect commercial land uses. The square footage of commercial services was converted into jobs using conversion factors to match the input requirements of the new MH model. For some TAZs, the update process resulted in a greater amount of development than coded within the old GP model. Figure 1 indicates those TAZs at which an increase in development are now coded in the new model and included in the attachments. A detailed tabular breakdown of land use adjustments by TAZ is provided within the attachments.

Transportation Network

The City of Morgan Hill is represented by 34 TAZs within the VTA model. Hexagon refined the TAZ system within the City by subdividing the VTA zones in Morgan Hill into about 700 smaller TAZs. The TAZs within Morgan Hill are equivalent to the TAZs used in the old Morgan Hill model and are shown in Figure 2. Maps indicating the general allocation of households and jobs to each of the TAZs are provided in the attachments.

The network within the City was refined by adding all collector roads and most residential streets to provide additional analytical detail to the transportation system. The transportation network includes roadway characteristics such as distance, free flow speed, number of travel lanes, and lane capacity. The VTA bus routes and Caltrain service in Morgan Hill are also part of the transportation network. The model includes an existing and future transportation network. However, the difference in the existing and future networks is limited to only new roadways or roadway extensions planned

as part of the General Plan roadway network. A table of the General Plan roadway network improvements is provided in Table 2 below.

Table 2
Morgan Hill Land General Plan Roadway Network Improvements

No	2035 Roadway Improvements
1	Extension of Butterfield Blvd as a 2-lane collector between Madrone Pkwy and Cochrane Rd
2	Extension of Hale Ave/Santa Teresa Blvd as a 2-lane multi-modal arterial between Main Ave and Spring Ave
3	Extension of Walnut Grove as a 2-lane collector between Dunne Ave and Diana Ave
4	Tennant Ave widening as a 4-lane arterial between Condit Rd and Murphy Ave
5	Monterey Rd widened to a 4-lane arterial between Cochrane Rd and Old Monterey Rd / Llagas Creek Dr
6	Extension of Llagas Creek Dr as a 2-lane collector between Hale Ave and Monterey Rd
7	Realignment of Old Monterey Rd to intersect with Llagas Creek Dr extension
8	Dunne Ave widened to a 4-lane arterial between Monterey Rd and Del Monte Ave
9	Modifications to intersection control and access at San Pedro Ave and Monterey Rd
10	Realignment of DeWitt Ave as a 2-lane arterial with Sunnyside Ave
11	Extension of Mission View Dr as a 2-lane collector between Cochrane Rd and Vista del Lomas Ave
12	Mission View Dr upgraded to a 2-lane multi-modal arterial between Cochrane Rd and Half Rd
13	Extension of Murphy Ave/Mission View Dr as a 2-lane multi-modal arterial between Half Rd and Diana Ave
14	Cochrane Rd widened to a 6-lane arterial between Monterey Rd and Mission View Dr
15	Main Ave widened to a 4-lane arterial between Depot St and Butterfield Blvd
16	Watsonville Rd widened to a 4-lane arterial between La Alameda and Monterey Rd
17	Extension of Serene Dr as a 2-lane collector between Jarvis Dr and Central Ave
18	Extension of McKevly Lane as a 2-lane collector between West Edmundson Ave and La Crosse Dr
19	Tennant Ave widened to a 6-lane arterial between US 101 and Butterfield Blvd
20	Extension of Hill Rd/Peet Rd as a 2-lane collector between Half Rd and Main Ave

Source: City of Morgan Hill General Plan Circulation Element Network and Policy Revisions Transportation Impact Analysis, prepared by Fehr & Peers Transportation Consultants, July 2009.

Model Applications

The MH model is an effective tool for predicting future travel patterns based on current travel behavior. The model helps estimate the city's transportation needs by analyzing data related to travel demand. Examples of model applications are:

- Long-range planning transportation planning studies
- Circulation Elements of General Plans and Specific Plans
- Corridor studies to determine appropriate modes and sizing of facilities.
- Impact fee studies to determine the proportional use of transportation facilities by different types of development.
- Intersection turning movements (adjusted) to determine future levels of service.
- Vehicle Miles Traveled computation and analysis as required by SB 743.
- Transportation impact analysis of large land use development proposals.

Figure 1
TAZs with Adjusted Land Use Exceeding Planned GP Land Use

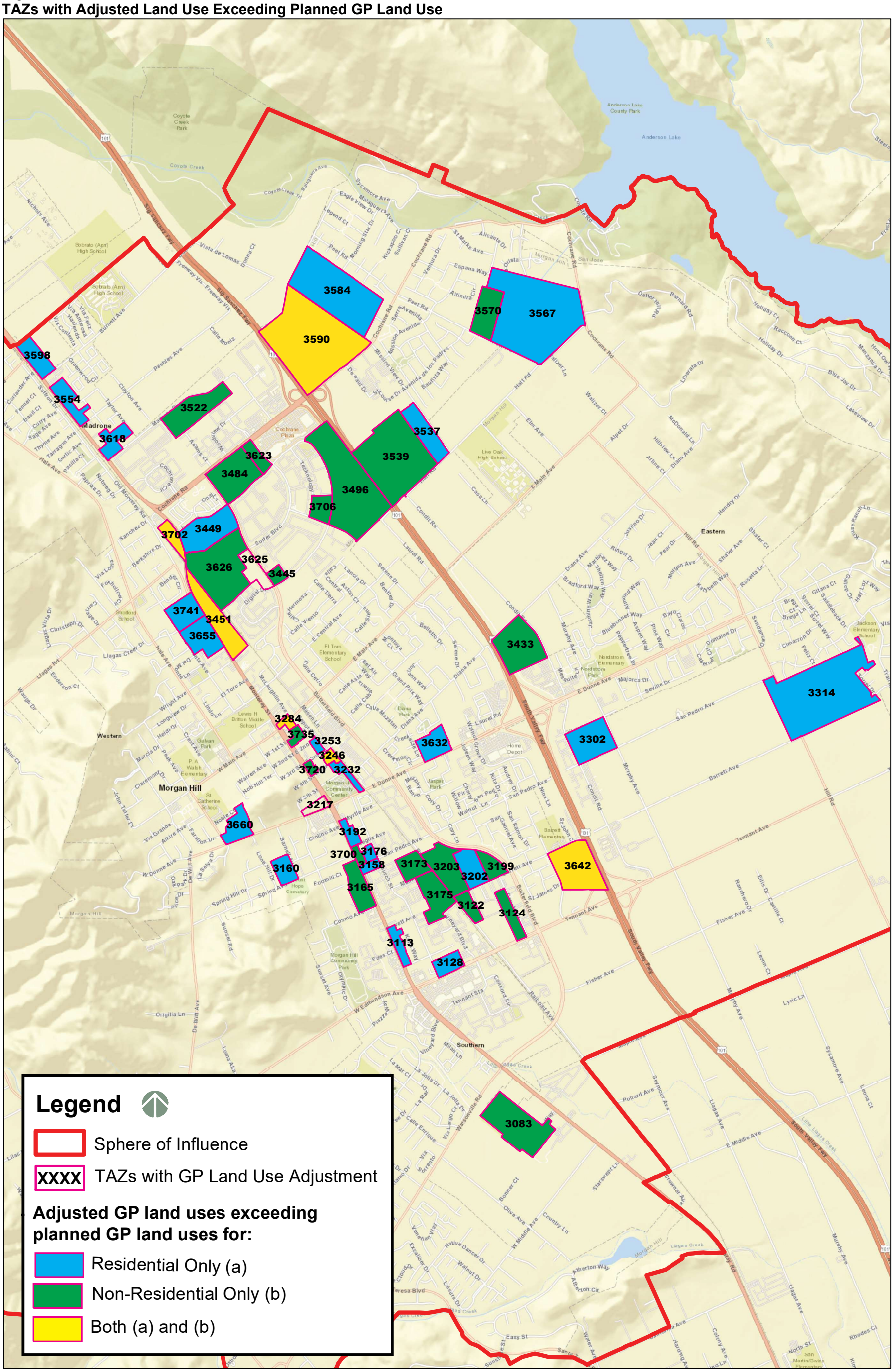
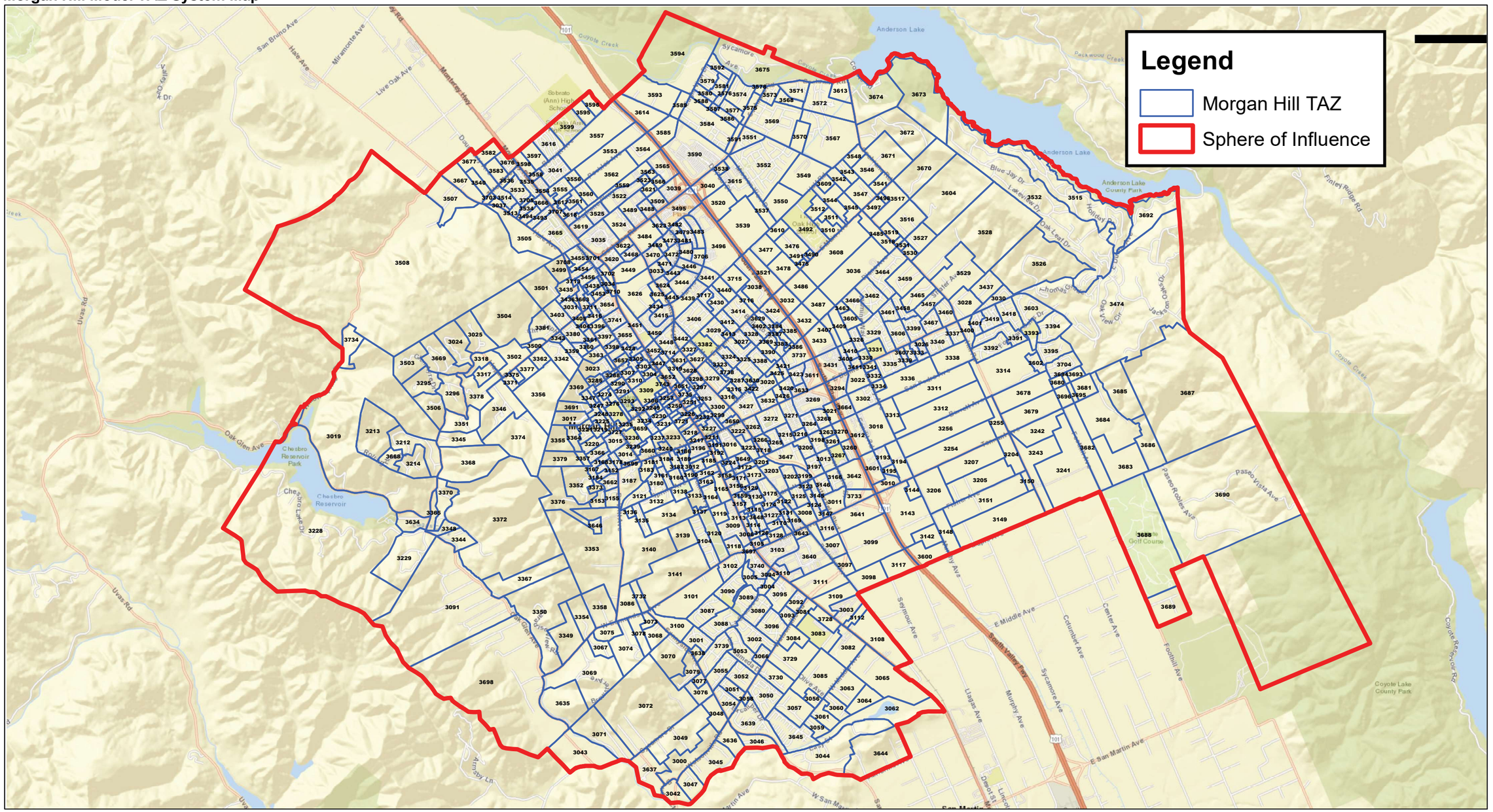


Figure 2
Morgan Hill Model TAZ System Map



Attachments

LAND-USE MONITORING WORKSHEET

Member Agency: City of Morgan Hill

Monitoring Period: July 1, 2015 to June 30, 2016

APN*	PROJECT DATA	TAZ**	LAND USE***	WERE JOBS LOST?	NUMBER OF DWELLING UNITS			NUMBER OF COMMERCIAL/INDUSTRIAL SQUARE FEET		
	(Address/Intersection/Crossstreets)	Number	Class	Y/N	Approved	Removed	Net	Approved	Removed	Net
72614070	17500 Depot Street	341	C4	N				4,303		
72614028	17490 Monterey Road (hotel and market hall)	341	C6/C4	N	60			67,940	20,595	47,345
72620053	605 E. Main Ave	327	R (Single Family)	N	12	1	11			
76411003	betw. Monterey Rd and Del Monte Ave (Solera Ranch)	343	R (Single Family)	N	76					
81703003	e/s Monterey Rd and w/s Keith Way, north of Edmundson Ave	345	R (Multi Family)/C1	N	19			1,000		
76709029	sw/c Ciolino Ave and Monterey Rd	346	R (Multi Family)	N	8					
81701031	s/s E. Dunne Ave, betw. Monterey Rd and Church St	345	R (Multi Family)	N	14					
72855017	s/s Altimira Cir., ely. Of Mission Avenida	333	R (Single Family)	N	7					
72837077	Cochrane Commons Shopping Center (Dick's Sporting Goods)	334	C3	N				35,000	8,649	26,351
72614001	nw/c E Third St and Depot St (mixed-use)	341	R (Multi Family)/C4	Y	29			8,464	20,050	-11,586
72836013	n/s Cochrane Rd, nly of north terminus of Mission View Dr	334	R (Single Family)	N	135					
72613028	se/c Monterey Rd and Third St	341	C4	N				12,025	2,002	10,023
72918016	16325 Jackson Oaks Dr	353	R (Single Family)	N	1					
81701001	nw/c Church St and San Pedro Ave	345	R (Single Family)	N	12					
72614059	e/s Depot St. south of Main Ave	341	C4	N				2,532	2,532	0
72635030	18890 Butterfield Bl (mini-storage)	332	M3	N				45,820		

Project Lists Received from the City of Morgan Hill

FY 16-17 Monitoring and Conformance Report
Attachment B

LAND-USE MONITORING WORKSHEET

Member Agency: City of Morgan Hill

Monitoring Period: July 1, 2016 to June 30, 2017

APN*	PROJECT DATA	TAZ**	LAND USE***	WERE JOBS LOST?	NUMBER OF DWELLING UNITS			NUMBER OF COMMERCIAL/INDUSTRIAL SQUARE FEET		
	(Address/Intersection/Crossstreets)	Number	Class	Y/N	Approved	Removed	Net	Approved	Removed	Net
726-07-089 and -021	Southeast corner of Diana and Walnut Grove	358	R	N						
same as above	same as above	same	M2	N						
817-02-050	191 Mast St.	349	M1	N				22,530	0	22,530
817-01-005 and -006	16770 Monterey Rd	345	C1	N				3,012	0	3,012
728-11-026	Dunne Avenue and Hill Road	352	R (Single Family)	N	7	0	7			
726-23-008	Monterey-Gunter (17620 Monterey Rd)	340	R (12 Single Family, 3 Multi Family)	N	15	0	15			
same as above	same as above	same	C1	N				6,000	0	6,000
773-08-064	Dewitt-VanDaele (16855 Dewitt Ave)	344	R (Single Family)	N	4	1	3			
728-37-024	Cochrane-Browman (1107 Cochrane Rd)	334	C3	N				4,990	0	4,990
817-19-044	Dunne-Busk (1390 E. Dunne Ave at Murphy Ave)	347	R (Single Family)	N	14	2	12			
726-25-062 & 063	North east corner of Butterfield Blvd and Jarvis Dr.	336	M3	N				92,181		
767-03-017	17090 Peak Ave	325	Residential Care Facility	N	47					
817-57-049	Butterfield Blvd, North of Barrett Ave.	348	Residential Care Facility	N	67		67			
726-13-044; -032, -054	Depot/3rd & 4th Street	341	R (Multi Family)	N	83	0	83			
same as above	same as above	same	C4	N				8,051		
same as above	same as above	same	C5	N					340	
same as above	same as above	same	M3	N					12,500	

Project Lists Received from the City of Morgan Hill

FY 16-17 Monitoring and Conformance Report
Attachment B

APN*	PROJECT DATA	TAZ**	LAND USE***	WERE JOBS LOST?	NUMBER OF DWELLING UNITS			NUMBER OF COMMERCIAL/INDUSTRIAL SQUARE FEET		
	(Address/Intersection/Crossstreets)	Number	Class	Y/N	Approved	Removed	Net	Approved	Removed	Net
767-08-035 through -038	35 through 59 W. Dunne Ave	342	R (Single Family)	N	14	2	12			
817-12-009	NW corner of Murphy Ave & San Pedro Dr	347	R (Single Family)	N	74	0	74			
817-12-006	NE corner of San Pedro Ave & Condit Rd	347	R (Multi Family)	N	182	0	182			
767-07-047	17395 Monterey Road	342	C4	N				10,000	4,200	10,000
726-14-013, 726-14-014	SE corner of Monterey Rd & 2nd St	342	C4	N				3,258		3,258

Project Lists Received from the City of Morgan Hill

FY 17-18 Monitoring and Conformance Report
Attachment B

LAND-USE MONITORING WORKSHEET

Member Agency: City of Morgan Hill

Monitoring Period: July 1, 2017 to June 30, 2018

Notes	APN*	PROJECT DATA	TAZ**	LAND USE***	WERE JOBS LOST?	NUMBER OF DWELLING UNITS			NUMBER OF COMMERCIAL/INDUSTRIAL SQUARE FEET		
		(Address/Intersection/Crossstreets)	Number	Class	Y/N	Approved	Removed	Net	Approved	Removed	Net
1	~~726-35-029~~	~~Butterfield Blvd/Madrone Parkway~~	~~332~~	~~M4~~	~~N~~	~~0~~	~~0~~	~~0~~	~~31,172~~	~~0~~	~~31,172~~
2	817-36-032 & -033	16800 - 16840 Monterey Rd at Bisceglia Ave	345	R (Multi Family)	N	39	5	34	0	0	0
3	728-37-074	1027 Cochrane Commons	334	C2	N	0	0	0	10,000	0	10,000
4	817-34-034	16695 Condit Rd	347	M3	N	0	0	0	4,900	0	4,900
~~5~~	~~726-23-008~~	~~17620 Monterey Rd~~	~~340~~	~~R~~	~~N~~	~~15~~	~~0~~	~~15~~	~~3,000~~	~~0~~	~~3,000~~
6	817-05-065	16250 Vineyard Bl	349	M3	N	0	0	0	17,587	0	17,587
7	~~767-13-032, 044, -054~~	~~90 E. Third/91 E. Fourth St.~~	~~341~~	~~R~~	~~N~~	~~82~~	~~0~~	~~0~~	~~8,051~~	~~0~~	~~8,051~~
8	767-03-017	17090 Peak Ave	325	P2	N	0	0	0	23,531	0	23,531
9	728-34-008	northerly of Peet Rd, betw. Half Rd and Mission Avenida	333	M3	N	0	0	0	21,600	0	21,600
10	~~773-32-013~~	~~1110 Llagas Road~~	~~356~~	~~R~~	~~N~~	~~3~~	~~0~~	~~3~~	~~0~~	~~0~~	~~0~~
11	726-02-014	505 E. Dunne Avenue	358	R (Single Family)	N	32	1	31	0	0	0
12	~~726-14-070~~	~~17500 Depot St.~~	~~341~~	~~C4~~	~~N~~	~~0~~	~~0~~	~~0~~	~~5,211~~	~~0~~	~~0~~
13	~~767-23-030~~	~~nw/c Monterey Rd and Watsonville Rd~~	~~337~~	~~R~~	~~N~~	~~37~~	~~0~~	~~0~~	~~0~~	~~0~~	~~0~~
14	767-07-057	17535 Monterey Rd	342	C4	N	0	0	0	1,414	0	0
15	779-04-073	105 John Wilson Way	351	P1	N	0	0	0	56,650	0	0

Notes: Project Manager / File No. / Approval Date

1 Joey D. SR2018-0015. Approved 7/10/18. Save for next annual report
2 Sheldon AS. SR2017-0016 approved 3/13/18
3 Rick S. SR2017-0013 approved 11/8/17
4 Rich B. SR2018-0002 approved 4/10/18. Maintenance Building associated with Pan Pacific RV. Unsure about Land Use Class.
5 Rick S. SD2017-0001, approved on 8/2/2017. Associated Design Permit SR2016-0017 approved 6/8/17; reported in previous annual report.
6 Rick S. SR2016-0023 approved 7/26/17. Mostly warehouse; some office.
7 Terry L. SR2017-0004, approved 3/28/17. Sunsweet Mixed-Use. Reported in previous annual report.
8 Jim R. SR-15-04 approved 9/21/17. 84-bed residential care facility. Unsure about Land Use Class.
9 Jim R. SR2016-0018 approved 10/5/17. Warehouse building for SCVWD facility
10 Tiffany B. SD2017-0002 approved 11/7/2018. Save for next annual report.
11 Terry L. SD2016-0009 approved 3/27/18 / SR2018-0001 approved 5/3/18. Kyono/Los Colinas residential subdivision.
12 Tiffany B. SR2018-0014, approved on 11/2/18. Save for next annual report.
13 Rick S. SR2016-0019, approved on 7/5/18. Save for next annual report.
14 Terry L. SR2018-0007 approved on 6/21/18. Legalize addition to existing restaurant.
15 Rick S. SR2017-0009, approved on 1/30/18. 21,000sf gynasium and 35,650sf liberal arts building associated with Oakwood School.

FY18-19 Monitoring and Conformance Report
Attachment B

LAND-USE MONITORING WORKSHEET

Member Agency: City of Morgan Hill

Monitoring Period: July 1, 2018 to June 30, 2019

APN*	PROJECT DATA	TAZ**	LAND USE***	WERE JOBS LOST?	NUMBER OF DWELLING UNITS			NUMBER OF COMMERCIAL/INDUSTRIAL SQUARE FEET		
	(Address/Intersection/Crossstreets)	Number	Class	Y/N	Approved	Removed	Net	Approved	Removed	Net
728-17-034	Condit Rd/Diana Av/E Dunne Ave	338	C3	N	0	0	0	36,662	0	36,662
764-10-008	18625 Monterey Rd	335	C1	N	0	0	0	3,000	0	3,000
764-09-004	280 Tilton Av	335	R (Single Family)	N	1	0	1	0	0	0
726-30-012	755 Jarvis Dr	336	M3	N	0	0	0	503,400	0	503,400
726-14-070	17500 Depot St	341	C4	N	0	0	0	5,211	0	5,211
726-35-029	Butterfield Blvd/Madrone Parkway	332	M1	N	0	0	0	31,172	0	31,172
726-44-005	18210 Butterfield Bl	336	M3	N	0	0	0	40,000	0	40,000
767-180-25	171 W Edmundson Av	346	O2	N	0	0	0	3,640	0	3,640
817-29-027	16015 Caputo Dr	348	C1	N	0	0	0	5,370	0	5,370
726-31-038	18420 Technology Dr	340	M3	N	0	0	0	47,000	0	47,000
773-32-013	1110 Llagas Rd	356	R (Single Family)	N	3	0	3	0	0	0
767-23-030	nw/c Monterey Rd and Watsonville Rd	337	R (Single Family)	N	37	0	37	0	0	0
764-24-061	18755 Old Monterey Rd	335	R (Single Family)	N	6	0	6	0	0	0

LAND-USE MONITORING WORKSHEET

Member Agency: City of Morgan Hill

Monitoring Period: July 1, 2019 to June 30, 2021

APN*	PROJECT DATA	TAZ**	LAND USE***	WERE JOBS LOST?	NUMBER OF DWELLING UNITS			NUMBER OF COMMERCIAL/INDUSTRIAL SQUARE FEET		
	(Address/Intersection/Crossstreets)	Number	Class	Y/N	Approved	Removed	Net	Approved	Removed	Net
726-34-016 & 726-	440 & 480 Cochrane CL	332	M1	N	0	0	0	53,000	0	53,000
767-17-047	Cosmo Av/Monterey St	346	P1	N	0	0	0	28,547	0	28,547
817-32-057	16290 Railroad Av	348	M1	N	0	0	0	70,226	0	70,226
817-58-002	16500 Railroad Av	348	M3	N	0	0	0	20,400	0	20,400
726-25-046, -047,	Monterey Rd/Butterfield Blvd	336	M1	N	0	0	0	410,000	0	410,000
767-07-047	17395 Monterey Rd	342	C2	N	0	0	0	6,600	0	6,600
728-30-006 & 728-	1065 Half Rd	333	M1	N	0	0	0	501,314	0	501,314
767-04-010	17400 Peak Av	325	P4	N	0	0	0	1,575	0	1,575
817-02-001 & -025	16685 Church St	345	R (Senior Housing)	N	82	0	82	0	0	0
817-04-059	215 Tennant Av	349	R (Single Family)	N	16	0	16	0	0	0
764-32-025	18200 Christeph Dr	344	R (Single Family)	N	1	0	1	0	0	0
726-09-024	761 Dakota Dr	358	R (Single Family)	N	3	0	3	0	0	0
817-09-039	16130 Juan Hernandez Dr	348	R & P3	N	n/a	n/a	n/a	n/a	n/a	n/a
Same as above	Same as above	348	C1	N	n/a	n/a	n/a	n/a	n/a	n/a

FY 21-22 Monitoring and Conformance Report
Attachment B

LAND-USE MONITORING WORKSHEET

Member Agency: City of Morgan Hill

Monitoring Period: July 1, 2021 to June 30, 2022

APN*	PROJECT DATA	TAZ**	LAND USE***	WERE JOBS LOST?	NUMBER OF DWELLING UNITS			NUMBER OF COMMERCIAL/INDUSTRIAL SQUARE FEET		
	(Address/Intersection/Crossstreets)	Number	Class	Y/N	Approved	Removed	Net	Approved	Removed	Net
764-19-020	17705 Hale Ave	344	P3	N	0	0	0	4,912	0	4,912
726-36-059	1110 Monterey Rd	332	R (Multi Family)	N	249	0	249	0	0	0
767-11-030	335 Spring Ave	346	R (Single Family)	N	22	0	22	0	0	0
764-12-006	17965 Monterey Rd	343	R (Multi Family)	N	66	0	66	0	0	0
728-34-030	VIA ORISTA/VIA SEBASTIAN	333	R (Single Family)	N	139	0	139	0	0	0
726-58-004	18595 Skipper Ln	336	C2	N	0	0	0	2,328	0	2,328
817-06-059	RAILROAD AVE/TENNANT AVE	354	M2	N	0	0	0	4,500	0	4,500
728-34-001	18300 Peet Rd	333	C5	N	0	0	0	3,901	0	3,901
817-09-041	BARRETT AVE/JUAN HERNANDEZ DR	348	R (Single Family)	N	120	0	120	0	0	0

FY 22-23 Monitoring and Conformance Report
Attachment B

LAND-USE MONITORING WORKSHEET

Member Agency: City of Morgan Hill

Monitoring Period: July 1, 2022 to June 30, 2023

APN*	PROJECT DATA	TAZ**	LAND USE***	WERE JOBS LOST?	NUMBER OF DWELLING UNITS			NUMBER OF COMMERCIAL/INDUSTRIAL SQUARE FEET		
	(Address/Intersection/Crossstreets)	Number	Class	Y/N	Approved	Removed	Net	Approved	Removed	Net
817-11-077	810 East Dunne Ave	348	C1	N	0	0	0	10,458	8,000	2,458
728-30-001	1105 Half Road	333	R (Single Family)	N	269	1	268	0	0	0
728-30-002	same as above	same	R (Single Family)	N	0	0	0	0	0	0
728-30-004	same as above	same	R (Single Family)	N	0	0	0	0	0	0
728-30-014	same as above	same	R (Single Family)	N	0	0	0	0	0	0
726-42-001	19380 Monterey Rd	332	R (Single Family)	Y	93	0	93	0	9,000	-9,000
726-42-002	same as above	same	R (Single Family)	Y	0	0	0	0	0	0
729-24-018	15860 Jackson Oaks Dr	353	R (Single Family)	N	3	0	3	0	0	0
767-16-044	16625 Del Monte Ave	346	R (Single Family)	N	2	1	1	0	0	0
726-34-016	440 Cochrane Circle	332	C5	N	0	0	0	7,705	0	7,705
817-30-080	Northwest corner of Barrett Avenue and Butterfield Blvd	348	P1	N	0	0	0	8,420	0	8,420
773-08-016	16775 De Witt Ave	344	R (Single Family)	N	1	0	1	0	0	0

Project Lists Received from the City of Morgan Hill

Residential Approved and Pending Projects

Project Name	File Reference Number	Status	Date of Approval	Land Use Type	# of Units	Project Size	TIA?	Traffic MM?	Trip Gen	AM	PM	Links
Borello Ranch, Phase 3 & 4	SR2021-011; EA2021-0009	Under Construction	1/24/22	Residential - SF	114	122 acres	Yes	No	3255	248	324	https://www.morganhill.ca.gov/2187/Borello-Ranch-Estates-Cochrane-Toll-Brot
Cochrane Commons Phase 2	GPA2021-0004, ZA2019-0003, EA2021-0010	Approved	11/2/23	Mixed Use (Commercial Residential - SF & MF)	498	135,000 sf of retail, 140 room hotel	Yes	Yes	12048	221	993	https://www.morganhill.ca.gov/2069/Cochrane-Commons-Phase-2
Crosswinds (Half - Dividend)	SD2020-0003; SR2020-0010; EA2020-0007	Approved	6/21/23	Residential - SF	269	31 acres	Yes	Yes	2539	199	98	https://www.morganhill.ca.gov/2042/Crosswinds-Half-Dividend
DeNova Homes (Monterey - Kerley)	SR201-0014; SD2021-0004; EA2021-0012	Under Construction	2/16/22	Residential - SF	93	4.6 acres	Yes	No		68	90	https://www.morganhill.ca.gov/2263/DeNova-Homes-Monterey-Kerley
Edes - Alcini (TTLC Morgan Hill)	SD2022-0001; SR2022-0001; EA2022-0001	Approved	9/12/23	Residential - SF	21	1.1 acres	Yes	No	114	8	9	https://www.morganhill.ca.gov/2418/Edes-Alcini-TTLC-Morgan-Hill
The Gates (Monterey - City Ventures)	SD2021-0006; SR2023-0010; EA2021-0016	Approved	10/24/23	Mixed Use (Commercial/Residential - SF)	454 (49 res, 5 com)	3.82 acres; 4000 sf of commercial	Yes	No		55	92	https://www.morganhill.ca.gov/2260/The-Gates-Monterey-City-Ventures
Jasper (Monterey-Trumark)	SD2019-0004, SR2020-0026, EA2019-0019	Under Construction	3/18/20	Mixed Use (Commercial/Residential - MF)	101	5.67 acres; 2400 sf commercial	Yes	Yes	1094	77	106	https://www.morganhill.ca.gov/1978/Jasper-Monterey-Trumark
Jemcor (Monterey-Miner)	SR2020-0027, EA2020-002(	Under Construction	10/26/21	Residential - SF	249	7.5 acres	Yes	Yes		84	107	https://www.morganhill.ca.gov/2096/Jemcor-Monterey-Miner
The Lumberyard (Depot-Latala)	GPA2018-0005, ZA2018-0004, SD2018-0007, SR2019-0003, EA2018-0013	Under Construction	10/2/19	Mixed Use (Commercial/Residential - MF)	49	5000 sf commercial office	Yes	Yes	320	25	32	https://www.morganhill.ca.gov/2230/The-Lumberyard-Depot-Latala
Magnolias (Monterey-First Community Housing)	SR2021-0005, UP2021-0006, EA2021-0005	Processing Entitlements		Residential - MF	66	1.5 acres	Yes	No		23	30	https://www.morganhill.ca.gov/2142/Magnolias-Monterey-First-Community-Housi
Manzanita Park	SD2020-0007, SR2020-0017, EA2020-0014	Approved	3/22/22	Residential - SF	67	5.83 acres	Yes	Yes		52	69	https://www.morganhill.ca.gov/2074/Manzanita-Park
Morgan Hill Senior Housing	SR2020-005, EA2020-0003	Under Construction	9/22/20	Residential - MF	82	1.89 acres	Yes	No		16	21	https://www.morganhill.ca.gov/2016/Morgan-Hill-Senior-Housing
Monterey-Posada (AMG-SB35)	SR2022-0022	Processing	N/A	Residential - MF	199	1.89 acres	N/A	N/A	N/A	N/A	N/A	https://www.morganhill.ca.gov/2114/Monterey-Posada-AMG-SB35
New Horizons (Hill-Morgan Hill Devco, LLC)	ZA2021-0001, SD2021-0003, EA2018-0016	Processing Entitlements	N/A	Residential - SF	320	69.43 acres	Yes	N/A	3174	248	330	https://www.morganhill.ca.gov/2041/New-Horizons-Hill-Morgan-Hill-Devco-LLC
Rosewood (Lillian Commons)-Residential	SD2021-0005, SR2022-0002, VAR2022-0003	Under Construction	6/22/22	Residential - SF	120	19.67 acres	Yes	Yes	3884	313	327	https://www.morganhill.ca.gov/2318/Rosewood-Lillian-Commons-Residential
Royal Oak Village (Watsonville-Hordness)	SD2020-0008, SR2020-0023, EA2020-0016	Under Construction	8/24/21	Residential - MF	73	7.64 acres	Yes	Yes		25	33	https://www.morganhill.ca.gov/2082/Royal-Oak-Village-Watsonville-Hordness
Sabini Court	AAE2020-0001 (SD2017-0002), SR2018-0025, EA2017-0016	Under Construction	6/16/20	Residential - SF	4	4.48 acres	No	No	N/A	N/A	N/A	https://www.morganhill.ca.gov/2020/Sabini-Court
Spring-Giancola	SD2020-0010, SR2020-0028	Processing Building Permits	10/12/21	Residential - SF	23	2.7 acres	No	No	N/A	N/A	N/A	https://www.morganhill.ca.gov/2228/Spring-Giancola
Tennant Square (Tennant-Osito)	SD2020-0005, EA2020-0011, SR2020-0014	Processing Building Permits	4/13/21	Residential - SF	16	0.99 acres	No	No	N/A	N/A	N/A	https://www.morganhill.ca.gov/2066/Tennant-Square-Tennant-Osito
Vida (Butterfield Village Apartments)	SR2019-0015, DA2017-0002, ZA-15-12	Under Construction	3/3/20	Residential - MF	389	19.5 acres	Yes	Yes	2727	209	254	https://www.morganhill.ca.gov/1959/Vida-Butterfield-Village-Apartments
Peak Avenue Residential Care Fac	UP2020-0009, SR2020-0026, EA2020-0018	Approved	7/25/2023	Residential - MF	54	18,700 sf	No	No	N/A	N/A	N/A	https://www.morganhill.ca.gov/2319/Peak-Avenue-Residential-Care-Facility-Pe

Project Lists Received from the City of Morgan Hill

Commercial/Industrial/Public Facilities Approved and Pending Projects

Project Name	File Reference Number	Status	Date of Approval	Land Use Type	Project Acreage	Project Size	TIA?	Traffic MM?	Trip Gen	AM	PM	Links
AU Energy Gas Station	SR2018-0012, AAE2019-0001, EA2019-0007	Processing Building Permits	3/28/2023	Commercial	1.07	5,007-square-foot (sf) convenience store, a 2,789-sf fueling canopy featuring four fuel dispensers to serve eight vehicles, a 1,733-sf car wash tunnel, a 250-sf car wash equipment room, and a 679-sf storage area	Yes	No	903	62	86	https://www.morganhill.ca.gov/2364/AU-Energy-Gas-Station
Catalyst Kids	SR2022-0017, VAR2022-0005	Processing Building Permits	6/14/2022	Commercial	0.57	8420 sf	Yes	No		78	79	https://www.morganhill.ca.gov/2310/Catalyst-Kids
Chick-fil-A	UP2022-0007/SR2022-0024	Approved	11/15/2023	Commercial	1.63	5000 sf	Yes	No	1822	101	201	https://www.morganhill.ca.gov/2350/Chick-fil-A
Cochrane Commons (Phase 2)	GPA2021-0004, ZA2019-0003, EA2021-0010	Approved	11/2/2022	Mixed Use - Commercial/Residential	33.5	135,000 square feet of retail space; a 140-room hotel	Yes	Yes	12048	221	993	https://www.morganhill.ca.gov/2069/Cochrane-Commons-Phase-2
Cochrane Tech (Redwood Tech at 101)	SR2020-0029 through SR2020-0033, SD2020-0011	Under Construction	6/23/2021	Mixed Use - Commercial/Industrial	29	501,314 square feet of flexible industrial/commercial space	No	No	N/A	N/A	N/A	https://www.morganhill.ca.gov/2128/Cochrane-Tech-Redwood-Tech-at-101
Edes Gallery (Monterey-McCranie)	SR2020-0024 and EA2020-0017	Under Construction	12/16/2020	Commercial	0.11	6,600 sf	No	No	N/A	N/A	N/A	https://www.morganhill.ca.gov/2083/Edes-Gallery-Monterey-McCranie
Holiday Inn Express	SR2019-0020 and AAE2022-0006	Processing Building Permits	4/25/2023	Commercial	2.21	5-story, 114-room hotel totaling 67,070 square feet 73 room 67,940 square foot	Yes	Yes	10064	666	758	https://www.morganhill.ca.gov/2388/Holiday-Inn-Express
Hotel MOHI	ZA2022-0004, EA2022-0010, AAE2022-0004 (SR-16-01)	Under Construction	11/16/2022	Commercial	1.09	commercial building with restaurant, retail and hotel	Yes	No	104			https://www.morganhill.ca.gov/2336/Hotel-MOHI
Rosewood (Lillian Commons)-Medical Mixed	GPA2023-0002, AAE2022-0008, EA2022-0011	Processing Entitlements		Mixed Use - Commercial/Medical	9.61	275,000 sf	Yes					https://www.morganhill.ca.gov/1961/Rosewood-Lillian-Commons-Medical-Mixed-U
Shoe Palace Headquarters	SR2018 - 0013	Complete	12/18/2018	Industrial - Office	38.06	503,400 sf	Yes	No		205	195	https://www.morganhill.ca.gov/1960/Shoe-Palace-Headquarters
Silos Craft Cocktail Lounge/Restaurant	UP2023-0004	Approved	1/14/2023	Commercial	1.11	1464 sf	No	No	N/A	N/A	N/A	https://www.morganhill.ca.gov/2455/Silos-Craft-Cocktail-LoungeRestaurant
Techcon Headquarters	SR2022-0015, SR2019-0023, EA2019-0017	Under Construction	12/20/2022	Industrial - Office	3.34	53000 sf	Yes	Yes		16	16	https://www.morganhill.ca.gov/1963/Techcon-Headquarters
Voices Charter School	AAE2023-0001, SR2019-0032, EA2018-0024	Under Construction	5/9/2023	Public Facilities - School	2.02	28450 sf	Yes	Yes		593	340	https://www.morganhill.ca.gov/1962/Voices-Charter-School
West Hills Community Church	ZA2021-0003	Processing Entitlements		Public Facilities - Church	5.75	25325 sf						https://www.morganhill.ca.gov/2141/West-Hills-Community-Church
World Oil Gas Station	UP2021-0002, SR2021-0001, EA2021-0001	Processing Entitlements	12/5/2023	Commercial	0.5	2115 sf	Yes	No	286	150	168	https://www.morganhill.ca.gov/2225/World-Oil-Gas-Station
Zip Thru Express Car Wash (Caputo - Huang)	AAE2019-0006 (UP2017-0015), EA2017-0013	Under Construction	2019	Commercial	1.45	5370 sf	Yes	No		34	58	https://www.morganhill.ca.gov/1688/Zip-Thru-Express-Car-Wash-Caputo---Huang
Anaerobe Systems (Concord-Cox)	SR2021-0013/EA2021-0011	Processing Building Permits	5/17/2022	Industrial	1.41	4000 sf	No	No	N/A	N/A	N/A	https://www.morganhill.ca.gov/2298/Anaerobe-Systems-Concord-Cox
Butterfield Technology Park	SR2020-18 through SR2020-22	Under Construction	12/8/2020	Industrial	25	410000 sf	Yes	Yes	2727	209	254	https://www.morganhill.ca.gov/2087/Butterfield-Technology-Park
Railroad-Goyal	UP2019-0005, UP2020-0005	Processing Building Permits	5/26/2020	Industrial	2.66	21000 sf	No	No	15.6			https://www.morganhill.ca.gov/2018/Railroad-Goyal

Morgan Hill General Plan Land Use Adjustments

#	TAZ	APN	Project Data (Project Name/Address/Intersection/Cross Streets)	Occupied/Approved/Pending Projects: Residential Land Uses	Housing Units	Non-Residential Land Uses	1,000 Square Feet/Rooms/ Students	Status	Planned General Plan: Housing Units[1]	Retail & Service (ksf)[2]	Office (ksf)	Industrial [3] (ksf)	Public Facilities[4] (ksf)	Adjusted General Plan: Housing Units[1]	Retail & Service (ksf)[6]	Office (ksf)	Industrial[3] (ksf)	Public Facilities[4] (ksf)	Net (Adjusted - Planned) General Plan Land Use Adjustment: Housing Units[1]	Retail & Service (ksf)[6]	Office (ksf)	Industrial[3] (ksf)	Public Facilities[4] (ksf)
	Adjusted TAZ																						
1	3083	779-04-073	105 John Wilson Way			Educational	303	Occupied	35					35									
2	3113	81703003	e/s Monterey Rd and w/s Keith Way, north of Edmundson Ave	Multi Family	19	Neighborhood, community retail	1	Occupied	19	33	7			20	33	6			1		-1		
3	3122	817-32-057	16290 Railroad Av			Manufacturing	70	Occupied			1	24					84				-1	60	
4	3124	817-29-027	Zip Thru Express Car Wash (1 stall)			Neighborhood, community retail	5	Approved/Pending				117			5		117			5			
5	3128	817-04-059	215 Tennant Av (Tennant Square)	Single Family	16			Approved/Pending	38			20		54			20		16				
6	3158	817-02-001 & -025	16685 Church St (Morgan Hill Senior Housing)	Senior Housing	82			Approved/Pending	21	2	1			82	1				61	-1	-1		
7	3160	767-11-030	335 Spring Ave	Single Family	23			Approved/Pending	38					61					23				
8	3165	767-17-047	Cosmo Av/Monterey St (504 Students)			Educational	504	Approved/Pending	77	10	2			77	10	2							
9	3173	81702050	191 Mast St.			Manufacturing	23	Occupied			1	50					67				-1	17	
10	3175	817-05-065	16250 Vineyard Bl			Non-manufacturing	18	Occupied			2	84				2	88					4	
11	3176	81701001	nw/c Church St and San Pedro Ave	Single Family	12			Occupied	11					14					3				
12	3192	817-36-032 & -033	16800 - 16840 Monterey Rd at Bisceglia Ave	Multi Family	34			Occupied	23	7				36	7				13				
13	3199	817-30-080	Catalyst Kids			Educational	100	Approved/Pending	137					137									
14	3202	81757049	Butterfield Blvd, North of Barrett Ave.	Senior Housing	67			Occupied		23	16	22		67	23	16	22		67				
15	3203	817-58-002	16500 Railroad Av			Non-manufacturing	21	Approved/Pending	24		1	115		24		1	126					11	
16	3217	76708035 through 038	35 through 59 W. Dunne Ave	Single Family	12			Occupied	34	2	3			16	2	3			-18				
17	3232	72613049	The Lumberyard (Depot-Latala)	Multi Family	48	Neighborhood, community retail	3	Approved/Pending	40	6	2			61	6				21	1	-2		
18	3246	72613044; 032, 054	Depot/3rd & 4th Street	Multi Family	83	Downtown retail	8	Occupied	23	2	1	7		83	8		7		60	6	-1		
19	3253	72614001	nw/c E Third St and Depot St (mixed-use)	Multi Family	29	Downtown retail	-12	Occupied	14	20				29	8				15	-12			
20	3284	72623008	Monterey-Gunter (17620 Monterey Rd)	Single Family	15	Neighborhood, community retail	6	Approved/Pending	10	10				17	16				7	6			
21	3302	81712009	NW corner of Murphy Ave & San Pedro Dr	Single Family	74			Occupied	169					256					87				
21	3302	81712006	NE corner of San Pedro Ave & Condit Rd	Single Family	182			Occupied															
22	3314	817-20-031	New Horizons (Hill-Morgan Hill Devco, LLC)	Single Family	364			Approved/Pending	142					367					225				
23	3433	728-17-034	Condit Rd/Diana Av/E Dunne Ave			Regional retail center	37	Occupied		22	15				39	15				16			
24	3445	726-44-005	18210 Butterfield Bl			Non-manufacturing	40	Approved/Pending			2	19					40				-2	21	
25	3449	726-25-061	Vida (Butterfield Village Apartments)	Multi Family	389			Approved/Pending	245		16	144		389		16	144		144				
26	3451	726-25-006	Jasper (Monterey-Trumark) - Monterey Gateway	Multi Family	50			Occupied	129	5	4	4	18	301	4		4		172	-1	-4		-18
26	3451	726-25-006	Jasper (Monterey-Trumark) - Monterey Gateway	Multi Family	51	Neighborhood, community retail	4	Approved/Pending															
26	3451	726-25-001	Monterey-Posada (AMG-SB35)	Senior Housing	199			Approved/Pending															
27	3484	726-58-006	Holiday Inn Express			Hotel/Motel	114	Approved/Pending		93	62				151	62				57			
28	3496	726-30-012	755 Jarvis Dr			Non-manufacturing	503	Occupied		46	8	424			46	8	854					430	
29	3522	72635030	18890 Butterfield Bl (mini-storage)			Warehouse	46	Occupied			4	321					362				-4	41	
29	3522	726-35-029	Butterfield Blvd/Madrone Parkway			Manufacturing	31	Occupied															
30	3537	728-30-001	1105 Half Road (Crosswinds)	Single Family	268			Approved/Pending	152					268					116				
31	3539	728-30-006 & 728-30-009	1065 Half Rd (Cochrane Tech)			Manufacturing	501	Approved/Pending	193	9	9	76		1			501		-192	-9	-9	426	
32	3554	726-42-001	19380 Monterey Rd (DeNova Homes)	Single Family	93	Non-manufacturing	-9	Approved/Pending	10	22	1			103	22	1			93				
33	3567	728-34-030	VIA ORISTA/VIA SEBASTIAN	Single Family	139			Occupied	95					204					109				
34	3570	728-34-008	northerly of Peet Rd, betw. Half Rd and Mission Avenida			Non-manufacturing	22	Occupied									22					22	
35	3584	72836013	n/s Cochrane Rd, nly of north terminus of Mission View Dr	Single Family	135			Occupied	108					135					27				
36	3590	72837077	Cochrane Commons Shopping Center (Dick's Sporting Goods)			Regional retail center	26	Occupied	188	353	91			498	469				310	117	-91		
36	3590	728-37-074	1027 Cochrane Commons			Specialty, strip retail	10	Occupied															
36	3590	72837046	Cochrane Commons (Mission View)	Multi Family	498	Hotel/Motel	150	Approved/Pending															
36	3590	72837046	Cochrane Commons (Mission View)			Regional retail center	135	Approved/Pending															
37	3598	725-01-018	Manzanita Park	Multi Family	67			Approved/Pending	17	13	1			67	13	1			50				
38	3618	726-36-059	1110 Monterey Rd (Jemcor)	Multi Family	249			Approved/Pending	46	15				249	15				203				
39	3623	72632002	Chick-fil-A			Neighborhood, community retail	5	Approved/Pending		6	30				11	30				5			
40	3625	72625062 & 063	North east corner of Butterfield Blvd and Jarvis Dr.			Non-manufacturing	92	Approved/Pending			10	90					92				-10	2	
41	3626	726-25-046, -047, -059, & -068 through -073	Monterey Rd/Butterfield Blvd/Jarvis			Manufacturing	410	Approved/Pending	164		32	288		164		32	410					122	
42	3632	726-02-014	505 E. Dunne Avenue	Single Family	31			Occupied	137	7				168	7				31				
43	3642	817-09-041	BARRETT AVE/JUAN HERNANDEZ DR	Single Family	120	Hospital	275	Approved/Pending		104	60			120	275				120	171	-60		
44	3655	764-12-006	17965 Monterey Rd (Magnolias)	Multi Family	66			Approved/Pending	134	14	1	49		189	13		49		55	-1	-1		
45	3660	76703017	17090 Peak Ave	Senior Housing	47			Occupied	44					91					47				
46	3700	817-01-002	World Oil Gas Station			Neighborhood, community retail	19	Approved/Pending	5	8				1	27				-4	19			
47	3702	764-10-013	The Gates (Monterey - City Ventures)	Multi Family	49	Neighborhood, community retail	4	Approved/Pending		7	36			49	11	36			49	4			
48	3706	726-31-038	18420 Technology Dr			Non-manufacturing	47	Approved/Pending			2	71					99				-2	28	
49	3720	72613028	se/c Monterey Rd and Third St			Downtown retail	10	Occupied	14	5	9				14	8			-14	9	-1		
50	3735	72614028	17490 Monterey Road (hotel and market hall) - Hotel MOHI			Hotel/Motel	73	Approved/Pending	31	27				14	64				-17	37			
51	3741	76411003	betw. Monterey Rd and Del Monte Ave (Solera Ranch)	Single Family	76			Occupied	77					78					1				
			Total (Occupied + Approved and Pending Projects)		**3,587**		**3,595**		**2,644**	**871**	**429**	**1,924**	**18**	**4,525**	**1,301**	**239**	**3,108**		**1,881**	**430**	**-191**	**1,184**	**-18**

Morgan Hill General Plan Land Use Adjustments

#	TAZ	APN	Project Data (Project Name/Address/Intersection/Cross Streets)	Occupied/Approved/Pending Projects: Residential Land Uses	Housing Units	Non-Residential Land Uses	1,000 Square Feet/Rooms/ Students	Status	Planned General Plan: Housing Units[1]	Retail & Service (ksf)[2]	Office (ksf)	Industrial[3] (ksf)	Public Facilities[4] (ksf)	Adjusted General Plan: Housing Units[1]	Retail & Service (ksf)[6]	Office (ksf)	Industrial[3] (ksf)	Public Facilities[4] (ksf)	Net (Adjusted - Planned) General Plan Land Use Adjustment: Housing Units[1]	Retail & Service (ksf)[6]	Office (ksf)	Industrial[3] (ksf)	Public Facilities[4] (ksf)
Unadjusted TAZ																							
52	3211	81701031	s/s E. Dunne Ave, betw. Monterey Rd and Church St	Multi Family	14			Occupied	23	5				23	5								
53	3092	767-23-030	nw/c Monterey Rd and Watsonville Rd	Single Family	37			Occupied	45					45									
54	3035	726-34-016 & 726-34-017	440 & 480 Cochrane CL			Manufacturing	53	Occupied			7	134				7	134						
55	3341	81719044	Dunne-Busk (1390 E. Dunne Ave at Murphy Ave)	Single Family	12			Approved/Pending	15					15									
56	3009	767-18-046	Edes - Alcini (TTLC Morgan Hill)	Multi Family	21			Approved/Pending	55	77	27			55	77	27							
57	3081	779-04-075	Royal Oak Village (Watsonville-Hordness)	Multi Family	73			Approved/Pending	92	6	5			92	6	5							
			Total (Occupied + Approved and Pending Projects)		**157**		**53**		**230**	**88**	**39**	**134**	**0**	**230**	**88**	**39**	**134**	**0**	**0**	**0**	**0**	**0**	**0**

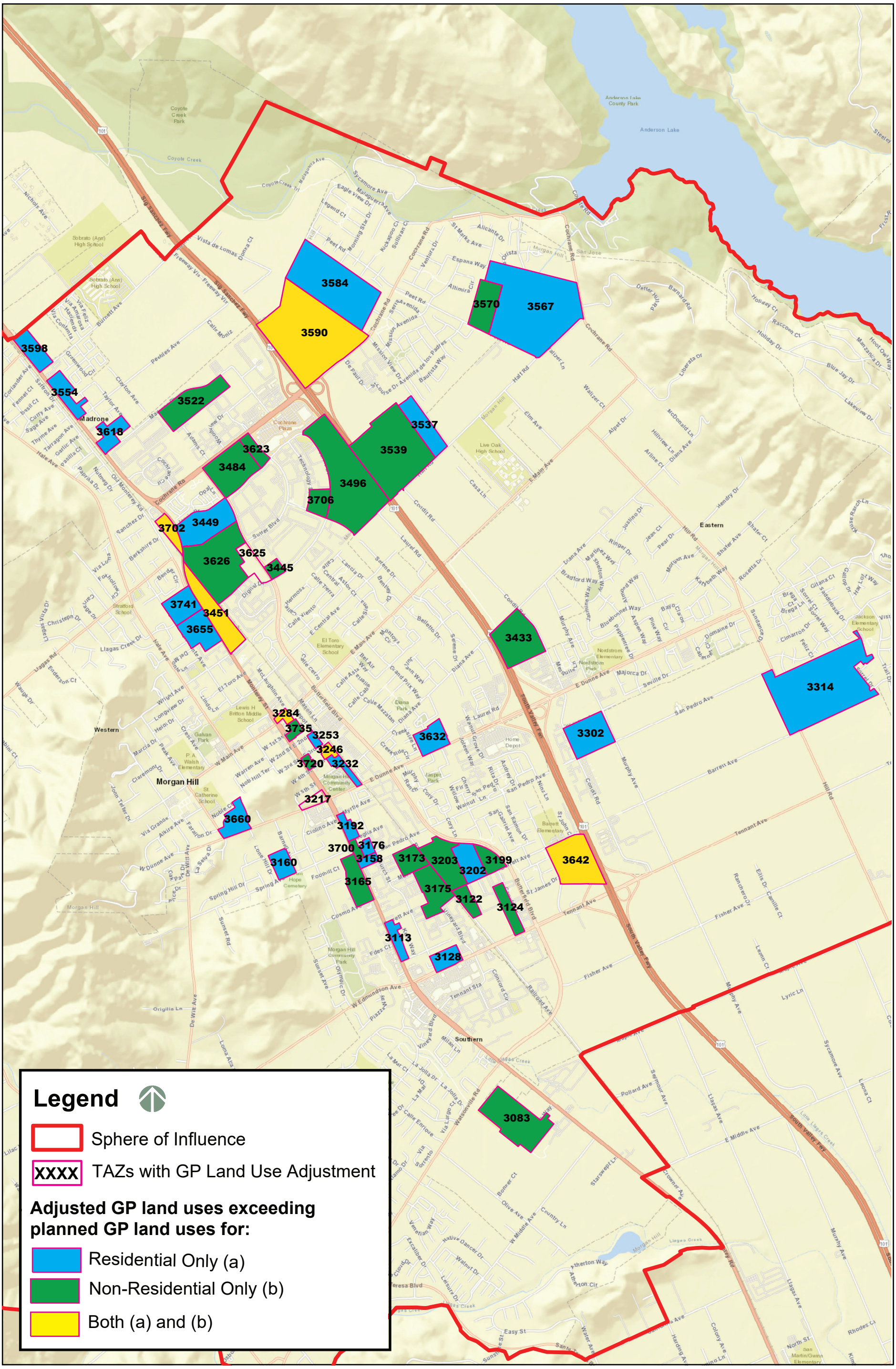
Notes:

[1]Include single-family, multi-family, and senior housing units

[2]Include retail, service commercial, and medical office space and hotel rooms assuming approximately 504 square feet per hotel room.

[3]Include industrial/research & development, automobile, and warehouse space

[4]Include public facilities with low and high trip generation.



TAZs with Adjusted Land Use Exceeding Planned GP Land Use

General Plan Land Use Adjustments for 51 TAZs

All TAZs																				Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	518	166	337	15	331	54	0	25	151	887	83	244	0	0	0	0	681	0	2,457	
(2) Occupied Projects	990	661	215	114	81	0	0	0	0	667	0	46	0	0	0	0	303	0	1,096	
(3) = Year 2023	1508	827	552	129	412	54	0	25	151	1554	83	290	0	0	0	0	984	0	3553	
(4) = Approved + Pending Projects	2597	899	1417	281	181	0	0	275	337	1102	0	0	0	0	0	604	0	0	2,499	
(5) = (3) + (4)	4105	1726	1969	410	593	54	0	286	488	2656	83	290	0	0	0	604	984	0	6038	
(6) = Planned 2035 GP	2644	605	2024	15	684	86	0	25	151	1680	429	244	0	18	0	0	710	0	4,028	
(7) = (5) - (6)	1461	1121	-55	395	-92	-32	0	261	337	976	-346	46	0	-18	0	604	274	0	2,010	
(8) = Adjusted 2035 GP	4525	1755	2360	410	703	66	0	286	488	2818	239	290	0	0	0	604	984	0	6478	
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	1881	1150	336	395	19	-20	0	261	337	1138	-191	46	0	-18	0	604	274	0	2,450	

1	TAZ = 3083																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	6	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	447	0	447	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	303	0	303	--
(3) = Year 2023	6	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	750	0	750	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	6	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	750	0	750	NO
(6) = Planned 2035 GP	35	33	2	0	0	0	0	0	0	0	0	0	0	0	0	0	526	0	526	--
(7) = (5) - (6)	-29	-29	0	0	0	0	0	0	0	0	0	0	0	0	0	0	224	0	224	--
(8) = Adjusted 2035 GP	35	33	2	0	0	0	0	0	0	0	0	0	0	0	0	0	750	0	750	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	224	0	224	--

2	TAZ = 3113																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	1	1	0	0	8	0	0	2	44	0	6	0	0	0	0	0	0	0	60	--
(2) Occupied Projects	19	0	19	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	--
(3) = Year 2023	20	1	19	0	9	0	0	2	44	0	6	0	0	0	0	0	0	0	61	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	20	1	19	0	9	0	0	2	44	0	6	0	0	0	0	0	0	0	61	YES
(6) = Planned 2035 GP	19	1	18	0	9	0	0	2	44	0	7	0	0	0	0	0	0	0	61	--
(7) = (5) - (6)	1	0	1	0	0	0	0	0	0	0	-1	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	20	1	19	0	9	0	0	2	44	0	6	0	0	0	0	0	0	0	61	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	1	0	1	0	0	0	0	0	0	0	-1	0	0	0	0	0	0	0	0	--

3	TAZ = 3122																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	14	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	70	0	0	0	0	0	0	0	0	70	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	84	0	0	0	0	0	0	0	0	84	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	0	0	0	0	0	0	0	0	0	84	0	0	0	0	0	0	0	0	84	YES
(6) = Planned 2035 GP	0	0	0	0	0	0	0	0	0	24	1	0	0	0	0	0	0	0	26	--
(7) = (5) - (6)	0	0	0	0	0	0	0	0	0	60	-1	0	0	0	0	0	0	0	59	--
(8) = Adjusted 2035 GP	0	0	0	0	0	0	0	0	0	84	0	0	0	0	0	0	0	0	84	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	60	-1	0	0	0	0	0	0	0	59	--

4	TAZ = 3124																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	117	0	0	0	0	0	0	0	0	117	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	117	0	0	0	0	0	0	0	0	117	--
(4) = Approved + Pending Projects	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	--
(5) = (3) + (4)	0	0	0	0	5	0	0	0	0	117	0	0	0	0	0	0	0	0	122	YES
(6) = Planned 2035 GP	0	0	0	0	0	0	0	0	0	117	0	0	0	0	0	0	0	0	117	--
(7) = (5) - (6)	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	--
(8) = Adjusted 2035 GP	0	0	0	0	5	0	0	0	0	117	0	0	0	0	0	0	0	0	122	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	--

5	TAZ = 3126																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	24	2	22	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	20	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	24	2	22	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	20	--
(4) = Approved + Pending Projects	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	40	18	22	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	20	NO
(6) = Planned 2035 GP	38	2	36	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	20	--
(7) = (5) - (6)	2	16	-14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	54	18	36	0	0	0	0	0	0	20	0	0	0	0	0	0	0	0	20	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	16	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

6	TAZ = 3158																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	--
(4) = Approved + Pending Projects	82	0	0	82	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	82	0	0	82	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	YES
(6) = Planned 2035 GP	21	0	21	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	4	--
(7) = (5) - (6)	61	0	-21	82	-1	0	0	0	0	0	-1	0	0	0	0	0	0	0	-3	--
(8) = Adjusted 2035 GP	82	0	0	82	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	61	0	-21	82	-1	0	0	0	0	0	-1	0	0	0	0	0	0	0	-3	--

General Plan Land Use Adjustments for 51 TAZs

7	TAZ = 3160																			
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	38	3	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	38	3	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	23	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	61	26	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	YES
(6) = Planned 2035 GP	38	3	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(7) = (5) - (6)	23	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	61	26	35	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	23	23	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

8	TAZ = 3165																			
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	38	0	38	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	38	0	38	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	504	0	0	504	--
(5) = (3) + (4)	38	0	38	0	8	0	0	0	0	0	0	0	0	0	0	504	0	0	512	NO
(6) = Planned 2035 GP	77	0	77	0	10	0	0	0	0	0	2	0	0	0	0	0	0	0	11	--
(7) = (5) - (6)	-39	0	-39	0	-2	0	0	0	0	0	-2	0	0	0	0	504	0	0	501	--
(8) = Adjusted 2035 GP	77	0	77	0	10	0	0	0	0	0	2	0	0	0	0	504	0	0	515	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	504	0	0	504	--

9	TAZ = 3173																			
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	41	0	3	0	0	0	0	0	0	44	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	23	0	0	0	0	0	0	0	0	23	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	64	0	3	0	0	0	0	0	0	67	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	0	0	0	0	0	0	0	0	0	64	0	3	0	0	0	0	0	0	67	YES
(6) = Planned 2035 GP	0	0	0	0	0	0	0	0	0	47	1	3	0	0	0	0	0	0	50	--
(7) = (5) - (6)	0	0	0	0	0	0	0	0	0	17	-1	0	0	0	0	0	0	0	16	--
(8) = Adjusted 2035 GP	0	0	0	0	0	0	0	0	0	64	0	3	0	0	0	0	0	0	67	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	17	-1	0	0	0	0	0	0	0	16	--

10	TAZ = 3175																			
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	70	0	0	0	0	0	0	0	0	70	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	18	0	0	0	0	0	0	0	0	18	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	88	0	0	0	0	0	0	0	0	88	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	0	0	0	0	0	0	0	0	0	88	0	0	0	0	0	0	0	0	88	NO
(6) = Planned 2035 GP	0	0	0	0	0	0	0	0	0	84	2	0	0	0	0	0	0	0	85	--
(7) = (5) - (6)	0	0	0	0	0	0	0	0	0	4	-2	0	0	0	0	0	0	0	2	--
(8) = Adjusted 2035 GP	0	0	0	0	0	0	0	0	0	88	2	0	0	0	0	0	0	0	89	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	4	--

11	TAZ = 3178																			
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	14	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	14	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	YES
(6) = Planned 2035 GP	11	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(7) = (5) - (6)	3	4	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	14	14	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	3	4	-1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

12	TAZ = 3192																			
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	2	2	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7	--
(2) Occupied Projects	34	0	34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	36	2	34	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	36	2	34	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7	YES
(6) = Planned 2035 GP	23	2	21	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7	--
(7) = (5) - (6)	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	36	2	34	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	13	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

13	TAZ = 3199																			
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	137	0	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	137	0	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	--
(5) = (3) + (4)	137	0	137	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	YES
(6) = Planned 2035 GP	137	0	137	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(7) = (5) - (6)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	--
(8) = Adjusted 2035 GP	137	0	137	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100	0	0	100	--

General Plan Land Use Adjustments for 51 TAZs

14 TAZ = 3202 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	13	--
(2) Occupied Projects	67	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	67	0	0	67	0	0	0	0	0	13	0	0	0	0	0	0	0	0	13	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	67	0	0	67	0	0	0	0	0	13	0	0	0	0	0	0	0	0	13	NO
(6) = Planned 2035 GP	0	0	0	0	21	2	0	0	0	22	16	0	0	0	0	0	0	0	62	--
(7) = (5) - (6)	67	0	0	67	-21	-2	0	0	0	-9	-16	0	0	0	0	0	0	0	-49	--
(8) = Adjusted 2035 GP	67	0	0	67	21	2	0	0	0	22	16	0	0	0	0	0	0	0	62	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	67	0	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

15 TAZ = 3203 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	24	24	0	0	0	0	0	0	0	40	0	65	0	0	0	0	0	0	105	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	24	24	0	0	0	0	0	0	0	40	0	65	0	0	0	0	0	0	105	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	21	--
(5) = (3) + (4)	24	24	0	0	0	0	0	0	0	61	0	65	0	0	0	0	0	0	126	NO
(6) = Planned 2035 GP	24	24	0	0	0	0	0	0	0	50	1	65	0	0	0	0	0	0	116	--
(7) = (5) - (6)	0	0	0	0	0	0	0	0	0	11	-1	0	0	0	0	0	0	0	10	--
(8) = Adjusted 2035 GP	24	24	0	0	0	0	0	0	0	61	1	65	0	0	0	0	0	0	127	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	11	--

16 TAZ = 3217 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	4	4	0	0	0	2	0	0	0	0	3	0	0	0	0	0	0	0	5	--
(2) Occupied Projects	12	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	16	16	0	0	0	2	0	0	0	0	3	0	0	0	0	0	0	0	5	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	16	16	0	0	0	2	0	0	0	0	3	0	0	0	0	0	0	0	5	YES
(6) = Planned 2035 GP	34	0	34	0	0	2	0	0	0	0	3	0	0	0	0	0	0	0	5	--
(7) = (5) - (6)	-18	16	-34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	16	16	0	0	0	2	0	0	0	0	3	0	0	0	0	0	0	0	5	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	-18	16	-34	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

17 TAZ = 3232 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	13	0	13	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	13	0	13	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	--
(4) = Approved + Pending Projects	48	0	48	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	3	--
(5) = (3) + (4)	61	0	61	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	YES
(6) = Planned 2035 GP	40	0	40	0	5	0	0	0	0	0	2	0	0	0	0	0	0	0	8	--
(7) = (5) - (6)	21	0	21	0	1	0	0	0	0	0	-2	0	0	0	0	0	0	0	-1	--
(8) = Adjusted 2035 GP	61	0	61	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	21	0	21	0	1	0	0	0	0	0	-2	0	0	0	0	0	0	0	-1	--

18 TAZ = 3246 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7	--
(2) Occupied Projects	83	0	83	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	--
(3) = Year 2023	83	0	83	0	8	0	0	0	0	0	0	7	0	0	0	0	0	0	15	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	83	0	83	0	8	0	0	0	0	0	0	7	0	0	0	0	0	0	15	YES
(6) = Planned 2035 GP	23	0	23	0	1	0	0	0	0	0	1	7	0	0	0	0	0	0	10	--
(7) = (5) - (6)	60	0	60	0	7	0	0	0	0	0	-1	0	0	0	0	0	0	0	5	--
(8) = Adjusted 2035 GP	83	0	83	0	8	0	0	0	0	0	0	7	0	0	0	0	0	0	15	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	60	0	60	0	7	0	0	0	0	0	-1	0	0	0	0	0	0	0	5	--

19 TAZ = 3253 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	--
(2) Occupied Projects	29	0	29	0	-12	0	0	0	0	0	0	0	0	0	0	0	0	0	-12	--
(3) = Year 2023	29	0	29	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	29	0	29	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	YES
(6) = Planned 2035 GP	14	0	14	0	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	--
(7) = (5) - (6)	15	0	15	0	-12	0	0	0	0	0	0	0	0	0	0	0	0	0	-12	--
(8) = Adjusted 2035 GP	29	0	29	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	8	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	15	0	15	0	-12	0	0	0	0	0	0	0	0	0	0	0	0	0	-12	--

20 TAZ = 3284 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	2	2	0	0	1	0	0	9	0	0	0	0	0	0	0	0	0	0	10	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	2	2	0	0	1	0	0	9	0	0	0	0	0	0	0	0	0	0	10	--
(4) = Approved + Pending Projects	15	15	0	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	--
(5) = (3) + (4)	17	17	0	0	7	0	0	9	0	0	0	0	0	0	0	0	0	0	16	YES
(6) = Planned 2035 GP	10	0	10	0	1	0	0	9	0	0	0	0	0	0	0	0	0	0	10	--
(7) = (5) - (6)	7	17	-10	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	--
(8) = Adjusted 2035 GP	17	17	0	0	7	0	0	9	0	0	0	0	0	0	0	0	0	0	16	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	7	17	-10	0	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	--

General Plan Land Use Adjustments for 51 TAZs

21 TAZ = 3302 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	256	256	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	256	256	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	256	256	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	YES
(6) = Planned 2035 GP	169	0	169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(7) = (5) - (6)	87	256	-169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	256	256	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	87	256	-169	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

22 TAZ = 3314 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	364	364	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	367	367	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	YES
(6) = Planned 2035 GP	142	142	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(7) = (5) - (6)	225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	367	367	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	225	225	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

23 TAZ = 3433 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	37	--
(3) = Year 2023	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	37	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	0	0	0	0	37	0	0	0	0	0	0	0	0	0	0	0	0	0	37	NO
(6) = Planned 2035 GP	0	0	0	0	20	2	0	0	0	0	15	0	0	0	0	0	0	0	37	--
(7) = (5) - (6)	0	0	0	0	16	-2	0	0	0	0	-15	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	0	0	0	0	37	2	0	0	0	0	15	0	0	0	0	0	0	0	53	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16	--

24 TAZ = 3445 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	40	--
(5) = (3) + (4)	0	0	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	40	YES
(6) = Planned 2035 GP	0	0	0	0	0	0	0	0	0	19	2	0	0	0	0	0	0	0	21	--
(7) = (5) - (6)	0	0	0	0	0	0	0	0	0	21	-2	0	0	0	0	0	0	0	19	--
(8) = Adjusted 2035 GP	0	0	0	0	0	0	0	0	0	40	0	0	0	0	0	0	0	0	40	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	21	-2	0	0	0	0	0	0	0	19	--

25 TAZ = 3449 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	389	0	389	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	389	0	389	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NO
(6) = Planned 2035 GP	245	0	245	0	0	0	0	0	0	144	16	0	0	0	0	0	0	0	160	--
(7) = (5) - (6)	144	0	144	0	0	0	0	0	0	-144	-16	0	0	0	0	0	0	0	-160	--
(8) = Adjusted 2035 GP	389	0	389	0	0	0	0	0	0	144	16	0	0	0	0	0	0	0	160	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	144	0	144	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

26 TAZ = 3451 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	1	1	0	0	0	0	0	0	0	4	0	0	0	0	0	0	234	0	238	--
(2) Occupied Projects	50	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	51	1	50	0	0	0	0	0	0	4	0	0	0	0	0	0	234	0	238	--
(4) = Approved + Pending Projects	250	0	51	199	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	--
(5) = (3) + (4)	301	1	101	199	4	0	0	0	0	4	0	0	0	0	0	0	234	0	242	YES
(6) = Planned 2035 GP	129	59	70	0	4	0	0	0	0	4	4	0	0	18	0	0	184	0	215	--
(7) = (5) - (6)	172	-58	31	199	-1	0	0	0	0	0	-4	0	0	-18	0	0	50	0	27	--
(8) = Adjusted 2035 GP	301	1	101	199	4	0	0	0	0	4	0	0	0	0	0	0	234	0	242	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	172	-58	31	199	-1	0	0	0	0	0	-4	0	0	-18	0	0	50	0	27	--

27 TAZ = 3484 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	114	0	0	0	0	0	0	0	0	0	114	--
(5) = (3) + (4)	0	0	0	0	0	0	0	0	114	0	0	0	0	0	0	0	0	0	114	NO
(6) = Planned 2035 GP	0	0	0	0	86	8	0	0	0	0	62	0	0	0	0	0	0	0	156	--
(7) = (5) - (6)	0	0	0	0	-86	-8	0	0	114	0	-62	0	0	0	0	0	0	0	-42	--
(8) = Adjusted 2035 GP	0	0	0	0	86	8	0	0	114	0	62	0	0	0	0	0	0	0	270	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	114	0	0	0	0	0	0	0	0	0	114	--

General Plan Land Use Adjustments for 51 TAZs

28	TAZ = 3498																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	92	351	0	0	0	0	0	0	0	0	443	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	503	0	0	0	0	0	0	0	0	503	--
(3) = Year 2023	0	0	0	0	0	0	0	0	92	854	0	0	0	0	0	0	0	0	946	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	0	0	0	0	0	0	0	0	92	854	0	0	0	0	0	0	0	0	946	NO
(6) = Planned 2035 GP	0	0	0	0	0	0	0	0	92	424	8	0	0	0	0	0	0	0	524	--
(7) = (5) - (6)	0	0	0	0	0	0	0	0	0	430	-8	0	0	0	0	0	0	0	422	--
(8) = Adjusted 2035 GP	0	0	0	0	0	0	0	0	92	854	8	0	0	0	0	0	0	0	955	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	430	0	0	0	0	0	0	0	0	430	--

29	TAZ = 3522																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	165	0	120	0	0	0	0	0	0	285	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	31	0	46	0	0	0	0	0	0	77	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	196	0	166	0	0	0	0	0	0	362	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	0	0	0	0	0	0	0	0	0	196	0	166	0	0	0	0	0	0	362	YES
(6) = Planned 2035 GP	0	0	0	0	0	0	0	0	0	201	4	120	0	0	0	0	0	0	325	--
(7) = (5) - (6)	0	0	0	0	0	0	0	0	0	-5	-4	46	0	0	0	0	0	0	37	--
(8) = Adjusted 2035 GP	0	0	0	0	0	0	0	0	0	196	0	166	0	0	0	0	0	0	362	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	-5	-4	46	0	0	0	0	0	0	37	--

30	TAZ = 3537																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	268	268	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	268	268	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	YES
(6) = Planned 2035 GP	152	0	152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(7) = (5) - (6)	116	268	-152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	268	268	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	116	268	-152	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

31	TAZ = 3539																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	501	0	0	0	0	0	0	0	0	501	--
(5) = (3) + (4)	1	1	0	0	0	0	0	0	0	501	0	0	0	0	0	0	0	0	501	YES
(6) = Planned 2035 GP	193	1	192	0	9	0	0	0	0	76	9	0	0	0	0	0	0	0	94	--
(7) = (5) - (6)	-192	0	-192	0	-9	0	0	0	0	426	-9	0	0	0	0	0	0	0	407	--
(8) = Adjusted 2035 GP	1	1	0	0	0	0	0	0	0	501	0	0	0	0	0	0	0	0	501	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	-192	0	-192	0	-9	0	0	0	0	426	-9	0	0	0	0	0	0	0	407	--

32	TAZ = 3554																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	0	0	0	0	0	14	0	0	15	0	0	0	0	0	0	0	0	0	29	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	0	14	0	0	15	0	0	0	0	0	0	0	0	0	29	--
(4) = Approved + Pending Projects	93	93	0	0	0	0	0	0	0	-9	0	0	0	0	0	0	0	0	-9	--
(5) = (3) + (4)	93	93	0	0	0	14	0	0	15	-9	0	0	0	0	0	0	0	0	20	NO
(6) = Planned 2035 GP	10	0	10	0	1	14	0	0	15	0	1	0	0	0	0	0	0	0	30	--
(7) = (5) - (6)	83	93	-10	0	-1	0	0	0	0	-9	-1	0	0	0	0	0	0	0	-10	--
(8) = Adjusted 2035 GP	103	93	10	0	1	14	0	0	15	0	1	0	0	0	0	0	0	0	30	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	93	93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

33	TAZ = 3567																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	65	65	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	139	139	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	204	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	204	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	YES
(6) = Planned 2035 GP	95	95	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(7) = (5) - (6)	109	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	204	204	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	109	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

34	TAZ = 3570																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	22	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	22	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	22	YES
(6) = Planned 2035 GP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(7) = (5) - (6)	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	22	--
(8) = Adjusted 2035 GP	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	22	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0	0	0	22	--

General Plan Land Use Adjustments for 51 TAZs

35 TAZ = 3584 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	135	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	135	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	135	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NO
(6) = Planned 2035 GP	108	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(7) = (5) - (6)	27	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	135	135	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	27	27	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

36 TAZ = 3590 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	222	0	0	0	0	0	0	0	0	0	0	0	0	0	222	--
(2) Occupied Projects	0	0	0	0	36	0	0	0	0	0	0	0	0	0	0	0	0	0	36	--
(3) = Year 2023	0	0	0	0	259	0	0	0	0	0	0	0	0	0	0	0	0	0	259	--
(4) = Approved + Pending Projects	498	0	498	0	135	0	0	0	150	0	0	0	0	0	0	0	0	0	285	--
(5) = (3) + (4)	498	0	498	0	394	0	0	0	150	0	0	0	0	0	0	0	0	0	544	YES
(6) = Planned 2035 GP	188	0	188	0	342	11	0	0	0	0	91	0	0	0	0	0	0	0	443	--
(7) = (5) - (6)	310	0	310	0	52	-11	0	0	150	0	-91	0	0	0	0	0	0	0	100	--
(8) = Adjusted 2035 GP	498	0	498	0	394	0	0	0	150	0	0	0	0	0	0	0	0	0	544	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	310	0	310	0	52	-11	0	0	150	0	-91	0	0	0	0	0	0	0	100	--

37 TAZ = 3598 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12	--
(4) = Approved + Pending Projects	67	0	67	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	67	0	67	0	12	0	0	0	0	0	0	0	0	0	0	0	0	0	12	NO
(6) = Planned 2035 GP	17	0	17	0	13	0	0	0	0	0	1	0	0	0	0	0	0	0	14	--
(7) = (5) - (6)	50	0	50	0	-1	0	0	0	0	0	-1	0	0	0	0	0	0	0	-2	--
(8) = Adjusted 2035 GP	67	0	67	0	13	0	0	0	0	0	1	0	0	0	0	0	0	0	14	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	50	0	50	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

38 TAZ = 3618 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	15	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	15	--
(4) = Approved + Pending Projects	249	0	249	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	249	0	249	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	15	YES
(6) = Planned 2035 GP	46	0	46	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	15	--
(7) = (5) - (6)	203	0	203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	249	0	249	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	15	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	203	0	203	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

39 TAZ = 3623 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	6	0	0	0	0	0	30	0	0	0	0	0	0	0	36	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	6	0	0	0	0	0	30	0	0	0	0	0	0	0	36	--
(4) = Approved + Pending Projects	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	--
(5) = (3) + (4)	0	0	0	0	11	0	0	0	0	0	30	0	0	0	0	0	0	0	41	YES
(6) = Planned 2035 GP	0	0	0	0	6	0	0	0	0	0	30	0	0	0	0	0	0	0	36	--
(7) = (5) - (6)	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	--
(8) = Adjusted 2035 GP	0	0	0	0	11	0	0	0	0	0	30	0	0	0	0	0	0	0	41	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	--

40 TAZ = 3626 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	92	0	0	0	0	0	0	0	0	92	--
(5) = (3) + (4)	0	0	0	0	0	0	0	0	0	92	0	0	0	0	0	0	0	0	92	YES
(6) = Planned 2035 GP	0	0	0	0	0	0	0	0	0	90	10	0	0	0	0	0	0	0	100	--
(7) = (5) - (6)	0	0	0	0	0	0	0	0	0	2	-10	0	0	0	0	0	0	0	-8	--
(8) = Adjusted 2035 GP	0	0	0	0	0	0	0	0	0	92	0	0	0	0	0	0	0	0	92	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	2	-10	0	0	0	0	0	0	0	-8	--

41 TAZ = 3626 Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Occupy Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	410	0	0	0	0	0	0	0	0	410	--
(5) = (3) + (4)	0	0	0	0	0	0	0	0	0	410	0	0	0	0	0	0	0	0	410	NO
(6) = Planned 2035 GP	164	0	164	0	0	0	0	0	0	288	32	0	0	0	0	0	0	0	320	--
(7) = (5) - (6)	-164	0	-164	0	0	0	0	0	0	122	-32	0	0	0	0	0	0	0	90	--
(8) = Adjusted 2035 GP	164	0	164	0	0	0	0	0	0	410	32	0	0	0	0	0	0	0	442	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	122	0	0	0	0	0	0	0	0	122	--

General Plan Land Use Adjustments for 51 TAZs

42	TAZ = 3632																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	1	1	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7	--
(2) Occupied Projects	31	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	32	32	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	32	32	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7	NO
(6) = Planned 2035 GP	137	1	136	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7	--
(7) = (5) - (6)	-105	31	-136	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	168	32	136	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	7	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	31	31	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

43	TAZ = 3642																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	14	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	14	--
(4) = Approved + Pending Projects	120	120	0	0	0	0	0	275	0	0	0	0	0	0	0	0	0	0	275	--
(5) = (3) + (4)	120	120	0	0	0	0	0	275	0	0	0	0	0	0	0	0	0	0	275	YES
(6) = Planned 2035 GP	0	0	0	0	82	7	0	14	0	0	60	0	0	0	0	0	0	0	163	--
(7) = (5) - (6)	120	120	0	0	-82	-7	0	261	0	0	-60	0	0	0	0	0	0	0	112	--
(8) = Adjusted 2035 GP	120	120	0	0	0	0	0	275	0	0	0	0	0	0	0	0	0	0	275	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	120	120	0	0	-82	-7	0	261	0	0	-60	0	0	0	0	0	0	0	112	--

44	TAZ = 3655																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	123	45	78	0	8	5	0	0	0	0	0	49	0	0	0	0	0	0	62	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	123	45	78	0	8	5	0	0	0	0	0	49	0	0	0	0	0	0	62	--
(4) = Approved + Pending Projects	66	0	66	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	189	45	144	0	8	5	0	0	0	0	0	49	0	0	0	0	0	0	62	YES
(6) = Planned 2035 GP	134	45	89	0	9	5	0	0	0	0	1	49	0	0	0	0	0	0	63	--
(7) = (5) - (6)	55	0	55	0	-1	0	0	0	0	0	-1	0	0	0	0	0	0	0	-1	--
(8) = Adjusted 2035 GP	189	45	144	0	8	5	0	0	0	0	0	49	0	0	0	0	0	0	62	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	55	0	55	0	-1	0	0	0	0	0	-1	0	0	0	0	0	0	0	-1	--

45	TAZ = 3660																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	16	1	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	47	0	0	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	63	1	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	63	1	0	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	NO
(6) = Planned 2035 GP	44	1	28	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(7) = (5) - (6)	19	0	-28	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	91	1	28	62	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	47	0	0	47	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

46	TAZ = 3709																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	1	1	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	8	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	1	1	0	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	8	--
(4) = Approved + Pending Projects	0	0	0	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	19	--
(5) = (3) + (4)	1	1	0	0	23	4	0	0	0	0	0	0	0	0	0	0	0	0	27	YES
(6) = Planned 2035 GP	5	1	4	0	4	4	0	0	0	0	0	0	0	0	0	0	0	0	9	--
(7) = (5) - (6)	-4	0	-4	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	18	--
(8) = Adjusted 2035 GP	1	1	0	0	23	4	0	0	0	0	0	0	0	0	0	0	0	0	27	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	-4	0	-4	0	19	0	0	0	0	0	0	0	0	0	0	0	0	0	18	--

47	TAZ = 3702																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	0	0	0	0	7	0	0	0	0	0	36	0	0	0	0	0	0	0	43	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	7	0	0	0	0	0	36	0	0	0	0	0	0	0	43	--
(4) = Approved + Pending Projects	49	0	49	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	--
(5) = (3) + (4)	49	0	49	0	11	0	0	0	0	0	36	0	0	0	0	0	0	0	47	YES
(6) = Planned 2035 GP	0	0	0	0	7	0	0	0	0	0	36	0	0	0	0	0	0	0	43	--
(7) = (5) - (6)	49	0	49	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	--
(8) = Adjusted 2035 GP	49	0	49	0	11	0	0	0	0	0	36	0	0	0	0	0	0	0	47	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	49	0	49	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	--

48	TAZ = 3706																			Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	0	0	0	0	0	0	0	0	0	52	0	0	0	0	0	0	0	0	52	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	0	0	0	0	0	0	0	0	0	52	0	0	0	0	0	0	0	0	52	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	47	0	0	0	0	0	0	0	0	47	--
(5) = (3) + (4)	0	0	0	0	0	0	0	0	0	99	0	0	0	0	0	0	0	0	99	YES
(6) = Planned 2035 GP	0	0	0	0	0	0	0	0	0	71	2	0	0	0	0	0	0	0	73	--
(7) = (5) - (6)	0	0	0	0	0	0	0	0	0	28	-2	0	0	0	0	0	0	0	26	--
(8) = Adjusted 2035 GP	0	0	0	0	0	0	0	0	0	99	0	0	0	0	0	0	0	0	99	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	0	0	0	0	0	0	0	0	0	28	-2	0	0	0	0	0	0	0	26	--

General Plan Land Use Adjustments for 51 TAZs

49	TAZ = 3720																		Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	0	0	0	0	4	0	0	0	0	0	8	0	0	0	0	0	0	0	12	--
(2) Occupied Projects	0	0	0	0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	--
(3) = Year 2023	0	0	0	0	14	0	0	0	0	0	8	0	0	0	0	0	0	0	22	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	0	0	0	0	14	0	0	0	0	0	8	0	0	0	0	0	0	0	22	YES
(6) = Planned 2035 GP	14	0	14	0	5	0	0	0	0	0	9	0	0	0	0	0	0	0	14	--
(7) = (5) - (6)	-14	0	-14	0	9	0	0	0	0	0	-1	0	0	0	0	0	0	0	8	--
(8) = Adjusted 2035 GP	0	0	0	0	14	0	0	0	0	0	8	0	0	0	0	0	0	0	22	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	-14	0	-14	0	9	0	0	0	0	0	-1	0	0	0	0	0	0	0	8	--

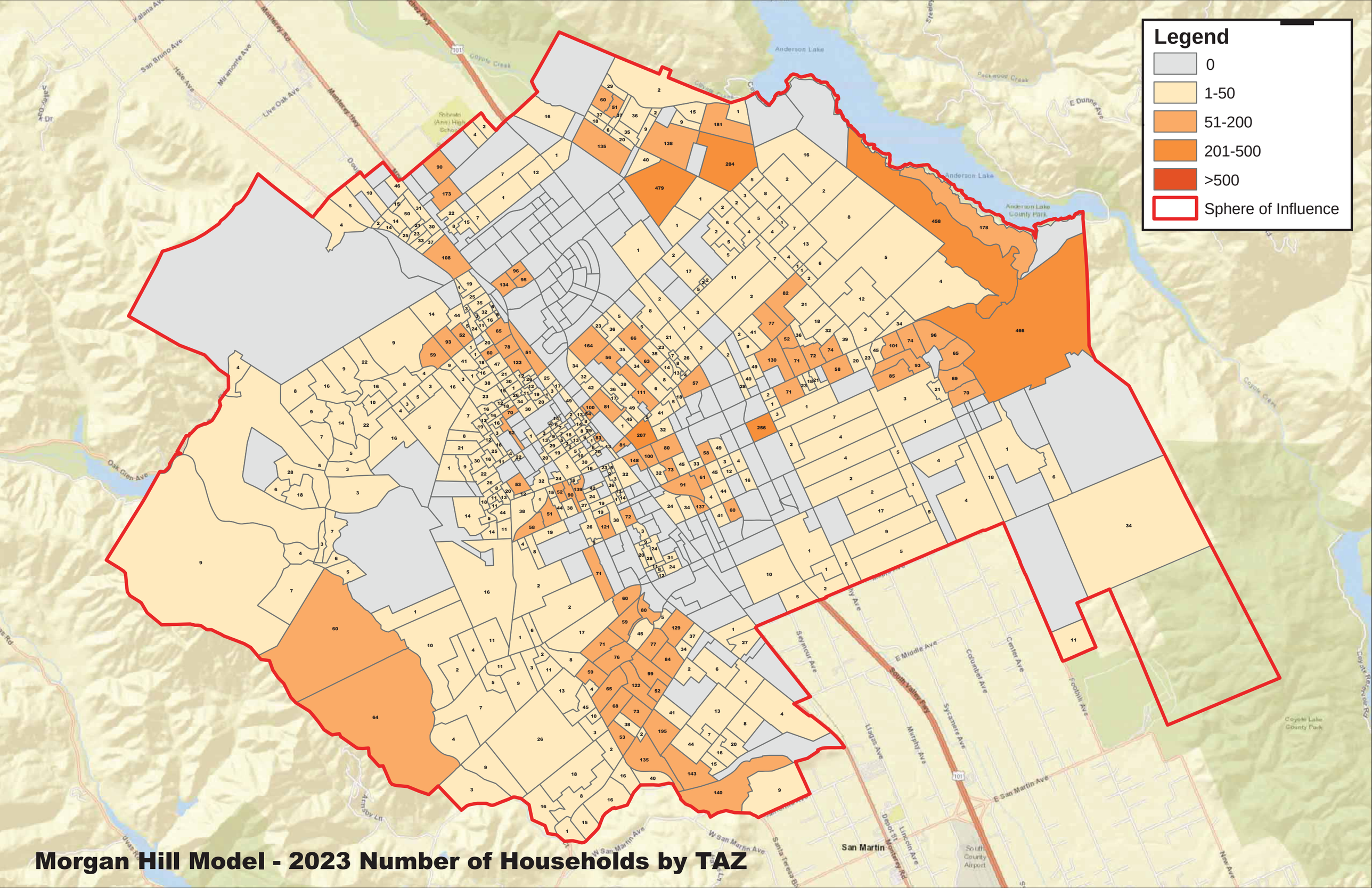
50	TAZ = 3735																		Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	14	2	12	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	27	--
(2) Occupied Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	14	2	12	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	27	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	--
(5) = (3) + (4)	14	2	12	0	27	0	0	0	73	0	0	0	0	0	0	0	0	0	100	YES
(6) = Planned 2035 GP	31	0	31	0	27	0	0	0	0	0	0	0	0	0	0	0	0	0	27	--
(7) = (5) - (6)	-17	2	-19	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	--
(8) = Adjusted 2035 GP	14	2	12	0	27	0	0	0	73	0	0	0	0	0	0	0	0	0	100	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	-17	2	-19	0	0	0	0	0	73	0	0	0	0	0	0	0	0	0	73	--

51	TAZ = 3741																		Occupy
Scenario	TOTHH	SF_DU	MF_DU	SENIOR_DU	RET_KSF	SER_KSF	AUTO_KSF	MED_KSF	MOTEL_RMS	IND_RD_KSF	OFFICE_KSF	WARE_KSF	LO_PUB_KSF	HI_PUB_KSF	OPEN_ACRE	K8_STU	HIGH_STU	COLL_STU	TOT_NON-RES	Entire TAZ?
(1) - Year 2015	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(2) Occupied Projects	76	76	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(3) = Year 2023	78	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(4) = Approved + Pending Projects	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(5) = (3) + (4)	78	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	YES
(6) = Planned 2035 GP	77	77	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(7) = (5) - (6)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
(8) = Adjusted 2035 GP	78	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--
9) [Diff (Adjusted - Planned GP)]= (8) - (6)	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	--

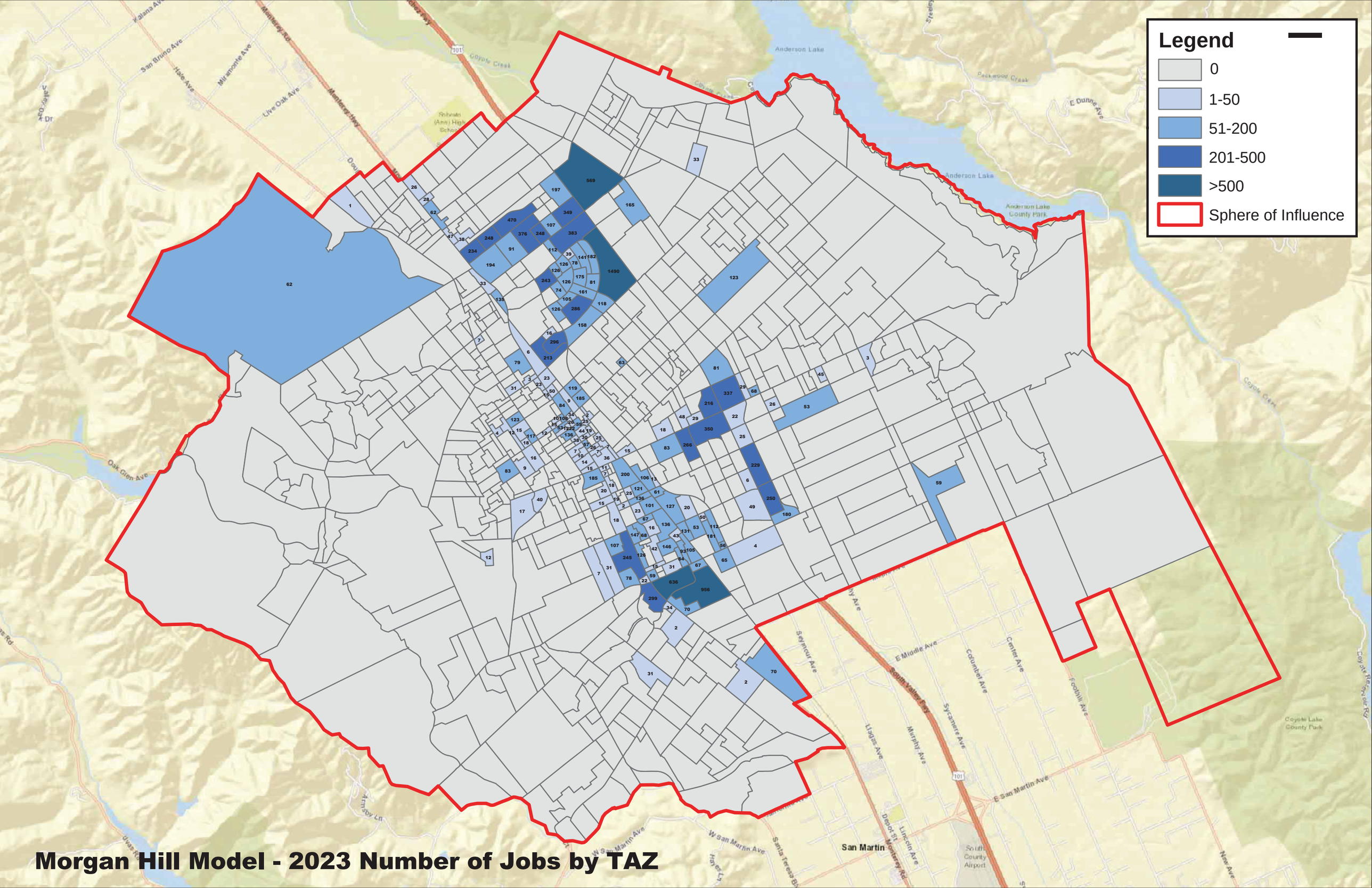
Morgan Hill Model TAZ System Map

Legend

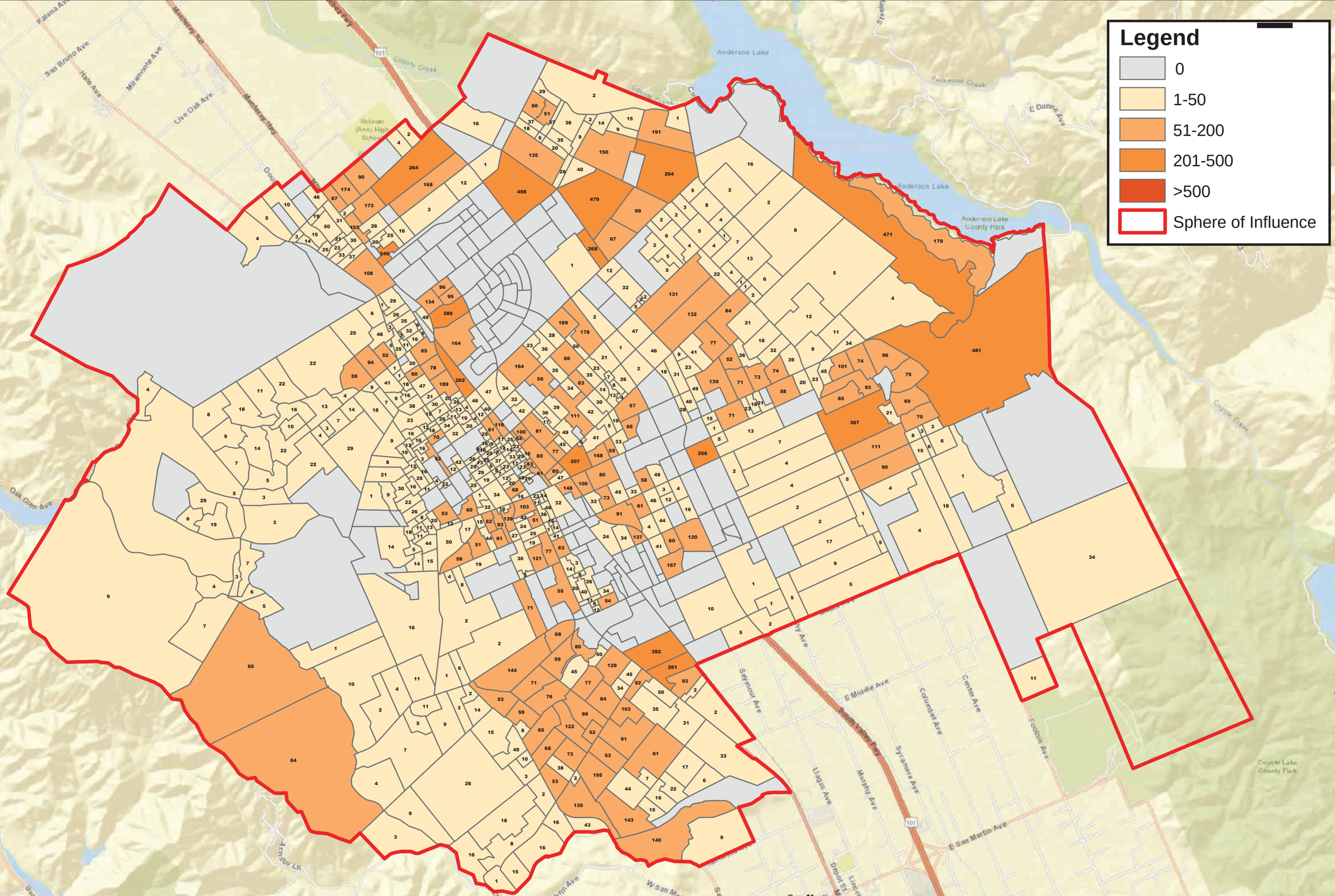
- Morgan_Hill_TAZ
- Sphere of Influence



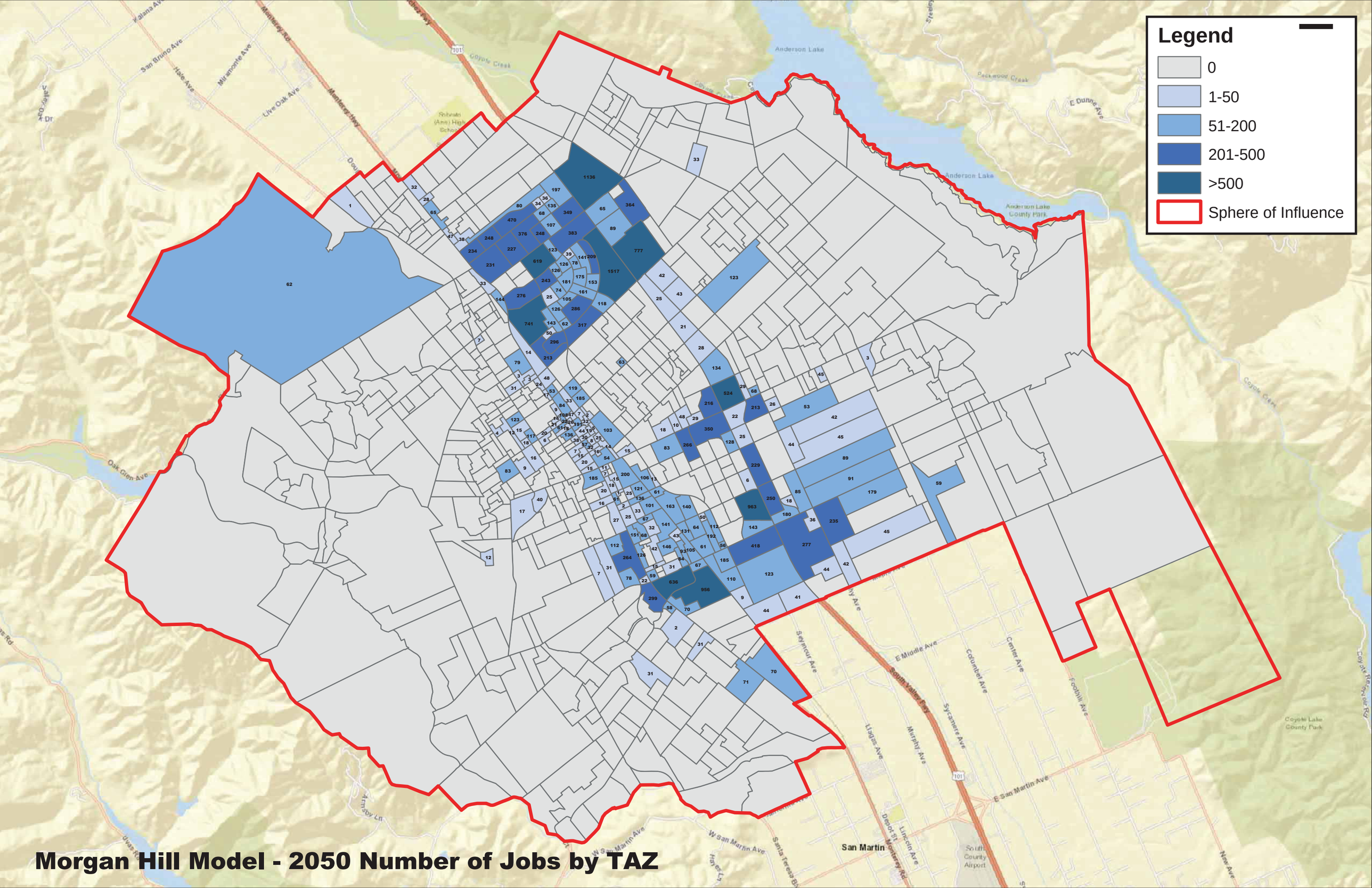
Morgan Hill Model - 2023 Number of Households by TAZ



Morgan Hill Model - 2023 Number of Jobs by TAZ



Morgan Hill Model - 2050 Number of Households by TAZ



Morgan Hill Model - 2050 Number of Jobs by TAZ

Hexagon Transportation Consultants, Inc.

Memorandum

Date: December 6, 2023

To: Mr. Chris Ghione, City of Morgan Hill

From: Ollie Zhou, Shikha Jain
Robert Del Rio

Subject: Morgan Hill Roadway Regional Cut-Through Analysis

Hexagon Transportation Consultants, Inc. has completed a regional cut-through analysis of major roadway segments within the City of Morgan Hill. The purpose of this study is to 1) estimate the amount of regional cut-through traffic on major roadways within the City, and 2) identify the major cut-through routes.

Regional cut-through traffic, for the purpose of this study, is defined as traffic travelling on City of Morgan Hill roadways that does not have an origin or destination within the City. US 101 has been identified as congested in the peak directions during the peak commute periods. It is our understanding that Morgan Hill city staff and residents believe that vehicles are cutting through city roadways to bypass freeway congestion. The City of Morgan Hill has some north-south roadways that are parallel to US 101 and could be used by cut-through traffic. Hexagon conducted a similar study for the City in 2019. This study is an update to the 2019 study and presents post-Covid traffic conditions.

The term “cut-through” traffic is sometimes used to describe local traffic cutting through residential streets to avoid congestion on arterials/collectors. It should be noted that this analysis is limited to analyzing *regional* cut-through traffic on arterials and collectors with no origin or destination within the City of Morgan Hill.

Scope of Analysis

Hexagon analyzed percentages of regional cut-through traffic on 47 segments of City roadways (see Figure 1 and Table 1). These segments were selected to capture the likely routes of potential regional cut-through traffic.

100 Century Center Court, Suite 501 · San Jose, California 95112 · phone 408.971.6100 · fax 408.971.6102 · www.hextrans.com

Table 1
List of Study Roadway Segments

Segment #	Roadway Segment
1	Hale Ave. north of Llagas Rd.
2	Hale Ave. between Main Ave. and Llagas Rd.
3	Monterey Rd. north of Cochrane Rd.
4	Monterey Rd. between Main Ave. and Cochrane Rd.
5	Monterey Rd. between Dunne Ave. and Main Ave.
6	Monterey Rd. between Tennant Ave. and Dunne Ave.
7	Monterey Rd. between Watsonville Rd. and Tennant Ave.
8	Butterfield Blvd. between Main Ave. and Cochrane Rd.
9	Butterfield Blvd. between Dunne Ave. and Main Ave.
10	Butterfield Blvd. between Tennant Ave. and Dunne Ave.
11	Butterfield Blvd. between Monterey Rd. and Tennant Ave.
12	Watsonville Rd. between Sunnyside Ave. and Monterey Rd.
13	Dewitt Ave. between Edmundson Ave. and Dunne Ave.
14	Sunnyside Ave. between Watsonville Rd. and Tennant Ave.
15	Condit Rd. between Dunne Ave. and Main Ave.
16	Condit Rd. between Tennant Ave. and Dunne Ave.
17	Murphy Ave. north of Dunne Ave.
18	Murphy Ave. between Tennant Ave. and Dunne Ave.
19	Hill Rd. north of Dunne Ave.
20	Hill Rd. between Tennant Ave. and Dunne Ave.
21	Cochrane Rd. between Monterey Rd. and Butterfield Rd.
22	Cochrane Rd. between Butterfield Blvd. and US 101
23	Cochrane Rd. between US 101 and Mission View Dr.
24	Main Ave. between Monterey Rd. and Butterfield Blvd.
25	Main Ave. between Butterfield Blvd. and Condit Rd.
26	Main Ave. between Condit Rd. and Hill Rd.
27	Dunne Ave. between Dewitt Ave. and Monterey Rd.
28	Dunne Ave. between Monterey Rd. and Butterfield Blvd.
29	Dunne Ave. between Butterfield Blvd. and US 101
30	Dunne Ave. between US 101 and Murphy Ave.
31	Dunne Ave. between Murphy Ave. and Hill Rd.
32	Edmundson Ave. between Sunnyside Ave. and Monterey Rd.
33	Tennant Ave. between Monterey Rd. and Butterfield Rd.
34	Tennant Ave. between Butterfield Rd. and US 101
35	Santa Teresa Blvd. south of Watsonville Rd
36	Tilton Ave.
37	Madrone Pkwy.
38	Sutter Blvd. east of Butterfield Blvd.
39	Mission View Dr. south of Cochrane Rd
40	Half Rd. west of Mission View Dr.
41	Wright Ave. east of Hale Ave.
42	Wright Ave. west of Hale Ave.
43	Peak Ave. north of Main Ave.
44	Peak Ave. south of Main Ave.
45	Main Ave. west of Hale Ave.
46	Main Ave. east of Hale Ave.
47	Depot St.

Notes:
Ave. = Avenue; Rd. = Road; Blvd. = Boulevard

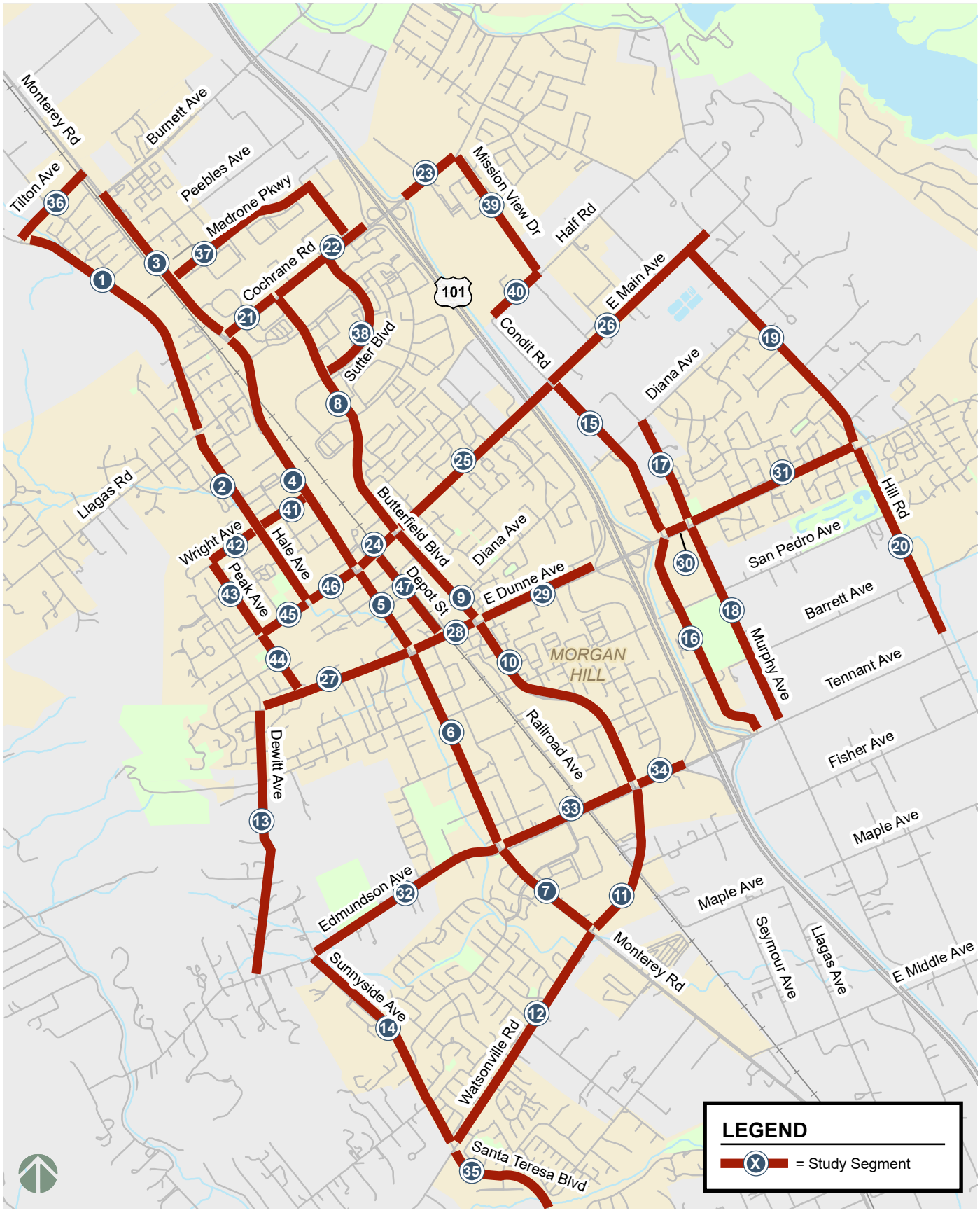


Figure 1: Study Segments

Data Source and Methodology

Hexagon utilized data provided by StreetLight Data, Inc. ("StreetLight") to determine the percentages of regional cut-through traffic on City roadways. StreetLight metrics like volume estimates and trip patterns for different travel modes are derived and validated by Streetlight using a variety of data sources including connected vehicle data, GPS data, anonymized location data from mobile applications for personal cellular phones, vehicle, pedestrian, and bicycle sensors, land use and parcel data, census characteristics, and roadway network and characteristics from OpenStreetMap.

Hexagon queried StreetLight for trips that travel through Morgan Hill but do not have an origin or destination in Morgan Hill. These trips are defined as regional cut-through traffic. Hexagon analyzed regional cut-through traffic percentages from February 2022 to April 2022 (this is the most recent data provided by StreetLight at the time of this analysis) to determine post-Covid percentages of regional cut-through traffic on City roadways. The analysis included hourly data on only regular weekdays (Monday through Thursday). Peak levels of congestion typically occur during commute peak periods on these weekdays. By averaging the combined data obtained on a daily basis over the span of multiple months/years, it is assumed that the data presents a representative account of vehicle travel patterns. Furthermore, by estimating *percentages* rather than *number* of vehicles, it is assumed that potential data bias and inaccuracy in the data is minimized.

It should be noted that January 2022 and December 2021 data was not included in the analysis as traffic patterns during those months may be more irregular (due to holidays) than the other months. Furthermore, based on field observations conducted in the City, southbound PM peak hour congestion on Fridays is significantly worse than other days of the week. However, it is somewhat seasonal, therefore Fridays were not included in the analysis.

Peak Hour Roadway Regional Cut-Through Percentages

It is our understanding that Morgan Hill city staff and residents believe that vehicles are cutting through city roadways to bypass freeway congestion. To verify this, Hexagon compared the average hourly northbound regional cut-through percentage (cut-through as a percentage of all traffic on city roadways) against the average hourly northbound US 101 traffic volume near Morgan Hill during the same period (February 2022 to April 2022). A similar comparison was conducted for the southbound traffic. The average hourly northbound and southbound US 101 traffic volumes near Morgan Hill were obtained from Caltrans Performance Measuring System (PeMS) data.

As shown in Figures 2 and 3, regional cut-through traffic on city roadways peaks when US 101 is the most congested, which happens during the peak commute periods. Northbound regional cut-through traffic percentage peaked during the AM peak commute period between 6 AM and 8 AM, and southbound regional cut-through traffic percentage peaked during the PM peak commute period between 3 PM and 5 PM, when US 101 southbound serves the most traffic.

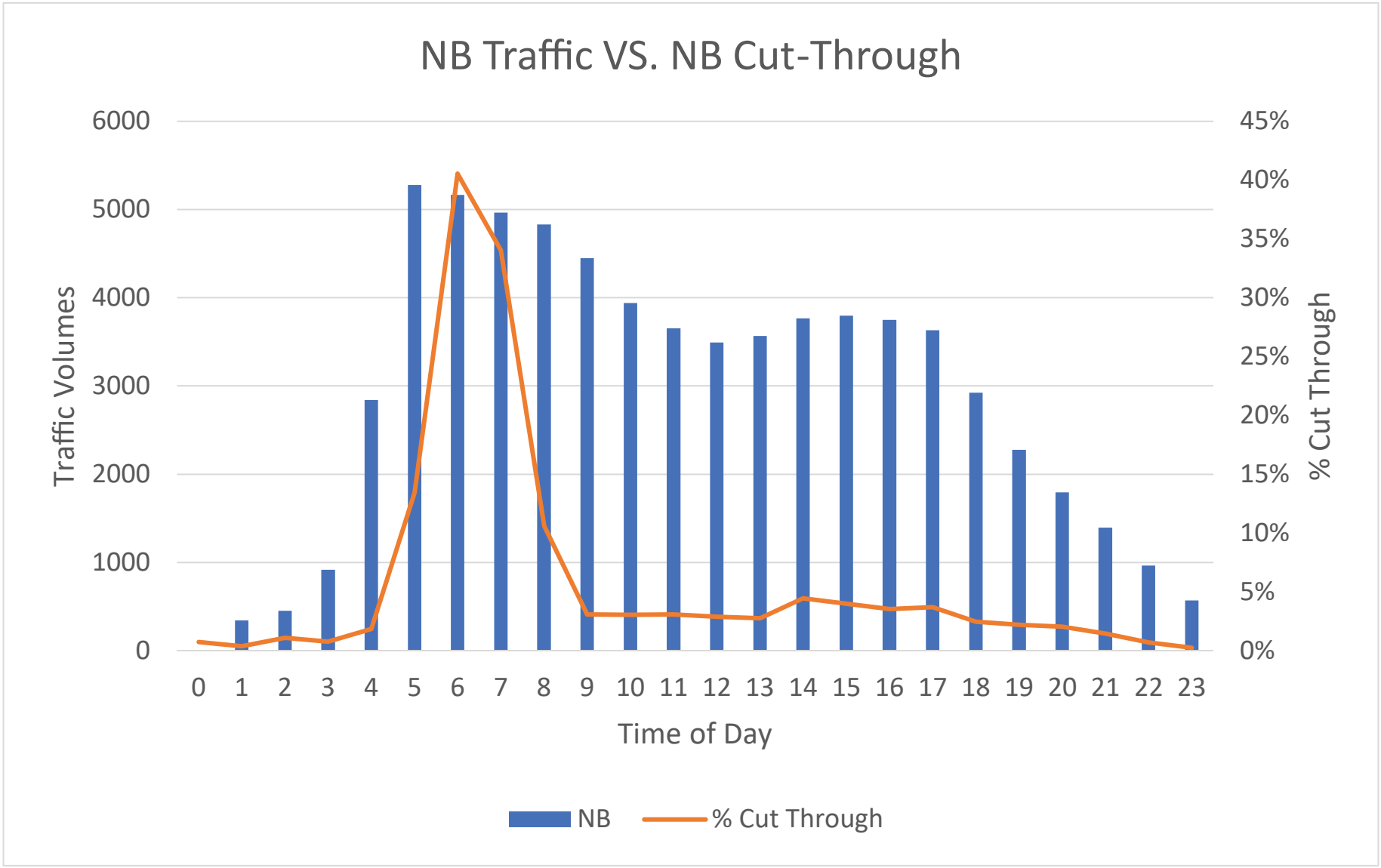


Figure 2: Northbound Traffic versus Northbound Cut-Thru

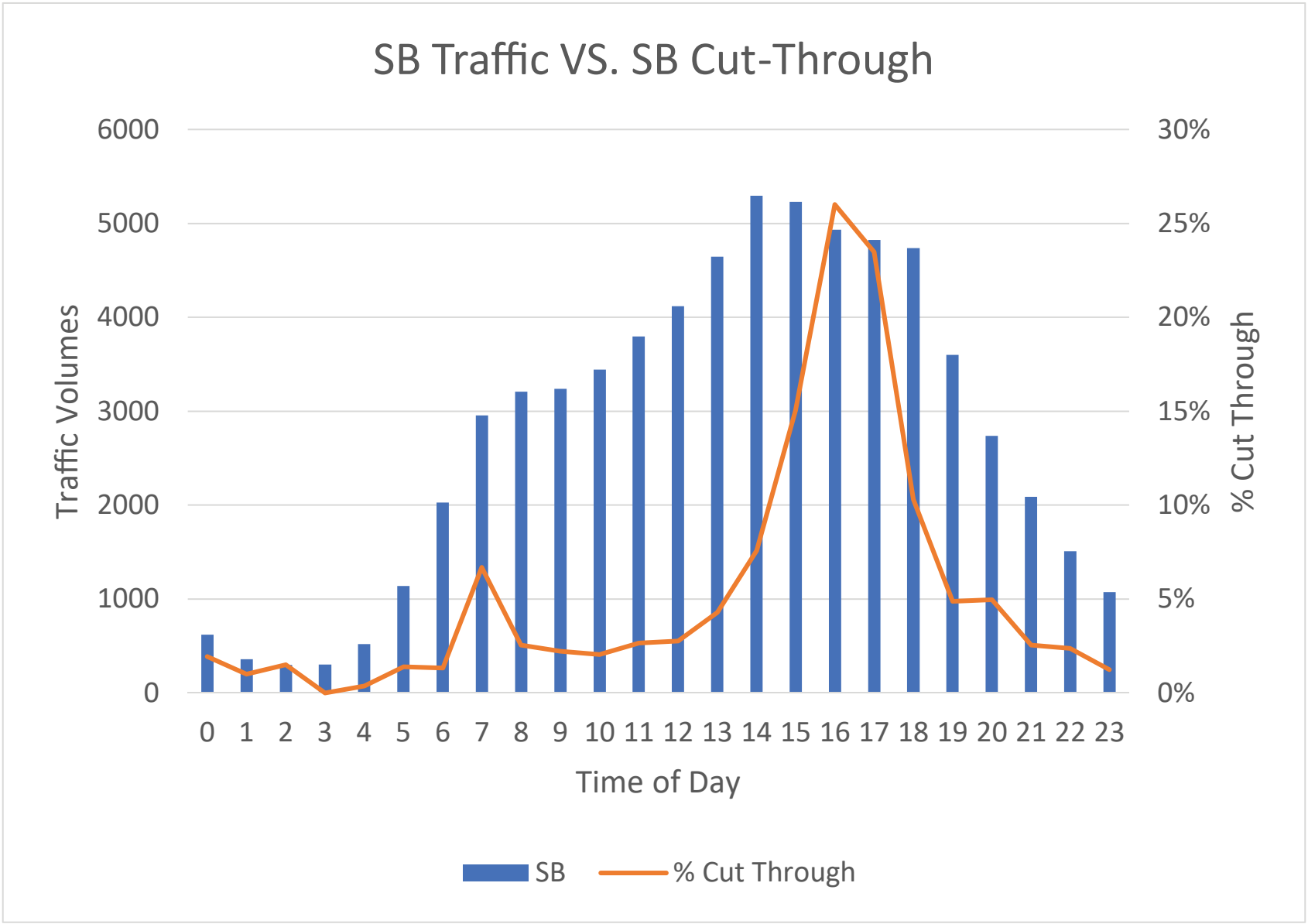


Figure 3: Southbound Traffic versus Southbound Cut-Thru

Tables 2 and 3 show regional cut-through traffic as a percentage of all roadway traffic on each of the study roadway segments for AM and PM peak hours, respectively. The tables provide the following characteristics for each study segment:

- **Peak Hour Volumes:** Counts collected in October 2023 are provided for each study segment as a range, i.e. less than 500 vehicles, between 500 and 1,000 vehicles (<1,000), between 1,000 and 1,500 vehicles (<1,500), between 1,500 and 2,000 vehicles (<2,000), and between 2,000 and 2,500 vehicles (<2,500). This information is provided to distinguish low volume segments from high volume segments and better represent cut-through traffic percentages, i.e. a low volume segment may indicate a high percentage of cut-through traffic but the cut-through traffic volumes on this segment maybe lower compared to other higher volume streets within the City.
- **Border segments:** Some study segments are wholly within Morgan Hill while some share a border with the County. The regional cut-through analysis methodology assumes that any traffic that has an origin and destination outside of Morgan Hill is regional cut-through traffic. Therefore, segments that share a border with the County are expected to have higher trips that do not have an origin and destination within Morgan Hill.

As shown in Table 2 and illustrated in Figure 4, the highest percentage of regional cut-through traffic during the AM peak hour on a study roadway segment that is wholly within Morgan Hill is along Dunne Avenue between US 101 and Murphy Avenue. Other segments that have a high percentage of regional cut-through traffic are along Dunne Avenue, Butterfield Boulevard, Wright Avenue, Hale Avenue, Tennant Avenue, and Monterey Road. Butterfield Boulevard, between Dunne Avenue and Main Avenue has a high volume of vehicles (between 1,500 and 2,000) of which 30 percent to 35 percent is regional cut-through traffic during the AM peak hour. Furthermore, Table 2 and Figure 4 show that border segments along Hill Road, Santa Teresa Boulevard, Condit Road, Butterfield Boulevard, Watsonville Road, Main Avenue, Mission View Drive, and Murphy Avenue have a high percentage (over 50 percent) of regional cut-through traffic volumes during the AM peak hour.

As shown in Table 3 and illustrated in Figure 5, the highest percentage of regional cut-through traffic during the PM peak hour on a study roadway segment that is wholly within Morgan Hill is along Wright Avenue, west of Hale Avenue. Other segments that have a high percentage of regional cut-through traffic are along Peak Avenue, Hale Avenue, Monterey Road, Main Avenue, and Cochrane Road. Monterey Road, north of Cochrane Road has a high volume of vehicles (between 2,000 and 2,500) of which 20 percent to 25 percent is regional cut-through traffic during the PM peak hour. Furthermore, Table 3 and Figure 5 show that border segments along Santa Teresa Boulevard, Dewitt Avenue, and Hale Avenue have a high percentage (between 30 percent to 35 percent) of regional cut-through traffic volumes during the PM peak hour.

Table 2
AM Peak Hour Regional Cut-through Traffic for Study Segments

Segment #	Roadway Segment	AM Peak Hour Trips [1]	AM Peak Cut-Through Traffic Percentages [2]
Internal Segments			
30	Dunne Ave. between US 101 and Murphy Ave.	<1,000	>50%
31	Dunne Ave. between Murphy Ave. and Hill Rd.	<1,000	<50%
10	Butterfield Blvd. between Tennant Ave. and Dunne Ave.*	<1,500	<45%
42	Wright Ave. west of Hale Ave.	<1,000	<45%
2	Hale Ave. between Main Ave. and Llagas Rd.	<1,000	<45%
45	Main Ave. west of Hale Ave.	<1,000	<45%
34	Tennant Ave. between Butterfield Rd. and US 101	<1,500	<45%
23	Cochrane Rd. between US 101 and Mission View Dr.	<1,500	<40%
7	Monterey Rd. between Watsonville Rd. and Tennant Ave.	<1,500	<40%
6	Monterey Rd. between Tennant Ave. and Dunne Ave.	<1,500	<35%
22	Cochrane Rd. between Butterfield Blvd. and US 101	<1,500	<35%
8	Butterfield Blvd. between Main Ave. and Cochrane Rd.	<1,500	<35%
9	Butterfield Blvd. between Dunne Ave. and Main Ave.	<2,000	<35%
5	Monterey Rd. between Dunne Ave. and Main Ave.	<1,500	<35%
3	Monterey Rd. north of Cochrane Rd.	<2,000	<30%
44	Peak Ave. south of Main Ave.	<1,000	<30%
38	Sutter Blvd. east of Butterfield Blvd.	<1,000	<30%
4	Monterey Rd. between Main Ave. and Cochrane Rd.	<1,500	<30%
29	Dunne Ave. between Butterfield Blvd. and US 101	<2,000	<25%
43	Peak Ave. north of Main Ave.	<500	<25%
21	Cochrane Rd. between Monterey Rd. and Butterfield Rd.	<1,500	<20%
15	Condit Rd. between Dunne Ave. and Main Ave.	<1,000	<20%
33	Tennant Ave. between Monterey Rd. and Butterfield Rd.	<1,000	<15%
47	Depot St.	<500	<10%
28	Dunne Ave. between Monterey Rd. and Butterfield Blvd.	<1,500	<10%
41	Wright Ave. east of Hale Ave.	<1,000	<10%
46	Main Ave. east of Hale Ave.	<1,000	<5%
27	Dunne Ave. between Dewitt Ave. and Monterey Rd.	<1,000	<5%
25	Main Ave. between Butterfield Blvd. and Condit Rd.*	<1,000	<5%
24	Main Ave. between Monterey Rd. and Butterfield Blvd.	<1,500	<5%
Border Segments			
20	Hill Rd. between Tennant Ave. and Dunne Ave.	<1,000	>50%
35	Santa Teresa Blvd. south of Watsonville Rd	<1,500	>50%
16	Condit Rd. between Tennant Ave. and Dunne Ave.	<1,000	>50%
11	Butterfield Blvd. between Monterey Rd. and Tennant Ave.	<2,000	>50%
12	Watsonville Rd. between Sunnyside Ave. and Monterey Rd.	<1,500	>50%
26	Main Ave. between Condit Rd. and Hill Rd.	<500	>50%
19	Hill Rd. north of Dunne Ave.	<1,000	>50%
39	Mission View Dr. south of Cochrane Rd	<1,000	>50%
18	Murphy Ave. between Tennant Ave. and Dunne Ave.	<500	>50%
13	Dewitt Ave. between Edmundson Ave. and Dunne Ave.	<1,000	<50%
14	Sunnyside Ave. between Watsonville Rd. and Tennant Ave.	<1,000	<50%
32	Edmundson Ave. between Sunnyside Ave. and Monterey Rd.	<500	<45%
1	Hale Ave. north of Llagas Rd.	<1,500	<40%
36	Tilton Ave.*	<1,000	<30%
40	Half Rd. west of Mission View Dr.*	<500	<25%
17	Murphy Ave. north of Dunne Ave.	<500	<15%
37	Madrone Pkwy.*	<500	<5%

Notes:
Ave. = Avenue; Rd. = Road; Blvd. = Boulevard
**Less Than 500 Datapoints During Peak Period*
1. Existing AM peak hour trips based on counts collected in October 2023.
2. Percentages were estimated using data provided by StreetLightData for Year 2022 (February to April).

Table 3
PM Peak Hour Regional Cut-through Traffic for Study Segments

Segment #	Roadway Segment	PM Peak Hour Trips [1]	PM Peak Cut-Through Traffic Percentages [2]
Internal Segments			
42	Wright Ave. west of Hale Ave.	<1,000	<40%
43	Peak Ave. north of Main Ave.	<500	<40%
2	Hale Ave. between Main Ave. and Llagas Rd.*	<1,500	<35%
3	Monterey Rd. north of Cochrane Rd.	<2,500	<25%
45	Main Ave. west of Hale Ave.	<1,000	<25%
21	Cochrane Rd. between Monterey Rd. and Butterfield Rd.	<2,000	<20%
7	Monterey Rd. between Watsonville Rd. and Tennant Ave.	<2,000	<20%
22	Cochrane Rd. between Butterfield Blvd. and US 101	<2,000	<20%
44	Peak Ave. south of Main Ave.	<1,000	<20%
6	Monterey Rd. between Tennant Ave. and Dunne Ave.	<2,000	<15%
10	Butterfield Blvd. between Tennant Ave. and Dunne Ave.	<1,500	<15%
5	Monterey Rd. between Dunne Ave. and Main Ave.	<2,000	<15%
4	Monterey Rd. between Main Ave. and Cochrane Rd.	<1,500	<15%
8	Butterfield Blvd. between Main Ave. and Cochrane Rd.	<2,000	<15%
34	Tennant Ave. between Butterfield Rd. and US 101	<1,500	<15%
9	Butterfield Blvd. between Dunne Ave. and Main Ave.	<2,000	<15%
23	Cochrane Rd. between US 101 and Mission View Dr.	<1,500	<15%
46	Main Ave. east of Hale Ave.	<1,000	<10%
33	Tennant Ave. between Monterey Rd. and Butterfield Rd.	<1,500	<10%
41	Wright Ave. east of Hale Ave.	<1,000	<10%
24	Main Ave. between Monterey Rd. and Butterfield Blvd.	<1,500	<5%
28	Dunne Ave. between Monterey Rd. and Butterfield Blvd.	<1,500	<5%
29	Dunne Ave. between Butterfield Blvd. and US 101	<2,000	<5%
38	Sutter Blvd. east of Butterfield Blvd.	<1,000	<5%
31	Dunne Ave. between Murphy Ave. and Hill Rd.	<1,000	<5%
30	Dunne Ave. between US 101 and Murphy Ave.	<1,000	<5%
27	Dunne Ave. between Dewitt Ave. and Monterey Rd.	<1,000	<5%
15	Condit Rd. between Dunne Ave. and Main Ave.	<1,000	<5%
25	Main Ave. between Butterfield Blvd. and Condit Rd.*	<1,000	<5%
47	Depot St.	<500	<5%
Border Segments			
35	Santa Teresa Blvd. south of Watsonville Rd	<1,000	<35%
13	Dewitt Ave. between Edmundson Ave. and Dunne Ave.	<1,000	<35%
1	Hale Ave. north of Llagas Rd.	<1,500	<35%
14	Sunnyside Ave. between Watsonville Rd. and Tennant Ave.	<1,000	<30%
36	Tilton Ave.	<1,000	<25%
11	Butterfield Blvd. between Monterey Rd. and Tennant Ave.	<1,500	<25%
12	Watsonville Rd. between Sunnyside Ave. and Monterey Rd.	<1,500	<25%
37	Madrone Pkwy.	<1,000	<20%
19	Hill Rd. north of Dunne Ave.	<1,000	<20%
20	Hill Rd. between Tennant Ave. and Dunne Ave.	<1,000	<20%
32	Edmundson Ave. between Sunnyside Ave. and Monterey Rd.	<500	<20%
26	Main Ave. between Condit Rd. and Hill Rd.	<500	<15%
39	Mission View Dr. south of Cochrane Rd	<1,000	<15%
18	Murphy Ave. between Tennant Ave. and Dunne Ave.*	<500	<10%
16	Condit Rd. between Tennant Ave. and Dunne Ave.*	<1,000	<5%
17	Murphy Ave. north of Dunne Ave.	<500	<5%
40	Half Rd. west of Mission View Dr.*	<500	<5%

Notes:
Ave. = Avenue; Rd. = Road; Blvd. = Boulevard
**Less Than 500 Datapoints During Peak Period*
1. Existing PM peak hour trips based on counts collected in October 2023.
2. Percentages were estimated using data provided by StreetLightData for Year 2022 (February to April).

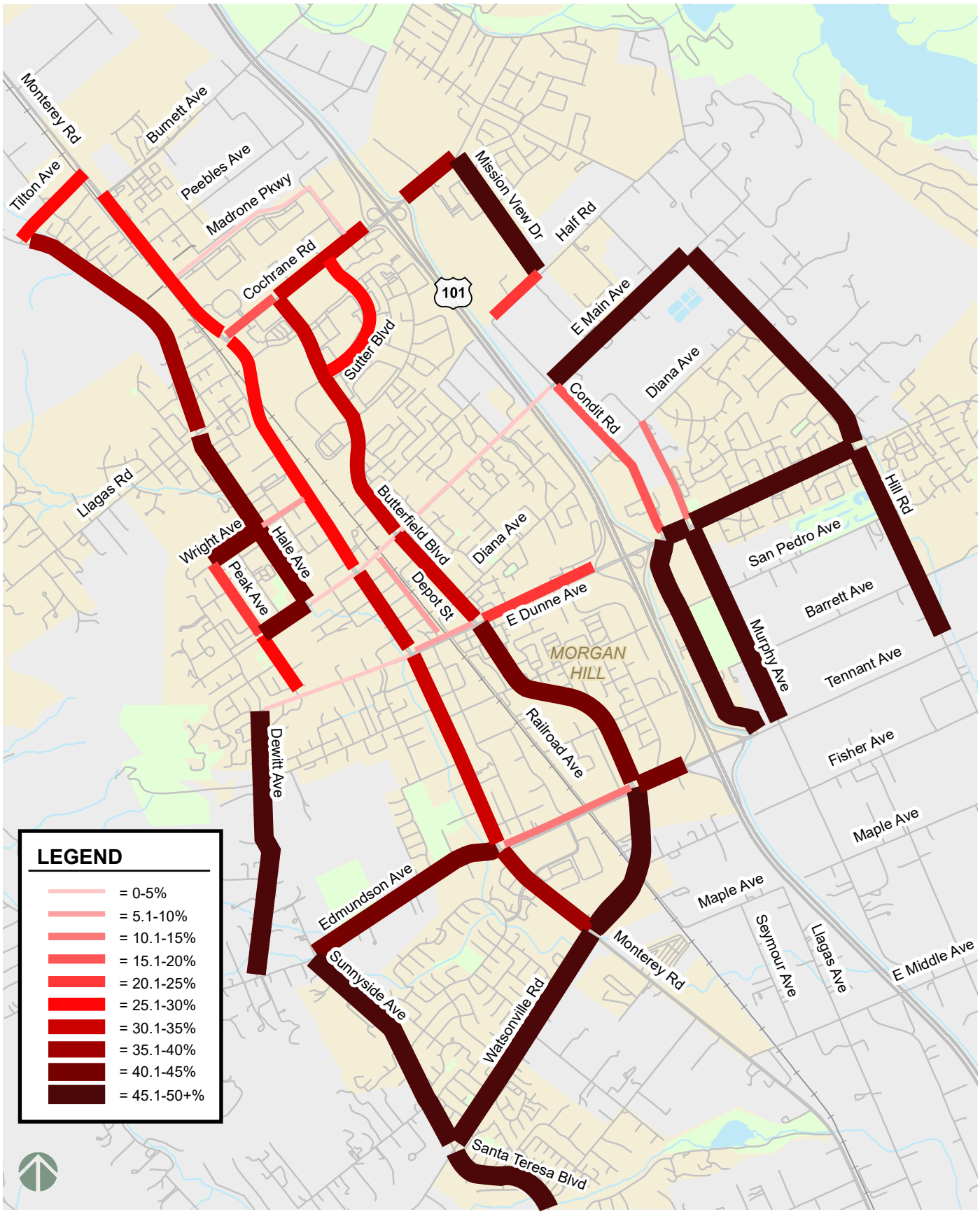


Figure 4: Roadway Regional Cut-through Percentages AM Peak Period

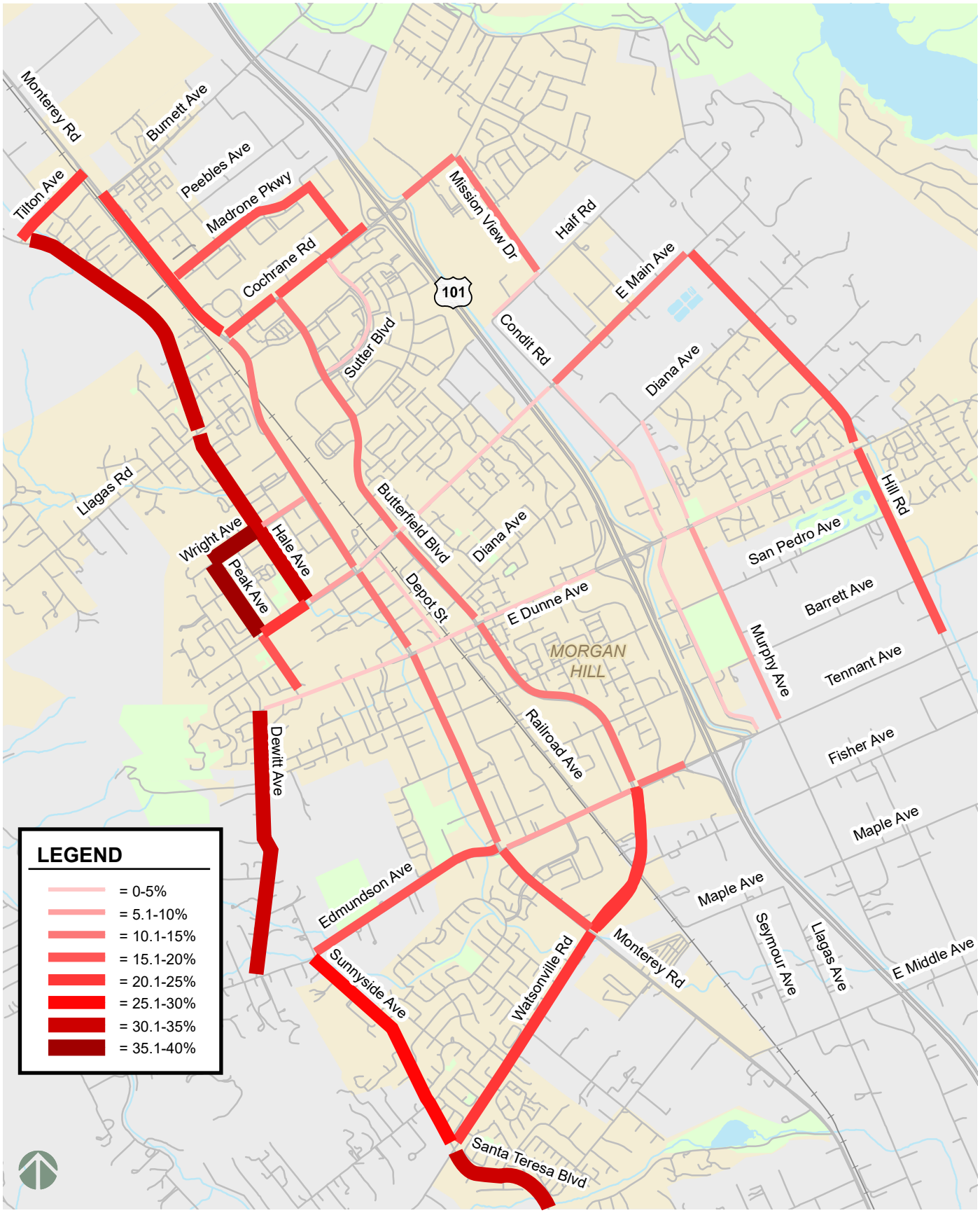


Figure 5: Roadway Regional Cut-through Percentages PM Peak Period

Regional Cut-Through Traffic Due to US 101 Congestion

Using available data, Hexagon quantified the percentages of northbound traffic on representative gateways during the AM peak period that originated south of the City travelling to north of the City that used City roadways as cut-through routes. Similarly, Hexagon quantified the percentages of southbound traffic on representative gateways during the PM peak period that originated north of the City travelling to south of the City that used City roadways as cut-through routes. The northbound direction during the AM peak period and the southbound direction during the PM peak period are analyzed because these are the peak directions of travel.

AM Peak Period

During the AM peak period, northbound traffic on representative gateways originating south of the City travelling to north of the City (henceforth referred to as northbound regional traffic), Hexagon estimated that approximately 41% of the northbound regional traffic cut through city streets, and the remaining 59% stayed on US 101. Below is a breakdown of the representative gateways this cut-through traffic used as they entered City streets from the south:

- Foothill Avenue/Murphy Avenue/Hill Road: 19%
- US 101: 4%
- Railroad Avenue: 1%
- Monterey Road: 46%
- Santa Teresa Boulevard: 30%

Below is a breakdown of the representative gateways that the northbound regional cut-through traffic used after they exited City streets to the north:

- US 101: 72%
- Monterey Road: 20%
- Dougherty Avenue: 1%
- Hale Avenue: 7%

The above breakdowns of the roadways carrying the northbound regional cut-through traffic suggest that most of this traffic entered the City from the south through local roadways west of US 101 (77%) and exited the City onto US 101 (72%). As shown on Figure 6, the most utilized route for the northbound regional traffic was Butterfield Boulevard.

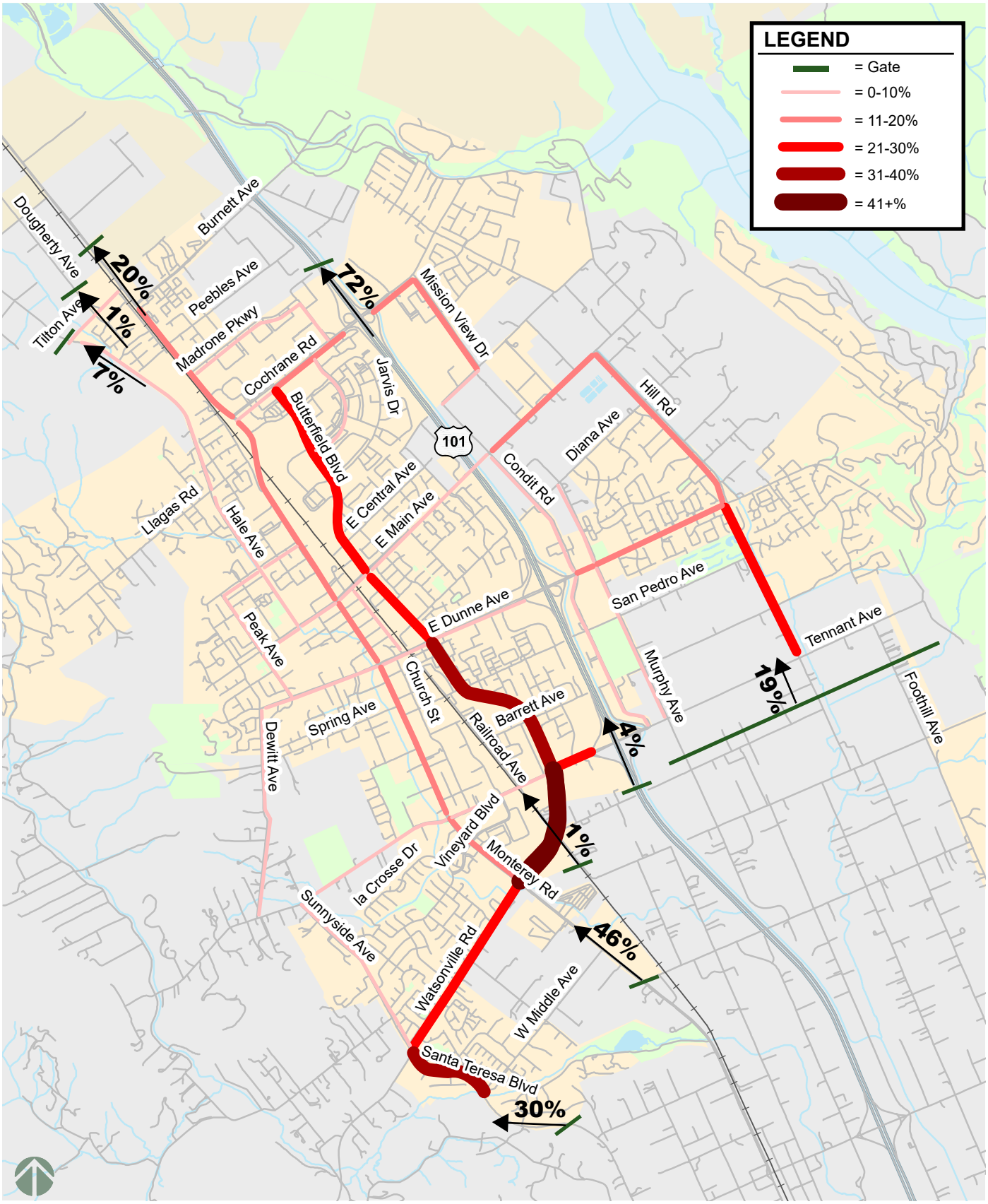


Figure 6: Route Choice for Northbound Regional Cut-Through Traffic – AM Peak Hour

PM Peak Period

During the PM peak period, of all southbound traffic on representative gateways originating north of the City travelling to south of the City (henceforth referred to as southbound regional traffic), Hexagon estimated that approximately 26% of the southbound regional traffic cut through city streets. Below is a breakdown of the roadways this cut-through traffic used as they entered City streets from the north:

- US 101: 12%
- Monterey Road: 60%
- Dougherty Avenue: 11%
- Hale Avenue: 17%

Below is a breakdown of the representative gateways that the southbound regional cut-through traffic used after they exited City streets to the south:

- Foothill Avenue/Murphy Avenue/Hill Road: 6%
- US 101: 44%
- Railroad Avenue: 1%
- Monterey Road: 32%
- Santa Teresa Boulevard: 17%

The above breakdowns of the roadways carrying the southbound regional cut-through traffic suggest that most of this traffic entered the City from the north through local roadways west of US 101 (88%). Approximately 50% of this cut-through traffic exited the City to the south still using local roadways west of US 101, and most of the remaining traffic exited the City onto US 101. Contrary to the AM northbound commute cut-through pattern where the majority of traffic entered the City via local roadways and exited the City onto US 101, the reverse is not observed during the PM peak period. As shown on Figure 7, the most utilized routes for the southbound regional traffic were Monterey Road and Butterfield Boulevard.

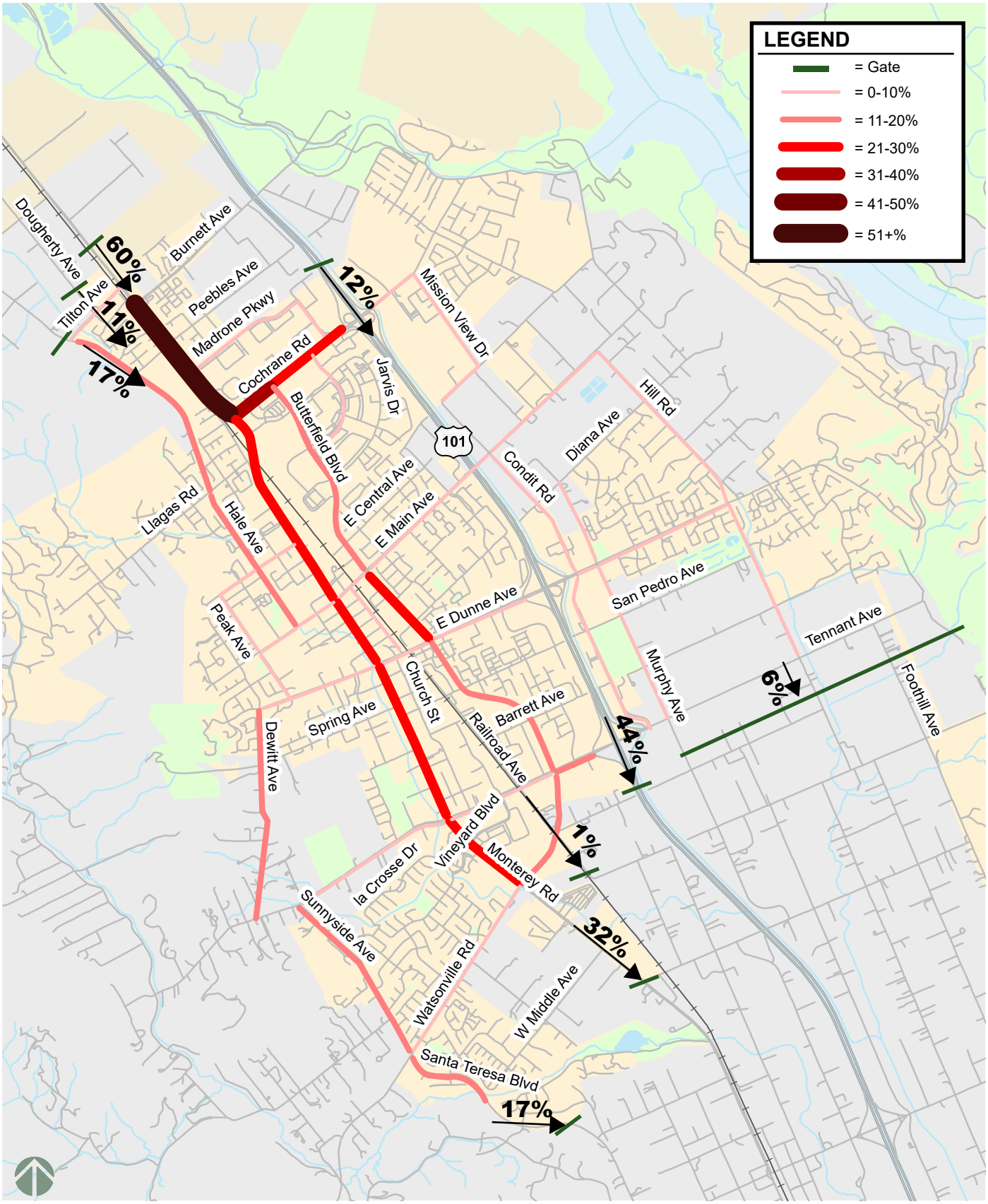


Figure 7: Route Choice for Southbound Regional Cut-Through Traffic – PM Peak Hour

Conclusion

The key takeaways from the regional cut-through analysis of major roadway segments within the City of Morgan Hill are:

- Regional cut-through traffic on city roadways peaks when US 101 is the most congested, which happens during the peak commute periods.
- Northbound regional cut-through traffic percentage peaks during the AM peak commute period between 6 AM and 8 AM, and southbound regional cut-through traffic percentage peaked during the PM peak commute period between 3 PM and 5 PM, when US 101 southbound received the most traffic.
- Study roadway segments that have a high percentage of regional cut-through traffic during the AM peak hour and are wholly within Morgan Hill are along Dunne Avenue, Butterfield Boulevard, Wright Avenue, Hale Avenue, Tennant Avenue, and Monterey Road.
- Study roadway segments that have a high percentage of regional cut-through traffic during the PM peak hour and are wholly within Morgan Hill are along Wright Avenue, Peak Avenue, Hale Avenue, Monterey Road, Main Avenue, and Cochrane Road.
- Study roadway segments that share a border between Morgan Hill and the County, generally have high percentages of regional cut-through traffic during both peak hours.
- Most of the northbound regional cut-through traffic during the AM peak hour enters the City from the south through local roadways west of US 101 and exits the City onto US 101. The most utilized route for the northbound regional traffic is Butterfield Boulevard.
- Most of the southbound regional cut-through traffic during the PM peak hour enters the City from the north through local roadways west of US 101. Approximately 50% of this cut-through traffic exits the City to the south still using local roadways west of US 101, and most of the remaining traffic exits the City onto US 101. The most utilized routes for the southbound regional traffic are Monterey Road and Butterfield Boulevard.

Existing Conditions Analysis

Contents

List of Figures

Overview

This document provides an overview of the existing conditions in Morgan Hill specifically related to multimodal transportation and safety. The contents of this document will be incorporated into the final Transportation Master Plan (TMP) and will support the identification of network gaps, issue areas and opportunities, recommendations, and project prioritization.

This memorandum is organized into the following sections:

- **Review of Existing Plans and Programs**
- **Existing Transit Services**
- **Existing Bikeways and Trails Network**
- **Safety Analysis**
- **Pedestrian Conditions and Activity Analysis**

Review of Existing Plans and Programs

The City of Morgan Hill has developed a variety of policies and plans that support multimodal transportation and safety. This section summarizes relevant goals, key takeaways, and previously identified projects and priorities from adopted planning efforts. The TMP process included a thorough review of past recommendations, some of which will be updated and incorporated into the final TMP plan. **Table 1** summarizes each reviewed plan's relevance to the TMP and identifies opportunities to further progress as part of the TMP. See the **Appendix** for a full Plan Review, including relevant goals and project lists associated with each plan.

Table 1: Existing Plans Summary

Planning Document	Relevance to TMP	Opportunities for Further Progress
Morgan Hill 2035 General Plan	Policy document guiding growth and development in Morgan Hill, with specific transit, bicycle, and pedestrian-related policies and recommended improvements and proposed projects.	Strengthen Morgan Hill's bicycle and pedestrian networks by prioritizing and refining previous recommendations. TMP recommendations can be integrated into the upcoming update to the Circulation Element of the General Plan.
Bikeways, Trails, Parks, and Recreation Master Plan	Inventory of existing bikeway and trail networks in Morgan Hill as well as proposed improvements and project recommendations to expand these networks.	Review and refine previous recommendations to further develop Morgan Hill's bicycle and pedestrian network.
Community Based Transportation Plan	Documents strategies related to transportation needs in Morgan Hill, including issues related to accessing safe, affordable, and reliable transportation options to meet daily needs.	Further develop strategies to address transportation needs for Morgan Hill residents.

Planning Document	Relevance to TMP	Opportunities for Further Progress
Vision Zero Policy	Establishes the need for and identifies strategies to improve safety, create livable streets, and eliminate traffic fatalities in Morgan Hill.	Apply Vision Zero principles to all sections of the TMP, including the development of safe and well-connected pedestrian and bicycle networks.
Morgan Hill Master Street Tree Plan	Emphasizes landscaping for community aesthetics and their potential to improve pedestrian conditions.	Enhance pedestrian conditions and incorporate landscaping into pedestrian projects in Morgan Hill.

Morgan Hill 2035 General Plan

The *Morgan Hill 2035 General Plan*, adopted in 2016, is the planning document that guides future growth and development in Morgan Hill and shapes the collective vision for what Morgan Hill will look like through 2035. The Plan's overarching goal is to maintain Morgan Hill's family-friendly character and strong sense of community while the city grows and prospers. Chapter 7 of the General Plan is most relevant to the TMP, and **Table 2** below highlights the chapter's most pertinent goals.

In addition to transportation-specific goals, the General Plan contains multiple "Big Ideas: that are relevant to the TMP:

- Offer and improve services, amenities, educational opportunities, and improvements that encourage an active, healthy lifestyle.
- Support and connect all modes of transportation.

Table *2*: Relevant Goals from the 2035 General Plan

Goal Number	Description
TR-1	A balanced, safe, and efficient circulation system for all segments of the community, meeting local needs and accommodating projected regional and sub-regional traffic while protecting neighborhoods.
TR-2	A system designed for a healthy, active community based on complete streets, smart growth, and Sustainable Communities strategies; reflecting a balanced, safe, multimodal transportation system for all users, especially in Downtown where pedestrian, bicycle, and transit facilities will be emphasized along with vehicular facilities.
TR-3	A coordinated, continuous network of streets and roads.
TR-4	Emphasis on transportation improvements in the Butterfield, Hale/Santa Teresa, and Monterey Corridors.
TR-6	A safe and efficient transit system that reduces congestion by providing viable non-automotive modes of transportation.

TR-8	A usable and comprehensive bikeway system that safely connects neighborhoods with workplaces and community destinations.
TR-9	Expanded pedestrian opportunities.

Morgan Hill Bikeways, Trails, Parks, and Recreation Master Plan

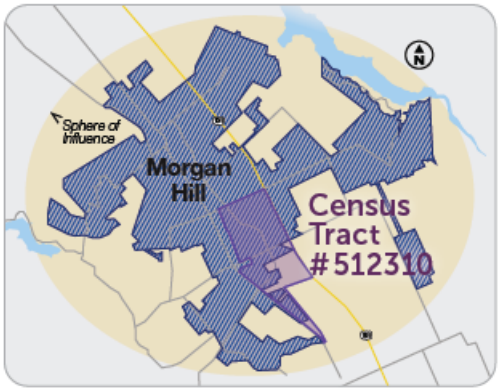
Morgan Hill's *Bikeways, Trails, Parks, and Recreation Master Plan* (2017) builds upon the General Plan priority of creating high quality and accessible recreational amenities and provides a cohesive community-based vision for the future with accompanying policies, priority projects, and programs. Specifically, the plan provides a roadmap – including recommendations, actions, system-wide guidelines, and a list of priority projects – for creating a usable and comprehensive bikeway system that safely connects neighborhoods with workplaces, community destinations, and for expanded pedestrian opportunities. **Table 3** below summarizes relevant goals from the plan.

Table 3: Relevant Goals and Objectives from the Bikeways, Trails, Parks, and Recreation Master Plan

Goal Number	Description
#1	The City of Morgan Hill shall strive to expand and improve its system of parks, recreation facilities, programs, bikeways, and trails to support community health, economic development, and quality of life in Morgan Hill. The improvements and investments outlined in the plan will: **a.** Improve connections between residences and the network of City parks and facilities **b.** Diversify the experiences in the City's parks and along its trails **c.** Engage people of all ages and all abilities **d.** Support the health and wellness of all community members **e.** Ensure equitable access to programs and places for recreation and activity **f.** Enhance safety and navigation to key recreation destinations and along popular routes **g.** Invest in and maintain existing assets while carefully planning for future growth

Morgan Hill Community Based Transportation Plan

Morgan Hill's *Community Based Transportation Plan (2019)* is the result of a community-driven planning effort that documents transportation needs and identifies strategies to implement relevant projects and services. Major issues and priorities in the plan are grouped into five categories: 1) Freeway Improvements and Congestion Management, 2) Bicycle and Pedestrian, 3) Transportation Options and Services, 4) Public Transportation Amenities, and 5) Public Transportation Improvements – and identifies 20 transportation project proposals that aim to address transportation challenges identified by community members during the plan's outreach process. A list of relevant projects can be found in the Appendix.



The Community Based Transportation Plan places a particular emphasis on addressing transportation needs for Morgan Hill's community of concern (COC), defined by the Metropolitan Transportation Commission (MTC) as census tracts that have a significant concentration of underserved populations. The only COC in Morgan Hill is located immediately west of Highway 101, with Dunne Avenue on the northern perimeter, Monterey Road on the western perimeter, and Highway 101 on the eastern perimeter; the census tract extends beyond Morgan Hill's southern city boundary.

Other Plans and Supporting Policies

Vision Zero Policy

Morgan Hill's Vision Zero policy document, adopted in 2018, is relevant to the TMP as it holds the City accountable to its commitment to eliminate traffic fatalities and severe injuries by setting forth policy intended to prioritize safety, create livable streets, and eliminate traffic fatalities. The policy includes actions grouped into the following seven categories: Engineering, Enforcement, Education, Engagement, Evaluation, Encouragement, and Equity. **Table 4** summarizes the Vision Zero Actions. A full list of actions can be found in the Appendix.

Table 4: Vision Zero Plan Action Items

Action Item	Description
1. Engineering	Creating a physical environment that prioritizes safety for all forms of transportation is of the highest priority for the City. The City ensures that both new development and capital projects are constructed to standards that promote safety for all transportation modes.
2. Enforcement	The Morgan Hill Police Department (MHPD) has made traffic safety a top priority among its Department goals. Best practice strategies will be implemented to reduce the number of persons killed and injured in crashes involving alcohol and other primary collision factors. Enforcement is a proven deterrent in this reduction. Speed Enforcement is a large component of MHPD's Traffic Safety program. Using Vision Zero principles, MHPD will continue to allocate Traffic Unit resources toward high frequency crash

Action Item	Description
	locations and toward behavior issues of speeding, intoxicated driving, and distracted driving. MHPD is continuing to work directly with the City engineers, educators, along with enforcement to combat risky driving that we know leads to injury collision.
3. Education and Engagement	Vision Zero Morgan Hill commits to public awareness initiatives that are sustained, concentrated efforts that target a specific community problem. In order to be most effective, education efforts should be combined with engineering changes as well as law enforcement.
4, Evaluation	The City is currently making enhancements to its traffic collision data analytics by partnering with the County of Santa Clara and LexisNexis to provide more streamlined and consistent data throughout the region. The City will directly benefit from the improved analytics on traffic collision patterns, Geographic Information System maps, direct data feeds to Police Traffic Division and Engineering so they can fully understand information about the contributing factors, and the ability to gain valuable insight into neighboring cities' traffic collision data.
5. Encouragement	Partner with neighborhood organizations, environmental organizations, cultural groups, health care organizations, etc. to promote safety programs and events such as: Car Free Day, Bike to Work Day or Week, Walk/Bike to School, Park(ing) Days, Open Streets, Group Bike Rides, Bicycle Rodeos, Bicycle Tours, Funs Runs, and Fitness Challenges.
6. Equity	Social equity is at the core of Sustainable Morgan Hill and Vision Zero. To ensure equity and to protect the most vulnerable people, Vision Zero Morgan Hill shall prioritize projects which improve safety near schools, around housing for seniors and people with disabilities, and neighborhoods most reliant on public transportation. Morgan Hill is proud of its "Age-Friendly" designation and will continue to make improvements that provide a better quality of life for our community, of all ages and mobilities, and lend to healthy and vibrant lifestyles.

Morgan Hill Master Street Tree Plan

The Master Street Tree Plan, developed in 2018, designates tree species for each public street or segments of streets throughout the city based on available spacing metrics, and is intended to foster a comprehensive and sustainable plan through the use of drought-tolerant and low-maintenance species. The plan is relevant to the TMP for its general emphasis on landscaping for community aesthetics and the potential for street trees to improve pedestrian conditions. Street trees can improve pedestrian conditions by providing shade and a buffer between people using the sidewalks and motor vehicles. Street trees have also been shown to reduce travel speeds, supporting pedestrian safety.

Existing Transit Services

Existing transit service in Morgan Hill includes five Valley Transit Authority (VTA) bus routes (rapid, frequent, local, school, and express), Caltrain regional rail service, and MoGo, Morgan Hill's on-demand rideshare service. These services are intended to address two categories of trip types: regional travel/commuting to San José and local travel within the City of Morgan Hill. **Table 5** provides a summary of existing transit service frequency, service area, and operating hours. Overall, existing fixed route transit service in Morgan Hill is limited, particularly on weekends, with regional services focused primarily on commuting trips.

Regional Services

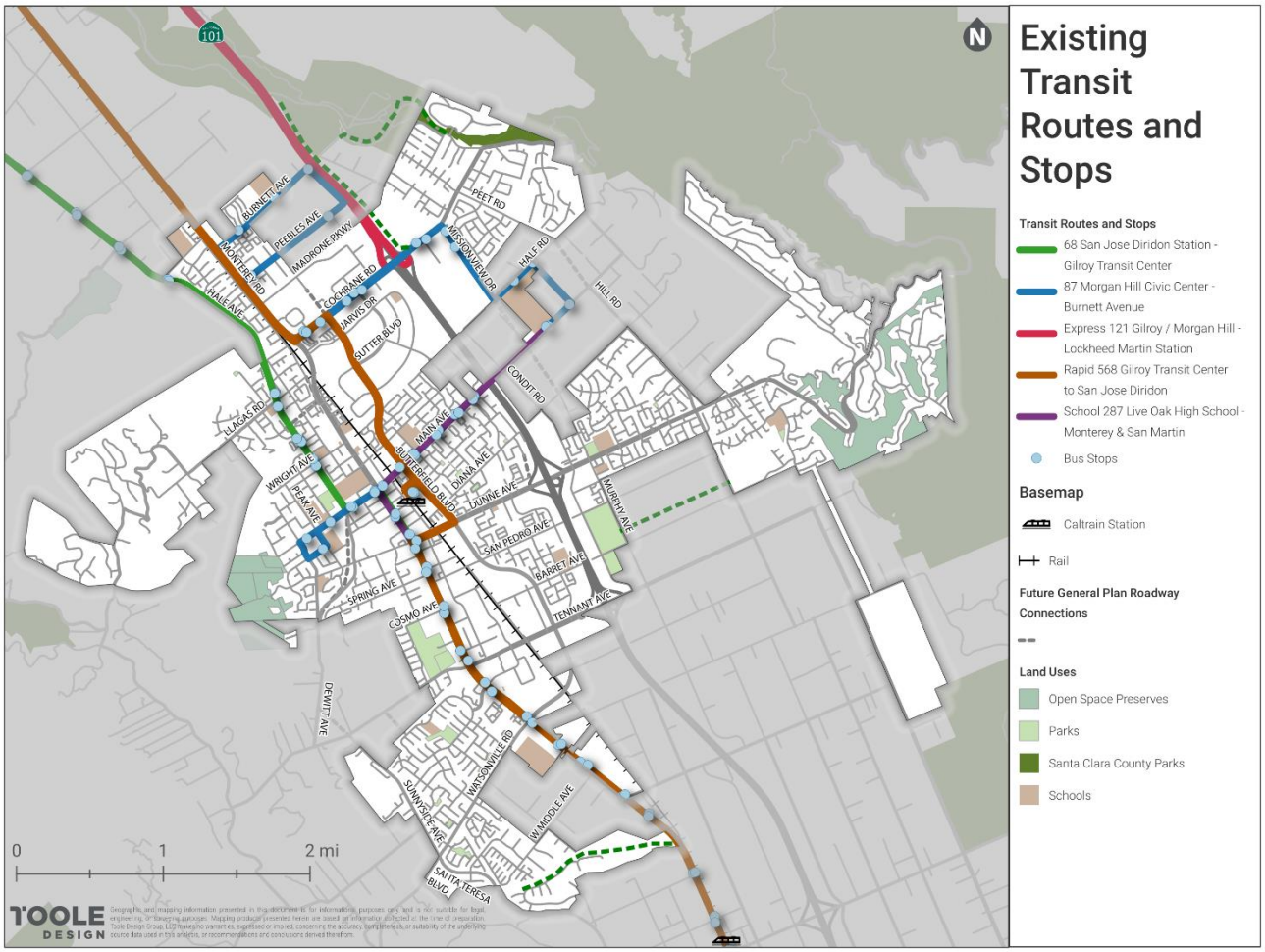
Valley Transit Authority (VTA)

Regional **VTA bus transit** routes operate every 15 to 30 minutes and provide all-day service between Gilroy and San José, with various stops in Morgan Hill (see **Figure** 1). Routes #68 (Frequent) and #568 (Rapid) are interlined along Monterey Boulevard with the #568 (Rapid) operating at a lower frequency with fewer stops. The high level of service for Route #68 (i.e., one bus every 15 minutes) enables Monterey Boulevard to qualify as a high frequency transit corridor, allowing for higher density development and eliminating minimum parking requirements pursuant to current State laws. Route #121 (Express) also has various stops in Morgan Hill and provides commuting service from Gilroy to San José, operating three times in the morning and in the evening.

Caltrain

Caltrain serves Morgan Hill with access via rail to Gilroy in the south and San José and San Francisco in the north. Service is oriented around commuting trips, with trips concentrated during peak periods and no-mid day or weekend service. The Caltrain station is located in Downtown Morgan Hill and features surface parking and pedestrian access from surrounding neighborhoods.

Figure 1: Existing Transit Routes and Stops in Morgan Hill



Local Services

Valley Transit Authority (VTA)

VTA operates two lines of fixed route service within the City of Morgan Hill (see Error! Reference source not found.). Route #87 primarily serves the west side of Morgan Hill, from Civic Center to Sobrato High School, while Route #287 primarily serves schools from San Martin Transit Center to Live Oak High School. Both routes operate on weekdays only. In addition, due to its frequent service, Route #68 serves as a local route for many residents.

MoGo

MoGo is the City of Morgan Hill's on-demand grant-funded rideshare service that provides first-and-last-mile connections within the city (see Error! Reference source not found. for Mogo Stops and Service Area), especially to people without access to vehicles or the ability to drive (i.e., students and seniors). MoGo operates on weekdays from 6:00 am to 9:00 pm and on weekends from 7:00 am to 9:00 pm, offering trips to and from fixed points citywide, such as existing VTA bus stop locations across Morgan Hill, including Downtown, shopping centers, schools, recreational facilities, businesses, and

community spaces. Users can book MoGo rides through a mobile app, online, or over the phone. Fares vary depending on age and mobility needs. Community use has increased steadily over the 19th months that MoGo has been in operation. Over the last 12 months, MoGo has served Morgan Hill residents in the following ways:

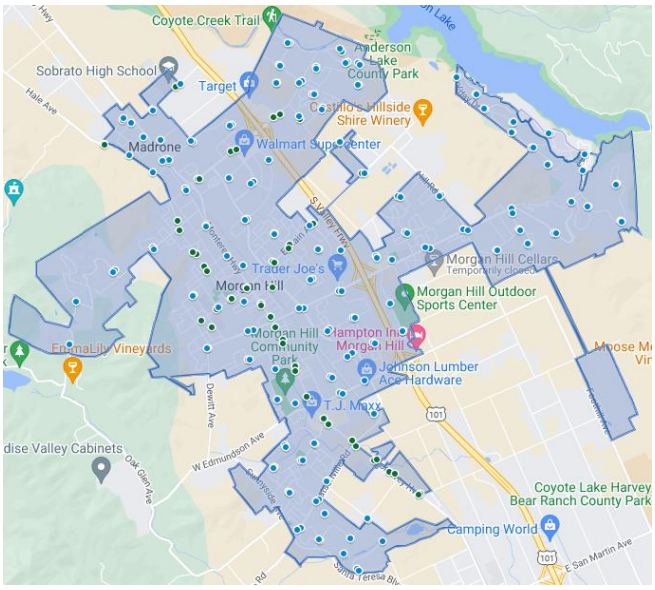
- 78 average daily riders
- Top user types: Youth (57%), Regular (30%), Low-Income (7%), Child (4%), Accessible (1%), Regular w/ Bike (1%)
- 20%-30% of MoGo rides were shared rides
- Top locations: Live Oak High School on WB E Main Avenue, Sobrato High School, EB Cochrane Road at Sutter Boulevard, NB Del Monte Avenue at Park Place Apartments, SB Monterey Road at Dunne Avenue, SB Monterey Road at Vineyard Boulevard, SB Monterey Road at Wright Avenue, EB Dunne Avenue at Walnut Grove Drive, EB W Dunne Avenue at Barnell Avenue, Centennial Recreation Center

While MoGo was intended to expand transit options for Morgan Hill residents and improve access to fixed route transit services, based on more than a year of observations, MoGo is being utilized more for accessing local destinations than for connecting to regional transit.

Though the scale of the program is modest, these travel patterns indicate both a demand for transit and that MoGo offers a promising model for meeting those needs across Morgan Hill. The grant funded program was launched in September 2022 and is funded through 2024. More funding is needed to make MoGo a permanent service and expand operations.

Figure 2: Local VTA Routes

Figure 3: MoGo Service Area and Stops



Green dots: MoGo stops at VTA bus stop locations
Blue dots: MoGo stops at unmarked locations

Table 5: Existing Transit Services in Morgan Hill

Service Provider	Route	Frequency				Destinations Served	Stop Density	
		Hours	AM	Day	PM		Total Stops	Morgan Hill
VTA	**568 (Rapid)**	5:00am - 7:30pm	Every 30 minutes	Every 30 minutes	Every 30 minutes	Gilroy Transit Center to Diridon Station San Jose	19	4
	68 (Frequent)	**Weekday**: 4:30 am - 12:30 am **Weekend** 5:30 AM – 12:30 AM	Every 15 minutes	Every 15 minutes	Every 30-60 minutes	Gilroy Transit Center to Diridon Station San Jose	96	16
	87 (Local)	AM and PM peak only	Every 60 minutes	-	-	Morgan Hill Civic Center to Sobrato High School	18	
	287 (School)	Departs Live Oak HS at 3:44pm	-	-	-	Live Oak High School to San Martin Caltrain	20	15
	121 (Express)	Inbound	3 AM trips	-	-	Gilroy Transit Center to Lockheed Martin Transit Center	19	3
		Outbound	3 PM trips	-	-			
Caltrain	**Morgan Hill Station**	Inbound	3 AM trips	-	-	Gilroy to San Francisco	31	1

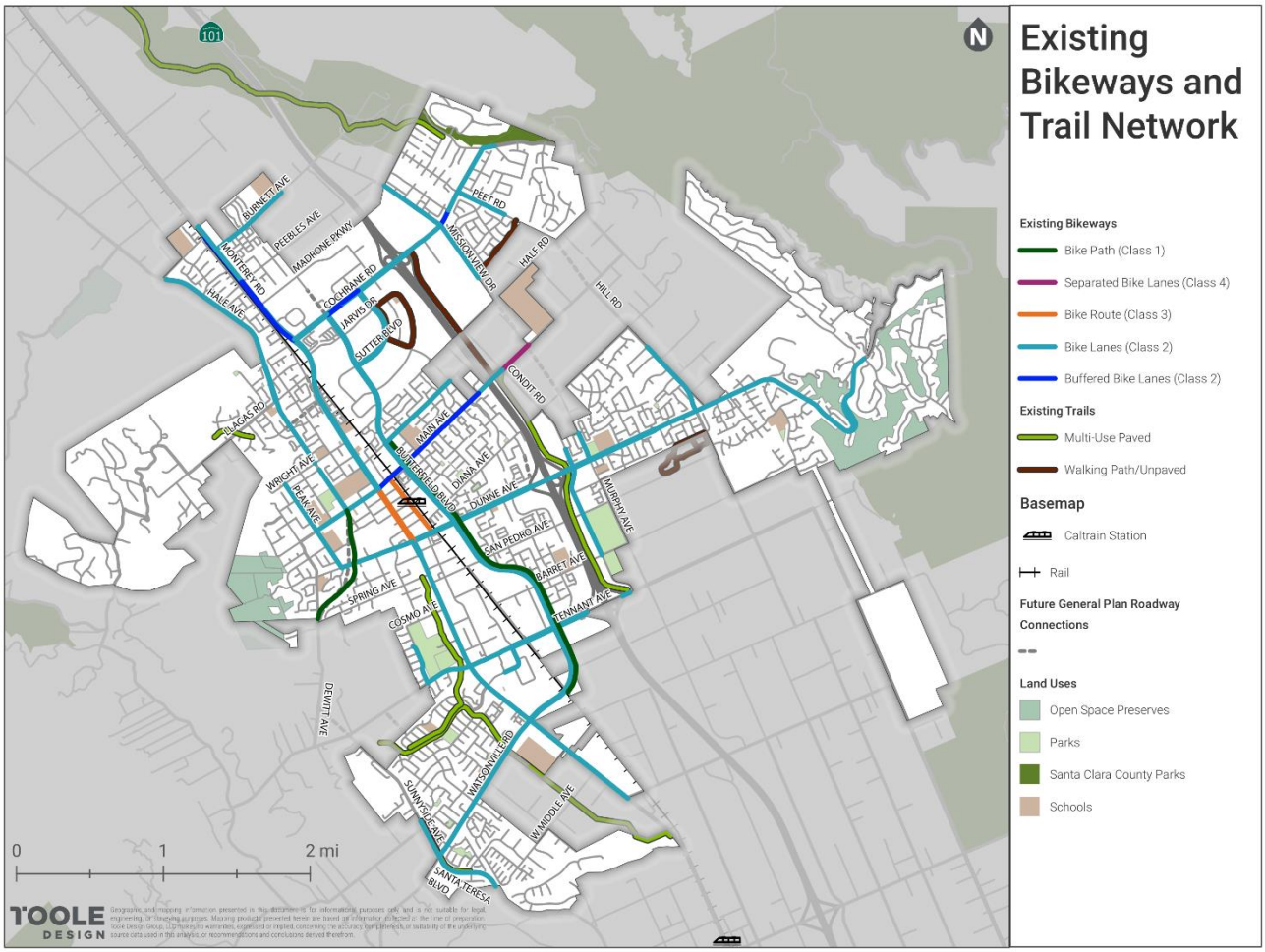
Inbound: *Northbound*
Outbound: *Southbound*

Bikeways and Trails Network

Morgan Hill features a growing network of on-street bikeways and multi-use trails that provide recreational opportunities and transportation connections to destinations across the city. While bicyclists may legally use all public roads, the term “bicycle network” refers to the set of marked and signed bike lanes and designated routes in the city.

Figure 4 shows Morgan Hill’s existing bikeways and trails networks. The existing on-street bicycle network includes a mix of dedicated bike lanes and designated bike routes (i.e., shared lanes), while the trail network includes off-street multi-use paved and unpaved walking paths/trail segments. Past planning efforts in Morgan Hill identified potential bikeway and trail network improvements, some of which have been implemented as part of identified bikeway projects or as part of larger roadway improvement efforts. Understanding the extent and condition of these networks helps reveal where gaps exist and what improvements can be made to make bicycling safer, better-connected, and more comfortable for Morgan Hill residents of all ages and abilities.

Figure 4: Morgan Hill Bikeways and Trails Network



On-Street Bikeway Facility Types

Table 6 below depicts bikeway mileage by facility type in Morgan Hill, with corresponding example images.

Sidepath (Class I)

Sidepaths are paved trails typically located at sidewalk level that provide pedestrians and bicyclists physical separation from motor vehicle facilities. Sidepaths in Morgan Hill are present along Butterfield Boulevard from Central Avenue to Railroad Avenue and on the recently constructed portion of Hale Avenue from Main Avenue to DeWitt Avenue.

Note: Multi-use trails are bikeways in a dedicated right-of-way and are discussed below.

Bike Lane (Class II)

A bike lane is a dedicated space within the paved area of a road for bicycle use. Bike lanes are typically located along the right edge of a roadway or between the parking lane and the first motor vehicle lane and are identified by painted lane lines and bicycle icon pavement markings. Bike lanes may be painted green for greater visibility, especially through conflict zones like intersections and driveways, or where bicyclists and vehicles may be operating in the same space. Bicycles and similar-speed micromobility devices, such as e-scooters, have exclusive use of the bike lane but motor vehicles and pedestrians may cross it.

Bike lanes in Morgan Hill exist primarily along major roads, including each of the major east-west corridors that cross Highway 101 and along north-south corridors such as Butterfield Boulevard, Hale Avenue, and sections of Monterey Road. Several corridors in Morgan Hill also feature a shared bike lane/parking aisle that is generally wide enough to accommodate both bicyclists and parked vehicles. This type of bikeway is potentially less safe than regular marked bike lanes due to reduced delineation between vehicles and bikes.

Buffered Bike Lane (Class II)

A buffered bike lane is an on-street bicycle-only lane with a painted striped buffer that creates additional physical separation between bicycles and the motor vehicle lane. Generally, buffered bike lanes are applied in Morgan Hill where space permits and are often added to existing bike lanes during roadway resurfacing and restriping efforts. Buffered bike lanes in Morgan Hill exist along portions of Monterey Road, Cochrane Road, and Main Avenue.

Bike Route (Class III)

Bike routes are streets that are shared with vehicles and typically feature roadside signs and painted “sharrow” markings to alert motorists that the road is shared with bicyclists. Bike routes are usually located along neighborhood streets. The only designated bike routes in Morgan Hill are along Monterey Road through Downtown and along Depot Street.

Separated Bikeway (Class IV)

A separated bike lane includes a physical barrier/vertical element (e.g., flexible posts, bollards, planters, parked vehicles, or curbs) between the bike lane and the motor vehicle lane. Separated bike lanes may be one- or two-way facilities – the latter may also be referred to as a “cycle track.” There is only one separated bikeway in Morgan Hill – located along the north side of Main Avenue from Condit Road to Casa Lane.

Table 6: Miles of Bikeways by Facility Type

Facility Type/Class	Miles	Example
Class I: Sidepaths	3.00	 *Butterfield Boulevard*
Class II: Bike Lane / Buffered Bike Lane	Bike Lanes: 50.00 Buffered Bike Lanes: 3.5	 *Main Avenue*
Class III: Bike Route	2.00	 *Depot Street*
Class IV: Separated Bikeway	0.25	 *Main Avenue*

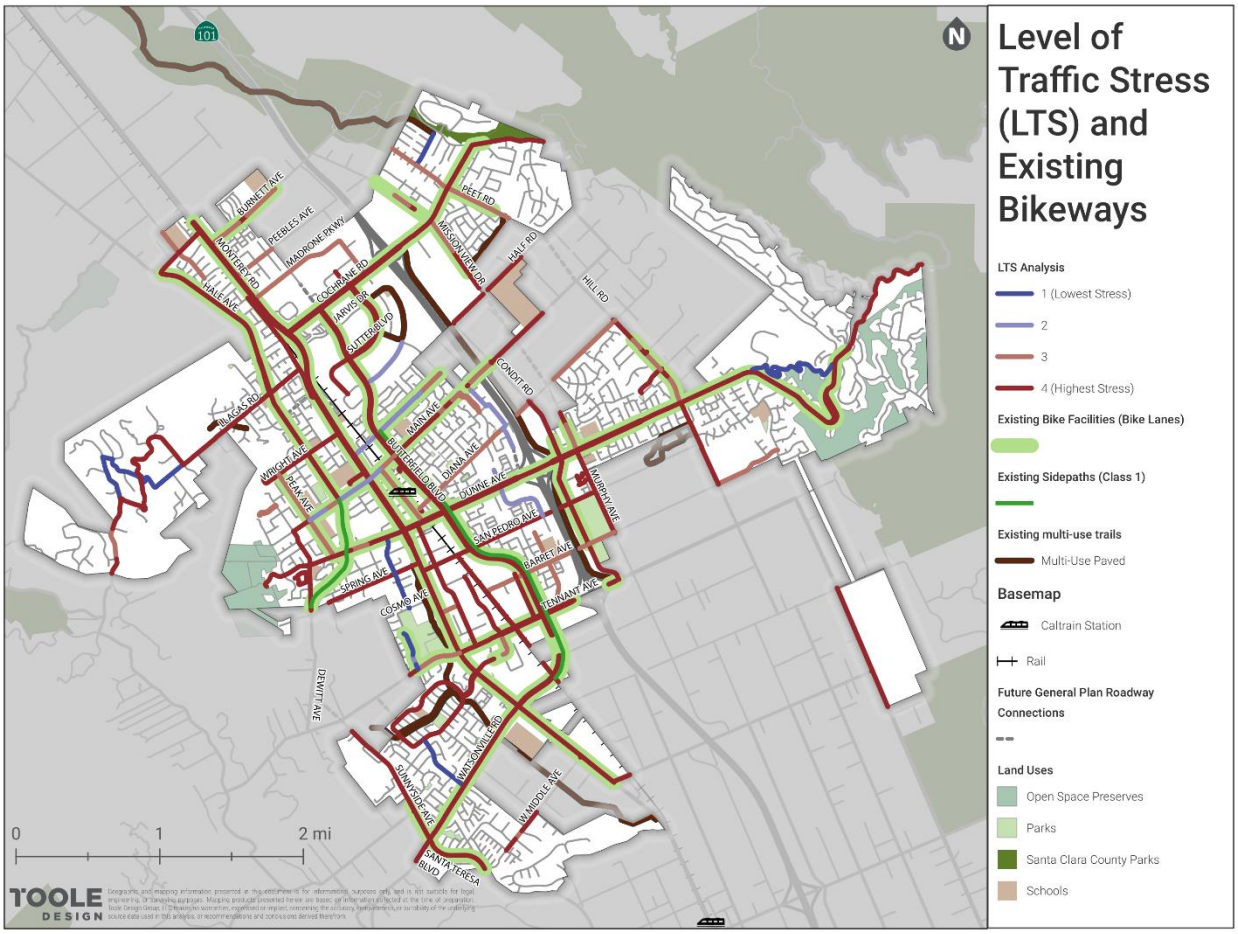
Bicyclist Level of Comfort Analysis

Level of Traffic Stress Analysis

Level of Traffic Stress (LTS) analysis is an approach that quantifies the level of comfort bicyclists feel when riding on roads on a scale from 1 (lowest stress) to 4 (highest stress). LTS values are based on factors such as posted vehicle speed, traffic volume, number of lanes, and the presence of on-street parking. Streets where bicyclists have fewer interactions with vehicles and greater levels of physical separation result in lower stress conditions and are therefore more likely to appeal to a wider range of potential bicyclists. In addition to evaluating existing conditions, LTS analysis can help determine areas within the City of Morgan Hill that could benefit from improved bikeways with greater separation from vehicles.

Figure 5 depicts LTS values for all streets in Morgan Hill; multi-use trails and sidepaths are also included in the LTS analysis and are considered "low stress." Though many major streets have bikeways, the high speeds and limited physical protection from vehicles means these facilities are high stress and will be appealing only to more confident bicyclists. Existing bikeways with high LTS levels may be considered candidates for improvements that would provide greater separation from vehicles.

Figure 5: Bicycle LTS Results for Morgan Hill



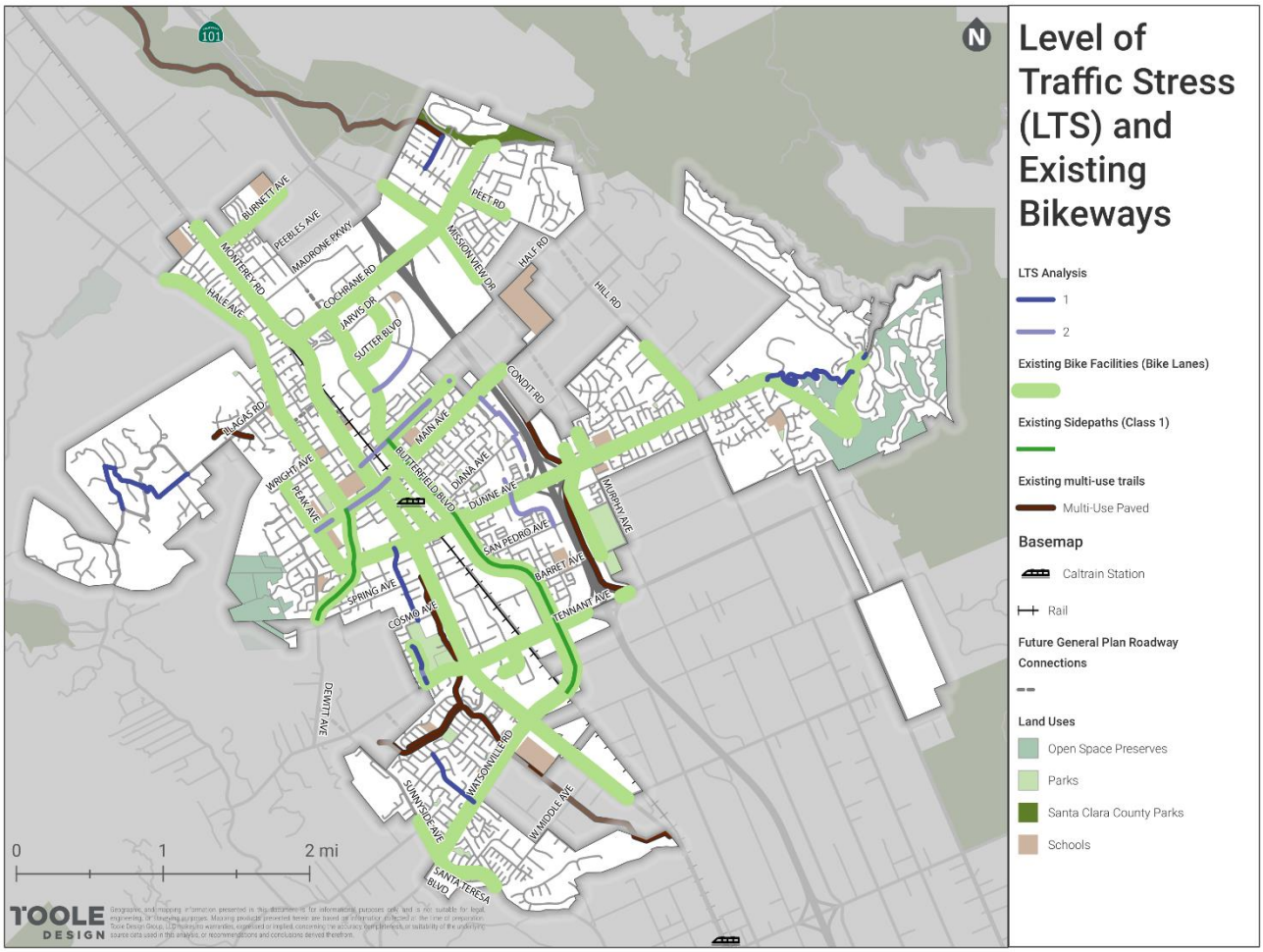
Low Stress Network

Figure 6 highlights the streets in Morgan Hill that can be considered low stress for bicycling (i.e., LTS 1 or 2), including existing bikeways, sidepaths, and multi-use trails. While all local (residential) roads are classified as low stress, many major streets form barriers both for people interested in bicycling or crossing these major corridors. Only two major streets segments in Morgan Hill with existing bike lanes are classified as low stress:

- Olympic Drive between Edmundson Avenue and Denali Drive
- Main Avenue from Peak Avenue to Depot Street

Sidepaths, such as along Butterfield Boulevard and Hale Avenue, and multi-use trails, including the West Little Llagas Creek and Coyote Creek Trails are also considered low-stress facilities and are part of the network depicted in **Figure 6.**

Figure 6: Low Stress Bikeways



Existing Bikeways Analysis: Key Takeaways

- Bikeways in Morgan Hill are present on many arterial streets throughout the city, with most bikeways in Morgan Hill classified as Class II Bike Lanes.
- LTS values are highest on major streets (i.e., arterials and collectors) in Morgan Hill, where streets are often wide with high vehicle speeds and traffic volumes.
- The low-stress bicycle network is limited, meaning that bikeway improvements creating greater separation from vehicles and bicycles are needed to appeal to a wider range of potential users.
- There are discontinuous facilities along roads that pass between City and County jurisdiction, creating network gaps.
- Limited crossings over Highway 101 facilitate a need to provide quality bikeways on these crossings to provide safe and comfortable on-street connections across the city.

Multi-use Trails

The existing multi-use trail network includes just over 15 miles of off-street trails, with 8.6 miles of paved multi-use trails and 6.6 miles of unpaved walking paths. In addition to recreational uses, some trails also play important roles in the city's transportation system by providing connections to key destinations and filling in network gaps. However, some trails have paved sections that transition to unpaved sections. This inconsistency can cause challenges and difficulties for people, especially for those who lack proper equipment and who have mobility limitations.

Existing and previously proposed trails, differentiated between paved and unpaved trail segments, are shown in

Figure 7. Opportunities exist to increase connections between trails on the west and east sides of the city, improve trail access, and pave and enhance unpaved trails such as the Madrone Channel to increase their usability.

Figure 7: Existing and Previously Proposed Trails

Table 7: Major Trail Descriptions and Mileage

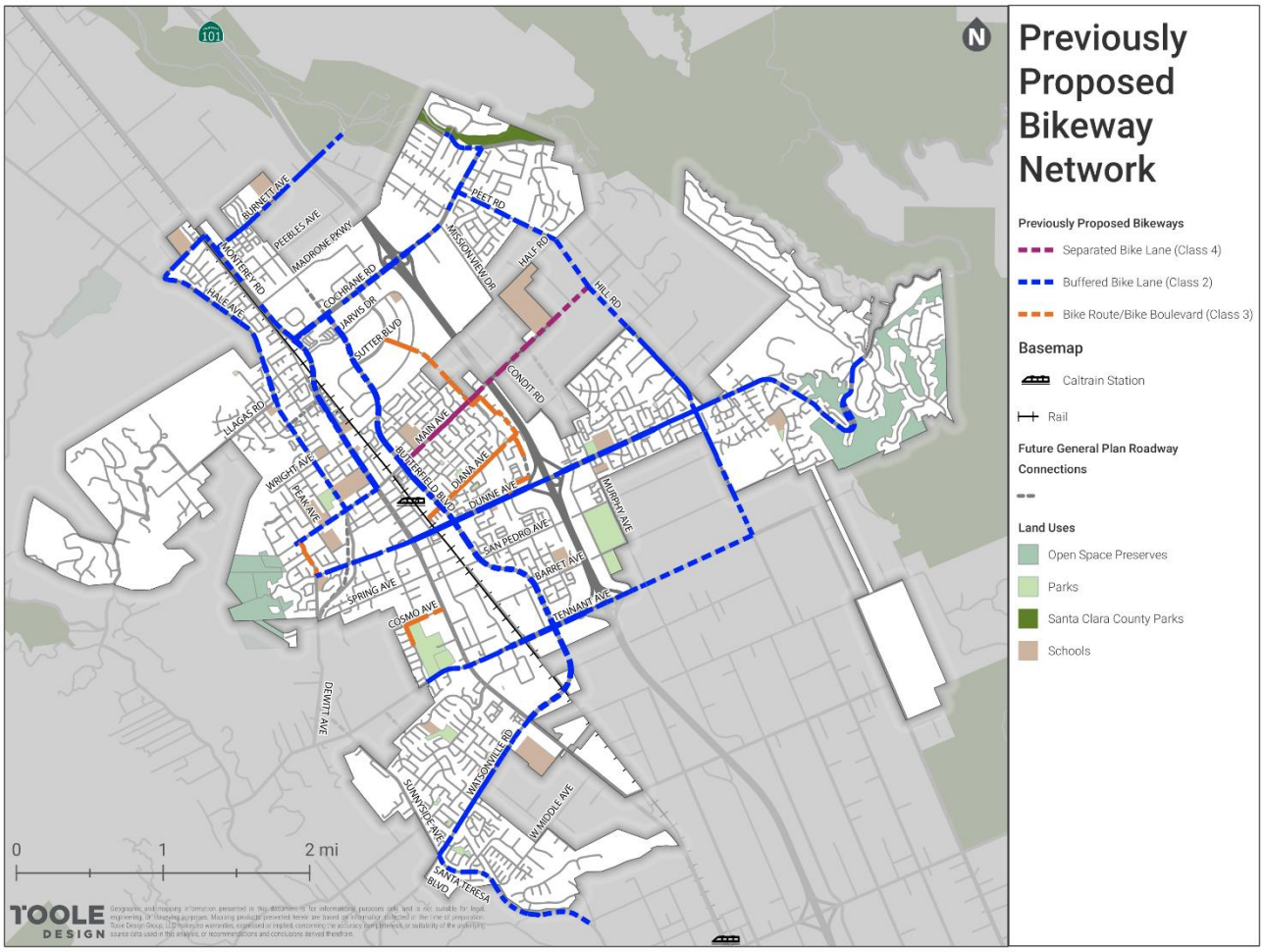
Details	Example Image
Coyote Creek Parkway - ***Surface Type*:** Paved - ***Length*:** 5 miles - ***Connections*:** Regional Coyote Creek Trail is a regional trail that covers a total of 18.7 miles from San José to Morgan Hill. The southern portion of the Coyote Creek Trail encompasses the section of trail that is in Morgan Hill and begins at Tully Road and extends southward terminating in Morgan Hill. The Coyote Creek Trail is a paved multi-use trail, allowing hiking, biking, and equestrian use.	
Madrone Channel Trail - ***Surface Type*:** Paved and Unpaved - ***Length***: 3 miles - ***Connections***: Local The Madrone Channel Trail travels the length of the Morgan Hill adjacent to Highway 101, providing three miles of north-south off-street usage for bikes and pedestrians. Part of the Madrone Channel Trail is paved, between Cochrane Road and Dunne Avenue, while the other segments of trail remain unpaved. The paved sections of the Madrone Channel Trail are narrow, especially if users must pass each other, and are bordered on one side by barbed-wire fencing, and on both sides by unpaved surface. The unpaved sections are a combination of dirt and rocks, which pose difficulties for users without the proper equipment or who have limited physical mobility.	 

Details	Example Image
West Little Llagas Creek Trail - ***Surface Type*:** Paved - ***Length***: 2 miles - ***Connections***: Local West Little Llagas Creek Trail is a paved two-mile long multi-use paved trail that extends from Spring Avenue to Watsonville Road and is classified as a locally designated Wildlife Interpretive Corridor, providing a space where the community can view the local environment and wildlife. The trail features interpretive signs and artwork depicting native wildlife and educational information.	
San Pedro Ponds Trail - ***Surface Type*:** Unpaved - ***Length***: 1 mile - ***Connections***: Local The San Pedro Ponds trail offer a one-mile public trail that navigate the 29-acre groundwater recharge area at Hill Road and San Pedro Avenue. The trail is a result of an agreement between the Santa Clara Valley Water District and the City of Morgan Hill.	

Previously Proposed Bikeways and Trails

In addition to the existing bikeway network in Morgan Hill, previous planning efforts identified and proposed improvements or additional segments of bikeways in the city. Many of the previously planned and proposed bikeways would enhance existing facilities, offer options to close network gaps, and provide more north-south and east-west connections. In general, the proposed and previously planned bikeways offer greater protection and separation from vehicles than existing bikeways, including buffered bike lanes in place of existing standard bike lanes. In some areas where buffered bike lanes exist, previous plans recommend separated bike lanes. **Figure 8** below depicts these improvements, many of which are incorporated into the recommended improvements in the TMP.

Figure 8: Proposed Bikeways and Trail Network in Morgan Hill



Safety

Various methods and data were used to evaluate safety conditions in Morgan Hill, including assessments of relative rates of crash severity in Morgan Hill compared to peer communities, and evaluation of locations with high rates of crashes within the City of Morgan Hill (technical analysis methodologies are included in the TMP). Analyzing safety conditions in Morgan Hill allows the project team to identify areas within the city that could benefit from safety enhancements and improvements, support project prioritization, and set the City up for further analysis as part of the Safety Action Plan.

Note on crash data: At the time of the development of the Morgan Hill TMP, statewide and city-level crash data were available for the years 2019-2023. The most recent years for which location-specific data were available were 2016-2020.

Comparative Crash Data

Using US Census 2020 population data and fatal and injury crash data involving bicycles and pedestrians over a five-year period (2019-2023), per capita crash rates were calculated to understand how Morgan Hill compares to conditions statewide and in neighboring cities (see **Table 8**). Compared to nearby cities, Morgan Hill has a lower share of fatal and injury crashes involving bicycles and pedestrians over a 5-year average (15% of all crashes), but a higher share when compared statewide (13%). When comparing bicycle and pedestrian fatal and injury crashes per 100,000 people, Morgan Hill has the lowest rate of all neighboring cities.

Table 8: Comparative Crash Data - Fatal and Injury Crashes (5 Year Averages from 2019-2023)

Comparative Crash Data - 2019-2023	Population	Share of Fatal and Injury Crashes Involving Bicycles and Pedestrians	Bicycle and Pedestrian Fatal and Injury Crashes per 100,000 people	Pedestrian Fatal and Injury Crashes per 100,000 people	Bicycle Fatal and Injury Crashes per 100,000
Statewide	39,538,223	13%	53.0	31.0	22.0
Morgan Hill	45,483	15%	33.0	18.5	14.5
Gilroy	59,520	16%	49.4	24.9	24.5
Sunnyvale	155,805	18%	74.6	27.4	47.1
Mountain View	82,376	18%	45.7	20.4	25.3
Los Gatos	33,529	21%	69.9	25.0	44.9

Data Source: California Statewide Integrated Traffic Records System (SWITRS), and 2020 US Census

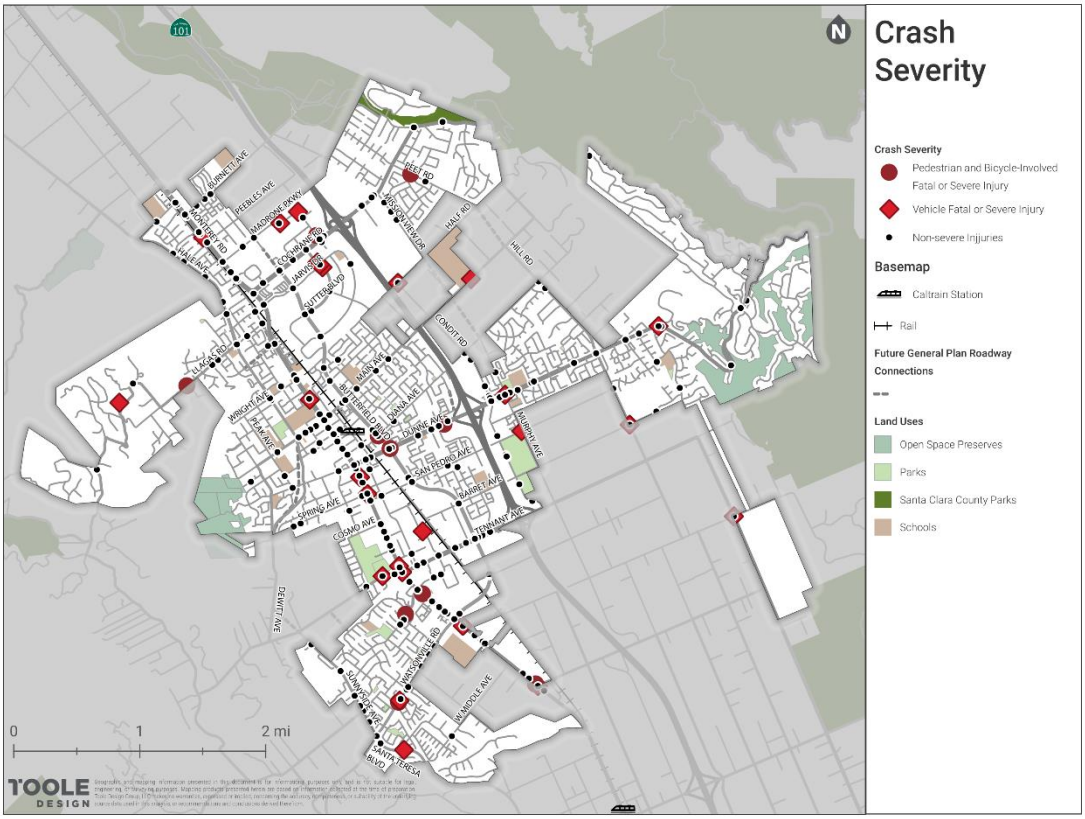
Crash Severity in Morgan Hill

Crashes in Morgan Hill are concentrated along arterial corridors, including Cochrane Road, Main Avenue, Dunne Avenue, Tennant Avenue, and Monterey Road (see **Figure 9**). Non-severe injuries make up a majority of crashes, while pedestrian and bicycle-involved fatal or severe injuries make up a relatively small numbers of crashes in the city. **Table 9** below summarizes crash statistics for the five-year period between 2016-2020. Vehicle crashes make up the largest share of both fatal and severe crashes in Morgan Hill, with pedestrian involved crashes making up the second largest share, with a total of three fatal crashes and eight severe crashes over the five-year period. While no bicycle-involved fatal crashes were reported, there were two severe bicycle-involved crashes over the five-year period.

Table 9: Crashes Severity Summary in Morgan Hill

Year	Total Crashes	# Fatal Crashes			# Severe Crashes		
		Bicycle	Pedestrian	Vehicle	Bicycle	Pedestrian	Vehicle
2016	118	-	-	-	-	1	3
2017	120	-	-	3	-	2	5
2018	120	-	1	2	-	1	5
2019	94	-	1	-	-	2	2
2020	60	-	1	3	2	2	5
Total	**512**	**0**	**3**	**8**	**2**	**8**	**20**

Figure 9: Crash Severity by Mode in Morgan Hill (2016-2020)



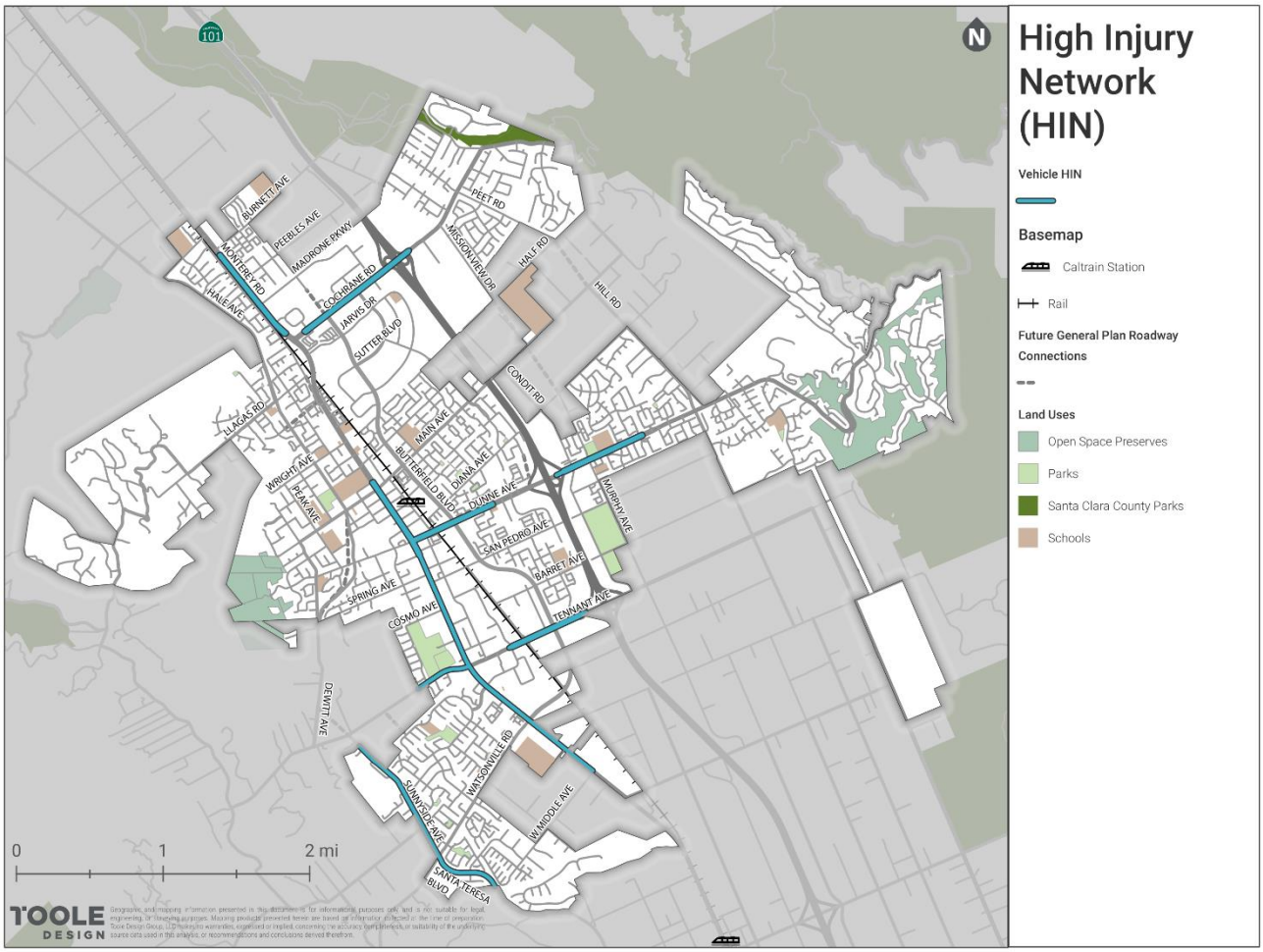
High Injury Network

The High Injury Network, or HIN, uses crash data to analyze street segments with the highest concentration of severe and fatal crashes. The following sections describe each HIN by mode (vehicle, pedestrian, and bicycle) and the combined HIN.

Vehicle HIN

The Vehicle HIN (**Figure 10**) is concentrated west of Highway 101, and specifically along major roads and arterials, including Monterey Road and Cochrane Road in the north, Monterey Road and Dunne Avenue in the middle of the city, and Tennant Avenue and Sunnyside Avenue in the south of the city.

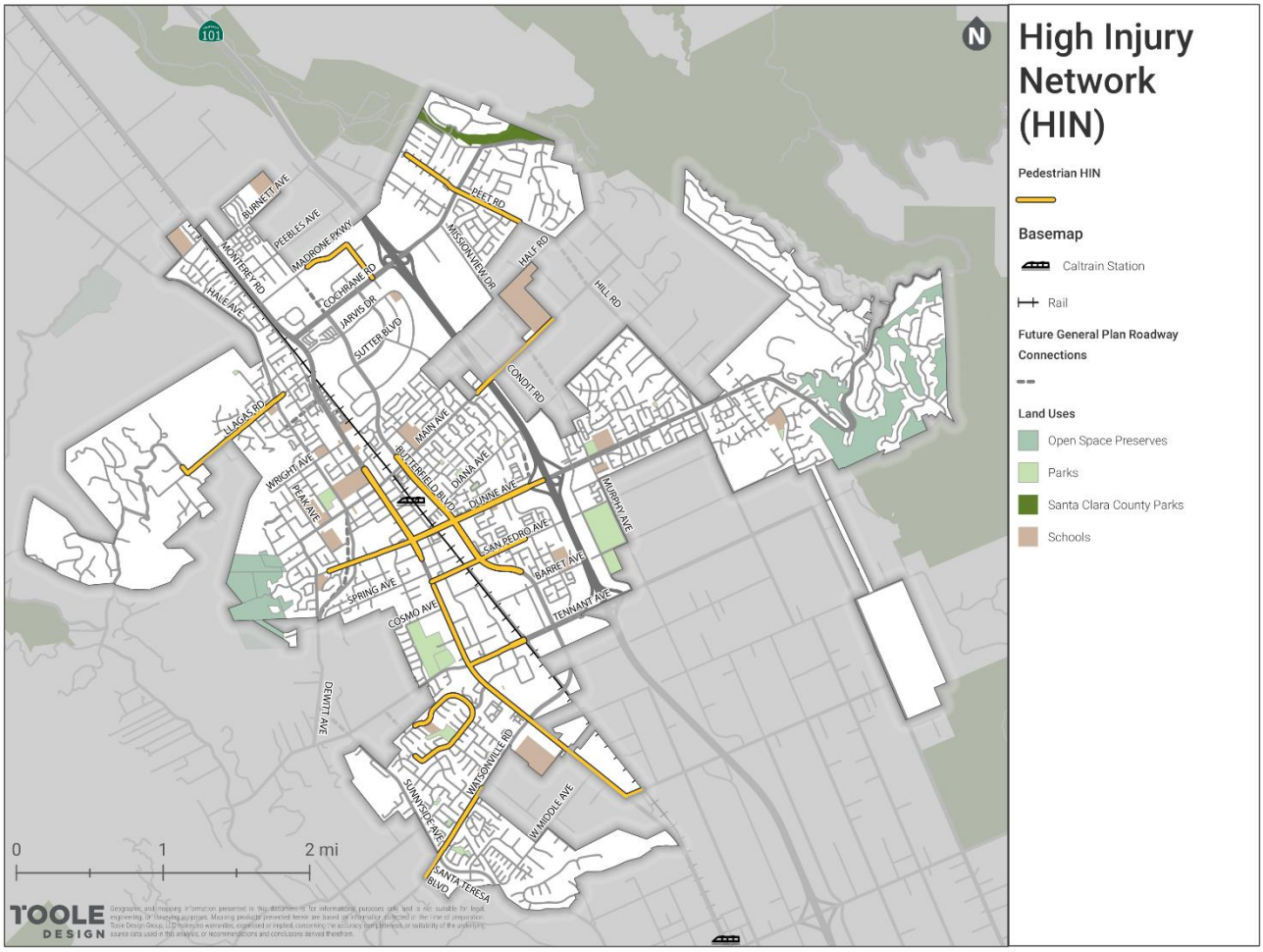
Figure 10: Vehicle HIN in Morgan Hill (2016-2020)



Pedestrian HIN

The Pedestrian HIN **(Figure 11**) is concentrated west of Highway 101, with only two sections east of Highway 101 (Peet Road and Main Avenue). Other segments of the Pedestrian HIN include Llagas Road west of Monterey Road, sections of Dunne Avenue, Monterey Road in the south, and Watsonville Road, among others.

Figure 11: Pedestrian HIN in Morgan Hill (2016-2020)

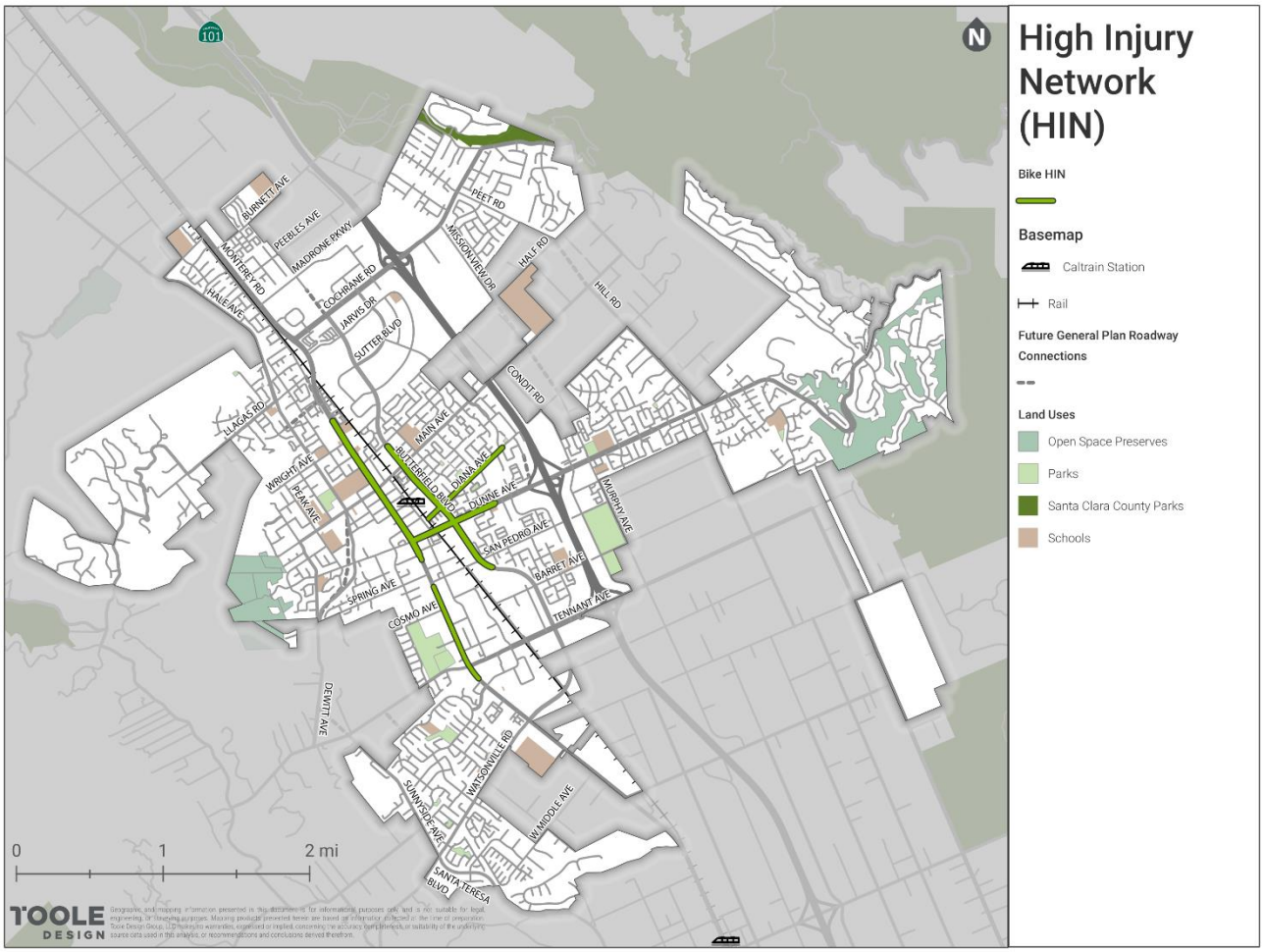


Bicycle HIN

Due to the relatively modest number of bicycle-involved crashes, the Bicycle HIN (

Figure 12) is the least extensive of the HINs, with the network concentrated between Monterey Road and Highway 101. The bicycle HIN includes a segment of Monterey Road between Granada Street and just past Central Avenue, on Butterfield Boulevard between Central Avenue and Main Avenue, and almost the entire length of Diana Avenue.

Figure 12: Bicycle HIN in Morgan Hill (2016-2020)



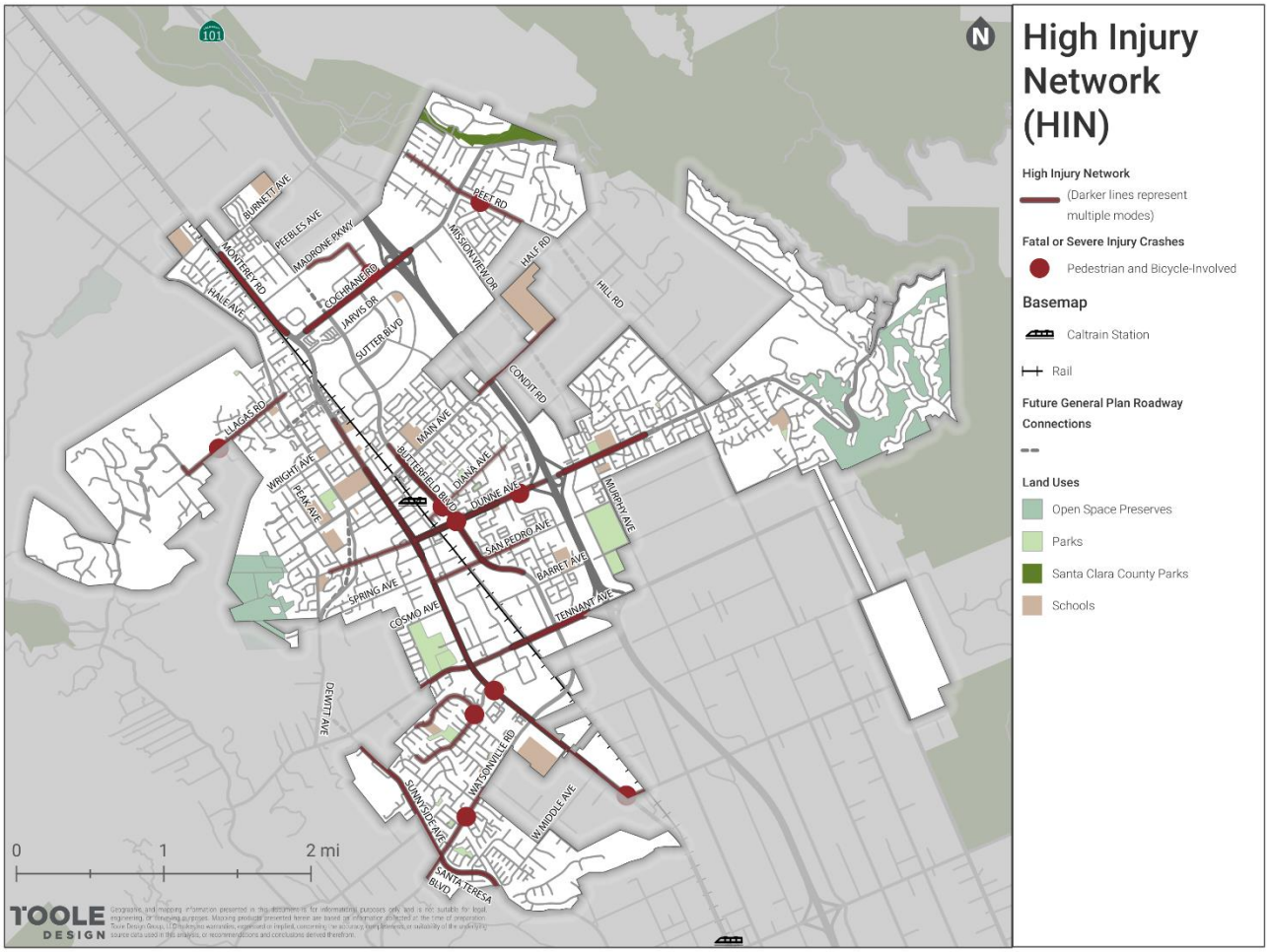
Combined HIN

The combined HIN (**Figure 13**) includes all modes. Segments of the combined HIN with darker lines depict areas where the HINs of each separate mode overlap, including:

- Monterey Road between Burnett Avenue and Cochrane Road, and from Keystone Avenue to West Middle Avenue
- Cochrane Road from Cochrane Circle to the east side of Highway 101 on- and off-ramps
- Dunne Avenue from Monterey Road to west side of Highway 101 on- and off-ramps, and from the east side of Highway 101 on- and off-ramps to Bayo Claros Circle
- Tennant Avenue from Vineyard Boulevard to the west side of Highway 101 on- and off-ramps,
- Butterfield Boulevard from just north of Main Avenue to just south of Barrett Avenue
- Sunnyside Avenue/Santa Teresa Boulevard between the city limits

Figure 13 also shows specific locations for severe and fatal crashes involving pedestrians and bicycles. Only one fatal/severe injury crash occurred east of Highway 101, with all other crashes located on the west side of Highway 101.

Figure 13: High Injury Network (all modes) and Pedestrian and Bicycle Involved Fatal or Severe Injury Crashes in Morgan Hill (2016-2020)



Key Takeaways from Safety Analysis

- Morgan Hill has lower crash rates per capita than neighboring cities and the state overall.
- Compared to neighboring cities, Morgan Hill has a lower share of fatal and injury crashes involving bicyclists and pedestrians (15%) over a 5-year average, but a higher share when compared to the statewide average over the same 5-year period (13%).
- Most crashes over the five-year data period (2016-2020) occurred along arterial and collector streets in Morgan Hill.
- Arterial and collector streets in Morgan Hill make up a majority of the HIN for all modes – based on locations of severe and fatal crashes – with the HIN for all modes concentrated on the west side of the city. Safety improvements should be prioritized in these areas.

Pedestrian Conditions and Activity

Understanding existing pedestrian conditions and pedestrian activity in Morgan Hill will help determine and prioritize where investments and improvements should be made. This section describes the inventory of existing pedestrian conditions, including existing sidewalk data and crossing types followed by an analysis of pedestrian trip-generators and activity.

Existing Pedestrian Conditions

Existing Sidewalks

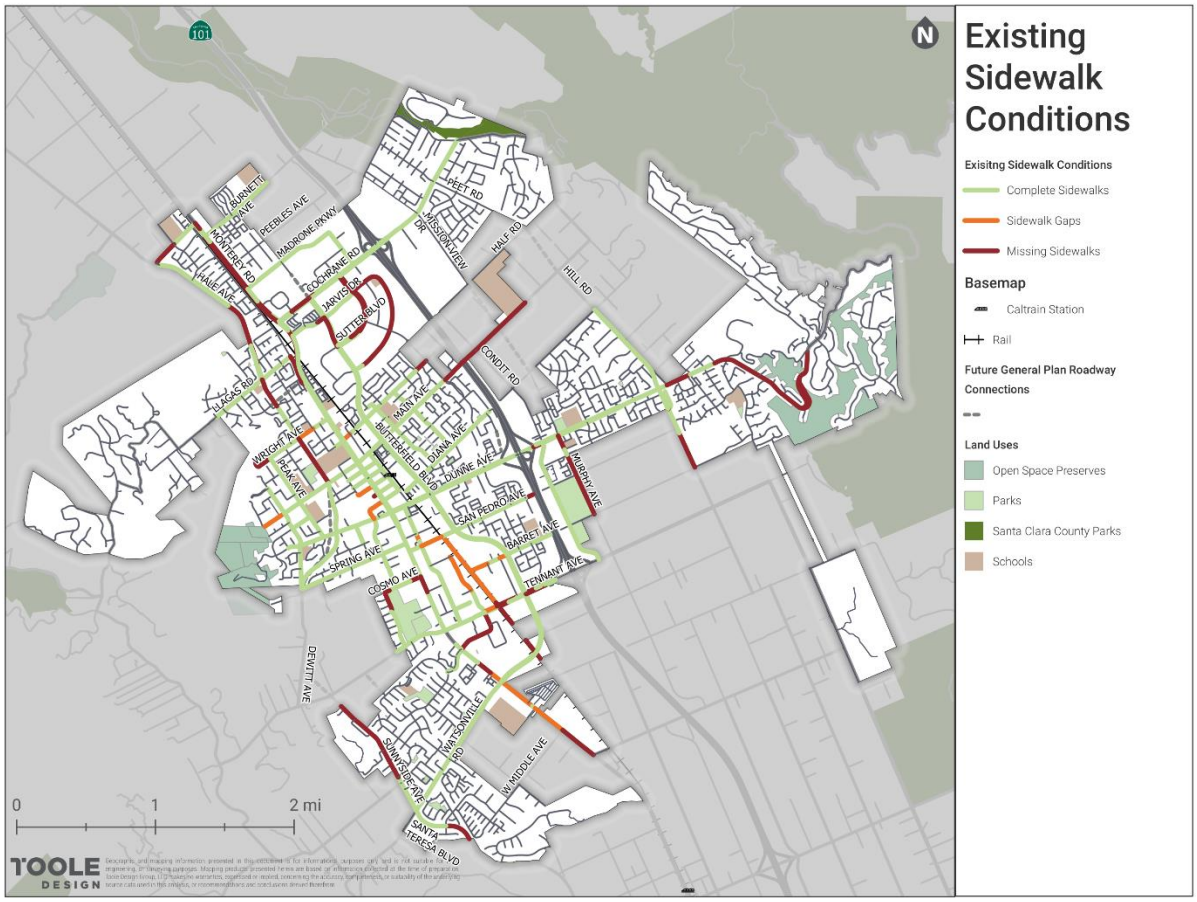
Existing sidewalk data for all major roads in Morgan Hill was collected through Google satellite and street view imagery and is shown in

Figure 14. Just over 56 miles of sidewalk were inventoried and coded according to the categories and definitions in **Table 10**. Corresponding sidewalk mileage by type can also be found in **Table 10**. Data was collected for both sides of the road for all inventoried roads.

Table 10: Existing Sidewalk Mileage by Type

Sidewalk Condition	Description	Total Mileage
Complete Sidewalks	Road segments that have sidewalks the entire length of the road segment. On some roads, complete sidewalks may be present on one side of the street, but not the other.	40.7
Sidewalk Gaps	Road segments that have sidewalks in some areas and are missing sidewalks in other areas (i.e., a break in the existing sidewalk would qualify as a sidewalk gap). On some roads, there may be sections of the road that have sidewalk gaps, and some sections where complete or missing sidewalks also exist.	2.7
Missing Sidewalks	Road segments that do not have sidewalks. On some roads, there may be missing sidewalks on one side of the road but not the other.	12.8
Total		**56.2**

Figure 14: Existing Sidewalk Inventory



Complete Sidewalks

Complete sidewalks include road segments that have sidewalks the entire length of the road segment. On some roads, complete sidewalks may be present on one side of the street, but not the other. Complete sidewalks enhance pedestrian safety, improve accessibility, encourage pedestrian activity, and create a more robust active transportation network. There are just over 40 miles of road segments with complete sidewalks in Morgan Hill. Corridors and corridor segments with fully complete sidewalks include:

- 1st Street between Del Monte Avenue and Depot Street
- 2nd Street between Del Monte Avenue and Depot Street
- 3rd Street between Monterey Road and Depot Street
- 4th Street between Monterey Road and Depot Street
- 5th Street between Del Monte Avenue and Depot Street
- Barrett Avenue between Butterfield Boulevard and Highway 101
- Burnett Avenue
- Butterfield Boulevard between Sutter Boulevard and Monterey Road

- Calle Mazatlan between Diana Avenue and Central Avenue
- Central Avenue between Calle Granada and Lancia Drive
- Condit Road between Dunne Avenue and Tennant Avenue
- DeWitt Avenue between Bonnie View Court and Hale Avenue
- Diana Avenue
- Dunne Avenue between DeWitt Avenue Hill Road
- Edmundson Avenue between Monterey Road and Olympic Drive
- Grand Prix Way between Central Avenue and Diana Avenue
- Hale Avenue between Main Avenue and Spring Avenue
- Hill Road between Diana and Sundance Drive
- Llagas Road between Old Monterey Road and Rose Orchard Court
- Madrone Parkway
- Main Avenue between DeWitt Avenue and Serene Drive
- Peak Avenue between Wright Avenue and Dunne Avenue
- San Pedro Avenue between Railroad Avenue and Walnut Grove Drive
- Spring Avenue
- Watsonville Road

Sidewalk Gaps

Sidewalk gaps include road segments that have sidewalks in some areas but are missing sidewalks in other areas (i.e., a break in the existing sidewalk would qualify as a sidewalk gap). On some roads, there may be sections of the road that have sidewalk gaps, and some sections where complete or missing sidewalks also exist. Road segments lacking sidewalks pose barriers to pedestrian mobility and safety, hinder accessibility, and pose safety risks to pedestrians. Additionally, people with restricted mobility may find it challenging or impossible to traverse a road without a designated sidewalk. There are just under three miles of road segments in Morgan Hill with sidewalk gaps:

- 5th Street/Del Monte Avenue between Monterey Road and Dunne Avenue
- Central Avenue between Monterey Road and McLaughlin Avenue
- Church Street between Bisceglia Avenue and Rohan Lane
- Main Avenue between DeWitt Avenue and John Telfer Drive
- Monterey Road in the southern area of the city
- Railroad Avenue between San Pedro Avenue and Tennant Avenue
- San Pedro Avenue between Church Street and Railroad Avenue
- Tennant Avenue between Railroad Avenue and Vineyard Boulevard
- Vineyard Boulevard between Mast Street and Vineyard Court
- Wright Avenue between Hale Avenue and Del Monte Avenue.

Missing Sidewalks

Missing sidewalks include road segments that do not have sidewalks. On some roads, there may be missing sidewalks on one side of the road but not the other. Like sidewalks gaps, missing sidewalks restrict pedestrian safety and accessibility. There are just under 13 miles of road segments in Morgan Hill with missing sidewalks:

- Dunne Avenue primarily east of Highway 101
- Main Avenue from Laurel Road and east of Highway 101
- Monterey Road north of Cochrane Road
- Sections of Hale Avenue
- Sections of Hill Road
- Sections of Monterey Road
- Sections of Murphy Avenue
- Sections of Railroad Avenue
- Sections of Santa Teresa Boulevard.
- Sections of Sunnyside Avenue
- Sections of Sutter Boulevard and Jarvis Drive
- Sections of Tennant Avenue
- Sections of Vineyard Boulevard

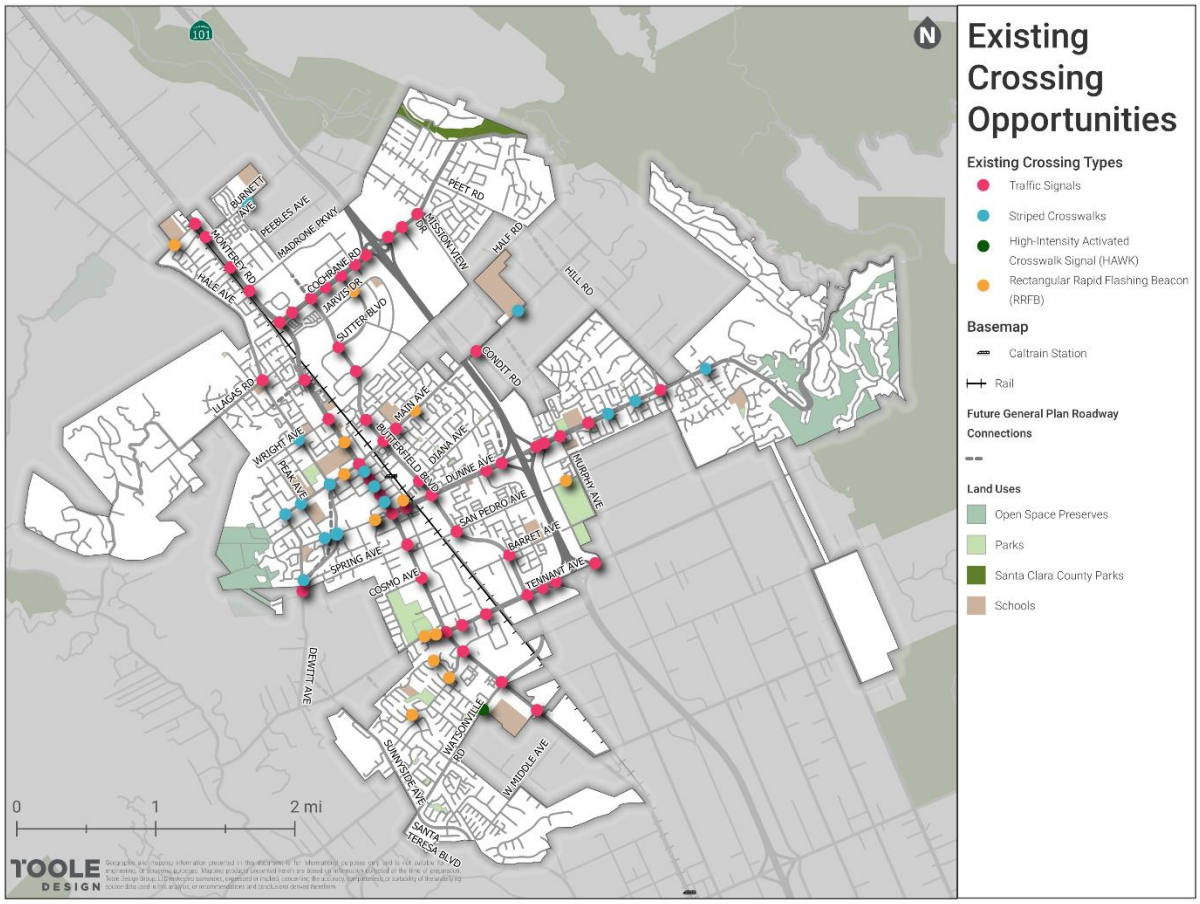
Existing Crossing Opportunities

Using existing traffic signal data and Google aerial and street view imagery, the project team identified existing crossing opportunities in Morgan Hill, specifically documenting existing traffic signals, striped crosswalks, and locations with rectangular rapid flashing beacons (RRFBs) or High-Intensity Activated Crosswalk (HAWK) signals, and is shown in Error! Reference source not found.. **Table 11** below depicts the quantity of crossings by type. Typical spacing between crossings in areas with high levels of pedestrian activity is no more than ¼-mile.

Table 11: Existing Crossings by Type

Existing Crossing Type	Total Count
Traffic Signals	52
Striped Crosswalk	19
RRFBs	13
HAWK	1
Total Crossings Counted	**85**

Figure 15: Existing Crossing Opportunities



Traffic Signals

Traffic signals provide pedestrians with a safe and protected opportunity to cross busy intersections. There are 52 intersections in Morgan Hill with traffic signals, predominantly along the major roads and at major intersections, including along Monterey Road, Cochrane Road, Main Avenue, Dunne Avenue, Tennant Avenue, and Butterfield Boulevard.

Striped Crosswalks

Striped crosswalks provide a visual cue to vehicles that pedestrians may be crossing in the roadway. There are 19 intersections in Morgan Hill with striped crosswalks. These crosswalks are primarily along major roads that intersect residential roads, including Main Avenue and Dunne Avenue west of Monterey Road, in Downtown Morgan Hill along Monterey Road, and east of Highway 101 along Dunne Avenue.

Rectangular Rapid Flashing Beacons

Rectangular Rapid Flashing Beacons (RRFBs) include rectangular-shaped yellow indicators that emit flashing lights to alert drivers of crossing pedestrians. RRFBs can be added to existing crosswalks to enhance the crosswalk and make it safer for pedestrians. There are thirteen RRFBs in Morgan Hill:

- Depot Street at Community Center Parking lot
- Dunne Avenue and Del Monte Avenue
- Two on Edmundson Boulevard at the Little Llagas Creek Trail crossing and at Piazza Way
- La Crosse Drive at La Alameda Drive
- Two at Little Llagas Creek Trail and La Crosse Drive
- Main Avenue and Del Monte Avenue
- Main Avenue and Grand Prix Way
- Monterey Road located near Britton Middle School
- San Pedro Avenue between Condit Road and Murphy Avenue
- Sutter Boulevard at Jarvis Drive
- Tilton Avenue by Central High School

Figure 16: RRFB at Main Avenue and Del Monte Avenue

High-Intensity Activated Crosswalk

High-Intensity Activated Crosswalks, or HAWK signals, aid pedestrians when crossing at mid-block intersections. HAWK signals use pedestrian-activated push buttons. When activated, the HAWK uses a red indication to inform drivers to stop, thereby creating a time period for pedestrians to cross the roadway. There is one HAWK signal in Morgan Hill located on Watsonville Road at West Little Llagas Creek Trail.

Previously Proposed Intersection Improvements

In addition to looking at existing traffic signals, the project team mapped Previously Proposed Intersection improvements from the Bikeways, Trails, Parks, and Recreation Master Plan (2017) (see Appendix for a full list of projects and **Figure 19** for locations). Previously proposed intersection improvements will be considered during the TMP project prioritization phase. Intersection improvements, and more specifically formal crossings, should be provided at signalized intersections, trail crossings, and other locations where pedestrians may be present.

Pedestrian Activity

Pedestrian Priority Zones Definition and Methodology

The TMP identifies a series of pedestrian priority zones to indicate areas with higher levels of pedestrian activity and guide pedestrian improvements and project prioritization. Pedestrian priority zones are based around trip generators (i.e., attractors) to estimate potential pedestrian demand. Trip generators include the following categories: healthcare, parks, community resources, commercial, and transportation.

Pedestrian priority zones were identified by assigning points to each street segment based on proximity to destinations. Segment scores range from “medium” to “very high,” with higher priority zones reflecting higher concentrations of trip generators. A buffer was then applied to the segments to create two-dimensional zones.

It is important to note that the pedestrian priority zones do not reflect the quality of sidewalks or comfort level of conditions for pedestrians today. Rather, the pedestrian priority zones information can be combined with the assessment of sidewalk gaps and crossing opportunities to identify the need for enhancements and to determine improvement priorities.

Pedestrian Priority Zones Analysis

Pedestrian priority zones are concentrated west of Highway 101 and include a majority of the western portion of Morgan Hill, with a “very high” priority zone surrounding Downtown Morgan Hill. “Medium” priority zones are scattered around Morgan Hill and reflect areas with one or a small number of adjacent trip generators, such as parks and schools.

The figures on the following pages depict pedestrian priority zones with sequentially overlayed data. As more data is overlayed onto each map, areas of prioritization become clearer. For example, an improvement may be prioritized in a location of “very high” priority that is located near a school or park, and where sidewalks or crossing opportunities do not currently exist. Key data contained in the following figures include: schools, parks, and public facilities along with existing sidewalks and crossing opportunities.

Figure 17: Pedestrian Priority Zones - Schools, Parks, Public Facilities

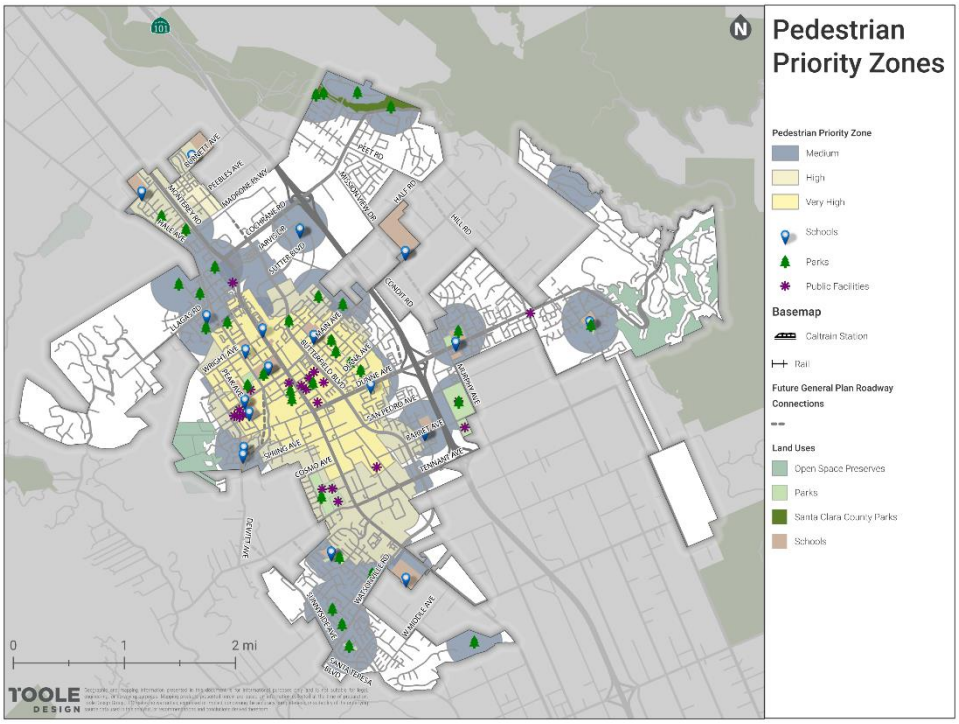


Figure 18: Pedestrian Priority Zones - Existing Sidewalks

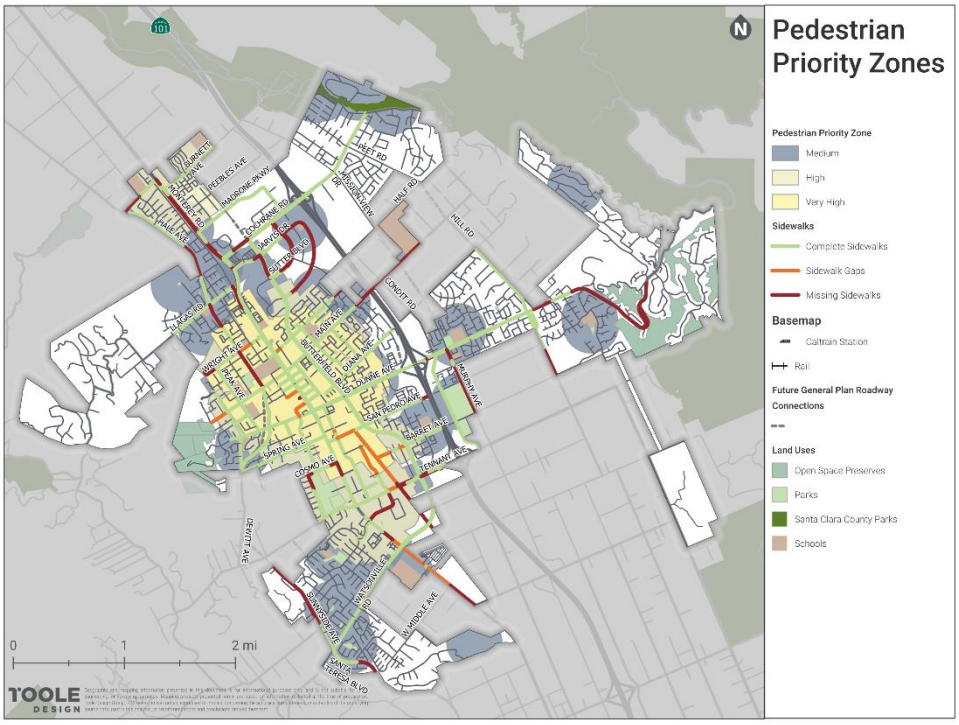


Figure 19: Pedestrian Priority Zones - Existing Crossing Opportunities

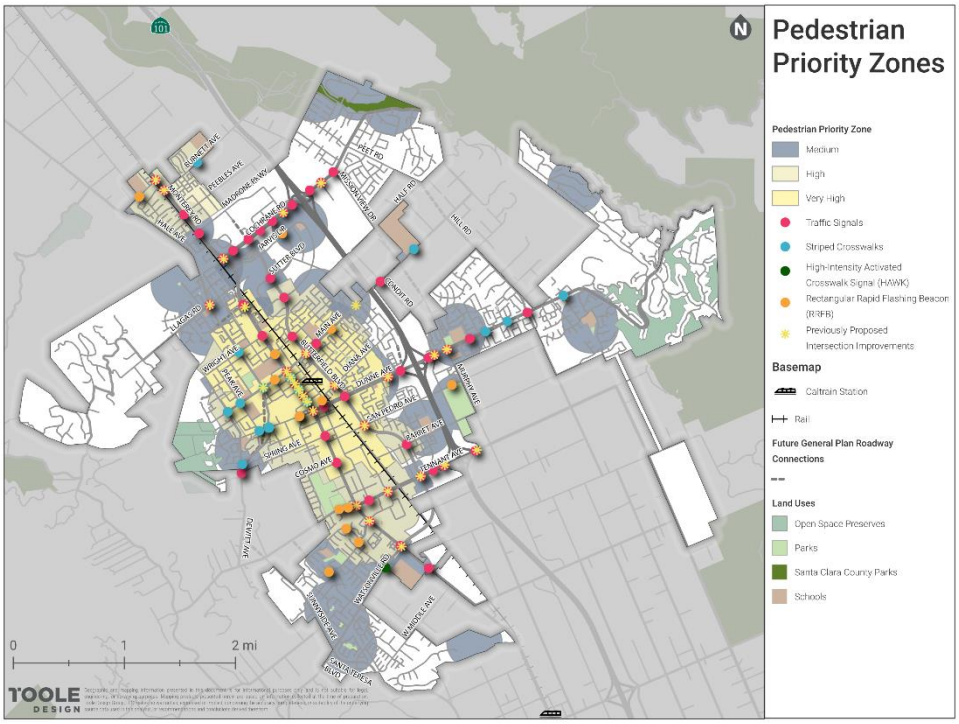


Figure 20: Pedestrian Priority Zones - Existing Sidewalk and Crossing Opportunities

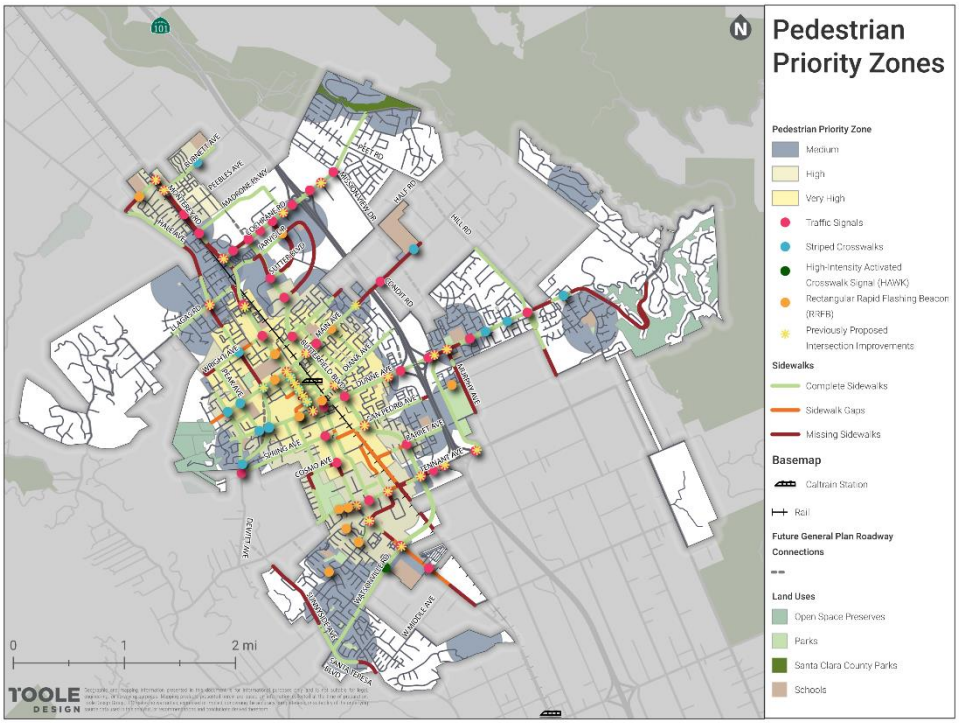
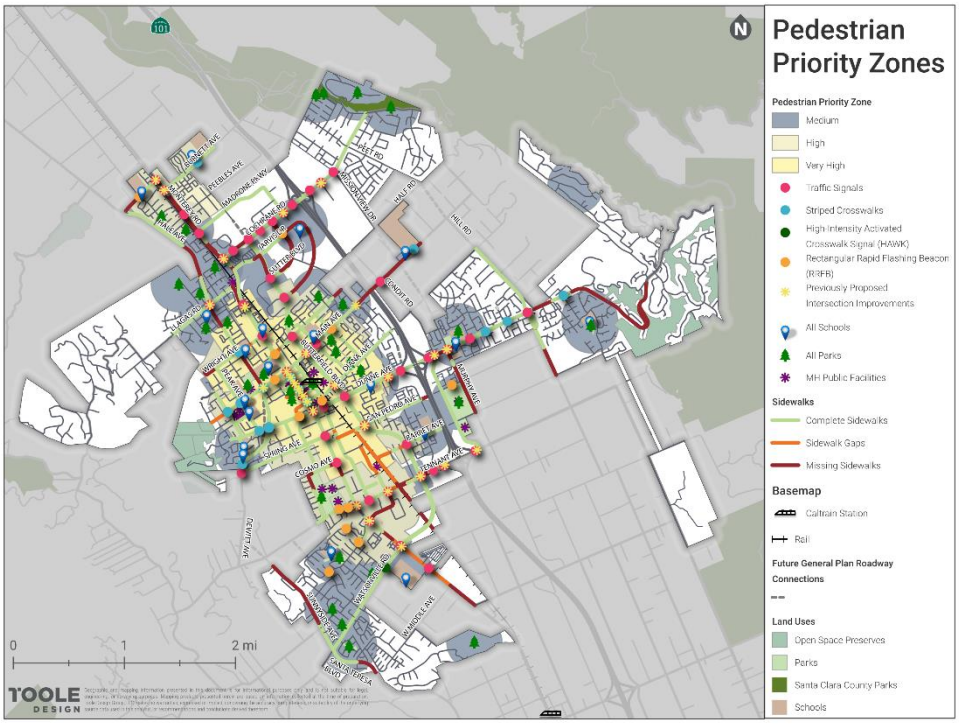


Figure 21: Pedestrian Priority Zones - Schools, Parks, Public Facilities, Existing Sidewalks, and Existing Crossing Opportunities



Key Pedestrian Analysis Takeaways

- There are generally frequent opportunities to cross major streets in Morgan Hill. Most intersections along major roads in Morgan Hill are signalized, and a growing number of intersections feature RRFBs, most of which are located near schools.
- There are opportunities to enhance existing crossings in Morgan Hill, especially near schools, and to provide additional crossings in pedestrian priority zones.
- There are just under 16 miles of missing sidewalks or sidewalks with gaps in Morgan Hill, which pose connectivity, safety, and accessibility issues.
- Pedestrian priority zones are concentrated west of Highway 101, particularly surrounding Downtown Morgan Hill.
- Pedestrian improvements should be prioritized in areas of greatest need, including near schools, parks, or public facilities, and where crossings and sidewalks do not currently exist.

Appendix: Plan and Document Review

This appendix includes the full set of relevant goals, policies, and recommendations from existing plans and studies for the City of Morgan Hill, as reviewed for the TMP.

Table 1: 2035 General Plan Relevant Goals, Policies, and Actions

Relevant Goals
1. **TR-1:** A balanced, safe, and efficient circulation system for all segments of the community, meeting local needs and accommodating projected regional and sub-regional traffic while protecting neighborhoods. 2. **TR-2:** A system designed for a healthy, active community based on complete streets, smart growth, and Sustainable Communities strategies; reflecting a balanced, safe, multimodal transportation system for all users, especially in Downtown where pedestrian, bicycle, and transit facilities will be emphasized along with vehicular facilities. 3. **TR-3**: A coordinated, continuous network of streets and roads. 4. **TR-4:** Emphasis on transportation improvements in the Butterfield, Hale/Santa Teresa, and Monterey Corridors. 5. **TR-6:** A safe and efficient transit system that reduces congestion by providing viable non-automotive modes of transportation. 6. **TR-8:** A usable and comprehensive bikeway system that safely connects neighborhoods with workplaces and community destinations. 7. **TR-9:** Expanded pedestrian opportunities.
Relevant Policies and Actions
1. **TR-1.1: System Efficiency.** Plan, construct, and maintain a coordinated and efficient system of local streets and highways throughout the community, meeting local needs and accommodating projected regional and sub-regional traffic, while protecting neighborhoods from cut-through traffic. 2. **TR-1.3: Transportation Safety.** Implement strategies to ensure safe and appropriate operation of all components of the transportation system for all users, such as programs to lower crash rates and reduce the number of transportation-related injuries in the city through education, enforcement, engineering strategies, physical improvements, and operational systems. Prioritize strategies that improve safety for students, pedestrians, and bicyclists. 3. **TR-2-1: Multi-Modal System for All Users.** A balanced multi-modal system offers viable choices for residents, employees, customers, visitors, and recreational users. Use smart growth and Sustainable Communities principles throughout the city to provide a balanced transportation system which assures access to all, and which integrates all appropriate modes of transportation into an effectively functioning system, including modes such as auto, ride sharing, public rail and bus transit, paratransit, bicycling, and walking. (South County Joint Area Plan 11.00 & 11.01) 4. **TR-2.2: Integrated Land Use/Transportation Planning.** Integrate planning for land use and transportation development by ensuring that the timing, amount, and location of urban development is consistent with the development of the transportation system capacity.

Promote environmental objectives that support smart growth and Sustainable Communities principles, such as safe and uncongested neighborhoods, a pedestrian-friendly vibrant downtown that emphasizes non-auto transportation modes, energy conservation, reduction of air and noise pollution, and the integrity of scenic and/or hillside areas.

5. **TR-3.2: Safe and Complete Improvements. Avoid creating incomplete public improvements that**
   create public safety hazards.
6. **TR-3.9: Monitoring for Signalization Projects.** For unsignalized intersections in the downtown area and other key city locations, the City should undertake regular or periodic monitoring of actual traffic conditions and accident data, and timely re-evaluation of the full set of warrants to prioritize and program intersections for signalization, as practical and cost-effective.
7. **TR-3.13: Unsignalized Intersection Monitoring. As a good practice measure to support pedestrian**
   safety and promote safe vehicular travel, the City should carry out regular monitoring of the unsignalized intersections in the Downtown area, especially those at Monterey/Fifth, Monterey/Fourth, and Monterey/Central, to evaluate the possibility of restricting cross traffic movements or implementing other restrictions supportive of safe travel downtown.
8. **TR-3.19: Monterey Road Functionality.** Give special consideration to the design of Monterey Road, balancing its functions as an arterial street, a “main street” accommodating downtown activities, and as an access road to the downtown and the major commercial areas of the city.
9. **TR-3.21: Review of Speed Limits.** Periodically review speed limits on all City streets to ensure that appropriate rates are set as the road network is improved to avoid “speed traps” and to support safe neighborhoods.
10. **TR-4.B: Monterey Road Streetscape Improvements Outside of Downtown. For the Monterey**
    Corridor segments outside of Downtown, pursue grants, developer, and other funding sources to make streetscape improvements, including, but not limited to filling in missing sidewalks, undergrounding utilities, extending landscaped medians between Dunne and Tennant Avenue, and widening the Monterey Road underpass of the UPRR bridge to accommodate 4 vehicular travel lanes along with pedestrian and bicycle facilities.
11. **TR-4.D: Hale Avenue/Santa Teresa Boulevard Corridor Completion.** Construct the missing segments and improve the Hale/Santa Teresa Corridor to provide a single continuous route. New segments and improvements within Morgan Hill are planned as a two-lane multi-modal arterial, with a separated Class 1 bikeway and pedestrian path in a linear parkway. The two-lane multi-modal segments would have sufficient right-of-way to enable a future four-lane configuration, if needed. The City will work the County of Santa Clara to seek funding to improve the existing segments within the County to better accommodate bicyclists and pedestrians.
12. **TR-4.F: Hale Avenue/Santa Teresa Boulevard Improvements. Obtain sufficient right-of-way for**
    Hale/Santa Teresa Boulevard to accommodate onstreet bike lanes, off-street sidewalks and Class 1 Bikeway within a linear park, and medians with turn pockets for new segments, as a

multi-modal two-lane arterial. Pursue funding to improve the unincorporated and existing portions of Hale/Santa Teresa with appropriate pedestrian and bicycle improvements as feasible.

13. **TR-6.1: Street Design for Improved Bus Service.** Coordinate with VTA to provide improved local bus service and to encourage people to ride the bus for local as well as longer trips (e.g., to Gilroy and San Jose). The design of key arterial streets such as Hale/Santa Teresa, the Butterfield Corridor and Monterey Road should consider incorporating bus curb lanes or duckouts, enhanced stop amenities transit signal priority, and supporting pedestrian improvements.
14. **TR-6.2: Commuter Bus Service. Work with VTA to increase commuter bus service to and from**
    Morgan Hill, including to access mass transit.
15. **TR-6.4: Monterey Road Design for Commuter Bus Service.** Make existing and future commuter bus service convenient and accessible. Coordinate with the Monterey Road streetscape planning process to plan for and implement optimal locations for bus stops, shelters, and turnouts in and near the Downtown area.
16. **TR-6.5: Local Shuttle Service.** Promote improved local transit service, including shuttle service through the downtown, major shopping, and employment centers.
17. **TR-6.8: Transit for Changing Needs.** Expand public transit as needed to meet the changing needs of the area for local and regional access, including methods such as bus, dial-a-ride, paratransit, and rail, where appropriate, for all users. (South County Joint Area Plan 11.04)
18. **TR-6.9: Funding Partnerships.** Encourage opportunities for funding partnerships between the City, private enterprises, developers, and VTA to provide enhanced transit services or infrastructure.
19. **TR-6.10: Transit for Senior Citizens.** Expand transportation opportunities for senior citizens by exploring an active mobility management program for older adults in Morgan Hill and supporting a variety of methods, such as by funding discounts for taxi fares, coordinating transit systems to be shared by multiple senior housing developments, supporting a volunteer program to expand supply of drivers, and creating a database of drivers and other transit options. Encourage regional providers of senior transportation services to develop specific plans for providing service to Morgan Hill residents.
20. **TR-6.11: Transit for a Healthy and Active Community.** Expand transportation opportunities to support community health by encouraging transit agencies to locate stops that provide access to health care facilities, community amenities, parks, multi-use trails, and open spaces.
21. **TR-8.1: Bikeways for All Abilities.** The bikeways system shall recognize and reflect the needs and abilities of cyclists with a diverse range of age an experience, from children learning to ride bicycles to experienced adult commute cyclists.
22. **TR-8.2: Bicycle Commuting.** Encourage increased use of bicycles for adults commuting to work and for students traveling to school through a safe and efficient bikeways system, enhanced bicycle parking facilities, and bicycle safety and promotion programs, including showers for bicycle commuters at places of employment.

23. **TR-8.3: Alternative Routes.** Establish alternative routes, with direct routes on busy streets for experienced cyclists, and less direct routes on bicycle paths and quieter streets for less experienced and recreational cyclists.
24. **TR-8.4: Coordinated Bicycle Planning.** Coordinate development of the bikeways system with the Santa Clara Countywide Trails Master Plan, the Santa Clara Countywide Bicycle Plan, the South County Joint Area Plan, the Santa Clara County Bicycle Technical Guidelines, and the California Department of Transportation Highway Design Manual.
25. **TR-8.5: Bicycle Facility Standards.** Where feasible, incorporate the Bicycle Technical Guidelines prepared by the Valley Transportation Authority into City standards for bicycle facility planning and design, including intersection striping, signalization, and railroad crossings.
26. **TR-8.6: Multi-Use Trail Accessibility.** All multi-use bicycle/pedestrian trails shall comply with State and federal accessibility codes and standards, such as those established by the Americans with Disability Act (ADA) and California Access Code (Title 24, California Code of Regulation).
27. **TR-8.8: Priorities for Bikeways Implementation.** Where feasible, implement the bikeways system concurrent with adjacent development. Establish priorities for bikeway implementation based on improving safety and enhancing both commute and recreational cycling. These priorities shall be considered in directing resources and efforts to obtain funding for implementation. Priorities shall be regularly reviewed and updated as implementation proceeds. Current priorities for implementation of the bikeways plan include the following:
    - **a.** Live Oak High School Access
    - **b.** Little Llagas Creek Trail
    - **c.** Santa Teresa and Monterey Road Corridor Improvements
    - **a.** East West Connection to Coyote Creek Trail
28. **TR-8.10: Safe Routes to Schools.** Define safe pedestrian and bicycle routes to all new schools (public and private) during the planning and design process so that these routes can be developed and in place prior to opening the school.
29. **TR-8.11: Multi-Jurisdictional Bikeway Alignments.** For multi-jurisdictional alignments, develop partnerships with Santa Clara County to plan, finance, implement, and maintain the bikeways system.
30. **TR-8.12: Bicycle Parking. Bicycle parking and other supportive facilities shall be provided at all schools, parks, recreation facilities, commercial centers, civic buildings (including the library), transit centers, and work places based on the recommendations and standards in the Bikeways** Master Plan.
31. **TR-8.14: Bikeways Master Plan.** Implement and maintain the City's bikeways system based on standards established in the Bikeways Master Plan.
32. **TR-8.15: Bicycle Outreach.** Continue to encourage bicycle safety and promotion programs, in partnership with other agencies and organizations.
33. **TR-8.16: Bicycle Paths and Flood Control.** Promote extension of bicycle paths in conjunction with flood control efforts.

34. **TR-8.A: Bicycle Outreach Program.** Develop a bicycle outreach program to promote community-wide "bikeability" through safety programs, bicycle tune-up clinics/training, partnerships with bicycle advocacy groups and cycling clubs, and/or local bicycle maps (e.g., "Bike Downtown").
35. **TR-8.B: Bikeways Master Plan Funding.** Actively pursue a variety of funding sources for implementation of the Bikeways Master Plan, including development impact fees, incorporating improvements into larger transportation projects, requiring improvements concurrent with development grants, and joint projects with other agencies. Grant applications shall be focused on priority projects where appropriate.
36. **TR-8.C: Bicycle Connections to Schools.** Coordinate with the Morgan Hill Unified School District (MHUSD) and other schools where appropriate in applying for “Safe Routes to School” and other school related grant programs to improve bicycle connections to schools.
37. **TR-8.D: Development Review for Bicycle Facilities.** Establish a development review checklist for use by City staff to evaluate development applications and their consistency with the Bikeways Master Plan, including bicycle parking facilities and off-site improvements where appropriate, such as roadway striping, signage, and intersection improvements.
38. **TR-8.E**: Bicycle Way-Finding. Develop a way-finding system for the City’s bikeways network, including signage along paths, lanes, and routes indicating key destination points, and a public bikeways map suitable for public distribution.
39. **TR-8.F**: Bikeways Maintenance. Incorporate bikeways maintenance tasks, such as street sweeping and lane re-striping, into regularly-scheduled street maintenance cycles.
40. **TR-8.G**: Bicycle Safety and Promotion Programs. Actively pursue bicycle safety and promotion programs as outlined in the Bikeways Master Plan, encouraging partnerships with the police department, MHUSD, bicycle clubs, and other interested agencies and organizations.
41. **TR-9.1**: Private Development Connections. Ensure adequate pedestrian access in all developments, with special emphasis on pedestrian connections in the downtown area, in shopping areas, and major work centers, including sidewalks in industrial areas in accordance with the Trails and Natural Resources Master Plan.
42. **TR-9.2**: Walking as an Alternate Mode. Promote walking as an alternate transportation mode for its contribution to health and the reduction of energy consumption and pollution. (South County Joint Area Plan 11.03)
43. **TR-9.3**: Pedestrian System for Diverse Users. The trails and pedestrian system shall recognize and reflect the needs and abilities of pedestrians with a diverse range of age and ability.
44. **TR-9.4**: Coordination with Pedestrian Planning. Development of the trails and pedestrian system
    shall be coordinated with the City’s Bikeways Master Plan, City standard details, Santa Clara Countywide Trails Master Plan, the Santa Clara Countywide Bicycle Plan, the South County Joint Area Plan, the Santa Clara County Bicycle Technical Guidelines, and the California Department of Transportation Highway Design Manual.
45. **TR-9.6**: Pedestrian Facility Accessibility. All trails and pedestrian access shall comply with State and Federal accessibility codes and standards, such as those established by the

Americans with Disability Act (ADA) and California Access Code (Title 24, California Code of Regulation).

46. **TR-9.10**: Sidewalk Connectivity. Improve sidewalk connectivity by installing new sidewalks where they do not exist, consistent with the Trails and Natural Resources Master Plan.
47. **TR-9.D**: Partnerships for Pedestrian Safety. Actively encourage partnerships with the police department, MHUSD, County of Santa Clara and other interested agencies and local organizations to develop safe pedestrian access and trail routes throughout the City.

Table 2: 2017 Bikeways and Trails Master Plan Relevant Goals, Policies, and Objectives

Relevant Goals
1. **Overall Goal:** The City of Morgan Hill shall strive to expand and improve its system of parks, recreation facilities, programs, bikeways, and trails to support community health, economic development, and quality of life in Morgan Hill. a. Improve connections between residences and the network of City parks and facilities; b. Diversify the experiences in the City's parks and along its trails; c. Engage people of all ages and all abilities; d. Support the health and wellness of all community members; e. Ensure equitable access to programs and places for recreation and activity; f. Enhance safety and navigation to key recreation destinations and along popular routes; g. Invest in and maintain existing assets while carefully planning for future growth;
Relevant Policies, Actions, and Projects
1. **B1**. Create a bikeways and trails network that serves the needs and abilities of cyclists of all ages and abilities, consistent with General Plan Policy TR-8.1. 2. **B1-1**. Construct the priority bikeway and trail projects identified in the Master Plan based on improving safety and enhancing both commute and recreational cycling, consistent with General Plan Policy TR-8.8. 3. **B1-2**. Prioritize the creation of all ages and abilities bikeway types including bicycle boulevards on neighborhood streets (local roadways) and protected bike lanes on busy streets (arterial roadways). 4. **B1-3**. Support General Plan Policy TR-8.3 by providing options for people of different abilities riding bikes by establishing alternative routes, such as direct routes on busy streets for experienced bike riders, and less direct routes on quieter streets, bicycle boulevards, and trails for less experienced and recreational bike riders. 5. **B2.** Develop an interconnected network of bikeways and multi-use trails that safely connect neighborhoods and residences with workplaces, schools, parks, and community destinations, consistent with General Plan Goal TR-8. 6. **B2-1**. Strive to connect each new bikeway project to an existing bikeway, trail, or community destination. Provide complete connections in the network and avoid abruptly ending a bikeway before a connection is made.

7. **B2-2.** Prioritize implementation of projects that address existing barriers, including Highway 101 and challenging intersections, to facilitate and encourage walking and riding a bike to destinations.
8. **B2-3**. Where feasible and safe, support General Plan Policy TR-8.13 by requiring pedestrian and bicycle public access from a cul-de-sac to an adjacent public amenity, such as a park or school, or from a cul-de-sac to an adjacent street, especially when developing bicycle boulevards.
9. **B2-4**. Support General Plan Policy TR-8.7 by designating private roads as part of the bikeway network if there is an agreement between the City and the appropriate owner for such a designation.
10. **B2-5.** Coordinate bikeway and trail network implementation with partner agencies, including but not limited to Santa Clara County Parks and Recreation Department, Santa Clara County Roads and Airports, Santa Clara Valley Open Space Authority, and Valley Transportation Authority.
11. **B2-6**. Conduct public engagement during bikeway and trail design and implementation.
12. **B3**. Improve safety for all roadway users by providing bikeways and trails with comfortable separation from motor vehicles and a focus on safety.
13. **B3-1**. Continue to support the City's adopted Vision Zero Framework to reduce traffic injuries and fatalities. Once adopted, implement strategies to improve safety.
14. **B3-2**. Upgrade existing bikeways to create dedicated space for people riding bicycles separated from motor vehicle travel and parking lanes where possible.
15. **B3-3.** Improve intersections to accommodate through and turning bicycle traffic with both time and space separation where possible.
16. **B3-4**. For all roadway improvements, implement vehicular, transit, and freight improvements that minimize conflict with people riding bicycles.
17. **B3-5.** Review opportunities to enhance technology for the Police Department to collect and upload bicycle-involved collision data to the County Crossroads database, to analyze for targeted enforcement and improvements to reduce the likelihood of future collisions.
18. **B3-6**. Improve bicycle safety across or along highway entrances, railroad and rail transit crossings and parallel facilities.
19. **B3-7**. Reevaluate configuring Downtown streets to one lane of vehicle traffic and one buffered bike lane upon the completion of the development of the Hale Avenue Extension Project.
20. **B4.** Encourage active and safe transportation through education and outreach.
21. **B4-1**. Develop multi-modal traveler safety education materials and programs to teach all roadway users about how to safely drive and ride bikes on or near streets with bikeways and trails.
22. **B4-2**. Develop a user-friendly, multi-modal network map that allows users to easily navigate the system according to their comfort and ability level.
23. **B4-3**. Provide bicycle education for primary school children. Work with schools to continue and expand the Safe Routes to School program to teach children to safely walk and ride a bicycle to school.
24. **B4-4.** Support General Plan Action TR-8.G by actively pursuing bicycle safety and promotion programs, encouraging partnership with the police department, MHUSD, bicycle clubs, and other interested agencies and organizations to provide information and resources such as helmet fittings at community events.

25. **B4-5.** Seek grant funding to support active transportation education and outreach.
26. **B5**. Support economic and community development through active transportation and active recreation activities.
27. **B5-1**. Support the Downtown district and business owners in accommodating customers arriving by bicycle.
28. **B5-2**. Enhance connections to regional bicycle routes and develop programs to encourage visitors or bicycle riders passing through Morgan Hill to visit Downtown.
29. **B5-3**. Promote and support people walking and bicycling to community events by providing legible wayfinding and convenient bicycle parking.
30. **B6**. Provide safe, accessible and convenient bicycle parking and other support services to people travelling by bicycle.
31. **B6-1**. Monitor bicycle parking facility usage to determine when new or expanded facilities are needed.
32. **B6-2**. Establish visible and accessible platforms for community members to request new or expanded bike parking. At destinations with high bicycle parking demand, consider allocating more public right-of-way to provide bicycle racks and bicycle corrals, possibly in the place of a vehicular parking space.
33. **B6-3**. Work with Caltrain and major employers to ensure there is adequate short and long-term secure bicycle parking for bicycle commuters.
34. **B6-4**. Focus the addition of new bicycle parking facilities at destinations, especially Downtown, including development of the bike hub site.
35. **B7**. Coordinate development of the bikeways and trail network with regional partner agencies and organizations.
36. **B7-1**. Support General Plan Policy TR-8.4 by coordinating development of the bikeways and trails network with the VTA Cross County Corridors, Santa Clara Countywide Trails Master Plan, the Santa Clara Countywide Bicycle Plan, the South County Joint Area Plan, the Santa Clara County Bicycle Technical Guidelines, and the California Department of Transportation Highway Design Manual.
37. **B7-2.** Support General Plan Policy TR-8.11 for multi-jurisdictional alignments by developing partnerships with Santa Clara County to plan, finance, implement, and maintain the bikeways system.
38. **B7-3**. Evaluate opportunities to coordinate trail alignments along the future California High Speed Rail line.
39. **B7-4**. Partner with the Santa Clara Valley Open Space Authority on the development and maintenance of trails on the El Toro Mountain.
40. **B7-5**. Create an east-west connection to Coyote Creek Trail via a Burnett Ave bridge, per General Plan Policy TR-8.8.
41. **B8.** Design all bikeways and trails to meet or exceed the latest federal, state, and local design guidelines.
42. **B8-1**. Conduct engineering studies for new bikeways, using design standards that are consistent with regional guidelines and current nationally-recognized guides. Resources include:
    a. The Santa Clara County Bicycle Technical Guidelines;
    b. California Department of Transportation Highway Design Manual.

c. Manual of Uniform Traffic Control Devices (MUTCD);
d. National Association of City Transportation Officials (NACTO) Urban Bikeway Design Guide;
e. American Association of State Highway and Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities;
f. Federal Highway Administration (FHWA) Separated Bike Lane Planning and Design Guide;
g. Americans with Disabilities Act (ADA) guidelines and Universal Design recommendations;
h. US Access Board's Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way: Shared Use Paths;
i. Institute of Transportation Engineers (ITE) publications; and
j. Other nationally and internationally recognized guides.

43. **B8-2**. Provide ongoing education opportunities to City of Morgan Hill planning and engineering staff on the planning, design, implementation and maintenance of innovative bikeways and trails.
44. **B8-3**. Include green bike lane striping at potential high-conflict intersections following best practices and policies listed in B8-1.
45. **B10.** Support the comfortable use and appeal of the bikeways and trails network through regular maintenance and adequate facilities.
46. **B10-1**. Improve bikeways and trails based on maintenance standards and an established schedule.
47. **B10-2.** Plan for and adequately fund maintenance activities and needs, including equipment and labor.
48. **B10-3.** Consider maintenance costs, procedures, and long-term funding mechanisms as a part of all new bikeway and trail projects.
49. **B10-4**. Create and publicize an online maintenance request form and a phone number for bikeway and trail users to identify and submit improvement requests. Respond to requests in a timely manner.
50. B10-5. Develop a process to assess the condition of City-owned bicycle racks and on-street bicycle corrals, and replace as needed.
51. **B10-6**. Include trash cans and dog bag stations along heavily used mixed-use trails.

Relevant Projects - Bikeways

Project	Project Type	Recommended Enhancements	Relevant Sites
B-A	Protected Bike Lanes (Class IV)	Construct protected bike lanes including multimodal intersection improvements at major arterial intersections.	**B-A1.** Live Oak High School Access and Coyote Creek Connection: E Main Avenue from Butterfield Blvd to Hill Rd

B-B	Buffered Bike Lanes (Class II)	Construct buffered bike lanes and upgrade the existing shoulder/ discontinuous bike lanes to continuous buffered lanes including multimodal intersection improvements at major arterial intersections.	**B-B1.** Cochrane Rd and Malaguerra Ave from Monterey Rd to Coyote Creek Trailhead **B-B2.** Monterey Road from Tilton Ave to W Main Ave **B-B3.** Sobrato School Access: Burnett Rd from Monterey Rd to Coyote Creek **B-B4.** Santa Teresa Corridor: Hale Ave from Palm Avenue to W Main Ave to reach Coyote Valley Open Space Preserve (CVOSP). (County coordination is needed.) **B-B5.** West Main Ave from Butterfield Blvd to Dewitt Ave **B-B6.** Tilton Rd from Monterey Rd to Hale Ave **B-B7.** Peet Rd/Hill Rd from Eagle View Dr to Tennant Ave **B-B8.** Dunne Ave from Dewitt Ave to Jackson Oaks Dr **B-B9.** Butterfield Blvd/Watsonville Rd from Cochrane Rd to Santa Teresa Blvd (Phase 1: Watsonville Rd from Monterey to Santa Teresa) **B-B10.** W Edmundson Ave/Tennant Ave from Olympic Dr to Hill Rd **B-B11.** Santa Teresa Blvd from Wastsonville Rd to California Ave
B-C	Bicycle Boulevard	Improve low-traffic and low-speed streets by adding signs, pavement markings, and speed and volume management measures to discourage through trips by motor vehicles and create safe, convenient bicycle crossings of busy arterial streets.	**B-C1.** Morning Star Dr/Peet Rd from Eagle View Dr to Cochrane Rd **B-C2.** Depot St from E Main Ave to E Dunne Ave **B-C3.** Thomas Grade parallel to E Dunne Ave **B-C4.** Olympic Dr/Cosmo Ave from Monterey Rd to W Edmundson Ave **B-C5.** Serene Dr/Walnut Grove Dr from Sutter Blvd to E Dunne Ave **B-C6.** Dewitt Ave from W Main Ave to W Dunne Ave **B-C7.** Peak Ave from W Main Ave to W Dunne Ave **B-C8.** Diana Ave from UPRR right-of-way to Walnut Grove Dr
B-D	Multimodal Intersection Improvements	Improve intersections to create separation between car traffic and people bicycling and walking/rolling.	**B-D1.** Monterey Rd downtown intersection improvements between E Main Ave and E Dunne Ave **B-D2.** E Main Ave and Butterfield Blvd **B-D3.** W Main Ave and Hale Ave

		Multimodal intersection improvements can include both time- and space-separation that continues a protected or buffered bike lane's separation from vehicles through intersections.	**B-D4.** Cochrane Rd and Highway 101 (North & South ramps, Madrone Parkway and Depaul Dr) **B-D5.** Monterey Rd and Cochrane Rd **B-D6.** Butterfield Blvd and Cochrane Rd B-D7. Monterey Rd and Tilton Ave/Burnett Ave **B-D7.** Monterey Rd and Tilton Ave/Burnett Ave **B-D8.** Butterfield Blvd and E Dunne Ave **B-D9.** Dunne Ave and Highway 101 (North & South ramps, Condit Rd and Murphy Ave) **B-D10**. Butterfield Blvd and Tennant Ave **B-D11.** Monterey Rd and Watsonville Rd **B-D12.** Monterey Rd and Tennant Ave **B-D13.** Tennant Ave and Highway 101 (North & South ramps) **B-D14.** Watsonville Rd and Sunnyside Ave **B-D15**. Serene Dr/Walnut Grove Dr bicycle boulevard crossings at E Main Ave and E Dunne Ave **B-D16.** Monterey Rd and Vineyard Blvd **B-D17.** Monterey Rd and Old Monterey Rd **B-D18.** Butterfield Blvd and E Central Ave **B-D19.** Butterfield Blvd and Diana Ave **B-D20.** Butterfield Blvd and San Pedro Ave **B-D21**. Hale Ave and Llagas Rd **B-D22.** Tennant Ave and Vineyard
Relevant Projects - Trails			
Project	Project Type	Recommended Enhancements	Relevant Sites
T-A	Multi-Use Trails	Construct two-way, off street paved trails for pedestrian and bicycle use. Trails should also Accommodate wheelchairs, joggers, skaters, and other nonmotorized users.	**T-A1.** Pave and enhance access the existing Madrone Channel Trail (Cochrane Rd to Tennant Ave) through signage and trail improvements **T-A2.** Madrone Channel Trail extension from Cochrane Rd to Burnett Ave connecting to Coyote Creek **T-A3.** Coyote Creek Trail – Malaguerra Staging Area to Burnett Staging Area **T-A4.** Burnett Ave trail from Madrone Channel Trail to Coyote Creek Trail **T-A5.** Downtown Hilltop Trail connecting Del Monte Ave to the water tower and Hale Ave **T-A6.** Trail from Live Oak High School to the Madrone Channel Trail

			T-A7. Silveira Park trail around Atherton Way Hidden Pond with associated pedestrian bridges **T-A8**. West Little Llagas Creek Trail from W Main Ave to Spring Ave **T-A9.** Santa Teresa Blvd trail south of Watsonville Rd (Ph. 1: Pave existing trail between Watsonville and Llagas Creek) **T-A10.** Murphy Ave/Mission View Dr multi-use trail from Burnett Ave to Tennant Ave **T-A11.** Trail connecting the San Pedro Percolation Ponds to the Outdoor Sports and Aquatics Centers **T-A12.** Butterfield Linear Park extension from San Pedro Ave to West Little Llagas Creek Trail at Watsonville Rd **T-A13**. Trail from West Little Llagas Creek Trail at Watsonville Rd to Silveira Park **T-A14.** Edmundson Creek Trail from La Crosse Dr to W Edmundson Ave/Sunnyside Ave **T-A15.** Hale Ave trail connection to El Toro **T-A16.** Trail connecting Community Park/Sunset Ave to Dewitt Ave **T-A17.** Butterfield Linear Park extension from E Central Ave to Cochrane Rd **T-A18.** Trail from Diana Ave to Caltrain pedestrian crossing **T-A19.** Llagas Creek Dr Trail from Hale Ave to Llagas Rd **T-A20.** Trail along east side of railroad tracks south of Butterfield Blvd connecting to basin east of railroad tracks between Maple Ave and Pollard Ave **T-A21.** Trail from Hill Rd to Jackson Park and Fountain Oaks Dr **T-A22.** Madrone Channel Trail from Tennant Ave to E Middle Ave **T-A23.** Tennant Creek Trail from Dunne Ave to E Middle Ave

Table 3: 2020 Community Based Transportation Plan

Relevant Proposed Projects
1. Bicycle and Pedestrian a. Intersection Improvements – Improved Traffic Congestion and Bicycle and Pedestrian Safety: Striping, sidewalk and signal improvements at approximately 30 intersections through the City per Bikeway Master Plan. The proposal is also identified in the Transportation Element of the City of Morgan Hill's General Plan.

b. Citywide Pedestrian Safety Improvements: Addition of pedestrian activated enhanced crosswalk lighting at 12-20 locations. The proposal has been identified in the City of Morgan Hill's Vision Zero, which prioritize safety, create livable streets, and eliminate traffic fatalities.
c. School Safety Improvements: Changes and enhancements to school frontages, adjacent crosswalks and other off-site facilities near schools. The proposal has been identified in the Transportation Element of the City of Morgan Hill's General Plan and Morgan Hill's Vision Zero.
d. Main Avenue Bike Lane and Sidewalk Project: Buffered bike lanes and completion of sidewalk projects from Butterfield Avenue to Condit Road. The proposal was identified in the City of Morgan Hill's Bikeways Master Plan.
e. Madrone Channel Trail: Paving existing trail to create a Class 1 Bike/Pedestrian path from Cochrane Road to Tennant Avenue. The proposal has been identified in the City of Morgan Hill's Bikeways Master Plan and also in VTA's Countywide Bike Plan Update 2018.
f. West Little Llagas Creek Trail: Paving existing trail to create a Class 1 Bike/Pedestrian path south from Watsonville Road to Silviera Lake and north from Spring Avenue to Ciolino Avenue. The proposal has been identified in the City of Morgan Hill's Bikeways Master Plan.
g. Safe Routes to School Program Implementation: Add one full-time Safe Routes to School Coordinator and increase Police Department support. The proposal supports the City of Morgan Hill's Vision Zero.
h. Watsonville Road Multi-Use Trail: Development of a new multi-use trail reusing existing right of way. Pedestrian crossings at multiple locations. The proposal has been identified in City of Morgan Hill's Bikeways Master Plan.

2. **Transportation Options and Services**
   a. Rider's Choice Pilot Program: The Rider's Choice Program gives eligible paratransit customers the choice to choose a standard, same day trip with a Transportation Network Company (TNC) within the Rider's Choice Program instead of VTA's paratransit provider. The Rider's Choice Program will offer trip bookings on the same day or in advance, point to point service, no shared ride required, companions ride free, and better on-time performance.
   b. Mobility Assistance Program (MAP): This project seeks to provide reduced cost and no-cost transportation options for older adults, individuals with disabilities, and low-income persons seeking to find and retain employment.
   c. Volunteer Driver Program Expansion: Add one full-time Mobility Management Coordinator for Morgan Hill to manage and grow Volunteer Driver Program. This transportation gap has been identified in the City of Morgan Hill Senior Services Strategic Plan.

Table 4: Vision Zero Policy Actions

Actions	
Engineering	**City Lead**
Include Complete Streets philosophies requiring streets be planned, designed, operated, and maintained to enable safe, convenient, and comfortable travel and access for all ages and abilities	**PLANNING & ENGINEERING**
Follow National Association of City Transportation Officials (NACTO) design standards	**PLANNING & ENGINEERING**
High-visibility ladder, zebra, and continental crosswalk markings are preferable	**COMMUNITY SERVICES & ENGINEERING**
Unsignalized crossings should be highlighted using additional warning signage, high visibility lighting and markings, actuated beacons, and traffic calming features, such as mid-block crossing islands	**ENGINEERING**
Evaluate mid-block crosswalks with rapid flashing lights (or alternatives) where there is a pedestrian desire line (e.g. bike paths, mid-block bus stops, plazas, recreation facilities, and mid-block passageways)	**PLANNING & ENGINEERING**
Consider shared lane markings (sharrows) offering guidance to bicyclists on where to ride while alerting motorists to the presence of bicyclists within a lane shared by both bicyclists and drivers	**PLANNING & ENGINEERING**
Consider buffered bike lanes that run aside roadways, separated from automobile traffic by markings or a physical barrier, such as parked cars, bollards, or a curb	**PLANNING & ENGINEERING**
Install count down pedestrian timers when possible	**COMMUNITY SERVICES & ENGINEERING**
Consider road diets to narrow or eliminate travel lanes on roadways to make more room for pedestrians and bicyclists	**PLANNING & ENGINEERING**
Continue to utilize LED street lighting to illuminate intersections and roadways with additional care and emphasis taken at and near crosswalks	**ENGINEERING**
Evaluate options to increase nighttime pedestrian safety in the downtown	**ENGINEERING & POLICE**
Create temporary accommodations for bicyclists and pedestrians along construction sites when sidewalks and other travel ways have been closed	**ENGINEERING**
Work collaboratively with the Morgan Hill Unified School District and County of Santa Clara Roads to identify locations where Safe Routes to Schools can be improved	**COMMUNITY SERVICES, ENGINEERING, & POLICE**
Reduce speed limits where appropriate	**ENGINEERING & POLICE**
Enforcement	**City Lead**

Conduct enforcement campaigns in conjunction with routine traffic enforcement (e.g. Distracted Driving - April, Click it or Ticket it - June, Pedestrian Safety Month - September, Operation Safe Passage - Back to School)	**POLICE**
Perform Driving Under the Influence (DUI) saturation patrols to coincide with City events and national holidays (e.g. Taste of Morgan Hill, Mushroom Mardi Gras, Fourth of July, Memorial Day weekend, etc.)	**POLICE**
Perform directed enforcement at high collision locations by targeting common primary collision factors (PCF's) and determine if there are measurable reductions in collisions	**POLICE**
Partner with regional agencies to provide additional resources to patrol specific locations with high visibility and zero tolerance (e.g. Countywide Allied Agency Enforcement)	**POLICE**
Continue partnering with the Morgan Hill Unified School District by assigning Officers to schools and providing outreach education and enforcement	**POLICE**
Education and Engagement	**City Lead**
Participate in regional, state and nation-wide social media safety campaigns	**POLICE & CITY MANAGER**
Partner with nightlife businesses and transportation networks for deter impaired driving by offering special services and promotions (e.g. Know Your Limits Campaign, Designated Driver Program, Uber, Lyft, local taxi services)	**POLICE**
In coordination with the Morgan Hill Unified School District (MHUSD) and American Medical Response (AMR), offer driving under the influence programs at local High Schools (e.g. Every 15 Minutes, Sober Graduation, Zero Tolerance)	**POLICE**
Biannual safety seminars at senior centers and residential care facilities to engage with elderly drivers about driver safety and common dangerous habits	**COMMUNITY SERVICES & POLICE**
Conduct annual driver safety training courses for City employees	**POLICE**
Partner with MHUSD to provide student/driver education regarding common violations and misconceptions	**POLICE**
Coordinate with the Morgan Hill Unified School District to support educational activities at school sites to support Safe Routes to Schools	**COMMUNITY SERVICES & POLICE**
Form a City and School District Working Committee to address Safe Routes to Schools and Vision Zero Morgan Hill initiatives	**COMMUNITY SERVICES**

Emphasize bicycle safety, motorcycle safety, and child safety (e.g. bicycle rodeo, motorcycle safety courses, helmet safety inspections, assistance with proper child seat installation)	**POLICE**
Continue to seek grant opportunities and legislative actions that support Vision Zero initiatives	**ALL DEPARTMENTS**
Evaluation	**City Lead**
Track total number of vehicle, pedestrian, and bicycle collisions and contributing factors	**POLICE**
Evaluate how collisions were affected by posted speed, road class, or other identifiable features of the road by continuous engagement between Police and Engineering	**POLICE & ENGINEERING**
Implementation of Countywide Traffic Collision Database Systems	**POLICE**

Morgan Hill Transportation Master Plan: Bicycle, Pedestrian, and Safety Technical Analyses

Introduction and Purpose

This document outlines and describes the technical analyses used during development of the Transportation Master Plan. The document describes the purpose, methodologies, and results for the following analyses, Bicycle Level of Traffic Stress, Pedestrian Priority Zones, and Safety Conditions. These analyses have informed the development of plan recommendations, and more details specific to each analysis can be found in the Transportation Master Plan.

Bicycle Level of Traffic Stress Analysis

Purpose

The *Transportation Master Plan* utilizes a bicycle level of traffic stress (LTS) assessment to quantify and compare conditions for people biking across the City of Morgan Hill. LTS is a tool based on the Mineta Transportation Institute's nationally-recognized research to rank streets and multi-use trails on a scale from greatest comfort (LTS 1) to least comfort (LTS 4). LTS is based on the premise that a person's level of comfort on a bicycle increases as separation from vehicular traffic increases, or as traffic volume and speed decrease. Conversely, a person's level of stress on a bicycle increases when they are less separated from vehicular traffic, or as traffic volume and speed increase.

Due to the lack of physical separation between motorists and bicyclists, many roads with bike lanes across the city generate LTS scores of 3 or 4. Bike lanes along roads with lower posted speed limits (i.e., 30 MPH or less) and modest traffic levels (i.e., less than 7,000 vehicles per day) generally receive LTS scores of 1 or 2. Multi-use trails, roads with sidepaths (two-directional trails at sidewalk level), and most neighborhood streets generate LTS scores of 1. LTS scores along higher speed and volume roads – and more importantly, user safety and comfort – can be enhanced through creating additional spatial and physical separation. It is important to note that LTS does not account for conditions at intersections, which can be major barriers to bicycling.

LTS Methodology

The LTS assessment was applied to the full network of streets and paved trails across the City of Morgan Hill, including locations with and without dedicated bikeways. For the purposes of LTS analysis, only certain bikeways (i.e., bike lanes, shoulders, and trails) are considered to be dedicated bicycle facilities. Though bike routes help direct bicyclists to key destinations and raise awareness of their presence on the road to motorists, these routes are scored using the "mixed traffic" criteria as there is no physical separation between moving traffic and bicyclists, and research indicates the presence of signs alone does not influence traffic stress. See the Appendix section for additional information on the LTS methodology.

LTS Results

Level of traffic stress analysis can be used to identify where improvements to existing bikeways would be needed to create low stress conditions that would appeal to interested but concerned bicyclists. Figure 1 depicts LTS results for all road segments across the City of Morgan Hill, including streets with existing bikeways. Multi-use trails and sidepaths are considered low stress

facility types and generate LTS 1. Road segments with on-street bike lanes receive scores ranging from LTS 2 to 4, depending on the posted speed, traffic volume, whether on-street parking is permitted, and the parking utilization rate. A majority of roads in Morgan Hill with existing bike lanes have scores of LTS 4.

While LTS should be considered a basis for determining bicyclist comfort levels; other factors influence the decision to ride a bicycle on a particular facility, including incidences of speeding and conflicts with turning movements at driveways and site access points. It is important to note that many corridors with existing on-street bike lanes have LTS scores between 3 and 4, indicating that many current or potential bicyclists would find existing facilities uncomfortable. Low stress conditions can be created on existing bikeways through further separation between people biking and motorists or slower vehicle speeds – achieved through techniques such as narrower travel lanes and modified signal timing patterns.

LTS Inputs

LTS rating values for individual street segments are based on the following inputs and characteristics:

- Bicycle facility presence, type, and width
- Posted speed limit
- Number of travel lanes per direction
- Average daily traffic (ADT) volume
- Presence and width of on-street parking lanes
- Presence of a centerline

Note on sources: The LTS analysis used traffic volume data collected in 2023 specifically for the Morgan Hill TMP. Posted speed limits and bikeway facility data were verified through site visits and desktop reviews of aerial imagery. Assumptions were applied to account for traffic counts in locations where no data was collected and realistic use of facilities under existing conditions.

Table 1: LTS Criteria for Roads with Mixed Traffic

Number of Lanes	ADT	Posted Speed Limit (MPH) ≤ 20	25	30	35	40	45	50+
2-way street (no centerline)	0-750	LTS 1	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	751-1500	LTS 1	LTS 1	LTS 2	LTS 3	LTS 3	LTS 4	LTS 4
	1501-3000	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
	3000+	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4
1 thru lane per direction (1-way, 1-lane street or 2-way street with centerline)	0-750	LTS 1	LTS 1	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	751-1500	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4	LTS 4
	1501-3000	LTS 2	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4
	3001-6000	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4
	6001-10000	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4
	10000+	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4
2 thru lanes per direction	0-6000	LTS 3	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4
	6001-12000	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4
	12001+	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4
3+ thru lanes per direction	Any ADT	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4	LTS 4

Table 2: LTS Criteria for Bike Lanes and Shoulders Not Adjacent to a Parking Lane

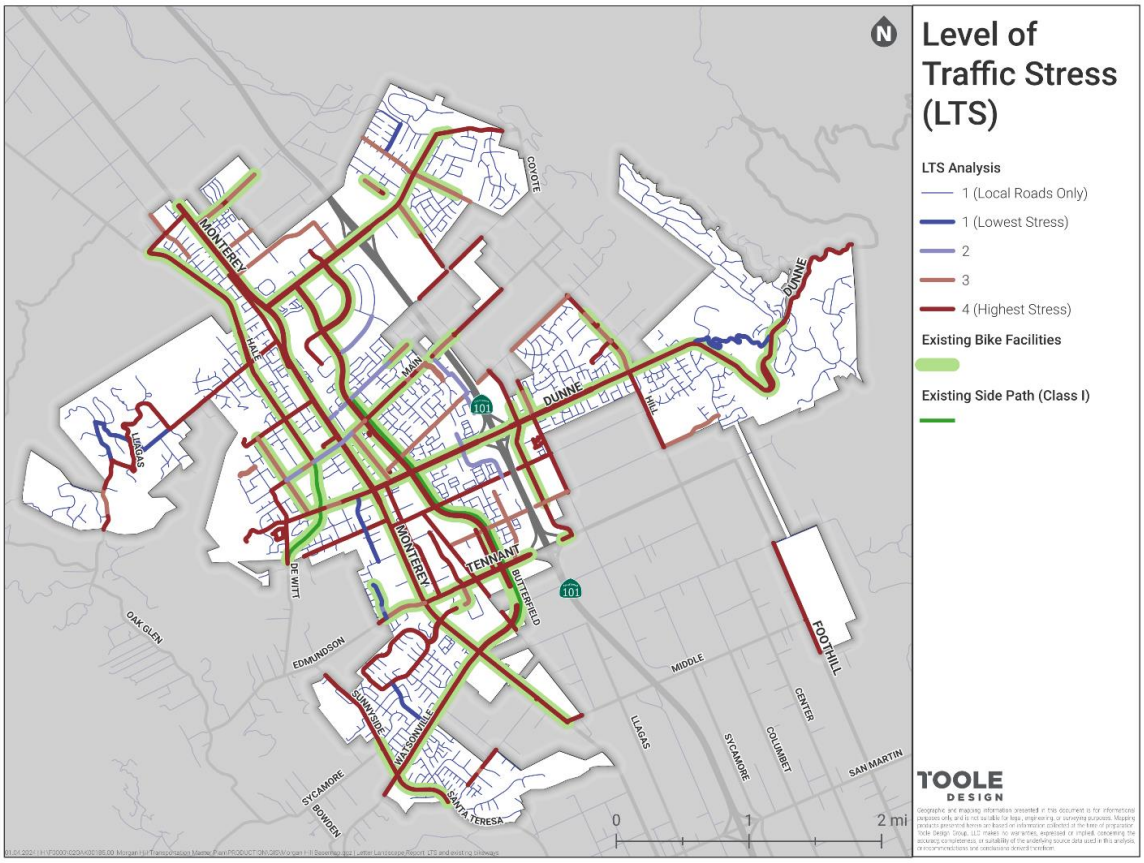
Number of Lanes	Bike lane width (including buffers)	Posted Speed Limit (MPH) ≤ 25	25	30	35	40	45
1 thru lane per direction, or with no centerline	6+ ft	LTS 1	LTS 1	LTS 2	LTS 3	LTS 3	LTS 3
	4 or 5 ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4
2 thru lanes per direction	6+ ft	LTS 2	LTS 2	LTS 2	LTS 3	LTS 3	LTS 3
	4 or 5 ft	LTS 2	LTS 2	LTS 3	LTS 3	LTS 4	LTS 4
3+ lanes per direction	Any width	LTS 3	LTS 3	LTS 3	LTS 4	LTS 4	LTS 4

Table 3: LTS Criteria for bike lanes alongside parking lanes

Number of Lanes	= Bike + parking Lane Width	Posted Speed Limit (MPH) 25	30	35	40+
1 lane per direction	14 ft	LTS 2	LTS 2/3*	LTS 3	LTS 4
	12-13 ft	LTS 2/3*	LTS 2/3*	LTS 3	LTS 4
2 thru lanes per direction (2-way) 2-3 lanes per direction (1-way)	14 ft	LTS 2/3*	LTS 3	LTS 4	LTS 4
	12-13 ft	LTS 2/3*	LTS 3	LTS 4	LTS 4
Other multilane		LTS 3	LTS 3	LTS 4	LTS 4

** Rating depends on parking turnover. Low turnover (e.g., residential) = LTS 2, high turnover (e.g., commercial or mixed use) = LTS 3*

Figure 1: Bicycle Level of Traffic Stress along Morgan Hill Roadways



Pedestrian Priority Areas

Purpose

The TMP identifies Pedestrian Priority Areas to provide guidance on where pedestrians are most likely to be present and where high-quality sidewalks, landscaping, and frequent crossing opportunities should be provided. Pedestrian Priority Areas range from "medium" to "very high," with higher priority areas reflecting areas in Morgan Hill with higher concentrations of destinations. Pedestrian generators include schools, community centers, parks, grocery stores, high frequency transit stops, and other local destinations.

The TMP specifically evaluates sidewalk gaps and crossing opportunities within identified pedestrian priority zones. Outside of pedestrian priority zones, sidewalks are required in accordance with city development standards. Formal crossings should be provided at signalized intersections, trail crossings, and other locations where pedestrians may be present.

Methodology

Prioritizing Pedestrian Needs

The TMP uses pedestrian trip generators (attractors/destinations) to estimate pedestrian needs, with each street segment assigned points based on proximity to a trip generator(s). Table 4 below outlines the pedestrian trip generators and associated levels of point values, with priority areas assigned based on the concentration and types of trip generators present. Different weighting values are applied based on the likely number of pedestrian trips associated with a trip generator. Segment points are additive, and segments may receive points from multiple generators. Adjustments were applied to reflect individual parks – including City Park – that attract high numbers of trips. A radius was applied around all schools to ensure a minimum designation (i.e., medium priority zone or higher). Once the destination scores were calculated for all roadway segments, a dissolved 1/8-mile buffer was applied to create contiguous pedestrian priority areas.

Pedestrian Priority Areas Definitions

- **Very High**: street segments totaling at least *20* out of 25 points.
- **High Priority**: street segments totaling at least *15* out of 25 points.
- **Medium Priority**: street segments that score in the top 40th percentile in *two* out of the four destination categories.

Pedestrian Priority Areas Results

Pedestrian Priority Areas can be used to identify where improvements to existing pedestrian infrastructure would be needed to create safe and comfortable conditions in the areas that generate the most pedestrian trips. Figure 2 depicts trip generators in Morgan Hill, and Figure 3 depicts Pedestrian Priority Areas results for the entirety of the of City of Morgan Hill. Pedestrian Priority Areas are concentrated on the west side of Highway 101, with a majority of "Very High" areas concentrated around Monterey Highway and Downtown Morgan Hill.

Pedestrian Priority Zone Inputs

Table 1 depicts the inputs (trip generators and associated point values) used to determine Pedestrian Priority Areas in Morgan Hill.

Table 4: Pedestrian Trip Generators and Point Values

Category	Type	Sites in Morgan Hill	Points
Healthcare	Hospitals	8	3
	Clinics	1	1
	Pharmacies	7	1
Parks and Community Resources	City parks/trailheads	43	1
	Community centers	4	1
	Public facilities	9	1
	K-12 schools	27	2
	High school bonus	3	3
Commercial	Downtown district	56	2
	Grocery stores	12	1
	Farmers markets	1	1
Transportation	High frequency transit stops	63	2

Figure 2: Pedestrian Priority Zones Trip Generators

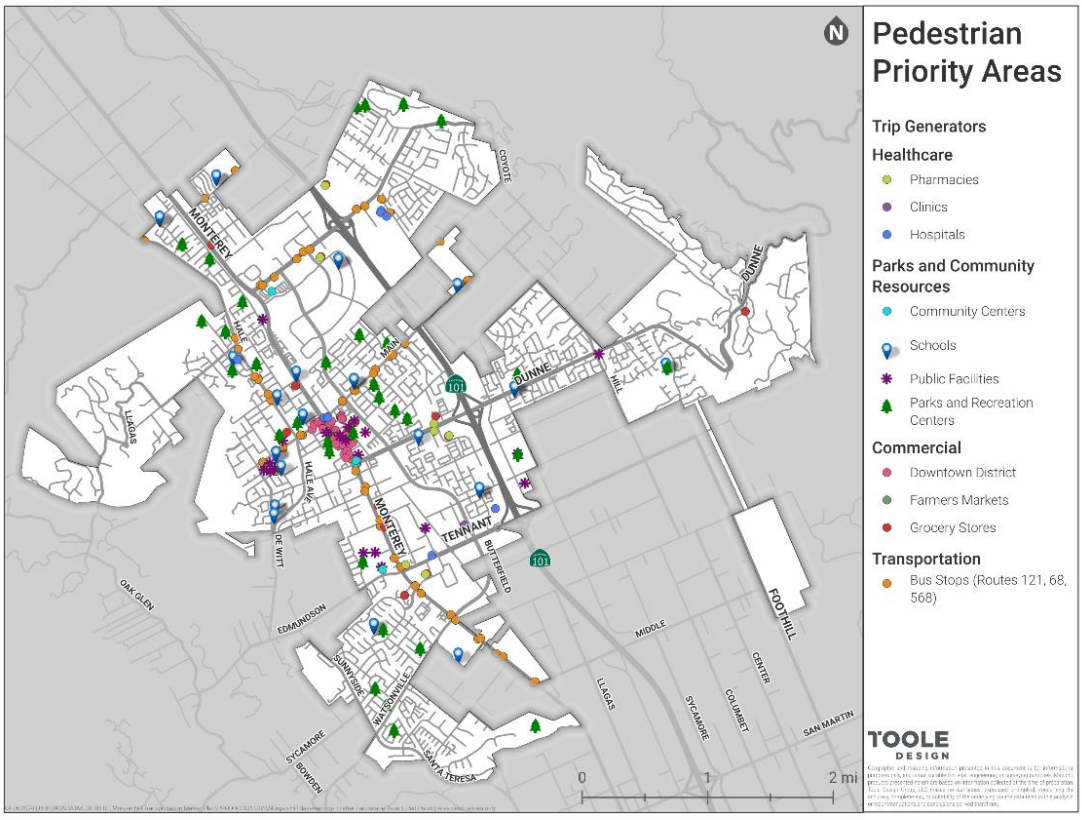
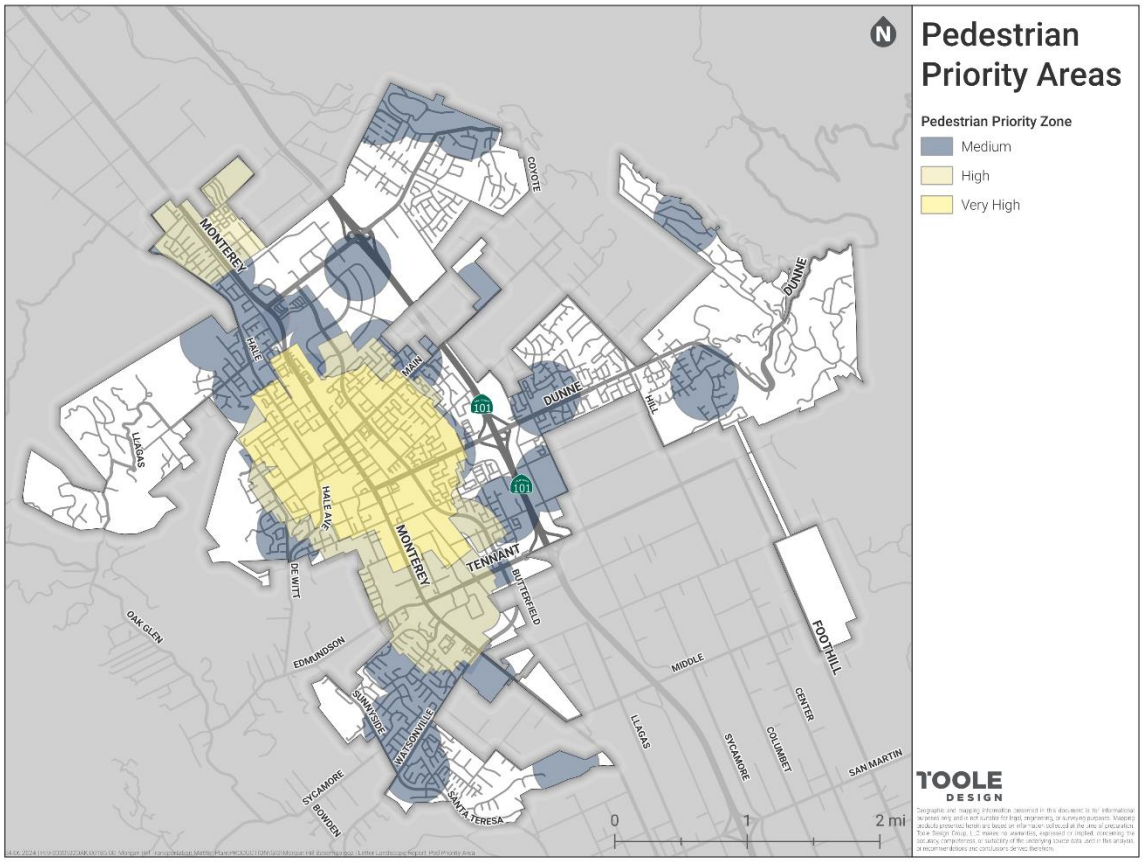


Figure 3: Pedestrian Priority Areas Results



Safety Conditions: Crash Analysis and High Injury Network

Purpose

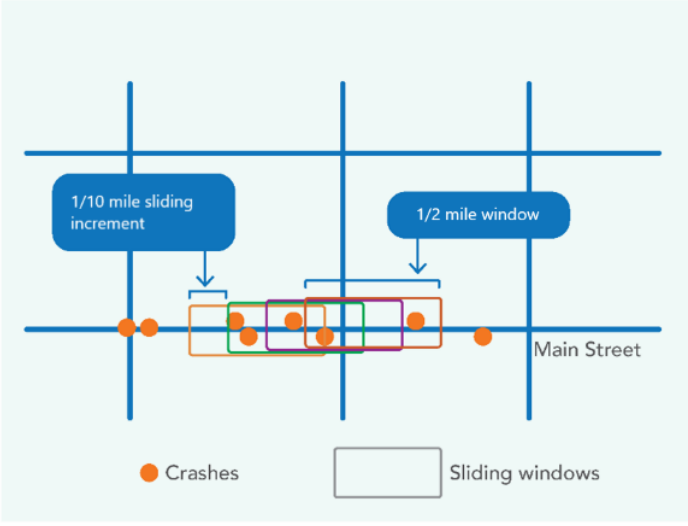
The Transportation Master Plan includes a preliminary High Injury Network (HIN) that highlights the corridors through the City of Morgan Hill with the highest concentrations of fatal and serious injury crashes for different modes over a period of time. The preliminary HIN network was developed using location-specific crash data for the 5-year period between 2016-2020; the network may be updated as part of the upcoming Safety Action Plan as more recent data becomes available. The HIN maps were developed using only fatal (K) and suspected serious injury (A-Injury) crashes during the study period.

Methodology

The preliminary Morgan Hill HIN was developed using a sliding windows analysis that helps safety professionals better understand crashes throughout a transportation network and identify segments with the highest crash density and crash severity. The analysis works by determining the number and severity of crashes along a roadway segment (the window) and sliding that window along the network at set intervals. In this approach, the window is moved along a corridor, counting the number of crashes by density and severity by mode that occurred within each successive segment.

To perform the sliding window analysis, all roads were split into segments and then combined into corridors based on name and functional class. The analysis segment windows extended 0.5 miles in length and slid along the network at 0.1-mile increments. A lateral buffer of 25 feet on either side of the segment was used to capture crashes that may not be precisely aligned within the roadway. Both intersection and segment crashes were included in this evaluation, as the focus was on overall corridor conditions. Crash events occurring within the bounds of an intersection were counted on both corridors for the purposes of identifying the HIN. An example of a sliding windows analysis is shown in Figure 4 below.

Figure 4: Sliding Window Analysis Example



The sliding windows analysis was conducted for motor vehicle-only crashes and crashes involving bicycles and pedestrians. For crashes involving multiple modes, a crash was assigned a single mode based on the most vulnerable mode involved. For example, a crash between a motor vehicle and a bicyclist would be classified as a bicycle crash, but it would not be included

in the “motor vehicles only” HIN analysis. The mode-specific HINs are based on a calculation of KA crash history density per mile and determining which roadway segments meet established thresholds for each transportation mode.

HIN Results

The figures on the following pages show the High Injury Networks for all crashes (Figure 8), motor vehicles (Figure 5), bicycle (Figure 7), and pedestrian modes (Figure 6) within the City of Morgan Hill. The HIN maps may be used as a reference document for determining where to address safety-related concerns and are incorporated into the project prioritization process for the TMP.

HIN Inputs

The HIN for each individual mode and all modes are based on the following inputs:

- Fatal (K) crashes involving
  - Vehicles
  - Bikes
  - Pedestrians
- Suspected serious injury (A-Injury) crashes\
  - Vehicles
  - Bikes
  - Pedestrians

Figure 5: Vehicle HIN

Figure 6: Pedestrian HIN

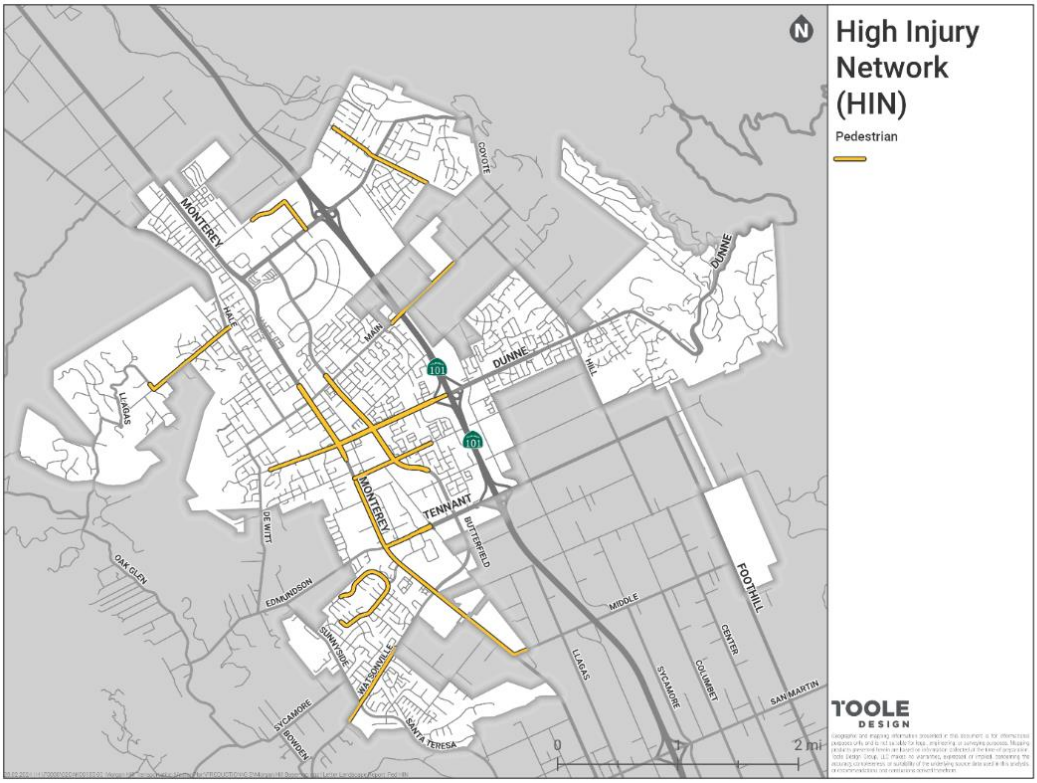
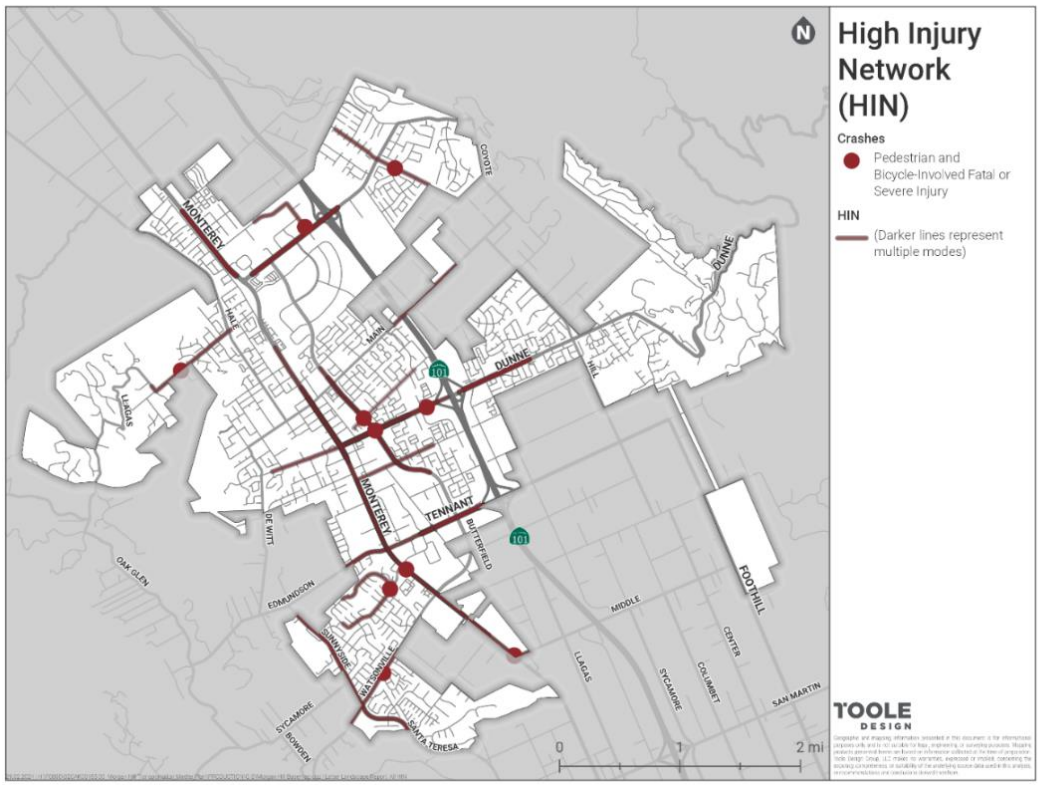


Figure 7: Bicycle HIN

Figure 8: High Injury Network (all modes) and Pedestrian and Bicycle Involved Fatal or Severe Injury Crashes



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MEMORANDUM

October 24, 2024

To: Robert Del Rio
Organization: Hexagon
From: Aaron Sussman and Ellie Gertler
Project: Morgan Hill TMP

Re: Bikeways and Trails Priority Projects

This memorandum describes the 10 proposed priority bikeways and trails network projects for the Morgan Hill TMP. See Figure 1 through Figure 3 for maps depicting the proposed bikeway and trail network and Table 1 for details on the priority projects.

Figure 1: Existing Bikeways and Trails Network and Priority Projects

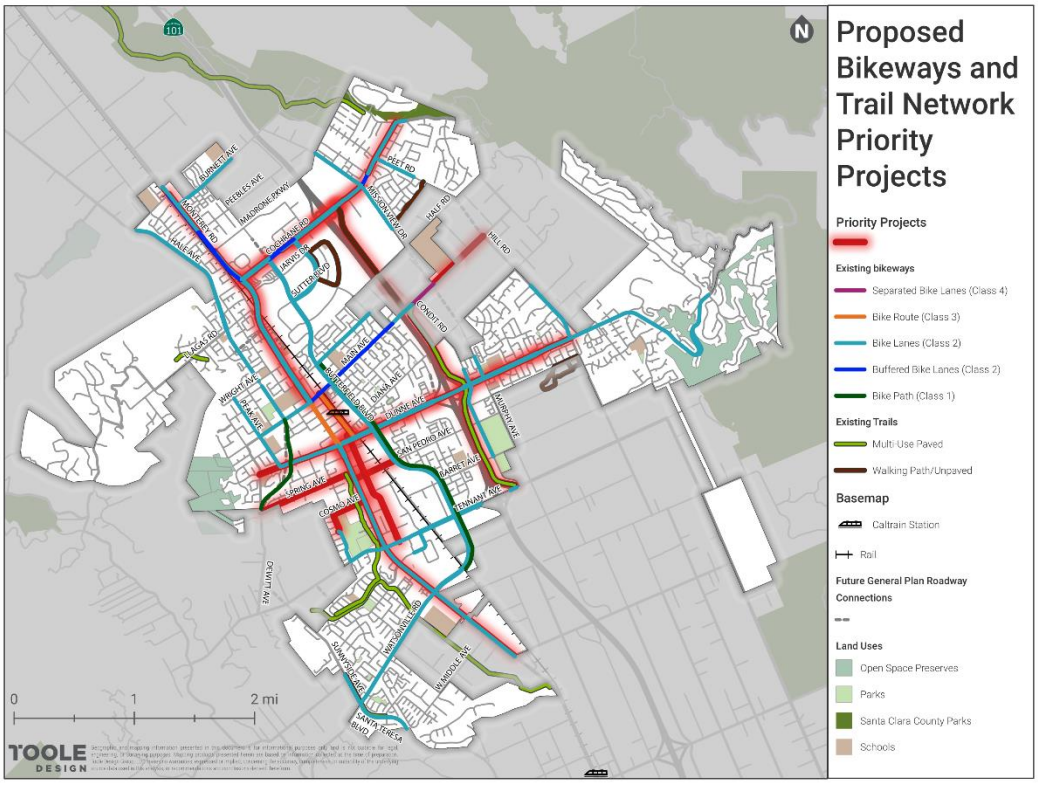

Figure 2: Priority Projects and Proposed Bikeway Network

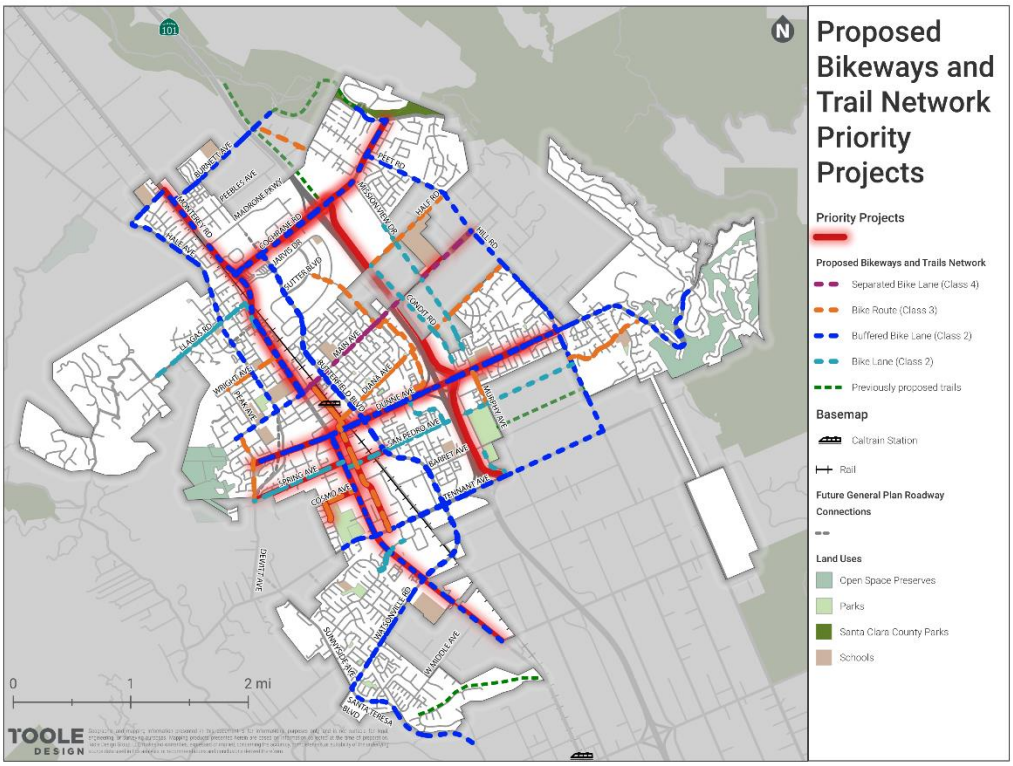

Figure 3: Priority Projects

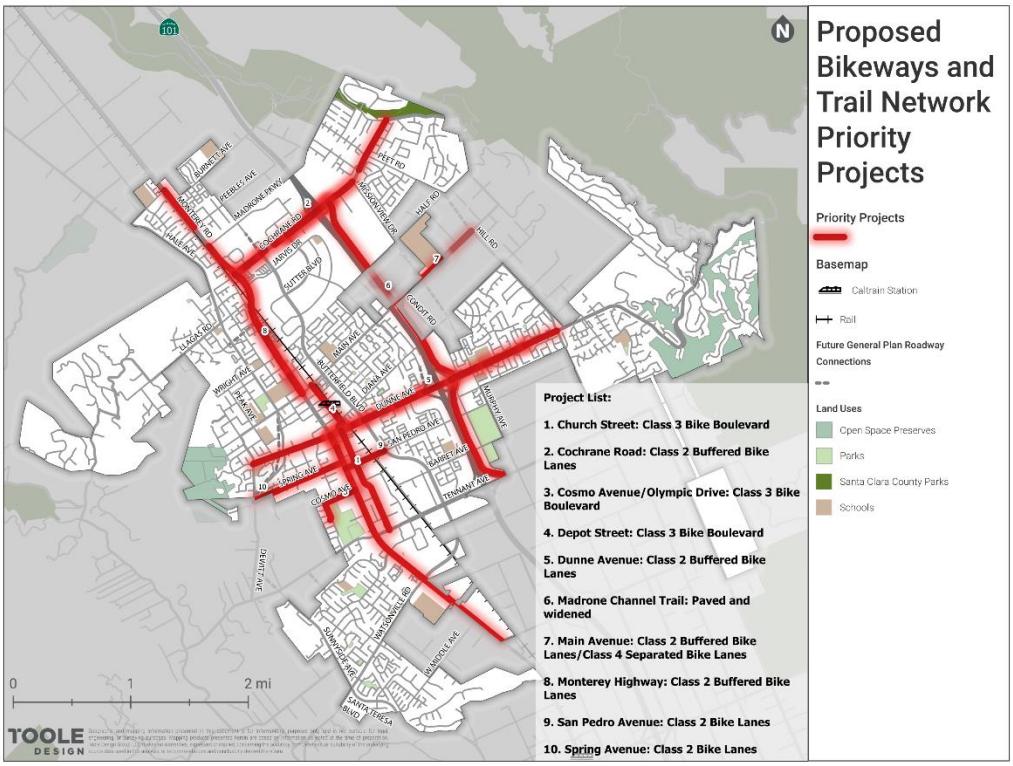

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Table 1: Bikeways and Trails Priority Project List

ID	Corridor	To	From	Existing	Proposed	Bikeway	Trail	Notes
1	Church St	Tennant Ave	Dunne Ave	NA	Class III Bike Boulevard	X		High quality bikeway/neighborhood greenway along a bike route, including traffic calming, striping, signage, branding
2	Cochrane Rd	Monterey Highway	Malaguerra Ave	Mix	Class II Buffered Bike Lanes	X		Restripe to provide continuous buffered bike lanes and increase user comfort; some minor relocation of curb lines may be necessary
3	Cosmo Ave / Olympic Dr	Monterey Highway	Denali Dr	NA	Class III Bike Boulevard	X		High quality bikeway/neighborhood greenway along a bike route, including traffic calming, striping, signage, branding
4	Depot St	Dunne Ave	Main Ave	Class III Bike Route	Class III Bike Boulevard	X		High quality bikeway/neighborhood greenway along a bike route, including traffic calming, striping, signage, branding
5	Dunne Ave	DeWitt Ave	Hill Rd	Class II Bike Lanes	Class II Buffered Bike Lanes	X		
6	Madrone Channel Trail	North City Limits	South City Limits	Mix of paved / unpaved segments	Paved and widened trail		X	Paving in progress from Main Ave to Tennant Ave. Upgraded sections that currently have insufficient width will require easements from the Valley Water District.
7	Main Ave	Laural Rd	Hill Rd	Mix	Class II Buffered bike lanes/ and Class IV Separated	X		High quality bikeways desired, as space permits. Class II buffered bike lanes may be an interim treatment. Coordination with Santa Clara County required from Condit Ave to Hill Ave.
8	Monterey Highway (excluding downtown)			Mix	Class II Buffered Bike Lanes	X		Will require feasibility checks for lane widths on Monterey, intent to provide buffered bike lanes where feasible
9	San Pedro Ave	Monterey Highway	Butterfield Blvd	NA	Class II Bike Lanes	X		
10	Spring Ave	DeWitt Ave	Monterey Highway	NA	Class II Bike Lanes	X		Remove parking on south side of street, narrow driving lanes, implement 5' bike lanes

SEGMENT NEEDS ASSESSMENT

#	Roadway Segment	Regional Cut-Through Traffic (AM)	Regional Cut-Through Traffic (PM)	HIN	Total KSI	Ped/Bike KSI	Sidewalk Gaps/Missing Sidewalks (Ped Needs)	Ped Priority Area	Existing Bikeways	LTS	Proposed Bikeways	School Access (0.25)	School Access (0.5)	Destination Access (0.25)	Destination Access (0.5)	Speeding Issues	Street Typology	Operational Deficiencies (2050 GP Net)	Community Input		City Traffic Issues Spreadsheet
																			Problem Areas Identified Through Dotting exercise	Notes	
1	Barrett Avenue, From Railroad Avenue To Butterfield Boulevard	--	--	-	-	-	Sidewalk Gaps	Very High High		3			0.5	0.25		Yes (< 5 mph)	Other Street	No	0		
2	Barrett Avenue, From Butterfield Boulevard To US 101	--	--	-	-	-		High Medium		3		0.25		0.25		Yes (< 5 mph)	Other Street	No	0		
3	Barrett Avenue, From Trail Drive To Hill Road	--	--	-	1	-		Medium (Trail Drive to Sorrel Drive)		3			0.5	0.25		Yes (< 5 mph)	Other Street	No	0		
4	Burnett Avenue, From Monterey Road To City Limit	--	--	-	-	-		High	Bike Lanes (Class II)	3 4 (Hacienda to Via Feliz)		0.25		0.25		Yes (>5mph)	Community Corridor	No	0	Sobrato High School has a need for a pedestrian crosswalk to cross Burnett Avenue.	
5	Butterfield Boulevard, From Tennant Avenue To Monterey Road	45.1-50%+	20.1-25%	Vehicle HIN (Buttefield to Vineyard) Ped HIN (Railroad to Monterey)	-	-	Sidewalk Gaps	High Medium	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (>5mph)	Boulevard	No	2		
5	Butterfield Boulevard, From Tennant Avenue To Monterey Road	45.1-50%+	20.1-25%	-	-	-		High Medium	Bike Path (Class I) Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)		0.5	0.25		Yes (>5mph)	Boulevard	No	0		
7	Butterfield Boulevard, From Barrett Avenue To San Pedro Avenue	40.1-45%	10.1-15%	Bike HIN Ped HIN	-	-		Very High High	Bike Path (Class I) Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Boulevard	No	1		
8	Butterfield Boulevard, From San Pedro Avenue To E. Dunne Avenue	40.1-45%	10.1-15%	Bike HIN Ped HIN	1	1		Very High	Bike Path (Class I) Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)		0.5		0.5	Yes (< 5 mph)	Boulevard	No	1		
9	Butterfield Boulevard, From E. Dunne Avenue To Central Avenue	30.1-35%	10.1-15%	Bike HIN Ped HIN	1	1		Very High	Bike Path (Class I) Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Boulevard	Yes	0		
10	Butterfield Boulevard, From Central Avenue To Cochrane Road	30.1-35%	10.1-15%	-	-	-	Missing sidewalk (Jarvis to Sutter) Crossing needed (at Jarvis)	Very High High Medium	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Boulevard	No	6		
11	E Central Avenue, From Butterfield Boulevard To Serene Drive	--	--	-	-	-		Very High High Medium	Bike Lanes (Class II) (Aston Ct to Serene)	4		0.25		0.25		Yes (< 5 mph)	Other Street	No	0		
12	Church Street, From Tennant Avenue To E. Dunne Avenue	--	--	-	-	-	Sidewalk Gaps	Very High High		4	Bike Lanes (Class II)			0.25		Yes (>5mph)	Other Street	No	0		Speeding on Church between Edmundson and Barrett.
13	Cochrane Road, From Monterey Road To US 101	30.1-35%	15.1-20%	Vehicle HIN	-	-	Sidewalk Gaps	Medium	Bike Lanes (Class II) Buffered Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		No	Boulevard	No	16		
14	Cochrane Road, From US 101 To Mission View Drive	35.1-40%	10.1-15%	Vehicle HIN	-	-			Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Community Corridor	No	6		

15	Cochrane Road, From Mission View Drive To Malaguerra Avenue	--	--	-	-	-	Crossing needed		Bike Lanes (Class II) Buffered Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)			0.25		Yes (>5mph)	Community Corridor	No	14	Cochrane – multiple houses had car crashes in fences and front yards , No sidewalk on north side; Residents cross Cochrane to south side; traffic calming	
16	Cochrane Road, From Malaguerra Avenue To City Limit	--	--	-	-	-	Missing Sidewalk	Medium		4	Buffered Bike Lanes (Class II)			0.25		No	Rural Street	No	5		Review Crossing to the Park Ped Safety Improvement Project. Create T intersection at Malaguerra and Cochrane with stop sign. Bring Sidewalk down Malaguearra. Overlay road grade to creek. Add sidewalk at Malagueera to Chcorane. Ad Ped Path to park next to bike lane.
17	Condit Road, From E. Dunne Avenue To Tennant Avenue	45.1-50%+	0-5%	-	-	-		Medium	Bike Lanes (Class II)	4	Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Community Corridor	No	5		
18	Condit Road, From Diana Avenue To E. Dunne Avenue	15.1-20%	0-5%	-	-	-	Missing Sidewalk	Medium	Bike Lanes (Class II)	4	Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Community Corridor	No	0		
19	Condit Road, From Diana Avenue To City Limit	15.1-20%	0-5%		-						Bike Lanes (Class II)				0.5	Yes (>5mph)	Outside MH	No	4		
20	Cosmo Avenue, From Del Monte Avenue To Monterey Road	--	--	-	-	-	Sidewalk Gaps	Very High High		1 (Local Road)	Bike Route (Class 3)			0.25		--	Other Street	No	0		
21	Del Monte Avenue, From Cosmo Avenue To E. Dunne Avenue	--	--	-	-	-		Very High High		1			0.5	0.25		--	Other Street	No	1		Donuts in intersection of Del Monte and Cosmo, speeding down Del Monte. Would like speed bumps on Del Monte
22	Depot Street, From E. Main Avenue To E. Dunne Avenue	5.1-10%	0-5%	-	-	-		Very High	Bike Route (Class III)	3	Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Other Street	No	5		
24	Dewitt Avenue, From Spring Avenue To W. Dunne Avenue	45.1-50%+	30.1-35%	-	-	-		Medium		4	Bike Route (Class 3)	0.25		0.25		Yes (< 5 mph)	Community Corridor	No	1		
25	Diana Avenue, From Butterfield Boulevard To US 101	--	--	Bike HIN	1	1		Very High		3	Bike Route (Class 3)	0.25		0.25		No	Other Street	No	2		
26	Diana Avenue, From Murphy Avenue To Hill Road	--	--	-	-	-				3	Bike Route (Class 3)		0.5		0.5	No	Other Street	No	0		
27	W. Dunne Avenue, From Peak Avenue To Monterey Road	0-5%	0-5%	Ped HIN	-	-		Very High	Bike Lanes (Class II)	3 4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (>5mph)	Community Corridor	No	0	Excessive speeding on Dunne,"I have to walk from Hill/Tennant to St. Catherine. Its not safe. We need sidewalk"	
28	E. Dunne Avenue, From Monterey Road To Butterfield Boulevard	5.1-10%	0-5%	ALL HIN	1	1		Very High	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)		0.5	0.25		Yes (>5mph)	Boulevard	No	1	Underpass at Dunne Avenue	
29	E. Dunne Avenue, From Butterfield Boulevard To Condit Road	45.1-50%+	0-5%	ALL HIN	1	1	Missing Sidewalk (Dunne and Condit) Crossing needed	Very High High Medium	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Boulevard	No	8	Dunne, Tennant crossing over 101 is dangerous, Improve E/W connectivity	
30	E. Dunne Avenue, From Condit Road To Hill Road	45.1-50%+	0-5%	Vehicle HIN	1	-	Missing Sidewalk Crossing needed	Medium	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (>5mph)	Community Corridor	No	5		

31	E. Dunne Avenue, From Hill Road To Thomas Grade	--	--	-	1	-	Missing Sidewalk		Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Community Corridor	No	10	High speed up Dunne with issues of cars pulling out of Gallop or making U-turns, has excess right-of-way and could be made into a linear park	Dunne & Gallop - Resident wants roundabout. PD is currently patrolling the area.
32	E. Dunne Avenue, From Thomas Grade To Rustling Oak Court	--	--	-	-	-	Missing Sidewalk	Medium	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25			0.5	Yes (< 5 mph)	Community Corridor	No	2	Thomas Grade very unsafe for pedestrians,	
33	E. Dunne Avenue, From Rustling Oak Court To Holiday Drive	--	--	-	-	-	Missing Sidewalk		Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Community Corridor	No	8	High speed at the turn near Flaming Oak Lane, up and down , People in Jackson Oaks and Holiday need another egress down the hill, especially in fire or earthquake , Single road into and out of Jackson oaks, holiday lakes, ridge estates. Need another road into and out	
34	E. Dunne Avenue, From Holiday Drive To Anderson Lake	--	--	-	-	-				4	Buffered Bike Lanes (Class II)			0.25		Yes (< 5 mph)	Rural Street	No	0		
35	W. Edmundson Avenue, From Olympic Drive To Monterey Road	40.1-45%	15.1-20%	Vehicle HIN	2	-		High	Bike Lanes (Class II)	3	Buffered Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Community Corridor	No	0		
36	Foothill Avenue, From Maple Avenue To City Limit	--	--	-	1	-				4						--	Other Street	No	1		
37	Fountain Oaks Drive, From Hill Road To Saddleback Drive	--	--	-	-	-		Medium		1 (Local Road)	Bike Route (Class 3)			0.25		--	Other Street	No	0		
38	Fountain Oaks Drive, From Saddleback Drive To Trail	--	--	-	-	-		Medium		1 (Local Road)	Bike Route (Class 3)			0.25		--	Other Street	No	0		
39	Hale Avenue, From W. Main Street To Wright Avenue	40.1-45%	30.1-35%	-	-	-	Missing Sidewalk	Very High	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (>5mph)	Community Corridor	No	1	Hale + Wright – no sidewalk too many kids in that area	
40	Hale Avenue, From Wright Avenue To Llagas Road	40.1-45%	30.1-35%	-	-	-	Missing Sidewalk	Very High Medium	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (>5mph)	Community Corridor	No	1		Hawk Signal is the only potential solution.
41	Hale Avenue, From Llagas Road To Via Loma	35.1-40%	30.1-35%	-	-	-	Missing Sidewalk	Medium	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (>5mph)	Community Corridor	No	0		
42	Hale Avenue, From Via Loma To Tilton Avenue	35.1-40%	30.1-35%	-	-	-	Missing Sidewalk	Medium	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Community Corridor	No	1		
43	Half Road, From Mission View Drive To Elm Road	20.1-25%	0-5%	-	-	-				4	Separated Bike Lane (Class IV)		0.5	0.25		Yes (< 5 mph)	Other Street	No	1		
44	Hill Road, From Barrett Avenue To E. Dunne Avenue	45.1-50%+	15.1-20%	-	1	-	Missing Sidewalk			4	Buffered Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Rural Street	No	12		
45	Hill Road, From E. Dunne Avenue To E. Main Avenue	45.1-50%+	15.1-20%	-	-	-			Bike Lanes (Class II)	3 4	Buffered Bike Lanes (Class II)			0.25		Yes (< 5 mph)	Community Corridor	No	8		
46	Jarvis Drive, From Monterey Road To Sutter Boulevard	--	--	-	1	-	Missing Sidewalk Crossing needed	Medium		1 (Local Road)			0.5	0.25		Yes (< 5 mph)	Other Street	No	0		
47	Jarvis Drive, From Sutter Boulevard To Butterfield Boulevard	--	--	-	-	-	Missing Sidewalk	Medium High		2		0.25		0.25		Yes (< 5 mph)	Other Street	No	0		
48	Juan Hernandez Drive, From Barrett Avenue To Tennant Avenue	--	--	-	-	-		Medium		3		0.25		0.25		Yes (< 5 mph)	Other Street	No	0		
49	La Alameda Drive, From Watsonville Road To La Crosse Drive	--	--	-	-	-		Medium		1		0.25		0.25		--	Other Street	No	0		Wants stop sign at intersection of la alameda and lacrosse to make safer for kids crossing.. Noted lots of speeding.

50	La Crosse Drive, From Vineyard Boulevard To Vineyard Boulevard	--	--	Ped HIN	1	1		Medium High		4		0.25		0.25		Yes (>5mph)	Other Street	No	0		
51	Llagas Road, From Woodland Avenue To Castle Lake Drive	--	--	-	1	-				4						Yes (>5mph)	Rural Street	No	0	Narrow Llagas and Watsonville	
52	Llagas Road, From Castle Lake Drive To Teresa Lane	--	--	-	-	-				4						Yes (>5mph)	Rural Street	No	0		
53	Llagas Road, From Teresa Lane To Llagas Court	--	--	Ped HIN	1	1				4	Bike Lanes (Class II)		0.5		0.5	Yes (>5mph)	Community Corridor	No	1		
54	Llagas Road, From Llagas Court To Hale Avenue	--	--	Ped HIN	-	-	Crossing needed	Medium		4	Bike Lanes (Class II)	0.25		0.25		Yes (>5mph)	Community Corridor	No	0		Likely need for enhanced crosswalk. Issue with speeding and can't safely cross.
55	Llagas Road, From Hale Avenue To Old Monterey Road	--	--	Ped HIN	-	-	Crossing needed	Medium		4	Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Community Corridor	No	0		Look at lane width reduction with transporation MP;Northbound Monterey has no stop but those stopping from Llagas and SB Old Monterey are not realizing it. WO to refresh stop bars. Need signage or convert to all-way stop.
56	Madrone Parkway, From Monterey Road To Cochrane Road	0-5%	15.1-20%	Ped HIN	3	1		Medium		3			0.5	0.25		Yes (< 5 mph)	Other Street	No	0		
57	W. Main Avenue, From John Telfer Drive To Hale Avenue	40.1-45%	20.1-25%	-	-	-	Missing Sidewalk Crossing needed	Very High High	Bike Lanes (Class II)	2 3 4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (>5mph)	Community Corridor	No	4		Crosswalks at DeWitt and Main
58	W. Main Avenue, From Hale Avenue To Monterey Road	0-5%	5.1-10%	-	-	-		Very High	Bike Lanes (Class II)	2	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Community Corridor	No	5		
59	E. Main Avenue, From Monterey Road To Butterfield Boulevard	0-5%	0-5%	-	-	-		Very High	Buffered Bike Lanes (Class II)	2 3	Separated Bike Lane (Class IV)	0.25		0.25		Yes (< 5 mph)	Community Corridor	No	1		
60	E. Main Avenue, From Butterfield Boulevard To Serene Drive	0-5%	0-5%	-	-	-	Crossing needed	Very High High Medium	Buffered Bike Lanes (Class II)	3 4	Separated Bike Lane (Class IV)	0.25		0.25		Yes (< 5 mph)	Community Corridor	No	2		
61	E. Main Avenue, From Serene Drive To Condit Road	0-5%	0-5%	-	-	-	Missing Sidewalk	Medium	Bike Lanes (Class II)	3	Separated Bike Lane (Class IV)		0.5	0.25		Yes (< 5 mph)	Community Corridor	No	5	E Main overpass 101 at Condit. Bike/Ped crossing sight line coming over overpass	
62	E. Main Avenue, From Live Oak HS To Elm Road	45.1-50%+	10.1-15%	Ped HIN	1	-	Missing Sidewalk Crossing needed	Medium		4	Separated Bike Lane (Class IV)	0.25		0.25		Yes (< 5 mph)	Community Corridor	No	7	E Main in front of Live Oak HS high speed all day, No sidewalks by Live Oak and Condit ,	
63	W. Middle Avenue, From Amberwood Lane To Walnut Drive	--	--	-	-	-				4					0.5	Yes (< 5 mph)	Other Street	No	0		
64	Mission View Drive, From Half Road To Avenida De Los Padres	45.1-50%+	10.1-15%	-	-	-				4	Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Other Street	No	6		Hawk at Mission View, Sidewalk with development
65	Mission View Drive, From Avenida de los Padres To Cochrane Road	45.1-50%+	10.1-15%	-	-	-			Bike Lanes (Class II)	3				0.25		Yes (< 5 mph)	Other Street	No	2		
66	Monterey Road, From E. Middle Avenue To Watsonville Road	--	--	Vehicle HIN Ped HIN	4		Sidewalk Gaps	Medium	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Boulevard	Yes	2	Speeding on Monterey Rd from regional traffic, All Monterey needs bike and pedestrian facilities	

67	Monterey Road, From Watsonville Road To Vineyard Boulevard	35.1-40%	15.1-20%	Vehicle HIN Ped HIN	1	1	Missing Sidewalks Crossing needed	High	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Boulevard	Yes	2		
68	Monterey Road, From Vineyard Boulevard To Dunne Avenue	35.1-40%	15.1-20%	ALL HIN	4	-	Missing Sidewalks Crossing needed	Very High High	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)			0.25		Yes (>5mph)	Boulevard	Yes	21	Monterey "Larger" between Wright and San Pedro, Ped Crossing Traffic Control	
69	Monterey Road, From Dunne Avenue To Main Avenue	30.1-35%	10.1-15%	ALL HIN	-	-		Very High	Bike Route (Class III)	4		0.25		0.25		Yes (>5mph)	Main Street	Yes	14		
70	Monterey Road, From Main Avenue To Wright Avenue	25.1-30%	10.1-15%	ALL HIN	1	-	Crossing needed	Very High	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (>5mph)	Community Corridor	Yes	4		Visibility issues due to monument, landscaping in median, Ped Safety Bollards
71	Monterey Road, From Wright Avenue To Cochrane Road	25.1-30%	10.1-15%	Bike HIN	-	-	Missing Sidewalk Crossing needed	Very High Medium	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Boulevard	Yes	11	Tree Island	
72	Monterey Road, From Cochrane Road To Peebles Avenue	25.1-30%	20.1-25%	Vehicle HIN	-	-	Missing Sidewalk	Medium	Buffered Bike Lanes (Class II) Bike Lanes (Class II)	4			0.5	0.25		Yes (>5mph)	Boulevard	Yes	12	Lots of new housing going here (Monterey, Madrone, Tilton, Burnett)	
73	Monterey Road, From Peebles Avenue To City Limit	25.1-30%	20.1-25%	Vehicle HIN	1	-	Missing Sidewalk	High	Buffered Bike Lanes (Class II) Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Boulevard	Yes	7		
74	Murphy Avenue, From Barrett Avenue To E. Dunne Avenue	45.1-50%+	5.1-10%	-	2	-	Missing Sidewalk	Medium		4	Bike Route (Class 3)	0.25		0.25		Yes (< 5 mph)	Other Street	No	5	Murphy area needs improvements, Ped Crossings	
75	Murphy Avenue, From E. Dunne Avenue To Diana Avenue	10.1-15%	0-5%	-	-	-		Medium	Bike Lanes (Class II)	3 4	Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Other Street	No	0		
76	Native Dancer Drive, From W. Middle Avenue To Santa Teresa Boulevard	--	--	-	1	-		Medium		1 (Local Road)				0.25		--	Other Street	No	0		
77	Old Monterey Road, From Llagas Road To Monterey Road	--	--	-	-	-	Missing Sidewalk Crossing needed	Very High		4	Bike Lanes (Class II)		0.5	0.25		Yes (>5mph)	Other Street	No	0		
78	Peak Avenue, From Wright Avenue To W. Main Avenue	20.1-25%	35.1-40%	-	-	-		Very High	Bike Lanes (Class II)	3		0.25		0.25		Yes (>5mph)	Other Street	No	2	Speeding on Peak Avenue, Propose speed insallation of speed bumps	
79	Peak Avenue, From W. Main Avenue To W. Dunne Avenue	25.1-30%	15.1-20%	-	-	-		Very High	Bike Lanes (Class II)	3		0.25		0.25		Yes (>5mph)	Other Street	No	1		Issues walking kids to school. Crossings at Peak and Alkire: will get more info after meeting., Issues walking kids to school. Speciically crossing Main Ave. Wants ped activiated lights installed. Told them we cannot install ped activated lights. Wants stops signs in medians at the intersections. Requested where he has seen this so we can contact for feedback., RRFB at Crossing at Alkire across Peak
80	Peebles Avenue, From Monterey Road To City Limit	--	--	-	-	-		High		3			0.5	0.25		Yes (< 5 mph)	Community Corridor	No	2		
81	Peet Road, From Avenida de los Padres To Cochrane Road	--	--	Ped HIN	1	1			Bike Lanes (Class II)	3	Buffered Bike Lanes (Class II)				0.5	Yes (< 5 mph)	Other Street	No	1		Need to add to plan for midblock crossings…..
82	Peet Road, From Cochrane Road To Morning Star Drive	--	--	Ped HIN	-	-				3					0.5	Yes (< 5 mph)	Other Street	No	0		

83	Railroad Avenue, From San Pedro Avenue To Tennant Avenue	--	--	-	-	-	Sidewalk Gaps	Very High High		4				0.25		Yes (< 5 mph)	Other Street	No	0		
84	Saddleback Drive, From E. Dunne Avenue To Fountain Oaks Drive	--	--	-	-	-		Medium		1 (Local Road)		0.25		0.25		--	Other Street	No	0		
85	San Pedro Avenue, From US 101 To Railroad Avenue	--	--	Ped HIN	-	-	Missing Sidewalk	Very High Medium		4	Bike Lanes (Class II)		0.5	0.25		Yes (>5mph)	Other Street	No	0		Wants speed bumps on San Pedro East of Butterfield. Scott to reach out to Leo on study and to determine which street is the best location. Warrant Study conducted for stop signs. Warrants not met1. Resident Ideas. 1. Reduce the speed limit from 35 MPH to 25 MHP - Review with speed study 2. Place three (3) sets of "highly"visible speed signs equally distanced between Butterfield Blvd. and Nina Lane on E. San Pedro Ave., and - Review after speed study 3. Install two-three "highly" visible crosswalks between Butterfield Blvd. and Nina Lane on E. San Pedro Ave. -Review with TMP
86	Santa Teresa Boulevard, From Watsonville Road To City Limit	45.1-50%+	30.1-35%	Ped HIN	-	-	Missing Sidewalk	Very High Medium		5	Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Other Street	No	0		
87	Spring Avenue, From Dewitt Avenue To Monterey Road	--	--	-	-	-		Very High High Medium		4	Bike Lanes (Class II)	0.25		0.25		Yes (>5mph)	Other Street	No	1		
88	Sunnyside Avenue, From Edmundson Avenue To Watsonville Road	45.1-50%+	25.1-30%	Vehicle HIN	-	-	Missing Sidewalk	Medium	Bike Lanes (Class II)	4			0.5	0.25		Yes (< 5 mph)	Rural Street	No	0		
89	Sutter Boulevard, From Cochrane Road To Butterfield Boulevard	25.1-30%	0-5%	-	3	-	Missing Sidewalk	Medium	Bike Lanes (Class II)	4		0.25		0.25		Yes (>5mph)	Community Corridor	No	3		
90	Tennant Avenue, From Monterey Road To Vineyard Boulevard	10.1-15%	5.1-10%	Ped HIN	1	-		High	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Community Corridor	No	4		
91	Tennant Avenue, From Vineyard Boulevard To US 101	40.1-45%	10.1-15%	Vehicle HIN Ped HIN	-	-	Missing Sidewalks Sidewalk Gaps	High Medium	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)		0.5	0.25		Yes (< 5 mph)	Community Corridor	No	9		
92	Tilton Avenue, From Hale Avenue To Monterey Road	25.1-30%	20.1-25%	-	-	-	Missing Sidewalk	High		4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Community Corridor	No	2		RRFB on Tilton at Central; Hale and Tilton Signal
93	Vineyard Boulevard, From La Crosse Drive To Monterey Road	--	--	-	-	-		High		4	Bike Lanes (Class II)		0.5	0.25		Yes (>5mph)	Other Street	No	2		
94	Vineyard Boulevard, From Monterey Road To Tennant Avenue	--	--	-	-	-	Missing Sidewalk	High	Bike Lanes (Class II)	3 4	Bike Lanes (Class II)		0.5	0.25		Yes (>5mph)	Other Street	No	0		
95	Vineyard Boulevard, From Tennant Avenue To Mast Street	--	--	-	1	-	Sidewalk Gaps	Very High High		4				0.25		Yes (< 5 mph)	Other Street	No	0		
96	Walnut Grove Drive, From E. Dunne Avenue To San Pedro Avenue	--	--	-	-	-		Very High Medium		2	Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Other Street	No	0		
97	Watsonville Road, From Santa Teresa Boulevard To Monterey Road	45.1-50%+	20.1-25%	Ped HIN	2	1	Crossing needed	High Medium	Bike Lanes (Class II)	4	Buffered Bike Lanes (Class II)	0.25		0.25		Yes (< 5 mph)	Community Corridor	No	6	Narrow Llagas and Watsonville, Traffic calming	City is installing Hawk signal at trail
98	Wright Avenue, From Peak Avenue To Hale Avenue	40.1-45%	35.1-40%	-	-	-		Very High		4	Bike Route (Class 3)	0.25		0.25		Yes (>5mph)	Other Street	No	0	Hale + Wright – no sidewalk too many kids in that area	
99	Wright Avenue, From Hale Avenue To Monterey Road	5.1-10%	5.1-10%	-	-	-	Sidewalk Gaps	Very High		4	Bike Route (Class 3)	0.25		0.25		Yes (>5mph)	Other Street	No	0		

INTERSECTION NEEDS ASSESSMENT

#	Name	2023 Control	2050 Control	LOS STD	Bike/Ped KSI	Vehicle/KSI	Ped Priority Zone	Crossing Opportunities	Operational Deficiencies in either Peak Hour (2050 GP Net)	Community Input		City Traffic Issues Spreadsheet
										Problem Areas Identified Through Dotting exercise	Notes	
1	Monterey Road and Burnett Avenue	Signal	Signal	D	-	-	High	Previously proposed intersection improvement	No	4		
2	Monterey Road and Peebles Avenue	Signal	Signal	D	-	-	High	-	No	6	Add ped crossing to signal	
3	Monterey Road and Madrone Parkway	Signal	Signal	D	-	-	Medium	-	No	3		
4	Monterey Road and Cochrane Road	Signal	Signal	E	-	-	Medium	-	No	6		
5	Monterey Road and Old Monterey Road	Signal	Signal	D	-	-	Very High	-	No	1		
6	Monterey Road and Wright Avenue	Signal	Signal	D	-	-	Very High	-	No	4		
7	Monterey Road and Central Avenue	TWSC	TWSC	D	-	-	Very High	-	Yes	0		
8	Monterey Road and Main Avenue	Signal	Signal	F	-	-	Very High	-	No	1		
9	Monterey Road and First Street	TWSC	TWSC	F	-	-	Very High	-	No	1		
10	Monterey Road and Second Street	Signal	Signal	F	-	-	Very High	-	No	1		
11	Monterey Road and Third Street	TWSC	TWSC	F	-	-	Very High	-	No	6		
12	Monterey Road and Fourth Street	Signal	Signal	F	-	-	Very High	-	No	4		
13	Monterey Road and Fifth Street	TWSC	TWSC	F	-	-	Very High	-	No	2		
14	Monterey Road and Dunne Avenue	Signal	Signal	E	-	-	Very High	-	No	2		
15	Monterey Road and Spring Avenue	Signal	Signal	D	-	1	Very High	-	No	2		
16	Monterey Road and San Pedro Avenue	OWSC	OWSC	D	-	-	Very High	-	No	0		
17	Monterey Road and Cosmo Avenue	Signal	Signal	D	-	-	Very High	-	No	1		
18	Monterey Road and Tennant Avenue/Edmundson Avenue	Signal	Signal	E	-	-	High	-	No	4		
19	Monterey Road and Vineyard Boulevard	Signal	Signal	D	-	-	High	-	No	3		
20	Road/Butterfield Boulevard	Signal	Signal	D	-	-	High	proposed	Yes	0		
21	Butterfield Boulevard and Tennant Avenue	Signal	Signal	E	-	-	Medium	Previously proposed intersection	Yes	2	Right turn on red, Drivers fixated at SE or NW gap and not looking for peds	
22	Butterfield Boulevard and Barrett Avenue	Signal	Signal	D	-	-	High	-	No	0		
23	Butterfield Boulevard and San Pedro Avenue	Signal	Signal	D	-	-	Very High	Previously proposed intersection improvement	No	1		
24	Butterfield Boulevard and Dunne Avenue	Signal	Signal	D	1	-	Very High	Previously proposed intersection improvement	No	2		
25	Butterfield Boulevard and Diana Avenue	Signal	Signal	D	1	-	Very High	Previously proposed intersection improvement	Yes	0		
26	Butterfield Boulevard and Main Avenue	Signal	Signal	D	-	-	Very High	Previously proposed intersection improvement	No	0		
27	Butterfield Boulevard and Central Avenue	Signal	Signal	D	-	-	Very High	Previously proposed intersection improvement	No	0	Concerns regarding safety at Butterfiled and East Central - S curve awareness East Central and Butterfield - Near misses with kids crossing streets at Butterfield and East Central (looking for safety improvements)	
28	Butterfield Boulevard and Jarvis Drive/Digital Drive	Signal	Signal	D	-	-	High	-	No	1		
29	Butterfield Boulevard and Sutter Boulevard	Signal	Signal	D	-	-	Medium	-	No	2		
30	Butterfield Boulevard and Jarvis Drive (North)	TWSC	TWSC	D	-	-	Medium	Crossing needed	No	1		

31	Butterfield Boulevard and Cochrane Road	Signal	Signal	D	-	-	-	Previously proposed intersection improvement	No	3		
32	Cochrane Circle and Cochrane Road	Signal	Signal	D	-	-	Medium	-	No	0		
33	Woodview Avenue and Cochrane Road	Signal	Signal	D	-	-	-	-	No	2		
34	Sutter Boulevard and Cochrane Road	Signal	Signal	D	-	-	-	-	No	3		
35	Madrone Parkway/Cochrane Plaza and Cochrane Road	Signal	Signal	E	-	-	Medium	Previously proposed intersection improvement	No	2		
36	US 101 SB Ramps and Cochrane Road	Signal	Signal	E	-	-	Medium	Previously proposed intersection improvement	No	1	Ped crossing at on-ramp. 1st car stops and worried 2nd car will rear-end	
37	US 101 NB Ramps and Cochrane Road	Signal	Signal	E	-	-	-	Previously proposed intersection improvement	No	2		
38	De Paul Drive and Cochrane Road	Signal	Signal	E	-	-	-	Previously proposed intersection improvement	No	3		
39	Mission View Drive and Cochrane Road	Signal	Signal	D	-	-	-	-	No	2		
40	Peet Road and Cochrane Road	TWSC	TWSC	D	-	-	-	Crossing needed	Yes	4	Peet/Cochrane – no crosswalk; Roundabout	
41	Malaguerra Avenue and Cochrane Road	OWSC	OWSC	D	-	-	Medium	Crossing needed	No	4	Mallaguerra/Cochrane – no crosswalk	
42	Cochrane Road and Half Road	OWSC	OWSC	D	-	-	-	-	No	0		
43	Hale Avenue and Main Avenue	AWSC	AWSC	D	-	-	Very High	Previously proposed intersection improvement	No	1		
44	Del Monte Avenue and Main Avenue	TWSC	TWSC	E	-	-	Very High	-	No	2		
45	Depot Street and Main Avenue	TWSC	TWSC	E	-	-	Very High	-	No	1		
46	Grand Prix Way and Main Avenue	TWSC	TWSC	D	-	-	Very High	-	No	0		
47	Serene Drive and Main Avenue	TWSC	TWSC	D	-	-	Medium	Previously proposed intersection improvement	Yes	0		
48	Condit Road and Main Avenue	Signal	Signal	D	-	-	-	-	No	3		
49	Murphy Avenue and Main Avenue (Future)	Future	Future	D	-	-	Medium	-	Yes	0	Signal	
50	Elm Road and Main Avenue	AWSC	AWSC	D	-	-	-	-	No	0		
51	Hill Road and Main Avenue	AWSC	AWSC	D	-	-	-	-	Yes	2		
52	Hill Road and Dunne Avenue	Signal	Signal	D	-	-	-	-	No	4		
53	Murphy Avenue and Dunne Avenue	Signal	Signal	D	-	1	Medium	Previously proposed intersection improvement	No	0		
54	Condit Road and Dunne Avenue	Signal	Signal	E	-	-	Medium	Previously proposed intersection improvement	No	1		
55	US 101 NB Ramps and Dunne Avenue	Signal	Signal	E	-	-	-	Previously proposed intersection improvement	No	3	Ped crossing at on-ramp. 1st car stops and worried 2nd car will rear-end	
56	US 101 SB Ramps and Dunne Avenue	Signal	Signal	E	-	-	-	Previously proposed intersection improvement	No	2	Ped crossing at on-ramp. 1st car stops and worried 2nd car will rear-end	
57	Laurel Road and Dunne Avenue	TWSC	TWSC	E	1	-	Medium	-	No	0		

58	Walnut Grove Drive and Dunne Avenue	Signal	Signal	E	-	-	Very High	Previously proposed intersection improvement	No	2		
59	Depot Street and Dunne Avenue	--	--	D	-	-	Very High	-	No	0		
60	Church Street and Dunne Avenue	Signal	Signal	E	-	-	Very High	-	No	0		
61	Del Monte Avenue and Dunne Avenue	TWSC	TWSC	E	-	-	Very High	-	No	0		
62	Hale Avenue and Dunne Avenue (Future)	Future	Future	D	-	-	Very High	-	No	0		
63	Peak Avenue and Dunne Avenue	AWSC	AWSC	D	-	-	Very High	-	No	0		
64	Dewitt Avenue and Dunne Avenue	AWSC	AWSC	D	-	-	High	-	No	1		
65	Dewitt Avenue and Edmundson Avenue	AWSC	AWSC	D	-	-	-	-	No	0		
66	Sunnyside Avenue and Edmundson Avenue	AWSC	AWSC	D	-	-	-	-	Yes	0	Roundabout	
67	Olympic Drive and Edmundson Avenue	OWSC	OWSC	D	-	-	High	-	No	1		
68	Vineyard Boulevard and Tennant Avenue	Signal	Signal	D	-	-	High	Previously proposed intersection improvement	No	1		
69	Juan Hernandez Drive and Tennant Avenue	Signal	Signal	E	-	-	-	-	No	1		
70	US 101 SB Ramps and Tennant Avenue	Signal	Signal	E	-	-	-	Previously proposed intersection improvement	No	2	Ped crossing at on-ramp. 1st car stops and worried 2nd car will rear-end	
71	US 101 NB Ramps and Tennant Avenue	Signal	Signal	E	-	-	-	Previously proposed intersection improvement Crossing needed	No	1	Ped crossing at on-ramp. 1st car stops and worried 2nd car will rear-end	
72	Condit Road and Tennant Avenue	OWSC	OWSC	E	-	-	-	-	Yes	1		
73	Murphy Avenue and Tennant Avenue	AWSC	AWSC	D	-	-	-	-	Yes	0		
74	Hill Road and Tennant Avenue	AWSC	AWSC	D	-	-	-	-	Yes	6		
75	Hill Road and Barrett Avenue	TWSC	TWSC	D	-	1	-	-	Yes	3		Intersection is half City and half County. County did warrant study and found unwarranted for stop sign. Revieweing opportunity for round about through traffic study of arcadia project.…
76	Hill Road and San Pedro Avenue	OWSC	OWSC	D	-	-	-	-	No	2		
77	Santa Teresa Boulevard/Sunnyside Avenue and Watsonville Road	AWSC	AWSC	D	-	-	-	-	Yes	2	Roundabout	
78	Hale Avenue and Wright Avenue	AWSC	AWSC	D	-	-	Very High	-	Yes	2		Future signal is planned at Hale and Wright with the West Little Llagas Creek Flood Control Project
79	Hale Avenue and Llagas Road	Signal	Signal	D	-	-	Medium	Previously proposed intersection improvement	No	0		
80	Old Monterey Road and Llagas Road	AWSC	AWSC	D	-	-	Medium	Crossing needed	No	0		Northbound Monterey has no stop but those stopping from Llagas and SB Old Monterey are not realizing it. WO to refresh stop bars. Need signage or convert to all-way stop.
81	Sutter Boulevard and Jarvis Drive	TWSC	TWSC	D	-	3	Medium	-	Yes	1		Pedestrian, bike and vehicle safety relating to speed of traffic on sutter through intersection. Also concerned on increased traffic through the intersection once adjacent developments are completed. Update in January concern due to fatal traffic accident (person ran stop sign).
82	Vista de Lomas and Burnett Avenue	OWSC	OWSC	D	-	-	-	-	No	0		
83	Mission View Drive and Avenida De Los Padres	OWSC	OWSC	D	-	-	-	-	Yes	1		

84	Mission View Drive and Half Road	AWSC	AWSC	D	-	-	-	-	Yes	5		Signal
85	Peet Road and Half Road	OWSC	OWSC	D	-	-	-	-	No	0		
86	Condit Road and Diana Avenue	TWSC	TWSC	D	-	-	-	-	No	0		
87	Murphy Avenue and Diana Avenue	OWSC	OWSC	D	-	-	-	-	Yes	0		