



# City of Sunnyvale

## Notice and Agenda - Final Bicycle and Pedestrian Advisory Commission

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Thursday, July 20, 2017

6:30 PM

West Conference Room, City Hall, 456 W.  
Olive Ave., Sunnyvale, CA 94086

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### **CALL TO ORDER**

### **ROLL CALL**

### **ORAL COMMUNICATIONS**

*This category provides an opportunity for members of the public to address the commission on items not listed on the agenda and is limited to 15 minutes (may be extended or continued after the public hearings/general business section of the agenda at the discretion of the Chair) with a maximum of up to three minutes per speaker. Please note the Brown Act (Open Meeting Law) does not allow commissioners to take action on an item not listed on the agenda. If you wish to address the commission, please complete a speaker card and give it to the Recording Secretary. Individuals are limited to one appearance during this section.*

### **CONSENT CALENDAR**

- 1.a    [17-0657](#)    Approve the Bicycle and Pedestrian Advisory Commission Meeting Minutes of June 15, 2017

### **PUBLIC HEARINGS/GENERAL BUSINESS**

2.    [17-0731](#)    Mary Avenue Overcrossing Update
3.    [17-0633](#)    Recommendation to City Council on the Update of the Transportation Strategic Program and Adopting a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees

**Recommendation:** Alternative 1: Recommend to City Council the Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees.

4.    [17-0722](#)    Election of Officers

## **STANDING ITEM: CONSIDERATION OF POTENTIAL STUDY ISSUES**

### **NON-AGENDA ITEMS & COMMENTS**

-Commissioner Comments

-Staff Comments

### **INFORMATION ONLY REPORTS/ITEMS**

<a href="#">17-0723</a>	BPAC 2017 Annual Work Plan
<a href="#">17-0724</a>	Active Items List - July 2017
<a href="#">17-0725</a>	State of the City - VIP Meet and Greet

### **ADJOURNMENT**

*Notice to the Public:*

*Any agenda related writings or documents distributed to members of this meeting body regarding any item on this agenda will be made available for public inspection in the originating department or can be accessed through the Office of the City Clerk located at 603 All America Way, Sunnyvale, CA. during normal business hours and at the meeting location on the evening of the board or commission meeting, pursuant to Government Code §54957.5.*

*Agenda information is available by contacting Ralph Garcia at [pubworks@sunnyvale.ca.gov](mailto:pubworks@sunnyvale.ca.gov) or (408) 730-7415. Agendas and associated reports are also available on the City's website at [sunnyvale.ca.gov](http://sunnyvale.ca.gov) or at the Sunnyvale Public Library, 665 W. Olive Ave., Sunnyvale, 72 hours before the meeting.*

*Pursuant to the Americans with Disabilities Act, if you need special assistance in this meeting, please contact Carol Shariat at (408) 730-7415. Notification of 48 hours prior to the meeting will enable the City to make reasonable arrangements to ensure accessibility to this meeting. (28 CFR 35.160 (b) (1))*



# City of Sunnyvale

## Agenda Item

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**17-0657**

**Agenda Date:** 7/20/2017

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Approve the Bicycle and Pedestrian Advisory Commission Meeting Minutes of June 15, 2017



# City of Sunnyvale

## Meeting Minutes - Draft Bicycle and Pedestrian Advisory Commission

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Thursday, June 15, 2017

6:30 PM

West Conference Room, City Hall, 456 W.  
Olive Ave., Sunnyvale, CA 94086

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### **CALL TO ORDER**

Chair Cordes called the meeting to order at 6:32 p.m.

**Present** 5 - Chair John Cordes  
Vice Chair David Jones  
Commissioner Timothy Oey  
Commissioner Angela Rausch  
Commissioner Kyle Welch  
**Absent** 1 - Commissioner Margaret Okuzumi

Status of an absence: Commissioner Okuzumi (unexcused)  
Council Liaison attendance: Council Liaison Nancy Smith (present)

### **ROLL CALL**

### **PRESENTATION**

[17-0652](#) Board Member/Commissioner Recognition

Mayor Glenn Hendricks thanked the Commissioners for their time and commitment to the BPAC and handed out certificates to outgoing Commissioners, Vice Chair Jones and Commissioner Okuzumi. He then opened the floor for discussion.

Chair Cordes announced that he attended the Safe Routes to Schools Collaboration meeting and that any assistance from the City in developing a multi-district coordinated plan would be appreciated. Mayor Hendricks said he would check with staff.

Commissioner Oey asked when the review of the Boards and Commissions procedures will take place. Mayor Hendricks stated in a couple of months.

### **ORAL COMMUNICATIONS**

Catherine Barry, new member of the BPAC, introduced herself to the Commission.



Kevin Jackson, member of the public, announced that the June VTA BPAC meeting was cancelled, so there is nothing to report. August 4, 2017, will be the 25th anniversary of the founding of BPAC. He attended the Safe Routes to Schools meeting and announced that Norma O'Connell is back as the coordinator. He suggested that the BPAC assist in data collection to help with their school routes mapping effort for the next school year. Mr. Jackson also stated that the City Council voted to put Sharrows on all three segments of Fair Oaks along with signs. He recommended to add two additional signs that say "change lanes to pass" and "maintain a minimum of three feet clearance." He also reported The California Roll Bill proposed to change state law so cyclists can yield at stop signs instead of coming to a complete stop, has been postponed to the 2018 legislative schedule. Finally, he announced on July 13, 2017, there will be a webinar on Protected Bike Lanes sponsored by the California Bike Coalition.

### **CONSENT CALENDAR**

- 1.a      [17-0645](#)      Approve the Bicycle and Pedestrian Advisory Commission Meeting Minutes of May 18, 2017

Commissioner Oey moved to approve the Bicycle and Pedestrian Advisory Commission Meeting Minutes of May 18, 2017. Commissioner Jones seconded the motion. The vote carried by the following vote:

**Yes 5 -**    Chair Cordes  
              Vice Chair Jones  
              Commissioner Oey  
              Commissioner Rausch  
              Commissioner Welch

**No 0**

**Absent 1 -**    Commissioner Okuzumi

### **PUBLIC HEARINGS/GENERAL BUSINESS**

- 2            [17-0653](#)      State of the City

Alisha Rodrigues, City of Sunnyvale Community Services Coordinator, spoke about the State of the City event which will be held on July 29 from 10:00 a.m. to 2:00 p.m. In addition to the street festival/family theme, this year they will also be adding a connection theme. "Connect with your City" will include various City departments. "Connect with your Community" will include School Districts, the Sunnyvale Downtown Association, Neighborhood Associations, non-profits and the new Town Center developer. Ms. Rodrigues would like to include BPAC as well. She

suggested having activities, prizes, and raffles.

Commissioner Jones noted that when he worked the event last year, the bike parking was not utilized much. He noticed most people parked their bikes on the lawn and did not seem too concerned about the safety of their bikes considering the type of event and the amount of Public Safety Officers present.

Commissioner Oey recommended doing bike check-ups and helmets checks for kids.

Council Liaison Smith asked if there would be any type of interactive gaming component. Ms. Rodrigues said there will be an event application with games such as taking a selfie at a participating booth and winning a prize.

Commissioner Oey moved and Commissioner Welch seconded the motion to provide secure bike parking, activities, raffles, and a suggestion box for the BPAC booth at the State of the City Address. The motion carried by the following vote:

**Yes 4 -** Chair Cordes  
Commissioner Oey  
Commissioner Rausch  
Commissioner Welch

**No 0**

**Absent 1 -** Commissioner Okuzumi

**Abstain 1 -** Vice Chair Jones

**3**      [17-0647](#)      El Camino Specific Plan Nomination

Ralph Garcia, Senior Transportation Engineer, stated that since Commissioner Okuzumi's term has ended, the Commission needs to elect someone to replace her on the El Camino Specific Plan Committee. The meetings are held quarterly in the evening. Chair Cordes opened the floor for nominations. Commissioner Oey nominated himself and Commissioner Welch seconded the nomination. The motion carried by the following vote:

**Yes 5 -** Chair Cordes  
Vice Chair Jones  
Commissioner Oey  
Commissioner Rausch  
Commissioner Welch

**No 0**

**Absent 1 - Commissioner Okuzumi**

**STANDING ITEM: CONSIDERATION OF POTENTIAL STUDY ISSUES**

4. [17-0564](#) Discussion of potential study issue - Develop location standard for residential trash bin placement adjacent to bicycle lanes

Commissioner Oey recommended to withdraw the residential trash bin as a potential study issue. He suggested talking to the sanitation company and asking them to place the bins against the curb after dumping. This should alleviate the problem.

**NON-AGENDA ITEMS & COMMENTS**

**-Commissioner Comments**

Commissioner Oey stated that he is in charge of the mapping portion for Safe Routes to Schools and that Ponderosa Elementary School has already completed their map. Homestead High School is almost complete and Sunnyvale Middle School has put together a team and is ready to start working on theirs. The next meeting is scheduled for early August. There will also be a Principal's meeting scheduled mid to late August.

Commissioner Cordes reported that the County \$800k grant which went towards Bike and Pedestrian improvements has expired. It is estimated that Measure B will provide \$78k a year for Sunnyvale for the next thirty years, and supplemental funding sources may be needed. He would like to see some of the money used for Bike Rodeos every year for all five Sunnyvale School Districts along with bike safety education for Kindergarten, Second grade and Fourth grade. He also announced that Sunnyvale City Council voted to have a Safe Routes to Schools Coordinator from the Department of Public Safety funded for the next two years with the option to extend for one more year.

**-Staff Comments**

Mr. Garcia presented the Commissioners with the 2017 Sunnyvale Bike Map and Commissioner Oey requested having them available at the State of the City event.

**INFORMATION ONLY REPORTS/ITEMS**

[17-0655](#) Active Items List-June 2017

[17-0648](#) BPAC 2017 Annual Work Plan

[17-0651](#)

Utility Bill Stuffer Update

**ADJOURNMENT**

Chair Cordes adjourned the meeting at 7:35 p.m.



# City of Sunnyvale

## Agenda Item

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**17-0731**

**Agenda Date: 7/20/2017**

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Mary Avenue Overcrossing Update



# City of Sunnyvale

## Agenda Item

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17-0633

Agenda Date: 7/20/2017

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### **REPORT TO BICYCLE AND PEDESTRIAN ADVISORY COMMISSION**

#### **SUBJECT**

Recommendation to City Council on the Update of the Transportation Strategic Program and Adopting a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees

#### **BACKGROUND**

In November 2003, the City approved the Transportation Strategic Program and adopted a Transportation Impact Fee (TIF) on land development that generates new automobile trips (RTC No. 03-385). The purpose of the Strategic Program and fee was to identify and fund major roadway improvement projects that would be necessary to improve traffic generated by new development.

A broadly applied transportation impact fee on new development is well suited to addressing transportation capacity needs. It ensures that all development projects that add new trips to the street network pay a fair share of future transportation improvement costs. In addition, large development projects are still required to complete independent Traffic/Operational Impact Analysis Reports and are responsible for any identified additional improvements beyond those covered in the fee. As the City collects fees under the program, it can prioritize which projects are most in need as traffic patterns change.

The fee is based on transportation impacts caused by future growth as determined by the City's transportation model. The model runs traffic analyses for existing land uses and compares them against future growth to determine how many additional vehicle trips are added and what transportation improvements are needed. The cost of the improvements (minus outside funding sources - as an example Measure B projects require a 20% local match) is divided by the total new trips and the result is a cost per trip. The trips are converted to number of units (for residential development) and square footage (for office/industrial/research and development) using trip generation rates for each land use.

The Transportation Strategic Program and Traffic Impact Fee address major roadway improvement needs for development citywide and the fee is a significant revenue source for transportation capital improvements. Impact fees require periodic review and possible updating of the transportation model and land use used in the model that supports the fee, especially when there are significant changes in land use, funding, or policy that could affect it. The last update was completed in December 2013 and accounted for an updated transportation model and buildout of the general plan (RTC No. 12-232).

With the recently adopted major land use changes (Land use and Transportation Element (LUTE), Peery Park Specific Plan (PPSP), and Lawrence Station Area Plan (LSAP)) and Measure B as a new funding source, an update to the model and resulting fee is required.

The City Council is scheduled to consider this item on August 22, 2017.

### **EXISTING POLICY**

Land Use and Transportation Element Policy LT-5.7, Pursue local, state and federal transportation funding sources to finance City transportation capital improvement projects consistent with City priorities.

### **ENVIRONMENTAL REVIEW**

Updating of the Transportation Impact Fee is a funding mechanism not subject to environmental review pursuant to CEQA Guidelines Section 15378; therefore, no CEQA action is necessary. The traffic analysis being used for the Study was part of the recently certified EIR's for the LUTE, PPSP, and LSAP.

### **DISCUSSION**

Based on the recently approved major land use changes, new policies and priorities, and the passing of Measure B, it was determined that an update of the Transportation Strategic Program and Impact fees was necessary through a new Transportation Fee Study (Attachment 2). The newly updated study builds on the previous 2013 update which entailed the following: (1) updating the future traffic forecasts based on most recent land use assumptions in Sunnyvale and travel demand model results, (2) identifying any locations of substandard conditions, (3) updating the list of required improvements, (4) updating the cost of implementing the improvements, and (5) recalculating the proposed traffic impact fee by distributing the total improvement costs over anticipated future development in the City of Sunnyvale.

Attachments 3 and 4 provide the full list of improvements, costs, and funding splits between Moffett Park and the remainder of the City as discussed below. Within the study there are additional details of how the improvements were identified and analyzed. Below is a summary of the key or major changes from the previous study (Attachment 5 provides the list of current improvements included in the Transportation Impact Fee program):

- Recently approved land use plans - The City identified new impacts that required mitigation as part of the new land use plans (Land use and Transportation Element (LUTE), Peery Park Specific Plan (PPSP), and Lawrence Station Area Plan (LSAP)). The recommended fees include improvements that were identified as part of these recent land use approvals.
- Caltrain grade separations - These have been added to the impact fees.
- Pedestrian and Bicycle Improvements - Due to Transportation Demand Management requirements, the City's complete streets policies, and increased project costs a new pedestrian item was added to the list of improvements and the bike portion of the improvements was increased from \$1.5 million to \$10.0 million. As part of completing the new bicycle master plan staff intends to review the impact on the traffic impact fees.
- Lawrence Expressway grade separations - The grade separations were updated to account for new estimates, Measure B funding, and adjust for Sunnyvale's traffic and funding contributions.
- Intelligent Transportation Systems (ITS) - A new item has been added for ITS including the upgrade of the signal system and necessary infrastructure such as new fiber.
- Wolfe/El Camino - Inclusion of the "Triangle" project approved by Council as part of the Wolfe Corridor Study on June 21, 2016 (RTC No. 14-0273).

Consistent with previous Council direction, there will continue to be two fees in the City (one for Moffett Park and one for the rest of the City). The recommended fees are shown below:

### **Moffett Park**

<b>Land Use</b>	<b>Existing</b>	<b>Recommended</b>	<b>% Change</b>
Research & Development (1000 S.F.)	\$5,959	\$6,375	7%
Industrial (1000 S.F.)	\$4,507	\$5,779	28%
Destination Retail (1000 S.F.)	\$14,286	\$11,052	-23%
Neighborhood Retail (1000 S.F.)	\$7,142	\$5,526	-23%
Hotel (Room)	\$4,660	\$3,575	-23%
Other Uses (Per Trip)	\$6,150	\$5,958	-3%

### **Rest of Sunnyvale**

<b>Land Use</b>	<b>Existing</b>	<b>Recommended</b>	<b>% Change</b>
Single-Family Detached (Unit)	\$2,278	\$3,114	37%
Multi-Family Attached (Unit)	\$1,398	\$1,931	38%
General Office (1000 S.F.)	\$3,360	\$4,640	38%
Research & Development (1000 S.F.)	\$2,210	\$3,332	51%
Industrial (1000 S.F.)	\$1,670	\$3,021	81%
Retail (1000 S.F.)	\$4,217	\$5,776	37%
Hotel (Room)	\$1,376	\$1,868	36%
Other Uses (Per Trip)	\$2,278	\$3,114	37%

The fees generally increase based on an updated model, the delta in trips to existing conditions, and a less conservative ratio of trips to impacts. The fees are on par with Cities such as Palo Alto, Menlo Park, San Carlos, and Fremont but lower than San Jose, Los Altos, and the North Bayshore Mountain View area. The City of Santa Clara has the lowest fees of any of the Cities surveyed (Attachment 6).

### **FISCAL IMPACT**

The previous fee included \$287M of improvements with \$136M from the TIF. The new fee includes \$906M of improvements with \$126M from the TIF. The change from the \$287M to \$906M is predominantly due to the inclusion of the Caltrain grade separations (\$180M), updated estimates for Lawrence expressway grade separations (from \$170M to \$440M based on the recently completed County Expressway Study), and the inclusion of two new Lawrence Expressway projects (\$80M).

Although the project list has increased from \$287M to \$906M, the projects can be built with less local funding because the City contributions have been decreased to reflect the requirements of Measure B, and to also to align with typical funding matching rates for federal and grant funded projects. As an example, as part of the current fee the Lawrence Expressway Grade Separations were planned to have 60% outside funding. With Measure B that Expressway project is expected to be 90% outside



funded.

**PUBLIC CONTACT**

Public contact was made through posting of the Bicycle and Pedestrian Advisory Commission agenda on the City's official-notice bulletin board, on the City's website, and the availability of the agenda and report in the Office of the City Clerk.

**ALTERNATIVES**

1. Recommend to City Council the Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees.
2. Do not recommend to City Council the Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees.

**RECOMMENDATION**

Alternative 1: Recommend to City Council the Update of the Transportation Strategic Program and Adopt a Resolution Amending the City's Master Fee Schedule for Traffic Impact Fees.

Prepared by: Manuel Pineda, Director, Public Works

Reviewed by: Trudi Ryan, Director, Community Development

Reviewed by: Timothy J. Kirby, Director, Finance

Reviewed by: Walter C. Rossmann, Assistant City Manager

Approved by: Deanna J. Santana, City Manager

**ATTACHMENTS**

1. Reserved for Report to Council
2. Traffic Impact Fee Study
3. Project List and Cost Breakdown
4. Intersection Improvements
5. List of Current Improvements
6. TIF City Survey
7. Resolution to Amend the Master Fee Schedule

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Reserved for Report to Council



# HEXAGON TRANSPORTATION CONSULTANTS, INC.

## City of Sunnyvale

### Draft Traffic Impact Fee Update Study

Prepared for:

**City of Sunnyvale**

June 8, 2017

#### Hexagon Transportation Consultants, Inc.

Hexagon Office: 4 North Second Street, Suite 400

San Jose, CA 95113

Hexagon Job Number: 15GB34

Phone: 408.971.6100

Client Name: Mr. Manuel Pineda

San Jose • Gilroy • Pleasanton • Phoenix

[www.hextrans.com](http://www.hextrans.com)

Areawide Circulation Plans Corridor Studies Pavement Delineation Plans Traffic Handling Plans Impact Fees Interchange Analysis Parking  
Transportation Planning Traffic Calming Traffic Control Plans Traffic Simulation Traffic Impact Analysis Traffic Signal Design Travel Demand Forecasting



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# 1.

## Introduction

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This report presents the results of the study for an update to the Sunnyvale Transportation Strategic Plan, which outlines the process, assumptions, and results associated with implementing the City's traffic impact fee program. The study entailed the following: (1) updating the future traffic forecasts based on most recent land use assumptions in Sunnyvale and travel demand model results, (2) identifying any locations of substandard conditions, (3) updating the list of required improvements, (4) updating the cost of implementing the improvements, (5) recalculating the proposed traffic impact fee by distributing the total improvement costs over anticipated future development in the City of Sunnyvale.

### Study Scenarios

Traffic conditions were evaluated for the following scenarios:

**Scenario 1:** *Existing Conditions.* Existing traffic volumes are based on traffic counts conducted between the years of 2014 and 2015, the 2014 CMP TRAFFIX database, as well as County records for the expressways.

**Scenario 2:** *Future Conditions.* Future conditions are represented by the planned future land uses in Sunnyvale, which include buildout of the proposed 2035 General Plan (GP). Traffic volumes were estimated using the Sunnyvale Travel Demand Forecasting Model, and conditions were evaluated within the context of what is primarily the existing roadway network.

### Methodology

The impacts of the planned future land uses were evaluated following the standards and methodologies set forth by the City of Sunnyvale and the Santa Clara Valley Transportation Authority (VTA). The VTA administers the county Congestion Management Program (CMP). The traffic analysis is based on AM and PM peak-hour levels of service for 69 signalized intersections within the City of Sunnyvale. Twelve of the study intersections are CMP intersections. The study intersections are identified below and shown on Figure 1.



- ### Figure 1 Study Intersections



## Study Intersections

1. Mathilda Avenue & Java Drive (CMP),
2. Mathilda Avenue & 5<sup>th</sup> Avenue,
3. Mathilda Avenue & Innovation Way,
4. Mathilda Avenue & SR 237 Westbound Ramps,
5. Mathilda Avenue & SR 237 Eastbound Ramps,
6. Crossman Avenue & Caribbean Drive,
7. Crossman Avenue & Java Drive,
8. Fair Oaks Avenue & Tasman Drive,
9. Fair Oaks Avenue & Weddell Drive,
10. Fair Oaks Avenue & US 101 Northbound Ramps,
11. Lawrence Expressway & Tasman Drive (CMP),
12. Lawrence Expressway & Lakehaven Drive,
13. Lawrence Expressway & US 101 Northbound Ramps,
14. Lawrence Expressway & US 101 Southbound Ramps,
15. Lawrence Expressway & Oakmead Parkway,
16. Lawrence Expressway & Arques Avenue (CMP),
17. Lawrence Expressway & Kifer Road,
18. Lawrence Expressway & Reed Avenue (CMP),
19. Duane Avenue/Stewart Drive & Duane Avenue,
20. Fair Oaks Avenue & Duane Avenue,
21. Fair Oaks Avenue & Maude Avenue,
22. Wolfe Road & Stewart Drive,
23. Wolfe Road & Arques Avenue,
24. Wolfe Road & Kifer Road,
25. Wolfe Road & Evelyn Avenue,
26. Wolfe Road & Reed Avenue,
27. Evelyn Avenue & Reed Avenue,
28. Wolfe Road & El Camino Real (CMP),
29. Wolfe Road & Fremont Avenue,
30. Wolfe Road & Homestead Road,
31. Fair Oaks Avenue & Arques Avenue
32. Fair Oaks Avenue & Evelyn Avenue,
33. Fair Oaks Avenue & Old San Francisco Road,
34. Fair Oaks Avenue & El Camino Real (CMP),
35. Sunnyvale Avenue & Evelyn Avenue,
36. Sunnyvale Avenue & Washington Avenue,
37. Sunnyvale Avenue & McKinley Avenue,
38. Sunnyvale Avenue & Iowa Avenue,
39. Sunnyvale Avenue & El Camino Real,
40. Sunnyvale-Saratoga Road & Remington Drive (CMP),
41. Sunnyvale-Saratoga Road & Fremont Avenue (CMP),
42. Mathilda Avenue & Almanor Avenue,
43. Mathilda Avenue & Maude Avenue (CMP),
44. Mathilda Avenue & Indio Avenue,
45. Mathilda Avenue & California Avenue,
46. Mathilda Avenue & McKinley Avenue,
47. Mathilda Avenue & Iowa Avenue,
48. Mathilda Avenue & El Camino Real (CMP),
49. Hollenbeck Avenue & El Camino Real,

50. Hollenbeck Avenue & Fremont Avenue,
51. Mary Avenue & Maude Avenue,
52. Mary Avenue & Central Expressway (CMP),
53. Mary Avenue & Evelyn Avenue,
54. Mary Avenue & El Camino Real (CMP),
55. Mary Avenue & Fremont Avenue,
56. Bernardo Avenue & Evelyn Avenue,
57. Bernardo Avenue & El Camino Real,
58. Bernardo Avenue & Fremont Avenue,
59. SR 85 Northbound Ramps & Fremont Avenue,
60. SR 85 Southbound Ramps & Fremont Avenue,
61. Mathilda Avenue & San Aleso Avenue,
62. SR 237 Ramps & Maude Avenue,
63. Mathilda Avenue & Olive Avenue,
64. Mathilda Avenue & Washington Avenue,
65. Hollenbeck Avenue & Homestead Road,
66. Mary Avenue & Homestead Road,
67. Mary Avenue & Homestead Road,
68. SR 85 Southbound Ramp & Homestead Road, and
69. Oakmead Parkway & Arques Avenue.

Traffic conditions at the study intersections were analyzed for the weekday AM and PM peak hours of commute traffic. In the study area, the AM peak hour is typically between 7:00 AM and 9:00 AM, while the PM peak hour is typically between 4:00 PM and 6:00 PM.

### **Analysis Methodologies and Level of Service Standards**

#### **Signalized Study Intersections**

The City of Sunnyvale level of service methodology for signalized intersections is the 2000 *Highway Capacity Manual* (HCM) method. This method is applied using the TRAFFIX software. The 2000 HCM operations method evaluates signalized intersection operations on the basis of average control delay time for all vehicles at the intersection. Since TRAFFIX is also the CMP-designated intersection level of service methodology, the methodologies employ the CMP default values for the analysis parameters.

The City of Sunnyvale level of service standards for signalized intersections is LOS D or better, except on roadways considered “regionally significant” within Sunnyvale, which have a standard of LOS E. Within Sunnyvale, the signalized intersections along Lawrence Expressway, El Camino Real, and Sunnyvale-Saratoga Road with its extensions into Mathilda Avenue and Sunnyvale Avenue are considered regionally significant.

The correlation between average control delay and level of service is shown in Table 1.



**Table 1**  
**Signalized Intersection Level of Service Definition Based on Average Delay**

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

Source: Transportation Research Board, *2010 Highway Capacity Manual* (Washington, D.C., 2010) p18-6.

## Report Organization

The remainder of this report is divided into four chapters. Chapter 2 describes existing conditions for the study intersections. Chapter 3 presents all the study intersection levels of service under future conditions. Chapter 4 updates the recommended roadway improvements. Chapter 5 describes the impact fees and the mechanics of implementation.

## 2. Existing Conditions

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This chapter describes existing traffic conditions during both the AM and PM peak hours at the principal signalized intersections in Sunnyvale. The purpose of analyzing existing conditions is to identify any existing deficiencies. Intersections that operate at a substandard level under existing conditions might not qualify for funding by an impact fee in cases where the future conditions are not shown to be appreciably worse. The rationale for this is that an impact fee cannot be assessed for improvements that are needed to remedy an existing deficient condition.

### Existing Intersection Lane Configurations

The existing lane configurations at the study intersections were confirmed by observations in the field and are shown on Figure 2.

### Existing Traffic Volumes

Existing traffic volumes are based on traffic counts conducted between the years of 2014 and 2015, the 2014 CMP TRAFFIX database, as well as County records for the expressways (see Figure 3). The traffic count data are included in Appendix A.

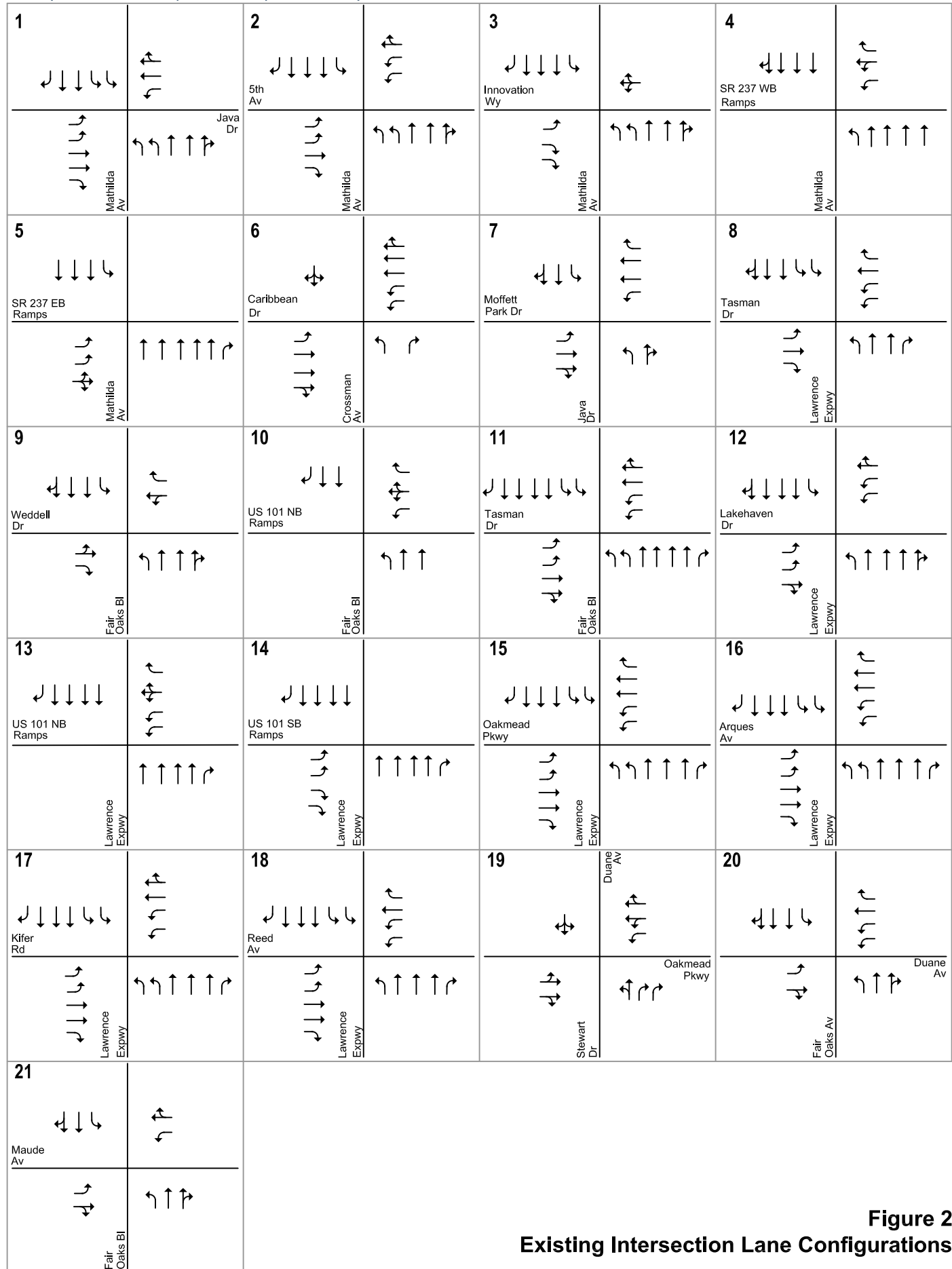
### Existing Intersection Levels of Service

Intersection levels of service were evaluated against the Sunnyvale standards (see Table 2). The results of the analysis show that most of the study intersections currently operate at acceptable levels during both the AM and PM peak hours, with the following exceptions:

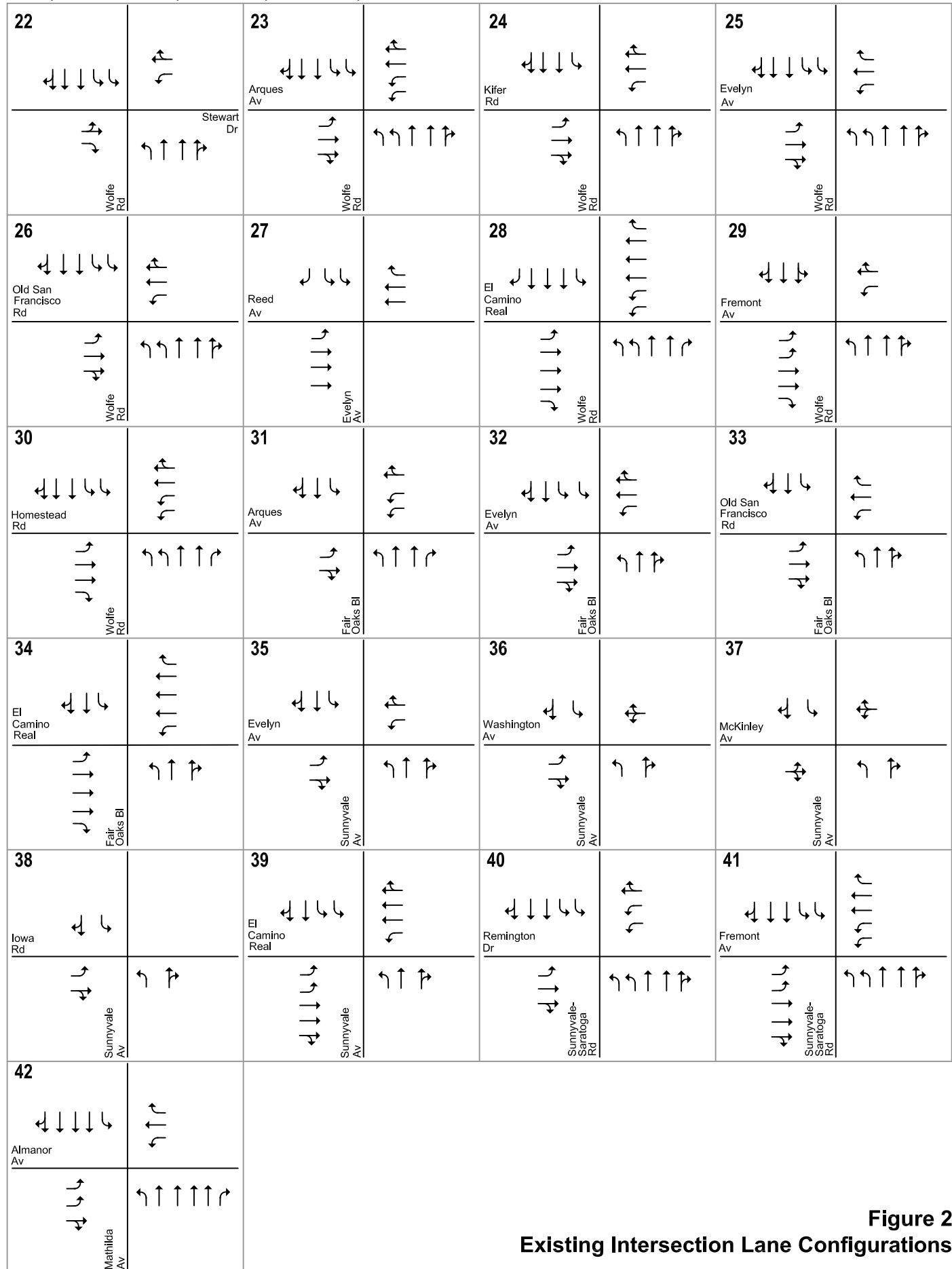
- Lawrence Expressway & Arques Avenue (#16) – PM Peak Hour (LOS F)
- Lawrence Expressway & Kifer Road (#17) – AM & PM Peak Hour (LOS F)
- Lawrence Expressway & Reed Avenue (#18) – AM & PM Peak Hour (LOS F)

The intersection levels of service calculation sheets are included in Appendix B.

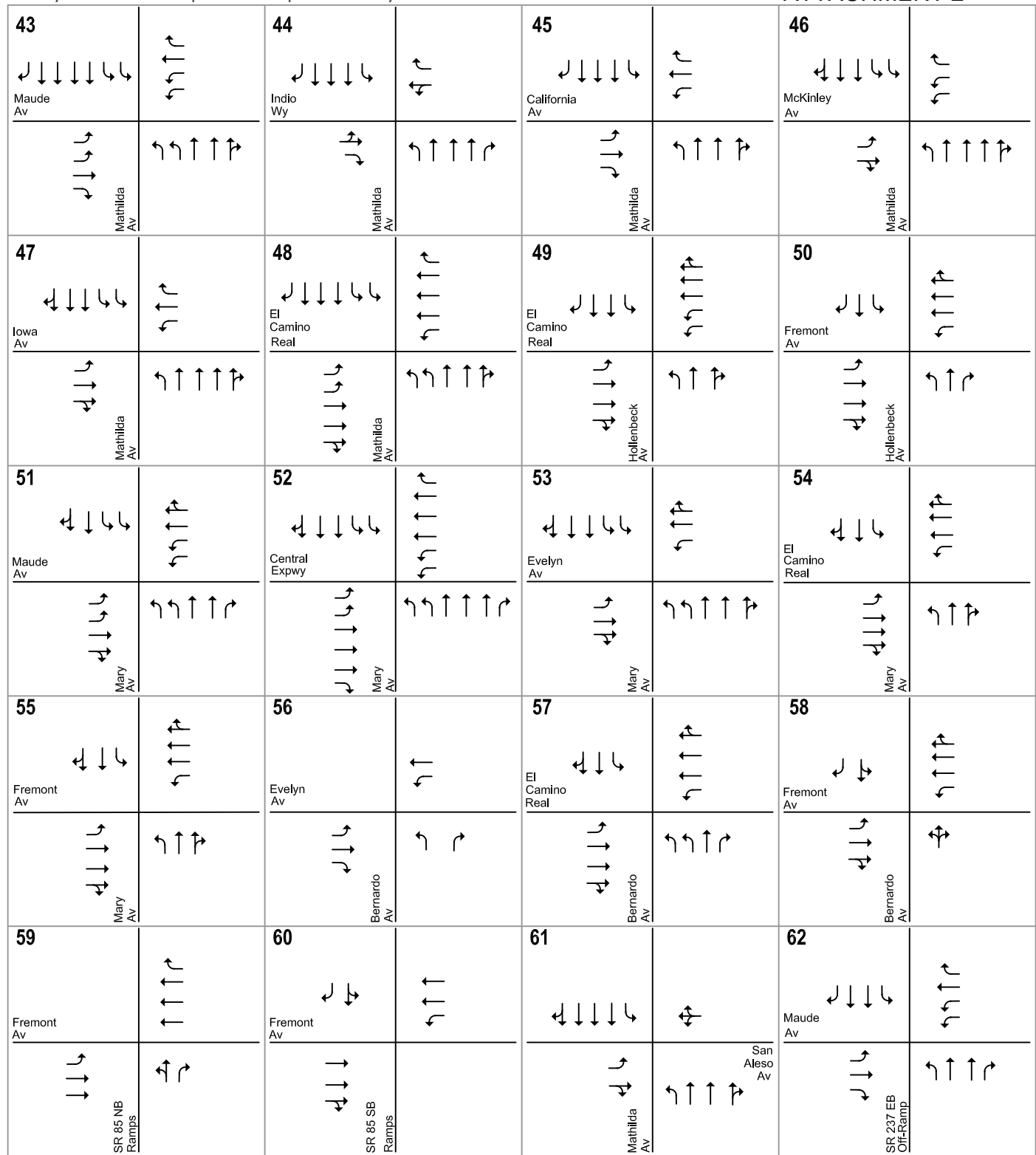
The intersections on Mathilda Avenue at the SR 237 ramps are closely-spaced intersections with multiple turning movements that operate as a single coordinated signal system. These intersections experience operational issues beyond what is reflected in the typical HCM level of service calculations by TRAFFIX. Therefore, the Synchro software was used to provide a more accurate assessment of the Mathilda Avenue corridor operational issues. The Synchro analysis results for the intersections along Mathilda Avenue at the SR 237 ramps are shown on Table 2. The Synchro results match the field observations that Hexagon conducted during the AM and PM peak hours at these intersections.



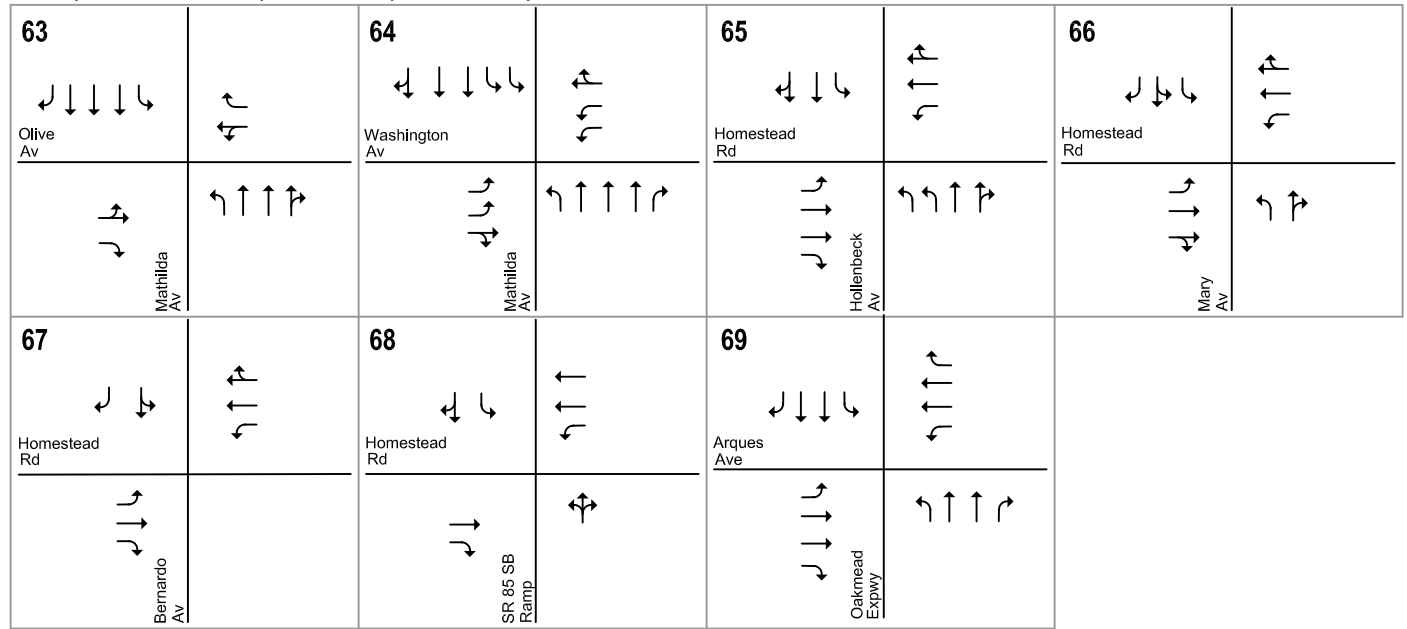
**Figure 2**  
**Existing Intersection Lane Configurations**



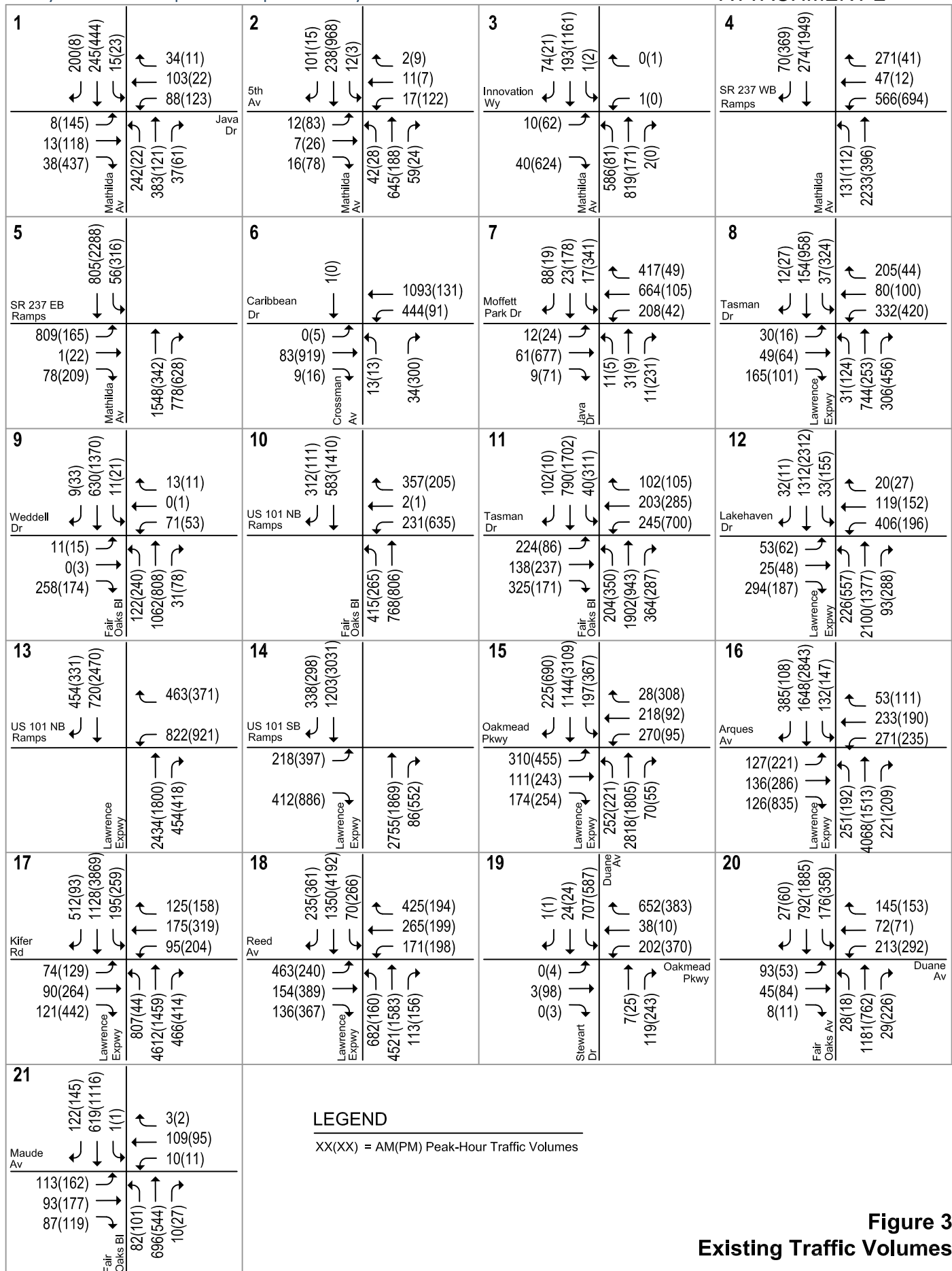
**Figure 2**  
**Existing Intersection Lane Configurations**



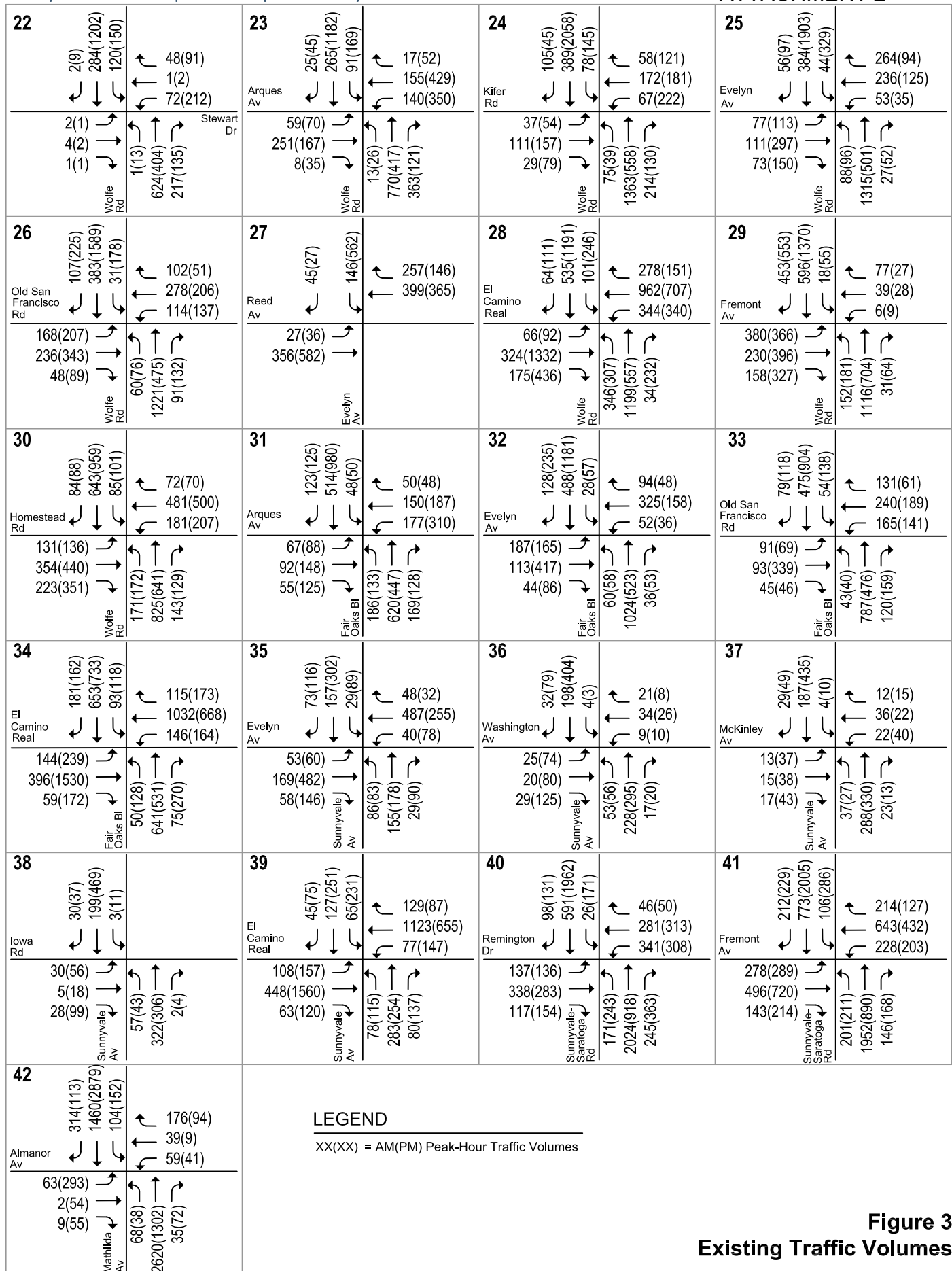
**Figure 2**  
**Existing Intersection Lane Configurations**



**Figure 2**  
**Existing Intersection Lane Configurations**

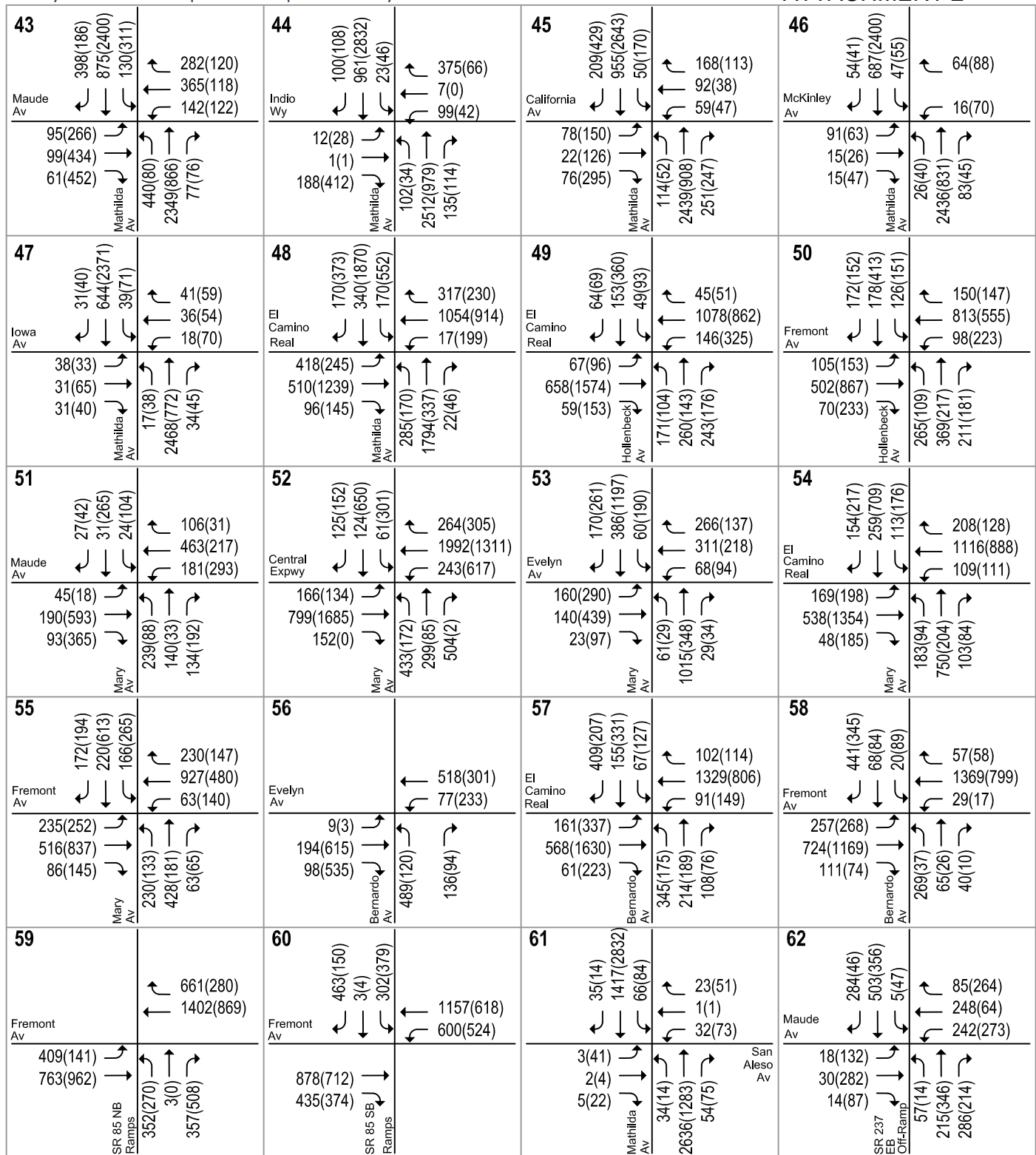


**Figure 3**  
**Existing Traffic Volumes**



**Figure 3**  
**Existing Traffic Volumes**

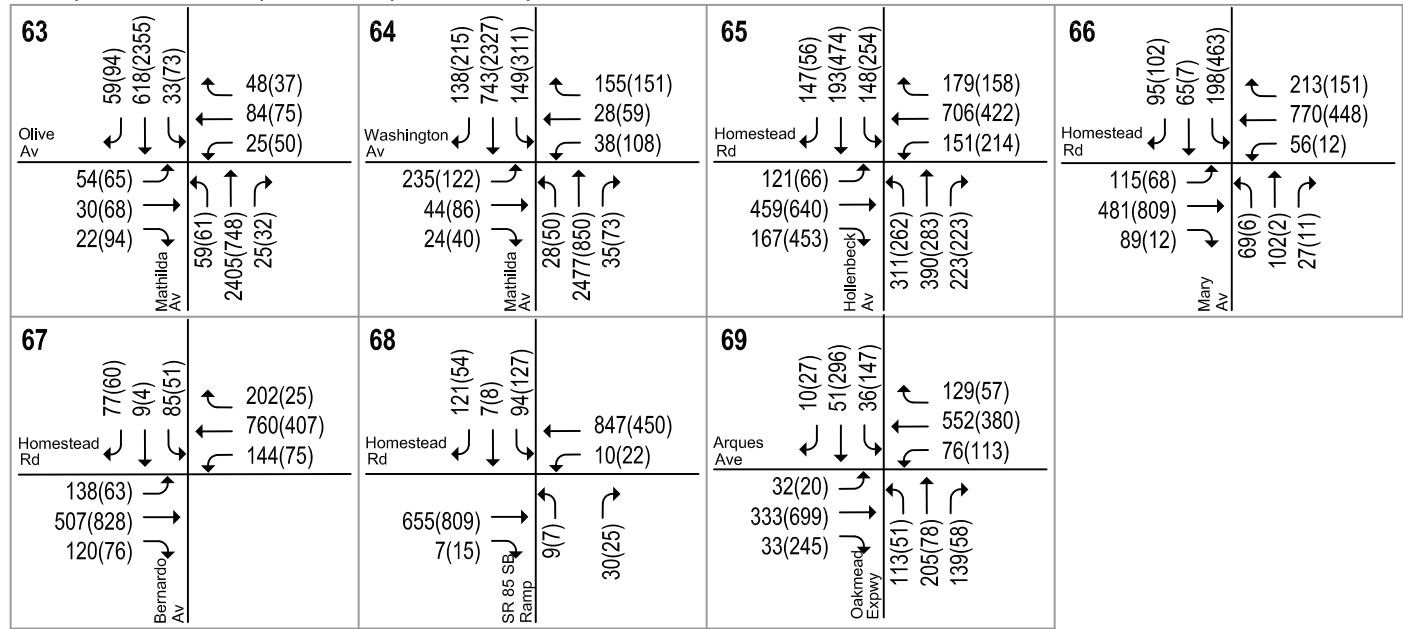




## LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

**Figure 3**  
**Existing Traffic Volumes**



## LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

**Figure 3**  
**Existing Traffic Volumes**

**Table 2**  
**Existing Intersection Levels of Service**

#	Intersection	CMP	Peak Hour	Count Date	LOS Std.	Existing	
						Avg. Delay (sec)	LOS
1	Mathilda Ave & Java Dr	*	AM PM	01/00/15 10/01/14	E	26.6 28.0	C C
2	Mathilda Ave & 5th Ave	+	AM PM	06/04/15 06/04/15	E	13.5 22.1	B C+
3	Mathilda Ave & Innovation Way	+	AM PM	06/04/15 06/04/15	E	18.5 19.8	B- B-
4	Mathilda Ave & SR 237 WB <sup>1</sup>	+	AM PM	06/04/15 06/04/15	E	- -	E E
5	Mathilda Ave & SR 237 EB <sup>1</sup>	+	AM PM	06/04/15 06/04/15	E	- -	E E
6	Crossman Ave & Caribbean Dr	+	AM PM	05/14/15 05/14/15	E	10.3 36.0	B+ D+
7	Crossman Ave & Java Dr		AM PM	11/00/14 11/00/14	D	17.0 29.4	B C
8	Fair Oaks Ave & Tasman Dr		AM PM	06/04/15 06/04/15	D	17.1 19.4	B B-
9	Fair Oaks Ave & Weddell Dr		AM PM	06/04/15 06/04/15	D	19.0 13.8	B- B
10	N Fair Oaks Ave & US 101 NB		AM PM	10/00/14 10/00/14	D	16.5 21.0	B C+
11	Lawrence Expwy & Tasman Dr	*	AM PM	05/18/15 05/18/15	E	40.2 64.8	D E
12	Lawrence Expwy & Lakehaven Dr	+	AM PM	05/18/15 05/18/15	E	59.6 63.5	E+ E
13	Lawrence Expwy & US 101 NB	+	AM PM	05/22/15 05/22/15	E	21.7 24.4	C+ C
14	Lawrence Expwy & US 101 SB	+	AM PM	05/18/15 05/18/15	E	15.1 43.1	B D
15	Lawrence Expwy & Oakmead Pkwy	+	AM PM	05/18/15 05/18/15	E	48.7 57.5	D E+
16	Lawrence Expwy & Arques Ave	*	AM PM	05/18/15 05/18/15	E	66.6 <b>95.5</b>	E <b>F</b>
17	Lawrence Expwy & Kifer Rd	+	AM PM	05/18/15 05/18/15	E	<b>168.2</b> <b>81.0</b>	<b>F</b> <b>F</b>
18	Lawrence Expwy & Reed Ave/Monroe St	*	AM PM	05/18/15 05/18/15	E	<b>203.1</b> <b>86.5</b>	<b>F</b> <b>F</b>

**Notes:**

\* Denotes CMP intersection (LOS E threshold)

+ Denotes an intersection on a CMP roadway (LOS E threshold)

1. At the intersections at the Mathilda/SR 237 interchange, the calculated LOS does not reflect the unmet vehicle demand that cannot get through the intersections during the peak hours. The LOS reflect the micro-simulation analysis results using Synchro/Sim Traffic software.

**BOLD** indicates a substandard level of service

**Table 2 (Continued)**  
**Existing Intersection Levels of Service**

#	Intersection	CMP	Peak Hour	Count Date	LOS Std.	Existing	
						Avg. Delay (sec)	LOS
19	Duane/Stewart & Duane Ave		AM	10/00/14	D	31.4	C
			PM	10/00/14		30.6	C
20	N Fair Oaks Ave & Duane Ave		AM	10/00/14	D	26.3	C
			PM	10/00/14		32.1	C-
21	Fair Oaks Ave & Maude Ave <sup>1</sup>		AM	N/A	D	28.6	C
			PM	N/A		28.5	C
22	Wolfe Rd & Stewart Dr		AM	10/00/14	D	16.1	B
			PM	10/00/14		19.1	B-
23	Wolfe Rd & Arques Ave		AM	10/00/14	D	24.8	C
			PM	10/00/14		28.4	C
24	Wolfe Rd & Kifer Rd		AM	05/00/14	D	21.1	C+
			PM	05/00/14		26.8	C
25	Wolfe Rd & Evelyn Ave		AM	05/00/14	D	26.0	C
			PM	05/00/14		24.6	C
26	Wolfe Rd & Reed Ave		AM	05/00/14	D	28.8	C
			PM	05/00/14		28.8	C
27	Evelyn Ave & Reed Ave		AM	05/14/15	D	10.8	B+
			PM	05/14/15		18.9	B-
28	Wolfe Rd & El Camino Real	*	AM	05/00/14	E	49.8	D
			PM	09/19/14		55.1	E+
29	Wolfe Rd & Fremont Ave		AM	05/00/14	D	48.9	D
			PM	05/00/14		49.8	D
30	Wolfe Rd & Homestead Rd		AM	05/00/14	D	30.9	C
			PM	05/00/14		31.9	C
31	Fair Oaks Ave & Arques Ave		AM	05/14/15	D	29.7	C
			PM	05/14/15		34.4	C-
32	N Fair Oaks Ave & Evelyn Ave		AM	05/14/15	D	28.1	C
			PM	05/14/15		26.7	C
33	N Fair Oaks Ave & Old San Francisco		AM	05/14/15	D	35.4	D+
			PM	05/14/15		36.7	D+
34	Fair Oaks Ave & El Camino Real	*	AM	05/00/14	E	34.9	C-
			PM	10/15/14		39.3	D
35	Sunnyvale Ave & Evelyn Ave	+	AM	05/14/15	E	24.6	C
			PM	05/14/15		27.9	C
36	Sunnyvale Ave & Washington Ave	+	AM	05/14/15	E	17.7	B
			PM	05/14/15		20.3	C+

**Notes:**  
 \* Denotes CMP intersection (LOS E threshold)  
 + Denotes an intersection on a CMP roadway (LOS E threshold)  
 1. Existing volumes for the Fair Oaks/Maude intersection is extrapolated based on 2013 counts.

**Table 2 (Continued)**  
**Existing Intersection Levels of Service**

#	Intersection	CMP	Peak Hour	Count Date	LOS Std.	Existing	
						Avg. Delay (sec)	LOS
37	Sunnyvale Ave & McKinley Ave	+	AM PM	05/14/15 05/14/15	E	15.3 15.8	B B
38	Sunnyvale Ave & Iowa Ave	+	AM PM	05/14/15 05/14/15	E	12.8 16.0	B B
39	Sunnyvale Ave & El Camino Real	+	AM PM	05/14/15 05/14/15	E	23.3 30.0	C C
40	Sunnyvale-Saratoga Rd & Remington Dr	*	AM PM	05/14/15 09/19/14	E	42.2 45.8	D D
41	Sunnyvale-Saratoga Rd & Fremont Ave	*	AM PM	05/00/14 10/01/14	E	34.7 45.7	C- D
42	Mathilda Ave & Almanor Ave	+	AM PM	06/04/15 06/04/15	E	17.1 27.1	B C
43	Mathilda Ave & Maude Ave	*	AM PM	06/04/15 09/18/14	E	39.0 40.4	D+ D
44	Mathilda Ave & Indio Way	+	AM PM	06/04/15 06/04/15	E	24.5 24.9	C C
45	Mathilda Ave & California	+	AM PM	06/04/15 06/04/15	E	19.9 25.3	B- C
46	Mathilda Ave & McKinley Ave	+	AM PM	06/04/15 06/04/15	E	15.1 16.4	B B
47	Mathilda Ave & Iowa Ave	+	AM PM	06/04/15 06/04/15	E	13.1 16.7	B B
48	Mathilda Ave & El Camino Real	*	AM PM	06/04/15 09/18/14	E	44.0 48.4	D D
49	Hollenbeck Ave & El Camino Real	+	AM PM	05/14/15 05/14/15	E	27.9 28.9	C C
50	Hollenbeck Ave & Fremont Ave		AM PM	05/00/14 05/00/14	D	34.6 36.7	C- D+
51	Mary Ave & Maude Ave		AM PM	05/14/15 05/14/15	D	25.8 29.1	C C
52	Mary Ave & Central Expwy	*	AM PM	05/22/15 05/22/15	E	50.0 61.6	D E
53	Mary Ave & Evelyn Ave		AM PM	05/14/15 05/14/15	D	30.0 30.3	C C
54	Mary Ave & El Camino Real	*	AM PM	05/14/15 09/19/14	E	37.3 37.8	D+ D+

**Notes:**  
 \* Denotes CMP intersection (LOS E threshold)  
 + Denotes an intersection on a CMP roadway (LOS E threshold)

**Table 2 (Continued)**  
**Existing Intersection Levels of Service**

#	Intersection	CMP	Peak Hour	Count Date	LOS Std.	Existing	
						Avg. Delay (sec)	LOS
55	Mary Ave & Fremont Ave		AM	05/00/14	D	41.8	D
			PM	05/00/14		42.0	D
56	Bernardo Ave & Evelyn Ave		AM	05/12/15	D	24.3	C
			PM	05/12/15		19.0	B-
57	Bernardo Ave & El Camino Real	+	AM	05/14/15	E	40.1	D
			PM	05/14/15		35.6	D+
58	Bernardo Ave & Fremont Ave		AM	05/00/14	D	26.6	C
			PM	05/00/14		22.6	C+
59	SR 85 NB & Fremont Ave		AM	05/00/14	D	30.3	C
			PM	05/00/14		26.6	C
60	SR 85 SB & Fremont Ave		AM	05/00/14	D	37.5	D+
			PM	05/00/14		31.6	C
61	Mathilda Ave & San Aleso Ave	+	AM	06/04/15	E	12.6	B
			PM	06/04/15		17.3	B
62	SR 237 Service Road & Maude Ave		AM	09/15/15	D	29.2	C
			PM	09/15/15		34.7	C-
63	Mathilda Ave & Olive Ave	+	AM	06/04/15	E	13.7	B
			PM	06/04/15		16.9	B
64	Mathilda Ave & Washington Avenue	+	AM	06/04/15	E	32.2	C-
			PM	06/04/15		32.0	C-
65	Hollenbeck Avenue & Homestead Road		AM	09/15/15	D	32.7	C-
			PM	09/15/15		35.5	D+
66	Mary Ave & Homestead Road		AM	09/15/15	D	25.5	C
			PM	09/15/15		24.8	C
67	Bernardo Avenue & Homestead Road		AM	09/15/15	D	15.5	B
			PM	09/15/15		13.7	B
68	SR 85 SB Ramp & Homestead Road		AM	09/15/15	D	15.4	B
			PM	09/15/15		18.0	B
69	Oakmead Pkwy & Arques Ave		AM	09/15/15	D	21.2	C+
			PM	09/15/15		23.9	C
<b>Notes:</b> * Denotes CMP intersection (LOS E threshold) + Denotes an intersection on a CMP roadway (LOS E threshold)							

### 3.

## Future Traffic Conditions

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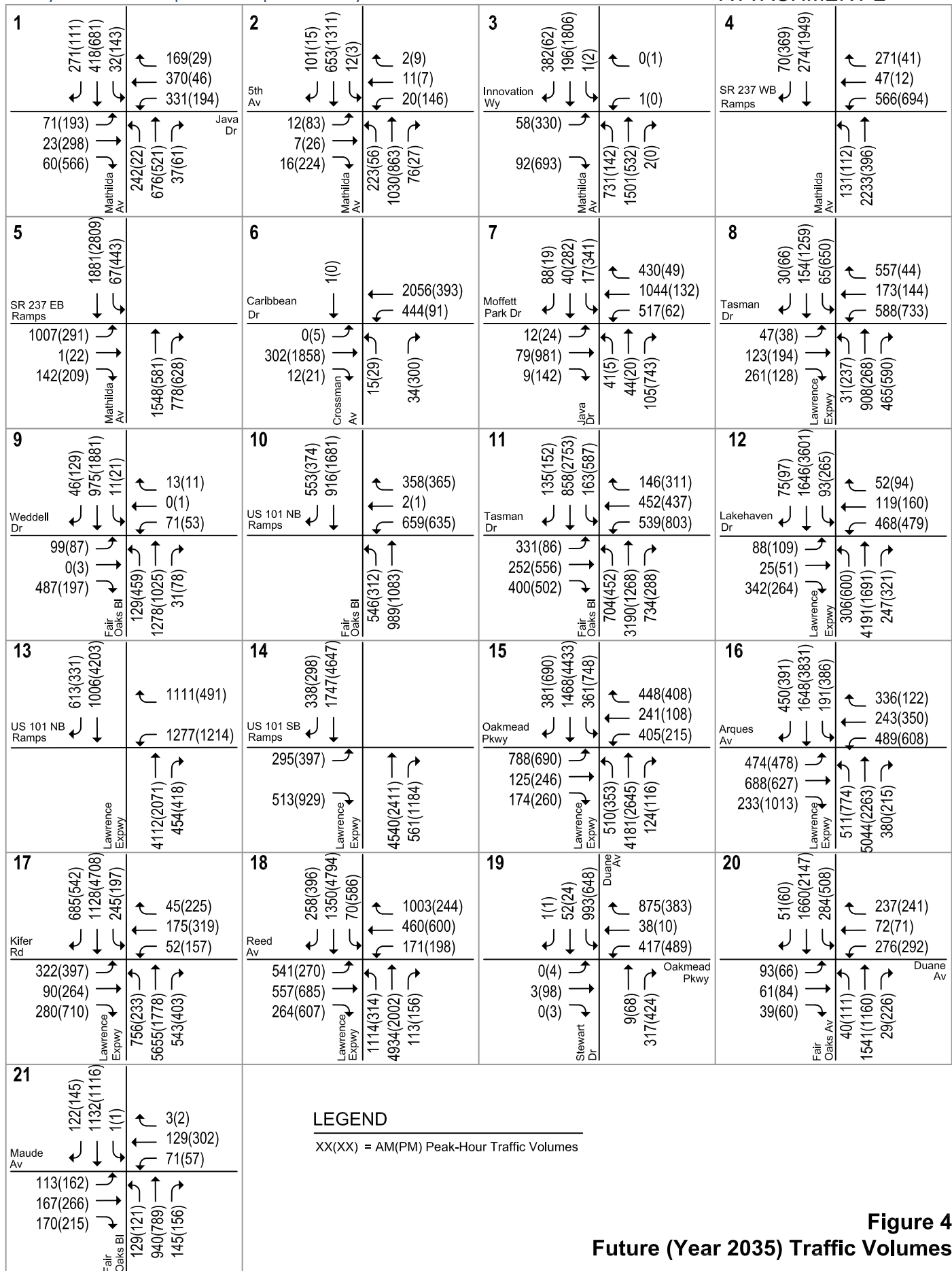
This chapter describes the future traffic conditions expected with the planned growth in the City of Sunnyvale. The land uses, roadway network, and traffic analysis results are presented below. The forecast year for this analysis is 2035.

### Traffic Volumes under Future Conditions

The 2035 forecasts of intersection turning movements were completed using the Sunnyvale Travel Demand Forecasting Model (STFM). The STFM is a mathematical representation of travel within the nine counties in the San Francisco Bay Area, and is focused to represent travel within the City of Sunnyvale. The model uses socioeconomic data, such as number of jobs and households, for different geographic areas (transportation analysis zones) to predict the travel from place to place in the future. The model is adjusted (validated) using year 2013 socioeconomic data supplied by the City of Sunnyvale and VTA to predict existing (year 2013) traffic volume. Model forecasts are compared to actual counts in order to make the adjustments. There are 172 transportation analysis zones within the model to represent the City of Sunnyvale.

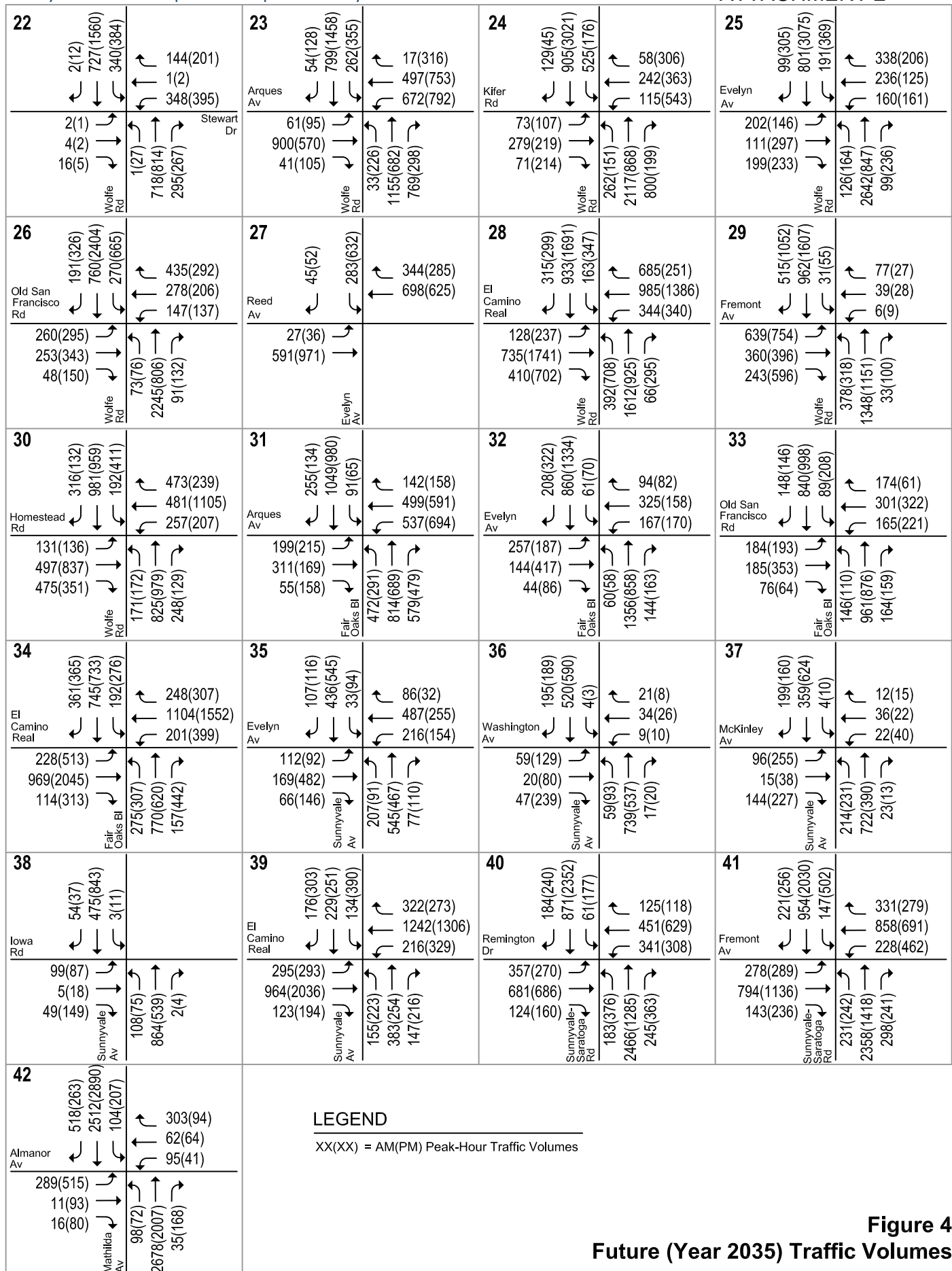
The 2035 socioeconomic data are generated by the Association of Bay Area Governments and refined by VTA. The 2035 socioeconomic data within the City of Sunnyvale are based on the recently adopted 2035 Land Use and Transportation Element (LUTE) update, and were supplied by the Sunnyvale Planning Department. Table 3 shows the model inputs for the City of Sunnyvale. For the purposes of this study, the planned future land uses in Sunnyvale assume buildout of the 2035 LUTE update, which will result in a net increase of 15,100 residential units and 42,410 jobs (see Table 3).

The forecast intersection turning movement volumes were adjusted based on the 2013 model run and existing traffic counts. The difference between the 2013 model volume and count was applied to the 2035 raw model turning movements to create the adjusted forecasts (see Figure 4).



**Figure 4**  
**Future (Year 2035) Traffic Volumes**





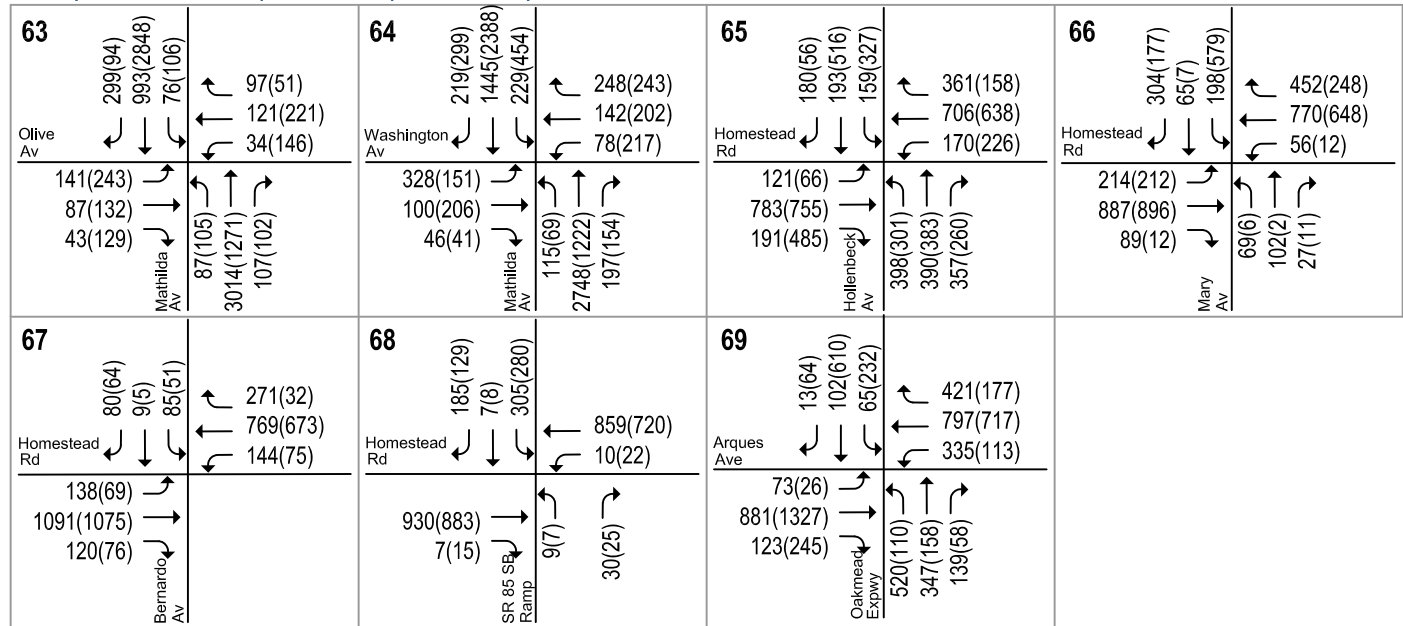
**Figure 4**  
**Future (Year 2035) Traffic Volumes**

<b>43</b> Maude Av 650(186) 1345(2914) 279(311) 282(149) 368(223) 142(122) 95(619) 99(518) 81(486) Mathilda Av 530(463) 2530(1248) 77(76)	<b>44</b> Indio Wy 182(439) 1362(2982) 77(170) 511(618) 67(1) 348(160) 18(142) 2(4) 221(525) Mathilda Av 304(55) 2719(1120) 187(193)	<b>45</b> California Av 256(463) 1579(2924) 63(236) 267(113) 167(177) 59(260) 223(189) 22(126) 234(392) Mathilda Av 273(97) 2656(1138) 512(247)	<b>46</b> McKinley Av 56(71) 1238(2433) 258(162) 166(216) 14(58) 85(223) 91(63) 27(85) 15(50) Mathilda Av 31(51) 2853(1176) 253(236)
<b>47</b> Iowa Av 37(46) 1247(2585) 49(71) 41(75) 87(170) 26(194) 44(37) 91(148) 77(152) Mathilda Av 57(141) 3066(1298) 141(132)	<b>48</b> El Camino Real 243(696) 447(2194) 378(623) 510(432) 1177(1580) 51(270) 708(447) 1021(1844) 257(369) Mathilda Av 554(372) 2126(644) 65(73)	<b>49</b> El Camino Real 202(247) 232(461) 221(410) 296(76) 1153(1734) 239(646) 279(258) 1305(2163) 59(193) Hollenbeck Av 364(146) 327(250) 433(346)	<b>50</b> Fremont Av 243(331) 256(635) 129(226) 150(152) 1080(910) 98(223) 255(358) 839(1114) 71(249) Hollenbeck Av 265(109) 671(367) 211(181)
<b>51</b> Maude Av 28(92) 35(458) 28(197) 238(46) 654(381) 194(352) 57(37) 190(934) 93(389) Mary Av 377(169) 447(79) 157(192)	<b>52</b> Central Expwy 125(431) 124(650) 119(642) 292(305) 2145(1747) 533(1199) 271(141) 1543(1819) 152(50) Mary Av 508(242) 624(85) 776(2)	<b>53</b> Evelyn Av 280(288) 441(1306) 60(410) 621(187) 311(306) 68(94) 237(371) 235(439) 50(159) Mary Av 177(56) 1229(369) 29(34)	<b>54</b> El Camino Real 204(217) 259(709) 160(426) 356(238) 1274(1861) 150(144) 291(287) 1350(1830) 94(266) Mary Av 183(149) 750(204) 139(134)
<b>55</b> Fremont Av 454(517) 220(721) 168(357) 252(147) 1033(900) 272(247) 463(673) 884(1149) 86(162) Mary Av 259(197) 544(268) 173(146)	<b>56</b> Evelyn Av 9(3) 444(718) 170(637) 568(527) 77(233) 555(176) 136(94)	<b>57</b> El Camino Real 409(232) 172(413) 153(266) 175(199) 1393(1613) 116(181) 227(350) 1418(2130) 137(315) Bernardo Av 386(302) 275(193) 146(141)	<b>58</b> Fremont Av 474(367) 69(99) 21(110) 70(58) 1805(1523) 29(17) 276(278) 1228(1855) 111(74) Bernardo Av 404(50) 85(30) 40(10)
<b>59</b> Fremont Av 857(384) 1811(1525) 428(153) 897(1521) SR 85 NB Ramps 352(271) 3(0) 706(633)	<b>60</b> Fremont Av 463(150) 3(4) 302(919) 1211(682) 925(1116) 1042(743) 435(490) SR 85 SB Ramps	<b>61</b> Mathilda Av 35(14) 3834(5570) 66(109) 63(58) 1(1) 46(73) 3(41) 2(4) 5(22) San Aleso Av	<b>62</b> Maude Av 284(46) 503(356) 149(252) 250(354) 248(128) 242(322) 161(405) 174(487) 14(87) SR 237 EB Off-Ramp 57(14) 215(346) 286(214)

## LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

**Figure 4**  
**Future (Year 2035) Traffic Volumes**



## LEGEND

XX(XX) = AM(PM) Peak-Hour Traffic Volumes

**Figure 4**  
**Future (Year 2035) Traffic Volumes**

**Table 3**  
**2035 Sunnyvale Model Inputs**

	Sunnyvale	
	2013 Existing	Year 2035
Housing Units	57,000	72,100
Population	147,055	174,500
I/O/C Square Feet (million s.f.) <sup>1</sup>	47.3	59.8
Jobs	82,000	124,410
<b>Notes:</b> 1. I/O/C = Industrial/Office/Commercial		

## Roadway Network under Future Conditions

The STFM includes improvements to the roadway network within and outside of Sunnyvale as part of the Valley Transportation Plan (VTP). Within the City of Sunnyvale, only roadway improvements that are fully funded and will be constructed by outside agencies are included. The improvements included in the STFM are listed below:

- Construct auxiliary lanes on eastbound SR 237 between Mathilda Avenue and Fair Oaks Avenue.
- Extend express lanes on SR 237 to SR 85.
- Construct auxiliary lanes on southbound US 101 between Lawrence Expressway and Great America Parkway, and between Ellis Street and SR 237.
- Construct auxiliary lanes on southbound SR 85 between SR 237 and El Camino Real.
- Widen the ramp from northbound SR 85 to eastbound SR 237 to two lanes. Construct an auxiliary lane on eastbound SR 237 from SR 85 to Middlefield Road.
- Construct a loop on-ramp from westbound Middlefield Road to westbound SR 237. Eliminate the intersection at Middlefield Road and westbound SR 237 off-ramp, and re-align the off-ramp to the intersection on Middlefield Road at Ferguson Drive.
- Construct an auxiliary lane on southbound Lawrence Expressway between the SR 237 loop ramps.
- Construct auxiliary lanes on Central Expressway between Lawrence Expressway and Mary Avenue.
- Widen Central Expressway between Lawrence Expressway and San Tomas Expressway to six lanes.

Proposed intersection improvements in Sunnyvale that are included in the *VTP 2040* and the Santa Clara County *Expressway Plan 2040* but that are not funded are not included in the STFM. Examples of such improvements are the US 101/SR 237/Mathilda interchange reconfiguration, the grade separations along Lawrence Expressway, and the Mary Avenue extension over US 101.

The following intersection improvements that are fully funded or under construction at the time of the intersection counts were assumed under future conditions:

- At the intersection of Java Drive and Crossman Avenue, the southbound leg has been reduced from the existing two through lanes to one through lane.
- At the intersection of Lawrence Expressway and Kifer Road, Kifer Road is planned to be narrowed to one travel lane in each direction. This improvement is part of the planned Kifer road diet under the Lawrence Station Area Plan.
- At the intersection of Lawrence Expressway and Reed Avenue/Monroe Street, the westbound leg has been widened to two through lanes.
- At the intersection of Fair Oaks Avenue and Duane Avenue, the westbound leg has been restriped to include one left-turn lane, one through lane, and one right-turn lane. This improvement is part of the complete street improvement along Duane Avenue between Stewart Drive and Fair Oaks Avenue.
- At the intersection of Sunnyvale Avenue and Evelyn Avenue, the eastbound leg has been restriped to include a dedicated right-turn pocket.

Lane configurations at all other study intersections under future conditions are assumed to be the same as under existing conditions. The intersection lane configurations under future conditions are shown on Figure 5.

## Intersection Levels of Service under Future Conditions

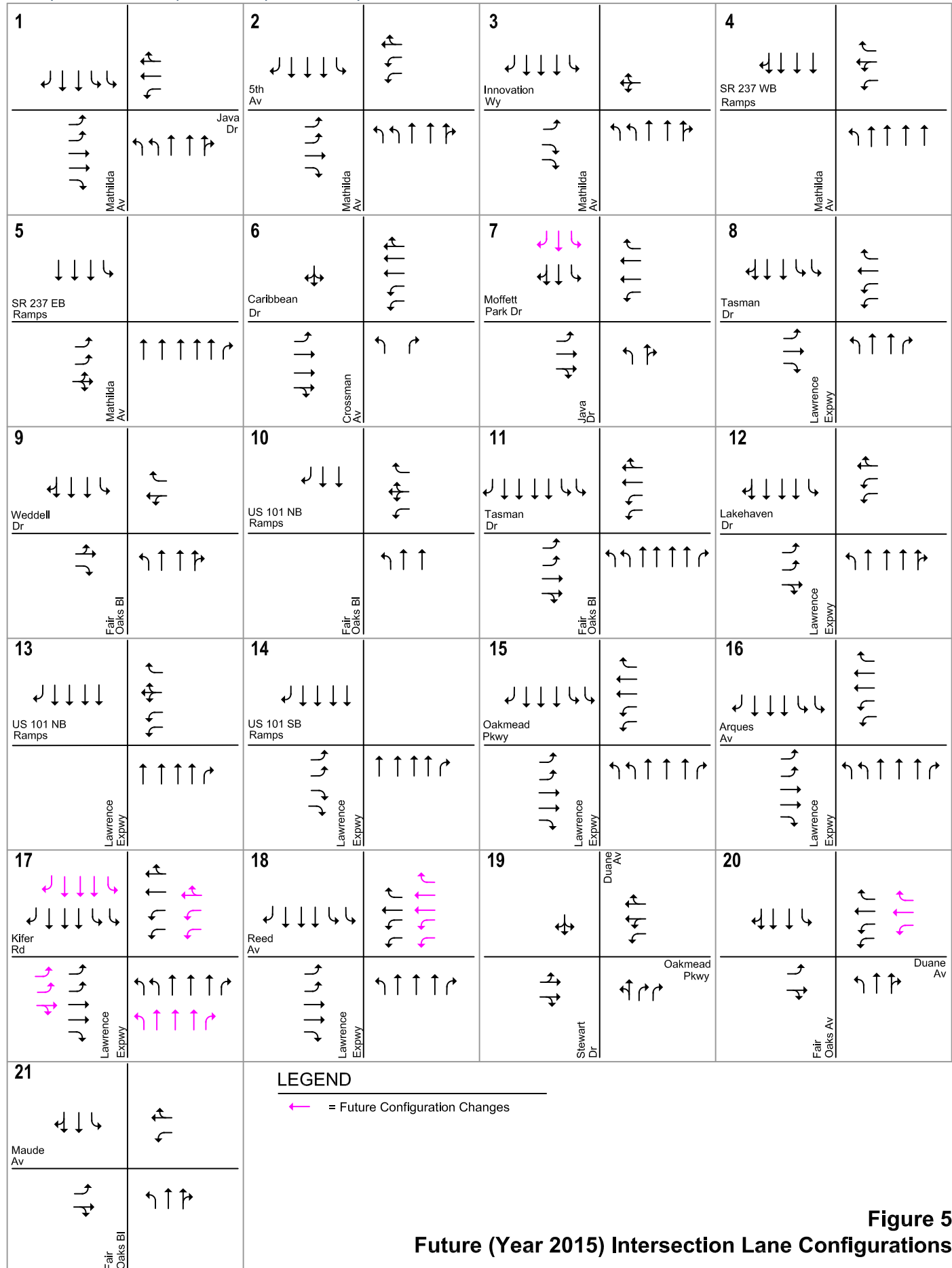
The level of service results for the study intersections under future conditions are summarized in Table 4 and shown on Figure 6. The results show that several of the signalized intersections would operate at unacceptable levels of service under future conditions:

- Mathilda Avenue & SR 237 Westbound Ramps – AM & PM Peak Hours (LOS F)
- Mathilda Avenue & SR 237 Eastbound Ramps – AM & PM Peak Hours (LOS F)
- Crossman Avenue & Java Drive – PM Peak Hour (LOS F)
- Lawrence Expressway & Tasman Drive – AM & PM Peak Hours (LOS F)
- Lawrence Expressway & Lakehaven Drive – AM & PM Peak Hours (LOS F)
- Lawrence Expressway & Oakmead Parkway – AM & PM Peak Hours (LOS F)
- Lawrence Expressway & Arques Avenue – AM & PM Peak Hours (LOS F)
- Lawrence Expressway & Kifer Road – AM & PM Peak Hours (LOS F)
- Lawrence Expressway & Reed Avenue/Monroe Street – AM & PM Peak Hours (LOS F)
- Duane/Stewart & Duane Avenue – AM Peak Hour (LOS E)
- Wolfe Road & Arques Avenue – AM Peak Hour (LOS E)
- Wolfe Road & Kifer Road – AM & PM Peak Hours (LOS F)
- Wolfe Road & Fremont Avenue – AM & PM Peak Hours (LOS E & LOS F, respectively)
- Fair Oaks Avenue & Arques Avenue – AM & PM Peak Hours (LOS F)
- Fair Oaks Avenue & El Camino Real – PM Peak Hour (LOS F)
- Sunnyvale-Saratoga Road & Remington Drive – AM & PM Peak Hours (LOS F)
- Mathilda Avenue & El Camino Real – PM Peak Hour (LOS F)
- Hollenbeck Avenue & El Camino Real – PM Peak Hour (LOS F)
- Mary Avenue & Central Expressway – PM Peak Hour (LOS F)
- Mary Avenue & Fremont Avenue – AM & PM Peak Hours (LOS E & LOS F, respectively)
- SR 85 Northbound Ramp & Fremont Avenue – AM Peak Hour (LOS E)
- SR 85 Southbound Ramp & Fremont Avenue – AM & PM Peak Hours (LOS F)

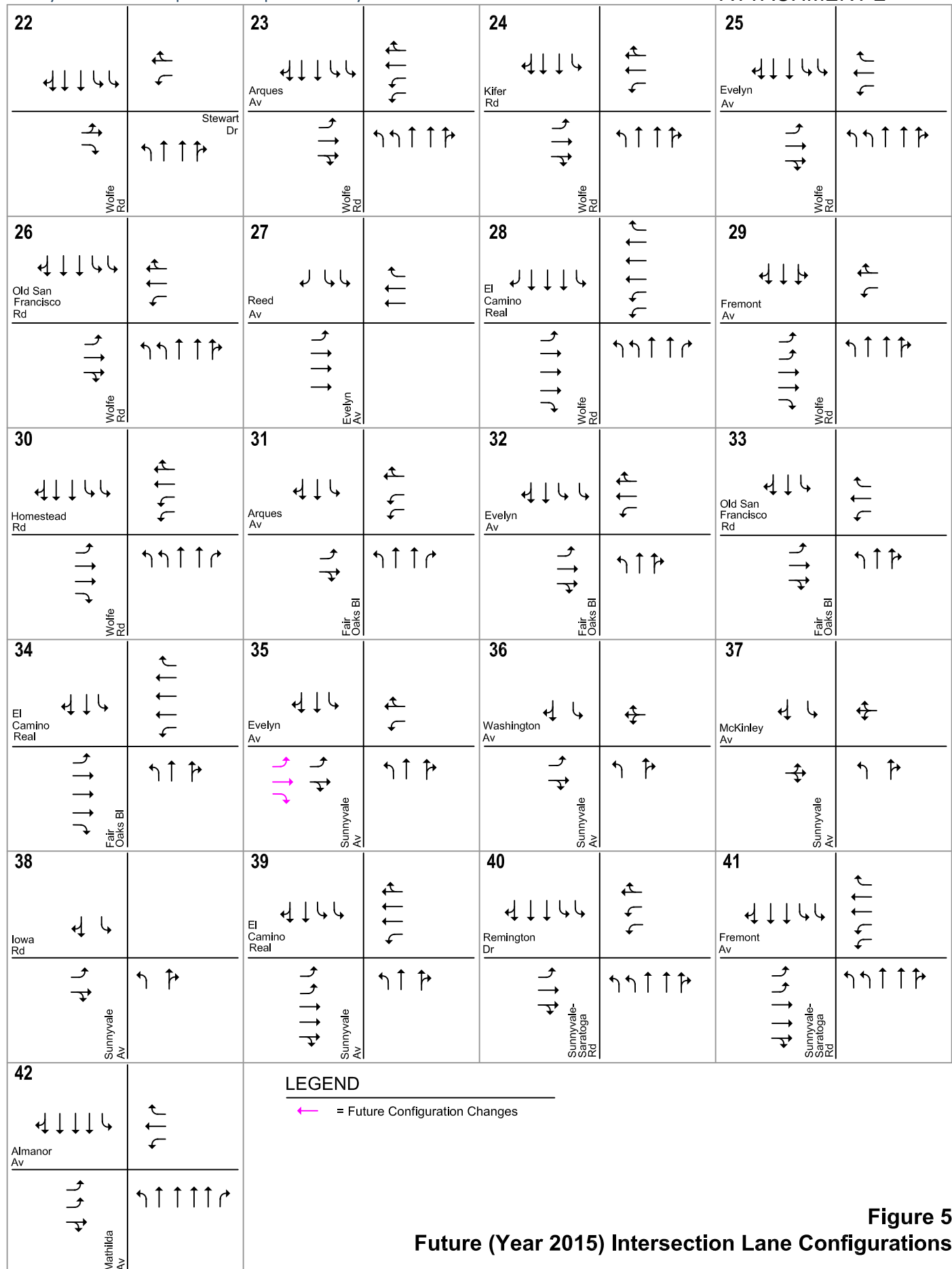
Of the intersections that would operate unacceptably under future conditions, the following intersections are already operating at unacceptable levels of service under existing conditions. Therefore, any improvements planned to address traffic operations at these intersections cannot be completely funded by future developments. These intersections are listed below and shown on Figure 6:

- Lawrence Expressway & Arques Avenue
- Lawrence Expressway & Kifer Road
- Lawrence Expressway & Reed Avenue/Monroe Street

The intersections of Mathilda Avenue/SR 237 westbound ramps, and Mathilda Avenue/SR 237 eastbound ramps are closely-spaced intersections with multiple turning movements that operate as a single coordinated signal system. These intersections experience operational issues beyond what is reflected in the typical HCM level of service calculations. The tight intersection spacing, high conflicting traffic volumes within the limited weave points, and lack of vehicular storage between intersections would continue to cause excessive delays and low travel speeds throughout the corridor under future conditions. Therefore, under future conditions, it is assumed that the intersections at the Mathilda/SR 237 interchange would operate at LOS F.

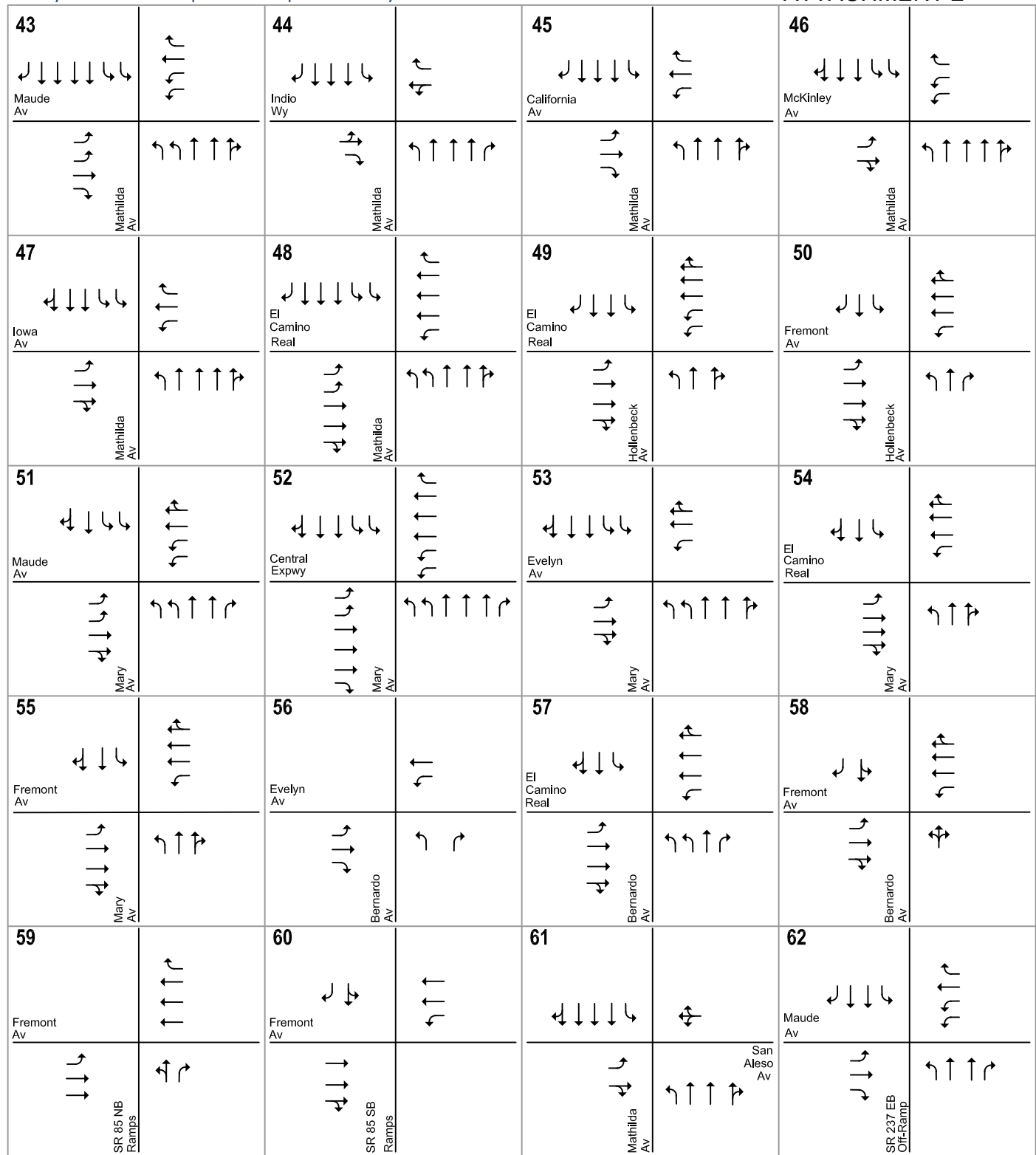


**Figure 5**  
**Future (Year 2015) Intersection Lane Configurations**



**Figure 5**  
**Future (Year 2015) Intersection Lane Configurations**

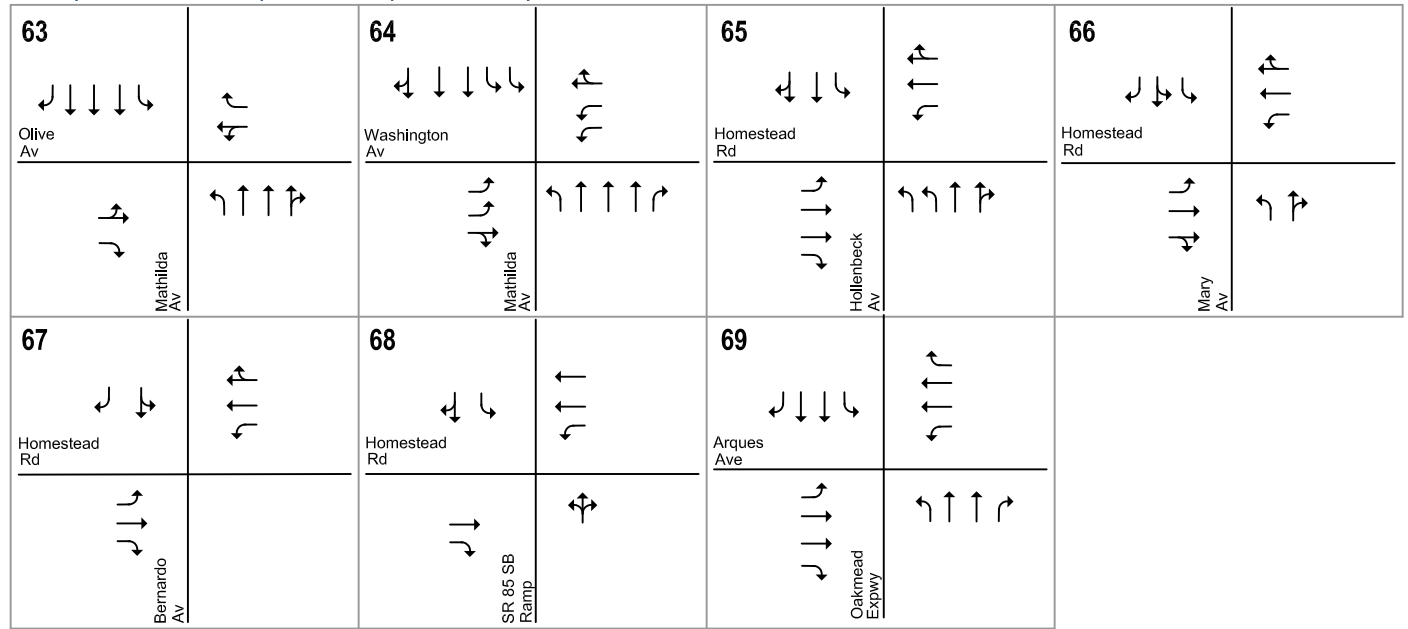




## LEGEND

= Future Configuration Changes

**Figure 5**  
**Future (Year 2015) Intersection Lane Configurations**



LEGEND

= Future Configuration Changes

**Figure 5**  
**Future (Year 2015) Intersection Lane Configurations**



**Table 4**  
**Future Conditions Intersection Levels of Service**

#	Intersection	CMP	Peak Hour	Count Date	LOS Std.	Existing		Future Conditions	
						Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
1	Mathilda Ave & Java Dr	*	AM PM	01/00/15 10/01/14	E	26.6 28.0	C C	29.1 31.5	C C
2	Mathilda Ave & 5th Ave	+	AM PM	06/04/15 06/04/15	E	13.5 22.1	B C+	15.4 26.1	B C
3	Mathilda Ave & Innovation Way	+	AM PM	06/04/15 06/04/15	E	18.5 19.8	B- B-	18.8 32.4	B- C-
4	Mathilda Ave & SR 237 WB <sup>1</sup>	+	AM PM	06/04/15 06/04/15	E	- -	E E	- -	<b>F</b> <b>F</b>
5	Mathilda Ave & SR 237 EB <sup>1</sup>	+	AM PM	06/04/15 06/04/15	E	- -	E E	- -	<b>F</b> <b>F</b>
6	Crossman Ave & Caribbean Dr	+	AM PM	05/14/15 05/14/15	E	10.3 36.0	B+ D+	12.7 21.1	B C+
7	Crossman Ave & Java Dr		AM PM	11/00/14 11/00/14	D	17.0 29.4	B C	19.9 <b>93.6</b>	B- <b>F</b>
8	Fair Oaks Ave & Tasman Dr		AM PM	06/04/15 06/04/15	D	17.1 19.4	B B-	22.0 36.6	C+ D+
9	Fair Oaks Ave & Weddell Dr		AM PM	06/04/15 06/04/15	D	19.0 13.8	B- B	25.0 12.3	C B
10	N Fair Oaks Ave & US 101 NB		AM PM	10/00/14 10/00/14	D	16.5 21.0	B C+	36.9 37.8	D+ D+
11	Lawrence Expwy & Tasman Dr	*	AM PM	05/18/15 05/18/15	E	40.2 64.8	D E	<b>102.3</b> <b>123.6</b>	<b>F</b> <b>F</b>
12	Lawrence Expwy & Lakehaven Dr	+	AM PM	05/18/15 05/18/15	E	59.6 63.5	E+ E	<b>109.9</b> <b>169.8</b>	<b>F</b> <b>F</b>
13	Lawrence Expwy & US 101 NB	+	AM PM	05/22/15 05/22/15	E	21.7 24.4	C+ C	64.8 27.7	E C
14	Lawrence Expwy & US 101 SB	+	AM PM	05/18/15 05/18/15	E	15.1 43.1	B D	18.8 36.9	B- D+
15	Lawrence Expwy & Oakmead Pkwy	+	AM PM	05/18/15 05/18/15	E	48.7 57.5	D E+	<b>163.1</b> <b>160.4</b>	<b>F</b> <b>F</b>
16	Lawrence Expwy & Arques Ave	*	AM PM	05/18/15 05/18/15	E	66.6 <b>95.5</b>	E <b>F</b>	<b>158.9</b> <b>181.9</b>	<b>F</b> <b>F</b>
17	Lawrence Expwy & Kifer Rd	+	AM PM	05/18/15 05/18/15	E	<b>168.2</b> <b>81.0</b>	<b>F</b> <b>F</b>	<b>295.1</b> <b>257.7</b>	<b>F</b> <b>F</b>
18	Lawrence Expwy & Reed Ave/Monroe St	*	AM PM	05/18/15 05/18/15	E	<b>203.1</b> <b>86.5</b>	<b>F</b> <b>F</b>	<b>304.0</b> <b>149.7</b>	<b>F</b> <b>F</b>

**Notes:**

\* Denotes CMP intersection (LOS E threshold)

+ Denotes an intersection on a CMP roadway (LOS E threshold)

calculations. The tight intersection spacing, high conflicting traffic volumes within the limited weave points, and lack of vehicular storage between intersections would continue to cause excessive delays and low travel speeds throughout the corridor under future conditions. Therefore, under future conditions, it is assumed that the intersections at the Mathilda/SR 237 interchange would operate at LOS F.

**BOLD** indicates a substandard level of service

**Table 4 (Continued)**  
**Future Conditions Intersection Levels of Service**

#	Intersection	CMP	Peak Hour	Count Date	LOS Std.	Existing		Future Conditions	
						Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
19	Duane/Stewart & Duane Ave		AM	10/00/14	D	31.4	C	<b>63.7</b>	<b>E</b>
			PM	10/00/14		30.6	C	32.6	C-
20	N Fair Oaks Ave & Duane Ave		AM	10/00/14	D	26.3	C	37.4	D+
			PM	10/00/14		32.1	C-	52.3	D-
21	Fair Oaks Ave & Maude Ave <sup>1</sup>		AM	N/A	D	28.6	C	33.3	C-
			PM	N/A		28.5	C	36.1	D+
22	Wolfe Rd & Stewart Dr		AM	10/00/14	D	16.1	B	27.0	C
			PM	10/00/14		19.1	B-	25.4	C
23	Wolfe Rd & Arques Ave		AM	10/00/14	D	24.8	C	<b>70.6</b>	<b>E</b>
			PM	10/00/14		28.4	C	43.1	D
24	Wolfe Rd & Kifer Rd		AM	05/00/14	D	21.1	C+	<b>83.2</b>	<b>F</b>
			PM	05/00/14		26.8	C	<b>101.5</b>	<b>F</b>
25	Wolfe Rd & Evelyn Ave		AM	05/00/14	D	26.0	C	42.8	D
			PM	05/00/14		24.6	C	49.6	D
26	Wolfe Rd & Reed Ave		AM	05/00/14	D	28.8	C	53.9	D-
			PM	05/00/14		28.8	C	48.4	D
27	Evelyn Ave & Reed Ave		AM	05/14/15	D	10.8	B+	11.9	B+
			PM	05/14/15		18.9	B-	18.0	B
28	Wolfe Rd & El Camino Real	*	AM	05/00/14	E	49.8	D	61.2	E
			PM	09/19/14		55.1	E+	77.0	E-
29	Wolfe Rd & Fremont Ave		AM	05/00/14	D	48.9	D	<b>61.9</b>	<b>E</b>
			PM	05/00/14		49.8	D	<b>91.7</b>	<b>F</b>
30	Wolfe Rd & Homestead Rd		AM	05/00/14	D	30.9	C	34.0	C-
			PM	05/00/14		31.9	C	42.9	D
31	Fair Oaks Ave & Arques Ave		AM	05/14/15	D	29.7	C	<b>105.4</b>	<b>F</b>
			PM	05/14/15		34.4	C-	<b>80.3</b>	<b>F</b>
32	N Fair Oaks Ave & Evelyn Ave		AM	05/14/15	D	28.1	C	31.2	C
			PM	05/14/15		26.7	C	30.8	C
33	N Fair Oaks Ave & Old San Francisco		AM	05/14/15	D	35.4	D+	43.2	D
			PM	05/14/15		36.7	D+	47.3	D
34	Fair Oaks Ave & El Camino Real	*	AM	05/00/14	E	34.9	C-	46.4	D
			PM	10/15/14		39.3	D	<b>118.9</b>	<b>F</b>
35	Sunnyvale Ave & Evelyn Ave	+	AM	05/14/15	E	24.6	C	34.0	C-
			PM	05/14/15		27.9	C	30.7	C
36	Sunnyvale Ave & Washington Ave	+	AM	05/14/15	E	17.7	B	12.7	B
			PM	05/14/15		20.3	C+	24.3	C

**Notes:**

\* Denotes CMP intersection (LOS E threshold)

+ Denotes an intersection on a CMP roadway (LOS E threshold)

1. Existing volumes for the Fair Oaks/Maude intersection is extrapolated based on 2013 counts.

**BOLD** indicates a substandard level of service

**Table 4 (Continued)**  
**Future Conditions Intersection Levels of Service**

#	Intersection	CMP	Peak Hour	Count Date	LOS Std.	Existing		Future Conditions	
						Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
37	Sunnyvale Ave & McKinley Ave	+	AM	05/14/15	E	15.3	B	23.1	C
			PM	05/14/15		15.8	B	48.2	D
38	Sunnyvale Ave & Iowa Ave	+	AM	05/14/15	E	12.8	B	13.6	B
			PM	05/14/15		16.0	B	17.4	B
39	Sunnyvale Ave & El Camino Real	+	AM	05/14/15	E	23.3	C	30.2	C
			PM	05/14/15		30.0	C	50.2	D
40	Sunnyvale-Saratoga Rd & Remington Dr	*	AM	05/14/15	E	42.2	D	<b>95.6</b>	<b>F</b>
			PM	09/19/14		45.8	D	<b>121.4</b>	<b>F</b>
41	Sunnyvale-Saratoga Rd & Fremont Ave	*	AM	05/00/14	E	34.7	C-	42.4	D
			PM	10/01/14		45.7	D	62.9	E
42	Mathilda Ave & Almanor Ave	+	AM	06/04/15	E	17.1	B	32.3	C-
			PM	06/04/15		27.1	C	34.8	C-
43	Mathilda Ave & Maude Ave	*	AM	06/04/15	E	39.0	D+	42.8	D
			PM	09/18/14		40.4	D	54.3	D-
44	Mathilda Ave & Indio Way	+	AM	06/04/15	E	24.5	C	37.4	D+
			PM	06/04/15		24.9	C	33.9	C-
45	Mathilda Ave & California	+	AM	06/04/15	E	19.9	B-	37.8	D+
			PM	06/04/15		25.3	C	46.8	D
46	Mathilda Ave & McKinley Ave	+	AM	06/04/15	E	15.1	B	20.2	C+
			PM	06/04/15		16.4	B	22.5	C+
47	Mathilda Ave & Iowa Ave	+	AM	06/04/15	E	13.1	B	14.6	B
			PM	06/04/15		16.7	B	28.9	C
48	Mathilda Ave & El Camino Real	*	AM	06/04/15	E	44.0	D	68.7	E
			PM	09/18/14		48.4	D	<b>92.6</b>	<b>F</b>
49	Hollenbeck Ave & El Camino Real	+	AM	05/14/15	E	27.9	C	42.3	D
			PM	05/14/15		28.9	C	<b>93.2</b>	<b>F</b>
50	Hollenbeck Ave & Fremont Ave		AM	05/00/14	D	34.6	C-	43.8	D
			PM	05/00/14		36.7	D+	42.9	D
51	Mary Ave & Maude Ave		AM	05/14/15	D	25.8	C	28.3	C
			PM	05/14/15		29.1	C	35.2	D+
52	Mary Ave & Central Expwy	*	AM	05/22/15	E	50.0	D	76.3	E-
			PM	05/22/15		61.6	E	<b>155.6</b>	<b>F</b>
53	Mary Ave & Evelyn Ave		AM	05/14/15	D	30.0	C	38.8	D+
			PM	05/14/15		30.3	C	34.2	C-
54	Mary Ave & El Camino Real	*	AM	05/14/15	E	37.3	D+	43.2	D
			PM	09/19/14		37.8	D+	54.4	D-

**Notes:**  
 \* Denotes CMP intersection (LOS E threshold)  
 + Denotes an intersection on a CMP roadway (LOS E threshold)  
**BOLD** indicates a substandard level of service

**Table 4 (Continued)**  
**Future Conditions Intersection Levels of Service**

#	Intersection	CMP	Peak Hour	Count Date	LOS Std.	Existing		Future Conditions	
						Avg. Delay (sec)	LOS	Avg. Delay (sec)	LOS
55	Mary Ave & Fremont Ave		AM	05/00/14	D	41.8	D	<b>62.8</b>	<b>E</b>
			PM	05/00/14		42.0	D	<b>90.0</b>	<b>F</b>
56	Bernardo Ave & Evelyn Ave		AM	05/12/15	D	24.3	C	25.7	C
			PM	05/12/15		19.0	B-	18.5	B-
57	Bernardo Ave & El Camino Real	+	AM	05/14/15	E	40.1	D	42.6	D
			PM	05/14/15		35.6	D+	46.0	D
58	Bernardo Ave & Fremont Ave		AM	05/00/14	D	26.6	C	31.9	C
			PM	05/00/14		22.6	C+	25.4	C
59	SR 85 NB & Fremont Ave		AM	05/00/14	D	30.3	C	<b>62.2</b>	<b>E</b>
			PM	05/00/14		26.6	C	30.8	C
60	SR 85 SB & Fremont Ave		AM	05/00/14	D	37.5	D+	<b>84.4</b>	<b>F</b>
			PM	05/00/14		31.6	C	<b>204.2</b>	<b>F</b>
61	Mathilda Ave & San Aleso Ave	+	AM	06/04/15	E	12.6	B	15.2	B
			PM	06/04/15		17.3	B	30.2	C
62	SR 237 Service Road & Maude Ave		AM	09/15/15	D	29.2	C	33.2	C-
			PM	09/15/15		34.7	C-	41.0	D
63	Mathilda Ave & Olive Ave	+	AM	06/04/15	E	13.7	B	21.3	C+
			PM	06/04/15		16.9	B	31.1	C
64	Mathilda Ave & Washington Avenue	+	AM	06/04/15	E	32.2	C-	52.4	D-
			PM	06/04/15		32.0	C-	49.4	D
65	Hollenbeck Avenue & Homestead Road		AM	09/15/15	D	32.7	C-	34.3	C-
			PM	09/15/15		35.5	D+	40.2	D
66	Mary Ave & Homestead Road		AM	09/15/15	D	25.5	C	26.1	C
			PM	09/15/15		24.8	C	29.2	C
67	Bernardo Avenue & Homestead Road		AM	09/15/15	D	15.5	B	17.6	B
			PM	09/15/15		13.7	B	14.5	B
68	SR 85 SB Ramp & Homestead Road		AM	09/15/15	D	15.4	B	32.6	C-
			PM	09/15/15		18.0	B	28.2	C
69	Oakmead Pkwy & Arques Ave		AM	09/15/15	D	21.2	C+	39.4	D
			PM	09/15/15		23.9	C	26.2	C

**Notes:**  
 \* Denotes CMP intersection (LOS E threshold)  
 + Denotes an intersection on a CMP roadway (LOS E threshold)  
**BOLD** indicates a substandard level of service

## 4. **Recommended Roadway Improvements**

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This chapter identifies the roadway and intersection improvements that would be necessary to maintain acceptable transportation conditions, as defined by current level of service policy, with buildout of the planned future land uses. The improvements to be funded by the Traffic Impact Fee is shown on Tables 5 and 6, and discussed in detail below. Improvement project costs are taken from the Santa Clara County Expressway Plan, Valley Transportation Plan 2040, as available. Improvement project costs for the remaining projects were provided by City staff or estimated by Hexagon.



**Table 5**  
**Recommended Roadway Improvements**

Improvement	Total Cost	Funding Sources			Sunnyvale Funding Attributable to Future Growth		
		% External Funding	External Contribution	City Contribution	% Responsibility	Note	Traffic Impact Fee
<b><u>Expressway Improvements</u></b>							
Mary/Central Intersection add 3rd westbound left-turn lane <sup>1</sup>	\$ 1,500,000	80%	\$ 1,200,000	\$ 300,000	100%		\$ 300,000
Lawrence Grade Separations at Reed/Monroe, Kifer, and Arques <sup>2</sup>	\$ 440,000,000	90%	\$ 396,000,000	\$ 44,000,000	30%	<sup>6</sup>	\$ 13,200,000
Lawrence/Oakmead Grade Separation <sup>1</sup>	\$ 60,000,000	80%	\$ 48,000,000	\$ 12,000,000	100%		\$ 12,000,000
Lawrence/Lakewood Intersection Signalization <sup>4</sup>	\$ 5,800,000	50%	\$ 2,900,000	\$ 2,900,000	100%		\$ 2,900,000
Lawrence/Tasman Depress LRT under intersection <sup>1</sup>	\$ 23,600,000	80%	\$ 18,880,000	\$ 4,720,000	100%		\$ 4,720,000
<b><u>Mathilda Corridor Improvements</u></b>							
Mathilda/SR237, Mathilda/US 101 Interchange Reconfiguration <sup>1</sup>	\$ 40,000,000	80%	\$ 32,000,000	\$ 8,000,000	100%		\$ 8,000,000
Mary Avenue Extension <sup>3</sup>	\$ 78,000,000	70%	\$ 54,600,000	\$ 23,400,000	100%		\$ 23,400,000
<b><u>Citywide Intersection Improvements</u></b>							
Caltrain Grade Separation at Mary Avenue and at Sunnyvale Avenue <sup>1</sup>	\$ 180,000,000	80%	\$ 144,000,000	\$ 36,000,000	40%	<sup>7</sup>	\$ 14,400,000
ITS projects (including Mathilda Avenue) <sup>4</sup>	\$ 20,000,000	50%	\$ 10,000,000	\$ 10,000,000	100%		\$ 10,000,000
Future Traffic Signal Construction <sup>5</sup>	\$ 10,000,000	20%	\$ 2,000,000	\$ 8,000,000	100%		\$ 8,000,000
Intersection Improvements <sup>5</sup>	\$ 13,000,000	20%	\$ 2,600,000	\$ 10,400,000	100%		\$ 10,400,000
<b><u>Bicycle and Pedestrian Facilities</u></b>							
Complete Bike Network <sup>4</sup>	\$ 10,000,000	50%	\$ 5,000,000	\$ 5,000,000	100%		\$ 5,000,000
Bernardo/Caltrain Bike-Ped Undercrossing <sup>1</sup>	\$ 9,400,000	80%	\$ 7,520,000	\$ 1,880,000	100%		\$ 1,880,000
Complete Sidewalks	\$ 9,800,000	0%	\$ -	\$ 9,800,000	100%		\$ 9,800,000
Pedestrian Facility Improvements <sup>4</sup>	\$ 5,000,000	50%	\$ 2,500,000	\$ 2,500,000	100%		\$ 2,500,000
				<b>Total Cost</b>			<b>\$ 126,500,000</b>
<b><u>Notes:</u></b>							
1. The City of Sunnyvale will contribute 20% towards the identified regional projects.							
2. The City of Sunnyvale will contribute 10% towards the identified Lawrence Expressway grade separation projects.							
3. The City of Sunnyvale will contribute 30% towards the cost for the Mary Avenue extension project.							
4. The City of Sunnyvale will contribute 50% towards the cost for the the Lawrence/Lakewood intersection signalization, City-wide ITS projects and City-wide pedestrian and bicycle improvements.							
5. The City of Sunnyvale will contribute 80% towards the cost for the City-wide intersection improvements.							
6. These three intersections are operating at an unacceptable LOS F under existing conditions. Therefore, new development fair share equals traffic added by new developments. Based on the Sunnyvale Travel Demand Forecast Model, new development added traffic would be approximately 32% of future traffic volume at these three intersections.							
7. The Caltrain Grade Separation projects are designed to address existing issues. Therefore, new development fair share equals traffic added by new developments on the north legs of the two intersections (the leg affected by Caltrain). Based on the Sunnyvale Travel Demand Forecast Model, new developments added traffic at the north legs of the two intersections would be approximately 40% of future traffic volume at the north legs.							

**Table 6**  
**Recommended Intersection Improvement Cost Breakdown**

Intersection	Improvement	Estimated Cost <sup>1</sup>
Duane/Stewart & Duane Ave	Widen westbound to include two right-turn lanes, one shared through-left lane and one left-turn lane	\$ 700,000
Wolfe Rd & Arques Ave	Restripe northbound to include one left-turn lane, two through lanes, and two right-turn lanes	\$ 100,000
Wolfe Rd & Kifer Rd	Widen intersection to accommodate two left-turn lanes on all approaches	\$ 2,800,000
Wolfe Rd & Fremont Ave	Mitigation measure from Wolfe Road traffic study	\$ 5,500,000
Fair Oaks Ave & Arques Ave	Widen eastbound to include a dedicated right-turn lane	\$ 300,000
Fair Oaks Ave & El Camino Real	Widen eastbound and westbound to include a second left-turn lane	\$ 2,100,000
Sunnyvale-Saratoga Rd & Remington Dr	Widen northbound and westbound to include a dedicated right-turn lane	\$ 600,000
Hollenbeck Ave & El Camino Real	Restripe southbound to include two left-turn, one through, and one shared through-right lane	\$ 100,000
SR 85 Northbound Ramps & Fremont Ave	Modify the SR 85 northbound off-ramp	\$ 200,000
SR 85 Southbound Ramps & Fremont Ave	Modify the SR 85 southbound off-ramp	\$ 200,000
<b>Total Cost (rounded to the nearest million)</b>		<b>\$ 13,000,000</b>
<b>Notes:</b>		
1. Cost estimates were based on Year 2015 economic conditions with a 40% contingency included.		

## Expressway Improvements

As shown in Table 4 above in Chapter 3, seven expressway intersections are forecast to operate at unacceptable levels of service by City standards under future conditions. The discussion below identifies the needed improvements at these intersections.

### Lawrence Expressway & Tasman Drive (#11)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The August 2015 update of the *County of Santa Clara Expressway Plan 2040* identified a Tier 3 project to depress the light rail tracks under the intersection. At the time of this report, there are no finalized plans for this improvement. It is assumed that the finalized reconfiguration plan would restore intersection operations to an acceptable level of service.

**Responsibility:** It is assumed that 80% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 20% towards the improvement funding. Since this intersection is operating at acceptable levels of service under existing conditions, future developments within Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share.

### Lawrence Expressway & Lakehaven Drive (#12)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** To restore intersection levels of service to acceptable levels, the required at-grade improvement would displace homes and businesses. The County of Santa Clara, which has jurisdiction over the intersection, currently has no plans to grade-separate this intersection. This intersection currently experiences long queues in the northbound left turn lane, which is partially caused by vehicles entering Lawrence Expressway from Bridgewood Way. The traffic consists of local residents and visitors from the Mercado Shopping Center on Wildwood Avenue. Since these vehicles cannot make a left turn directly onto Lawrence Expressway from Bridgewood Way, vehicles wishing to proceed southbound on Lawrence Expressway must turn right and make a U-turn at the intersection of Lawrence Expressway and Lakehaven Drive/Sandia Avenue, contributing to the long queues in the left turn lane. While currently manageable, the queue is expected to grow to unacceptable levels in the future due to expected growth in the area. Therefore, Sunnyvale plans to convert the Lawrence Expressway/Bridgewood Way intersection into a signalized four-way intersection. This will make it possible to make a left turn directly from Bridgewood Way onto Lawrence Expressway. It is expected that the signal at Bridgewood Way would partially improve the intersection operations at the Lakehaven Drive intersection.

**Responsibility:** It is assumed that 50% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 50% towards the improvement funding. Since this intersection is operating at acceptable levels of service under existing conditions, future developments within Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share.

### Lawrence Expressway & Oakmead Parkway (#15)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The August 2015 update of the *County of Santa Clara Expressway Plan 2040* identified a Tier 3 project to grade separate this intersection. At the time of this report, there are no finalized plans for this improvement. It is assumed that the finalized reconfiguration plan would restore intersection operations to an acceptable level of service.

**Responsibility:** It is assumed that 80% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 20% towards the improvement funding. Since this intersection is operating at acceptable levels of service under existing conditions, future developments within Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share.

### Lawrence Expressway & Arques Avenue (#16)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The August 2015 update of the *County of Santa Clara Expressway Plan 2040* identified a Tier 1 project to grade separate this intersection. At the time of this report, there are no finalized plans for this improvement. It is assumed that the finalized reconfiguration plan would restore intersection operations to an acceptable level of service.

**Responsibility:** It is assumed that 90% of the funding for this improvement would come from external sources such as federal/state grants. It is expected that the City of Sunnyvale would contribute 10% towards the improvement funding. Since this intersection is operating at unacceptable levels of service under existing conditions, the identified improvement cannot be fully funded by future developments. A select link analysis in the STFM determined that 32% of the total traffic at this intersection is generated by future developments within the City of Sunnyvale. Therefore, future developments would be responsible for 32% of Sunnyvale's share.

### Lawrence Expressway & Kifer Road (#17)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The August 2015 update of the *County of Santa Clara Expressway Plan 2040* identified a Tier 1 project to grade separate this intersection. At the time of this report, there are no finalized plans for this improvement. It is assumed that the finalized reconfiguration plan would restore intersection operations to an acceptable level of service.

**Responsibility:** It is assumed that 90% of the funding for this improvement would come from external sources such as federal/state grants. It is expected that the City of Sunnyvale would contribute 10% towards the improvement funding. Since this intersection is operating at unacceptable levels of service under existing conditions, the identified improvement cannot be fully funded by future developments. A select link analysis in the STFM determined that 32% of the total traffic at this intersection is generated by future developments within the City of Sunnyvale. Therefore, future developments would be responsible for 32% of Sunnyvale's share.

### Lawrence Expressway & Reed Avenue/Monroe Street (#18)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The August 2015 update of the *County of Santa Clara Expressway Plan 2040* identified a Tier 1 project to grade separate this intersection. At the time of this report, there are no finalized plans for this improvement. It is assumed that the finalized reconfiguration plan would restore intersection operations to an acceptable level of service.

**Responsibility:** It is assumed that 90% of the funding for this improvement would come from external sources such as federal/state grants. It is expected that the City of Sunnyvale would contribute 10% towards the improvement funding. Since this intersection is operating at unacceptable levels of service under existing conditions, the identified improvement cannot be fully funded by future developments. A select link analysis in the STFM determined that 32% of the total traffic at this intersection is generated by future developments within the City of Sunnyvale. Therefore, future developments would be responsible for 32% of Sunnyvale's share.

### Mary Avenue & Central Expressway (#52)

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during the PM peak hour. The needed improvement is discussed below:

**Improvement:** The August 2015 update of the *County of Santa Clara Expressway Plan 2040* identified a Tier 3 project to install a third westbound left-turn lane on Central Expressway. This improvement would partially improve the intersection operations under future conditions.

**Responsibility:** It is assumed that 80% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 20% towards the improvement funding. Since this intersection is operating at acceptable levels of service under existing conditions, future developments within Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share.

## Intersection Improvements

### Improvements at Intersections with Unacceptable LOS

As shown in Table 4 above in Chapter 3, 15 intersections are forecast to operate at unacceptable levels of service by City standards under future conditions. No feasible improvements are identified for the following two intersections:

- Mathilda Avenue & El Camino Real (#48)
- Mary Avenue & Fremont Avenue (#55)

The discussion below identifies the needed improvements at the remaining 13 intersections. The City of Sunnyvale routinely gets grants to improve intersection operations. It is assumed that, in general, the City of Sunnyvale would be able to receive grants to cover 20% of the cost of the intersection improvements listed below. The City of Sunnyvale expects to contribute 80% towards the improvement funding. All the intersections needing improvements below are operating at acceptable levels of service under existing conditions (see Table 2). Therefore, future developments within the City of Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share. The improvement funding contributions for the Mathilda Avenue and SR 237 ramps are different and are described in detail below.

#### **Mathilda Avenue & SR 237 Ramps**

Under future conditions, the intersections at the Mathilda Avenue and SR 237 ramps are forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The Valley Transportation Plan 2040 identifies a project to reconstruct the Mathilda/US 101 and Mathilda/SR 237 interchange area (VTP ID: H33). The identified project is expected to help alleviate traffic congestion along Mathilda Avenue at the SR 237 interchanges.

The recently adopted 2035 Land Use and Transportation Element (LUTE) includes extending Mary Avenue from its current terminus at Almanor Avenue over the SR 237/US 101 interchange to connect with Enterprise Way in the Moffett Park business area. It is anticipated that the Mary Avenue extension would divert a portion of the Moffett Park traffic from Mathilda Avenue to Mary Avenue, thus helping alleviate the traffic congestion along Mathilda Avenue at the US 101 and SR 237 interchanges.

**Responsibility:** It is assumed that 80% of the funding for the Mathilda interchange reconfiguration project and 70% of the funding for the Mary Avenue extension project would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 20% towards the Mathilda interchange reconfiguration improvement funding and 30% towards the Mary Avenue extension improvement funding. Since the intersections are operating at acceptable levels of service under existing conditions, future developments within Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share.



**Crossman Avenue & Java Drive (#7)**

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during the PM peak hour. The unacceptable LOS F is mainly due to traffic avoiding using Mathilda Avenue to exit the Moffett Park area. It is expected that the above mentioned Mathilda Avenue/US 101/SR 237 interchange reconfiguration project, as well as the Mary Avenue extension project, would improve vehicle circulation along Mathilda Avenue and keep the diverted traffic on Mathilda Avenue. As a result, it is expected that the Mathilda interchange reconfiguration project and the Mary Avenue extension project would restore intersection operations at Crossman Avenue and Java Drive to acceptable conditions. Intersection improvements are thus not needed at the intersection of Crossman Avenue and Java Drive.

**Duane Avenue/Stewart Drive & Duane Avenue (#19)**

Under future conditions, this intersection is forecast to operate at an unacceptable LOS E during the AM peak hour. The needed improvement is discussed below:

**Improvement:** The westbound leg would require restriping to include one left-turn lane, one shared through-right lane, and two right-turn lanes. Right-of-way acquisition would be required. This improvement would restore intersection operations to acceptable levels of service under future conditions.

**Wolfe Road & Arques Avenue (#23)**

Under future conditions, this intersection is forecast to operate at an unacceptable LOS E during the AM peak hour. The needed improvement is discussed below:

**Improvement:** The westbound leg would require restriping to include one left-turn lane, one shared through-right lane, and one right-turn lane. Alternatively, the intersection could be converted to a two-lane roundabout. Right-of-way acquisition would be required with either improvement option. This improvement would restore intersection operations to acceptable levels of service under future conditions.

**Wolfe Road & Kifer Road (#24)**

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** This intersection would require widening on all approaches to accommodate two left-turn lanes. Right-of-way acquisition would be required. This improvement would restore intersection operations to acceptable levels of service under future conditions.

**Wolfe Road & Fremont Avenue (#29)**

Under future conditions, this intersection is forecast to operate at an unacceptable LOS E during the AM peak hour and at an unacceptable LOS F during the PM peak hour. The needed improvement is discussed below:

**Improvement:** According to the *Wolfe Road Corridor Traffic Improvement Study*, prepared by Kimley Horn, dated February 2016, Wolfe Road between Homestead Road and El Camino Real is recommended for multimodal improvements to improve vehicle operations as well as bicycle and pedestrian facilities. At the time of this report, the multimodal improvements have not been finalized. Potential improvement alternatives include removal of on-street parking along Wolfe Road to improve bicycle facilities, narrowing Wolfe Road to two lanes in each direction, modifying and coordinating the signals on Wolfe Road at the El Camino Real intersection and Fremont intersection, and constructing a new signalized intersection at Fremont Avenue and El Camino Real. It is assumed that the implementation of the Wolfe corridor multimodal improvements would restore intersection operations at Wolfe Road and Fremont Avenue to acceptable levels of service. The cost estimate for the Wolfe Road and Fremont Avenue improvement assumes the highest cost alternative identified in the traffic improvement study.

**Fair Oaks Avenue & Arques Avenue (#31)**

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The eastbound leg would require widening to include one left-turn lane, one through lane, and one dedicated right-turn lane. This improvement would not require additional right-of-way acquisition. This improvement would partially improve the intersection operations under future conditions.

**Fair Oaks Avenue & El Camino Real (#34)**

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during the PM peak hour. The needed improvement is discussed below:

**Improvement:** The eastbound and westbound legs would require widening to include two left-turn lanes. Right-of-way acquisition would be required for this improvement. This improvement would restore intersection operations to acceptable levels of service under future conditions.

**Sunnyvale-Saratoga Road & Remington Drive (#40)**

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The northbound and westbound legs would require widening to include two left-turn lanes. Right-of-way acquisition would be required for this improvement. This improvement would restore intersection operations to acceptable levels of service under future conditions during only the AM peak hour. During the PM peak hour under future conditions, this improvement would partially improve the intersection operations.



**Hollenbeck Avenue & El Camino Real (#49)**

Under future conditions, this intersection is forecast to operate at an unacceptable LOS F during the PM peak hour. The needed improvement is discussed below:

**Improvement:** The southbound leg would require restriping to include two left-turn lanes, one through lane, and one shared through-right lane. No right-of-way acquisition would be required. This improvement would restore intersection operations to acceptable levels of service under future conditions.

**SR 85 & Fremont Avenue (#59, 60)**

Under future conditions, the intersection at SR 85 northbound ramps and Fremont Avenue is forecast to operate at an unacceptable LOS E during the AM peak hour. The intersection at SR 85 southbound ramps and Fremont Avenue is forecast to operate at an unacceptable LOS F during both the AM and PM peak hours. The needed improvement is discussed below:

**Improvement:** The SR 85 northbound off-ramp would require widening to restore intersection operations to acceptable levels of service. No right-of-way acquisition would be required. The SR 85 southbound off-ramp would require restriping to partially restore intersection operations to acceptable levels of service.

**Caltrain Grade Separations**

The City of Sunnyvale currently has two at-grade crossings with the Caltrain railroad: at Mary Avenue and at Sunnyvale Avenue. During the AM and PM peak hours, there are frequent train services requiring frequent interruptions to vehicular circulation. Future developments would generate more traffic on both Mary Avenue and Sunnyvale Avenue that would result in longer delays during train crossings. To prevent potential capacity issues on both roadways, both roadways would need to be grade separated from the Caltrain railroad.

**Responsibility:** It is assumed that 80% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 20% towards the improvement funding. Since the Caltrain grade separations are designed to address existing issues, the identified improvements cannot be fully funded by future developments. A select link analysis in the STFM determined that 40% of the total traffic on the north legs (affected legs) of both roadways is generated by future developments within the City of Sunnyvale. Therefore, future developments would be responsible for 40% of Sunnyvale's funding share.

## Intelligent Transportation System (ITS) Projects

Intelligent Transportation Systems (ITS) are advanced technological applications aimed at better serving all modes of transportation. Examples of ITS projects include bicycle detection at signals, pedestrian detection at crosswalks, and corridor signal coordination. These improvements can smooth traffic flow and reduce delays. It is anticipated that future developments would generate increased traffic volumes along major roadway corridors (i.e. Mathilda Avenue, El Camino Real), and would generate increased pedestrian and bicycle activities at intersections. Not all of the intersections that would be made deficient by future development can be improved through widening. ITS projects would be needed to ensure adequate vehicular circulation and ensure pedestrian and bicycle safety while crossing roadways.

**Responsibility:** It is assumed that 20% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 80% towards the improvement funding. Because this improvement is needed as a result of increased traffic, pedestrian and bicycle volumes from future developments, future developments within the City of Sunnyvale would be required to contribute 100% towards the City of Sunnyvale's funding share.

## New Signals and Signal Upgrades

The City currently has 128 signalized intersections. It is anticipated that additional intersections will be signalized through the term of this update. Additional traffic signals will be needed because of increases in traffic due to new or intensified development. It is not advisable to identify the precise locations warranting signalization in the future based on traffic forecasts derived from the model since the locations and intensity of development may vary from that assumed in the travel demand model. It is therefore recommended that the traffic fee reflect historical trends without specifying the exact intersections to be included in the fee program. In addition to the funding of new signals with the mitigation fee, development projects also may be required to install signals at locations where traffic signal warrants are met as a result of project generated traffic. It is also anticipated that traffic signal and signal system improvements will be required as traffic increases and the existing system ages.

**Responsibility:** It is assumed that 20% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 80% towards the improvement funding. Future developments within the City of Sunnyvale would be responsible for 100% of the cost of installing signals at locations that do not warrant signals today but would warrant signals, or modifications to existing signals, in the future. The cost estimate for constructing new signals and signal upgrades is based on the assumption that each new signalized intersection/signal upgrades would cost approximately \$500,000 and that one new signal/upgrade would be implemented annually until year 2035.

## Bicycle and Pedestrian Facilities

The recently adopted Land Use and Transportation Element (LUTE) establishes various policies to develop a transportation network that supports all modes of transportation. The LUTE uses transportation demand management (TDM) as a tool to reduce automobile trips and encourage alternative modes of transportation. The City has recently adopted TDM Program guidelines requiring development projects to implement TDM measures to achieve project-specific trip reductions. To effectively promote alternative modes of transportation, and help ensure that the development-specific TDM programs are effective, a safe and continuous bicycle and pedestrian network needs to be established.

Physical improvements are not possible at all intersections that would be made deficient by new development. To partially offset these deficiencies, which are caused by new development, Sunnyvale will invest in bicycle and sidewalk improvements. Future developments within the City of Sunnyvale will be responsible for 100% of the City's funding share for the improvements discussed below.

### Complete Bicycle Network and Pedestrian Facilities

The City of Sunnyvale *Bicycle Master Plan* identifies a list of bicycle improvements throughout the City of Sunnyvale. City's Public Works Department has also identified numerous locations where pedestrian sidewalks are discontinuous. To promote walking for short trips, existing pedestrian facilities would also require improvements to ensure pedestrians feel safe while walking. These improvements could include crosswalks, detached sidewalks, etc. The Traffic Impact Fee will be used for funding completion of the City's bicycle network, providing continuous pedestrian sidewalks, and improving existing pedestrian facilities. These improvements would be needed to create and maintain a safe and logical bikeways system and walkable community, which would help ensure the effectiveness of development-specific TDM programs.

**Responsibility:** It is assumed that 50% of the funding for completing the City's bicycle network and improving the City's existing pedestrian facilities would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 50% towards the improvement funding for these two projects. The City of Sunnyvale expects to contribute 100% towards the cost of completing the City's sidewalk network.

### Caltrain Bike/Ped Undercrossing at Bernardo Avenue

One of the major bicycle facility improvements identified in the Bicycle Master Plan is a pedestrian/bicycle undercrossing beneath the Caltrain tracks at Bernardo Avenue. According to the Bicycle Master Plan, an undercrossing at this location would provide an opportunity to shorten the bicycle commute distance and times for Sunnyvale residents working in nearby Mountain View workplaces. The undercrossing would encourage alternative modes of transportation and would help ensure the effectiveness of development-specific TDM programs.

**Responsibility:** It is assumed that 80% of the funding for this improvement would come from external sources such as federal/state grants. The City of Sunnyvale expects to contribute 20% towards the improvement funding.

## 5. Derivation of Traffic Impact Fee

To develop a traffic impact fee, it is necessary to first find the estimated cost of improvements per additional peak hour trip generated. The expected PM peak-hour trip growth to year 2035 was obtained from the Sunnyvale travel demand forecasting model (see Table 7). Following past planning practice in Sunnyvale, the growth in trips generated within the Moffett Park area was calculated separately from growth in trips in the remainder of the city.

**Table 7**  
**Peak-Hour Trip Growth**

	Growth in Peak-Hour Trips	
	Growth (trips)	% of Sunnyvale Growth
Moffett Park	4,134	11%
Remainder of Sunnyvale	32,713	89%
Total	36,847	100%

The model also allowed the determination of whether the need for transportation improvements is triggered by trip growth in the Moffett Park area or by trip growth in other parts of the city (see Table 8). The reason for separating out the Moffett Park growth is that because of the limited number of roads that serve the area, Moffett Park growth places a proportionately larger burden on the City's transportation system. The cost allocation percentages shown in Table 8 are based on the following:

- *Citywide Intersection Improvements and Bicycle/Pedestrian Facilities:* For these projects, the allocation used was based on the percentage share of peak-hour trip growth, as shown in Table 7.
- *Mathilda/US 101/SR 237 Complex and Mary Avenue extension:* The Sunnyvale travel demand forecasting model determined that 39% of the Sunnyvale trips that would use the improvements to the Mathilda/US 101/SR 237 complex, as well as the Mary Avenue extension, would be generated by growth in the Moffett Park area, so costs of those improvements were allocated accordingly.

- *Mary Avenue and Central Expressway Improvements:* The Sunnyvale travel demand forecasting model determined that 2% of the Sunnyvale trips at the intersection of Mary Avenue and Central Expressway would come from Moffett Park growth, so costs of those improvements were allocated accordingly.
- *Lawrence Expressway Improvements South of US 101:* The Sunnyvale travel demand forecasting model determined that 13% of the Sunnyvale trips along Lawrence Expressway south of US 101 would come from Moffett Park growth, so costs of those improvements were allocated accordingly.
- *Lawrence Expressway Improvements North of US 101:* The Sunnyvale travel demand forecasting model determined that 30% of the Sunnyvale trips along Lawrence Expressway north of US 101 would come from Moffett Park growth, so costs of those improvements were allocated accordingly.

The results of the cost allocation calculations show that growth in Moffett Park will necessitate about \$24.6 million in improvement costs, and growth in the remainder of the city will necessitate about \$101.9 million in improvement costs, as shown in Table 8.

**Table 8**  
**Cost Breakdown**

		Sunnyvale Traffic Impact Fee	Moffett Park		Remainder of Sunnyvale	
Improvement	Total Improvement Cost	Contribution	% Traffic	Cost	% Traffic	Cost
<u><b>Expressway Improvements</b></u>						
Mary/Central Intersection add 3rd westbound left-turn lane	\$ 1,500,000	\$ 300,000	2%	\$ 6,000	98%	\$ 294,000
Lawrence Grade Separations at Reed/Monroe, Kifer, and Arques	\$ 440,000,000	\$ 13,200,000	13%	\$ 1,716,000	87%	\$ 11,484,000
Lawrence/Oakmead Grade Separation	\$ 60,000,000	\$ 12,000,000	13%	\$ 1,560,000	87%	\$ 10,440,000
Lawrence/Lakewood Intersection Signalization	\$ 5,800,000	\$ 2,900,000	30%	\$ 870,000	70%	\$ 2,030,000
Lawrence/Tasman Depress LRT under intersection	\$ 23,600,000	\$ 4,720,000	30%	\$ 1,416,000	70%	\$ 3,304,000
<u><b>Mathilda Corridor Improvements</b></u>						
Mathilda/SR237, Mathilda/US 101 Interchange Reconfiguration	\$ 40,000,000	\$ 8,000,000	39%	\$ 3,120,000	61%	\$ 4,880,000
Mary Avenue Extension	\$ 78,000,000	\$ 23,400,000	39%	\$ 9,126,000	61%	\$ 14,274,000
<u><b>Citywide Intersection Improvements</b></u>						
Caltrain Grade Separation at Mary Avenue and at Sunnyvale Avenue	\$ 180,000,000	\$ 14,400,000	11%	\$ 1,584,000	89%	\$ 12,816,000
ITS projects (including Mathilda Avenue)	\$ 20,000,000	\$ 10,000,000	11%	\$ 1,100,000	89%	\$ 8,900,000
Future Traffic Signal Construction	\$ 10,000,000	\$ 8,000,000	11%	\$ 880,000	89%	\$ 7,120,000
Intersection Improvements (including Wolfe and El Camino Real)	\$ 13,000,000	\$ 10,400,000	11%	\$ 1,144,000	89%	\$ 9,256,000
<u><b>Bicycle and Pedestrian Facilities</b></u>						
Complete Bike Network	\$ 10,000,000	\$ 5,000,000	11%	\$ 550,000	89%	\$ 4,450,000
Bernardo/Caltrain Bike-Ped Undercrossing	\$ 9,400,000	\$ 1,880,000	11%	\$ 207,000	89%	\$ 1,673,000
Complete Sidewalks	\$ 9,800,000	\$ 9,800,000	11%	\$ 1,078,000	89%	\$ 8,722,000
Pedestrian Facility Improvements	\$ 5,000,000	\$ 2,500,000	11%	\$ 275,000	89%	\$ 2,225,000
		<b>\$ 126,500,000</b>		<b>\$ 24,632,000</b>		<b>\$ 101,868,000</b>

The cost per new trip can be calculated by dividing the improvement cost per area by the number of expected new trips per area (see Table 9).

**Table 9**  
**Cost per Trip**

		Moffett Park		Remainder of Sunnyvale
Cost	\$	24,632,000	\$	101,868,000
Growth (trips)		4,134		32,713
<b>Cost/Trip</b>	<b>\$</b>	<b>5,958</b>	<b>\$</b>	<b>3,114</b>

Table 10 shows the final calculated traffic impact fees. The impact fees were derived by multiplying the cost per trip by the typical PM peak-hour trip generation rate for each land use, using rates from the Institute of Traffic Engineers' *Trip Generation, 9<sup>th</sup> Edition*. For example, the trip generation rate for single family detached housing is one peak-hour trip per unit, so the fee per dwelling unit is equal to the cost per trip. It should be noted that a 50% pass-by trip reduction is assumed for retail land use. Also, it should be noted that no residential or office development is planned in the Moffett Park area.

**Table 10**  
**Impact Fee per Land Use Type**

Land Use	ITE Code	PM Peak Hour	Unit of Measure	Proposed Impact Fee	
				Moffett Park Area	Remainder of Sunnyvale
			<b>Per Trip Cost</b>	<b>\$ 5,958</b>	<b>\$ 3,114</b>
Single-Family Detached Housing	210	1	per dwelling unit	\$ -	\$ 3,114
Multi-Family Attached Housing	220	0.62	per dwelling unit	\$ -	\$ 1,931
General Office	710	1.49	per 1,000 sq. ft.	\$ -	\$ 4,640
Research & Development	760	1.07	per 1,000 sq. ft.	\$ 6,375	\$ 3,332
Industrial	110	0.97	per 1,000 sq. ft.	\$ 5,779	\$ 3,021
Retail <sup>1</sup>	820	1.855	per 1,000 sq. ft.	\$ 11,052	\$ 5,776
Hotel	310	0.6	per room	\$ 3,575	\$ 1,868
<b>Notes:</b>					
All rates are from: Institute of Transportation Engineers, <i>Trip Generation, 9th Edition</i> .					
1. Retail rate is reduced by 50 percent to account for pass-by trips.					

## Implementation of the Traffic Impact Fee Program

It is recommended that the fee be applied to the following:

1. New residential, commercial, industrial, or other non-residential development projects.
2. Additions or alterations to existing residential development that create one or more additional dwelling units.
3. Additions or alterations to existing non-residential development that increase the gross square footage of the development.

It is recommended that the fee be paid in full to the City before the first building permit is issued. If no building permit is required, the fee shall be paid before a conversion of use may take place. It is recommended that the sums derived from the collection of the traffic impact fees be used for the projects identified in the Traffic Mitigation program. In no case shall any of the moneys be used for regular street maintenance.

It is recommended that the Traffic Mitigation Program be implemented in five or ten-year phases for the purpose of ensuring that the accumulated fees are sufficient in amount to fund the planned improvements and are actually expended on the improvements within the given time frame.

## Periodic Adjustments to the Fee

It is recommended that the traffic impact fees be adjusted periodically to reflect the current status of traffic impact requirements, projected development square footage, construction and land costs, and other factors. The Director of Public Works shall make an annual review, or more frequent review if deemed necessary, of the Traffic Mitigation Program and make recommendations for amendment, if any. The review will be submitted with recommendations to the City Council.

**City of Sunnyvale  
Traffic Impact Fee Update  
Technical Appendices**



## **Appendix A**

### **Traffic Counts**

**Appendix B**  
**Intersection Level of Service Calculation Sheets**

**Appendix C**  
**Sunnyvale Travel Demand Forecast Model**  
**Validation Memorandum**

## Project List and Cost Breakdown

Improvement	Total Improvement Cost	Sunnyvale Traffic Impact Fee Contribution	Moffett Park Cost	Remainder of Sunnyvale Cost
<b><u>Expressway Improvements</u></b>				
Mary/Central Intersection add 3rd westbound left-turn lane	\$ 1,500,000	\$ 300,000	\$ 6,000	\$ 294,000
Lawrence Grade Separations at Reed/Monroe, Kifer, and Arques	\$ 440,000,000	\$ 13,200,000	\$ 1,716,000	\$ 11,484,000
Lawrence/Oakmead Grade Separation	\$ 60,000,000	\$ 12,000,000	\$ 1,560,000	\$ 10,440,000
Lawrence/Lakewood Intersection Signalization	\$ 5,800,000	\$ 2,900,000	\$ 870,000	\$ 2,030,000
Lawrence/Tasman Depress LRT under intersection	\$ 23,600,000	\$ 4,720,000	\$ 1,416,000	\$ 3,304,000
<b><u>Mathilda Corridor Improvements</u></b>				
Mathilda/SR237, Mathilda/US 101 Interchange Reconfiguration	\$ 40,000,000	\$ 8,000,000	\$ 3,120,000	\$ 4,880,000
Mary Avenue Extension	\$ 78,000,000	\$ 23,400,000	\$ 9,126,000	\$ 14,274,000
<b><u>Citywide Intersection Improvements</u></b>				
Caltrain Grade Separation at Mary Avenue and at Sunnyvale Avenue	\$ 180,000,000	\$ 14,400,000	\$ 1,584,000	\$ 12,816,000
ITS projects (including Mathilda Avenue)	\$ 20,000,000	\$ 10,000,000	\$ 1,100,000	\$ 8,900,000
Future Traffic Signal Construction	\$ 10,000,000	\$ 8,000,000	\$ 880,000	\$ 7,120,000
Intersection Improvements (including Wolfe and El Camino Real)	\$ 13,000,000	\$ 10,400,000	\$ 1,144,000	\$ 9,256,000
<b><u>Bicycle and Pedestrian Facilities</u></b>				
Complete Bike Network	\$ 10,000,000	\$ 5,000,000	\$ 550,000	\$ 4,450,000
Bernardo.Caltrain Bike-Ped Undercrossing	\$ 9,400,000	\$ 1,880,000	\$ 207,000	\$ 1,673,000
Complete Sidewalks	\$ 9,800,000	\$ 9,800,000	\$ 1,078,000	\$ 8,722,000
Pedestrian Facility Improvements	\$ 5,000,000	\$ 2,500,000	\$ 275,000	\$ 2,225,000
		<b>\$ 126,500,000</b>	<b>\$ 24,632,000</b>	<b>\$ 101,868,000</b>

## Intersection Improvements

Intersection	Improvement	Estimated Cost <sup>1</sup>
Duane/Stewar & Duane Ave	Two-lane roundabout	\$ 2,300,000
Wolfe Rd & Arques Ave	Restripe northbound to include one left-turn lane, two through lanes, and two right-turn lanes	\$ 100,000
Wolfe Rd & Kifer Rd	Widen intersection to accommodate two left-turn lanes on all approaches	\$ 2,800,000
Wolfe Rd & Fremont Ave	Mitigation measure from Wolfe Road traffic study	\$ 3,500,000
Fair Oaks Ave & Arques Ave	Widen eastbound to include a dedicated right-turn lane	\$ 300,000
Fair Oaks Ave & El Camino Real	Widen eastbound and westbound to include a second left-turn lane	\$ 2,100,000
Sunnyvale-Saratoga Rd & Remington Dr	Widen northbound and westbound to include a dedicated right-turn lane	\$ 600,000
Hollenbeck Ave & El Camino Real	Restripe southbound to include two left-turn, one through, and one shared through-right lane	\$ 100,000
SR 85 Northbound Ramps & Fremont Ave	Modify the SR 85 northbound off-ramp	\$ 200,000
SR 85 Southbound Ramps & Fremont Ave	Modify the SR 85 southbound off-ramp	\$ 200,000
<b>Total Cost (rounded to the nearest million)</b>		<b>\$ 13,000,000</b>
<u>Notes:</u>		
1. Cost estimates were based on Year 2015 economic conditions with a 40% contingency included.		

## List of Current Improvements

Improvement	Cost	Moffett Park Contribution	South of 237 Contribution	Outside Funding
Mathilda Improvements at 237, 101	\$ 20,500,000	\$7,105,000	\$5,145,000	12,250,000
Mary Avenue Extension	\$67,200,000	\$19,488,000	\$14,112,000	\$33,600,000
Lawrence/Kifer Grade Separation	\$59,000,000	\$4,130,000	\$ 19,470,000	\$ 35,400,000
Lawrence/Arques Grade Separation	\$ 52,200,000	\$3,654,000	\$17,226,000	\$31,320,000
Lawrence/Reed-Monroe Grade Separation	\$59,000,000	\$4,130,000	\$ 19,470,000	\$ 35,400,000
Complete Sidewalks	\$ 9,800,000	\$1,372,000	\$8,428,000	0
Complete Bike Network	\$ 1,582,115	\$221,496	\$1,360,619	0
Bernardo/Caltrain Bike/Ped Undercrossing	\$9,451,575	\$264,644	\$1,625,671	\$7,561,260
Future Traffic Signal Construction	\$3,539,200	\$495,488	\$3,043,712	0
Lawrence/Wildwood Intersection	\$5,231,365	\$959,646	\$4,271,719	0
Mathilda/Maude Left Turn Extension	\$300,000	0	\$300,000	0

[illegible]

**RESOLUTION NO. \_\_\_\_\_**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF  
SUNNYVALE AMENDING RESOLUTION NO. 836-17, FIXING  
AND ESTABLISHING FEES, RATES, AND CHARGES  
RESOLUTION TO AMEND SECTION 8.03, "TRANSPORTATION/  
TRAFFIC IMPACT FEES"**

WHEREAS, the City Council of the City of Sunnyvale ("City") adopted Resolution No. 836-17, the Master Fee Schedule, on June 20, 2017; and

WHEREAS, Chapter 3.50, Transportation Impact Fees of the Sunnyvale Municipal Code was established to defray the costs of certain transportation improvements required to service new development within the City; and

WHEREAS, recently adopted major land use changes (Land use and Transportation Element (LUTE), Peery Park Specific Plan (PPSP), and Lawrence Station Area Plan (LSAP)) and Measure B as a new funding source, an update to the fee is required; and

WHEREAS, the City desires to amend the transportation/ traffic impact fees as set forth in Exhibit A;

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SUNNYVALE THAT:

1. Section 8.03 "Transportation/ Traffic Impact Fees" of the Master Fee Schedule, is hereby amended as set forth in Exhibit A, attached hereto and incorporated herein.
2. The establishment of fees herein is exempt from the requirements of the California Environmental Quality Act pursuant to Public Resources Code 15378(b)(4) because it is related to the creation of government funding mechanisms or other fiscal activities which do not involve any commitment to any specific project.
3. This resolution shall be effective and the fees shall be operative 60 days after adoption pursuant to §66017 of California Government Code.
4. All other provisions of Resolution No. 836-17 shall remain in effect.



Adopted by the City Council at a regular meeting held on \_\_\_\_\_, by the following  
vote:

AYES:  
NOES:  
ABSTAIN:  
ABSENT:  
RECUSAL:

ATTEST:

APPROVED:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor

(SEAL)

APPROVED AS TO FORM:

\_\_\_\_\_  
City Attorney

# **EXHIBIT A**

## **SECTION 8.03 TRANSPORTATION / TRAFFIC FEES**

(California Code of Regulations, Title 21, Chapter 4, Subchapter 7, Section 1411.3)

### Transportation Impact Fee

	<b>CURRENT Fiscal Year <u>2017/18</u></b>	<b>PROPOSED Fiscal Year <u>2017/18</u></b>	<b>Charge Code</b>	<b>Object Level <u>3 &amp; 4</u></b>	<b>Title (Obj. Lvl. 3)</b>	<b>Title (Obj. Lvl. 4)</b>
A.						
Impact Fee--Area South of Route 237						
Single Family detached, per dwelling unit	<u>\$2,278.00</u>	<u>\$3,114.00</u>	799058	1649 - 2	Transportation Impact Fee	
Multi-family attached, per dwelling unit	<u>\$1,398.00</u>	<u>\$1,931.00</u>	799058	1649 - 2	Transportation Impact Fee	
Office, per 1,000 square feet	<u>\$3,360.00</u>	<u>\$4,640.00</u>	799058	1649 - 2	Transportation Impact Fee	
Retail, per 1,000 square feet	<u>\$4,217.00</u>	<u>\$5,776.00</u>	799058	1649 - 2	Transportation Impact Fee	
Industrial, per 1,000 square feet	<u>\$1,670.00</u>	<u>\$3,021.00</u>	799058	1649 - 2	Transportation Impact Fee	
Research and Development, per 1,000 square feet	<u>\$2,210.00</u>	<u>\$3,332.00</u>	799058	1649 - 2	Transportation Impact Fee	
Hotel, per room	<u>\$1,376.00</u>	<u>\$1,868.00</u>	799058	1649 - 2	Transportation Impact Fee	
Uses not enumerated, per trip	<u>\$2,278.00</u>	<u>\$3,114.00</u>	799058	1649 - 2	Transportation Impact Fee	
B.						
Impact Fee--Industrial Area North of Route 237						
Industrial, per 1,000 square feet	<u>\$4,507.00</u>	<u>\$5,779.00</u>	799058	1649 - 1	Transportation Impact Fee	
Research and Development, per 1,000 square feet	<u>\$5,959.00</u>	<u>\$6,375.00</u>	799058	1649 - 1	Transportation Impact Fee	
Destination Retail, per 1,000 square feet	<u>\$14,286.00</u>	<u>\$11,052.00</u>	799058	1649 - 1	Transportation Impact Fee	
Neighborhood Retail, per 1,000 square feet	<u>\$7,142.00</u>	<u>\$5,526.00</u>	799058	1649 - 1	Transportation Impact Fee	
Hotel, per room	<u>\$4,660.00</u>	<u>\$3,575.00</u>	799058	1649 - 1	Transportation Impact Fee	
Uses not enumerated, per trip	<u>\$6,150.00</u>	<u>\$5,958.00</u>	799058	1649 - 1	Transportation Impact Fee	



# City of Sunnyvale

## Agenda Item

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**17-0722**

**Agenda Date: 7/20/2017**

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Election of Officers

## **Policy 7.2.19    Boards and Commissions**

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### **POLICY PURPOSE:**

The purpose of this policy is to outline those Council policies pertaining to the City's Boards and Commissions Program.

## **2.    BOARD AND COMMISSION BYLAWS**

### **G.    Officers**

#### **(I)    Selection of Chair and Vice Chair**

Unless otherwise dictated by City Charter, each board and commission shall, within the month of July each year, or during the next regularly scheduled meeting if a July meeting is not otherwise necessary, elect one of its members as presiding officer, to serve commencing after the end of the meeting, upon completion of mandatory chair training and ideally in time to advise staff on the agenda for the next regularly-scheduled meeting. The Board of Building Code Appeals must meet in July to select a chair and vice chair if no meetings are scheduled in the future. The selection of chair and vice chair shall be the last item on the agenda at the scheduled meeting. All boards and commissions shall select their chair and vice chair in accordance with practices and procedures outlined by the Office of the City Clerk.

#### **(II)   Chair's Role and Responsibilities**

- (a) Attends training in how to be an effective chair prior to assuming the role.
- (b) Presides at meetings of the board or commission, and follows Brown Act requirements for conducting meetings.
- (c) Serves as a liaison to Council at City Council meetings.
- (d) Coordinates the scheduling of special meetings or cancellation of a meeting with the staff liaison.
- (e) Coordinates the setting of the agenda with the staff liaison. Should the chair and the staff liaison disagree regarding the agenda, the city manager shall have final authority subject to appeal to the City Council.
- (f) Board and commission chairs or a designated alternate may always attend Council meetings to present the board or commission's position to Council. However, they must attend Council meetings to present the board or commission's position to Council on any non-consent calendar item previously addressed by the board or commission when only action minutes from the board or commission meeting are available to Council. The chair or designated alternate shall report back to their board or commission on Council's discussion and ultimate decision.

- (g) Counsels and administers verbal reprimands and written warnings to board and commission members who do not comply with City policy.
- (h) Meets with Council in a study session setting on a regular schedule at least annually.

**(III) Vice Chair's Role and Responsibilities**

- (a) Attends training in how to be an effective vice chair prior to assuming the role.
- (b) Serves as the presiding officer in the absence of the chair.
- (c) Joins board or commission chairs in meetings with Council in a study session setting on a regular schedule at least annually, per Section G.(II)(h).

From "*The Standard Code of Parliamentary Procedure*" by Alice Sturgis

### **Electing the Chair and Vice Chair**

1. Open Nominations:
  - a. Presiding officer may say: "Are there nominations for the office of Chair?"
  - b. Any member may say: "I nominate \_\_\_\_\_"
  - c. No second is necessary.
  - d. Presiding officer will ask: "Are there further nominations for the office of Chair?"
  - e. Repeat until no further nominations.
2. Close Nominations:
  - a. Presiding officer declares nominations for that office closed.
  - b. Motion to close is not necessary.
3. Nominations are voted upon in the order taken.
  - a. The member receiving the necessary vote is elected.

### **Electing a Temporary Chair in the absence of both Chair and Vice Chair**

1. Open Nominations:
  - a. Secretary or Liaison should inform the members that in the absence of both Chair and Vice Chair, a Temporary Chair (or Chair Pro Tem) must be elected to serve as presiding officer for this meeting only.
  - b. Secretary or Liaison may say: "Are there nominations for Temporary Chair for this meeting?"
  - c. Any member may say: "I nominate \_\_\_\_\_"
  - d. No second is necessary.
  - e. Secretary or Liaison will ask: "Are there further nominations for Temporary Chair?"
  - f. Repeat until no further nominations.
2. Close Nominations:
  - a. Secretary or Liaison declares nominations for Temporary Chair closed.
  - b. Motion to close is not necessary.
3. Nominations are voted upon in the order taken.
  - a. The member receiving the necessary vote is elected for this meeting only.



# City of Sunnyvale

## Agenda Item

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**17-0723**

**Agenda Date: 7/20/2017**

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BPAC 2017 Annual Work Plan

# 2017 Master Work Plan

## BPAC Annual Calendar

List all regularly scheduled board/commission meetings, specific issues identified in the Tentative Council Meeting Agenda Calendar, and routine assignments specific to each board or commission.

MEETING DATE	AGENDA ITEM/ISSUE
January	<ul style="list-style-type: none"> <li>• Bicycle Plan Update (General Business)</li> <li>• Active Items List (General Business)</li> </ul>
February	<ul style="list-style-type: none"> <li>• Discussion of Utility Bill Concepts</li> <li>• Discussion of TDA Funding Recommendation</li> </ul>
March	<ul style="list-style-type: none"> <li>• Brown Act Training Discussion</li> <li>• Approve Master Work Plan<sup>1</sup></li> <li>• TDA Funding Recommendation</li> <li>• Utility Bill Concepts</li> <li>• Annual Slurry Seal List (Information item)</li> <li>• Council Ranking of Study Issues (Information item)</li> </ul>
April	<ul style="list-style-type: none"> <li>• Fair Oaks Bike Lane</li> <li>• Election of Officers <sup>3</sup></li> <li>• TDA Funding Recommendation</li> <li>• Bike to Work Day Planning</li> </ul>
May	<ul style="list-style-type: none"> <li>• Discussion with DPS regarding quarterly report on collisions involving pedestrians and cyclists</li> <li>• Review Recommended Budget<sup>2</sup></li> </ul>
June	<ul style="list-style-type: none"> <li>• Board Member/Commissioner Recognition (Presentation)</li> <li>• El Camino Specific Plan Nomination</li> <li>• Utility Bill Stuffer Update</li> <li>• State of the City</li> </ul>
July	<ul style="list-style-type: none"> <li>• Mary Avenue Overcrossing Update</li> <li>• Traffic Impact Fee</li> <li>• Election of Officers <sup>3</sup></li> </ul>
August	<ul style="list-style-type: none"> <li>• Nomination of a Representative to the Climate Action Plan (CAP 2.0) Advisory Committee (CAC)</li> <li>• Caltrain Grade Separation (Presentation)</li> </ul>
September	<ul style="list-style-type: none"> <li>• Vision Zero (Presentation)</li> <li>• Final month to propose Study Issues (Due to City Manager by October 1)<sup>4</sup></li> </ul>
October	<ul style="list-style-type: none"> <li>• Civic Center Master Plan Concepts (Study Session)</li> <li>• Bernardo Undercrossing</li> <li>• Annual reporting on collisions involving pedestrians and cyclists</li> </ul>



	(information item)
November	<ul style="list-style-type: none"><li>• Final month to rank Study Issues (if any)<sup>5</sup></li></ul>
December	<ul style="list-style-type: none"><li>• Final month for Annual Review of Code of Ethics and Conduct for Elected and Appointed Officials<sup>6</sup></li><li>• 2018 Work Plan</li></ul>

**Additional items yet to be scheduled:**

**El Camino Precise Plan  
Bicycle Plan**

Footnotes

1

Council Policy requires that all boards and commissions create an annual work plan, defined as a 12-month calendar of the policy issues the body will be acting on during the year. Since Council does not approve until February the issues it will ask each of the boards and commissions to study, these work plans can not be adopted by the boards and commissions until March.

2

May is the month for boards and commissions to perform an official review and to comment on the City Manager's recommended budget to Council—i.e., make recommendations to Council regarding priorities and service levels, fees, and/or capital projects. Given the process, the City Manager's recommended budget will typically not be ready for boards and commissions to review until shortly before the time that a recommendation is necessary from the advisory body---in other words, there will be a very short turnaround time for boards and commissions---in fact, often there is not enough time to perform a thorough review and get the results to Council without conducting a special meeting of the board/commission and subsequently sending the Chair or his/her designated representative to Council's public hearing to convey recommendations in person (waiting for the normal board/commission minutes to reach Council won't work). This underscores the importance of a board/commission being prepared to conduct its review—to understand its role, to know how to navigate the budget and be familiar with its contents---before the issue is brought before it in May.

3

Unless otherwise dictated by City Charter, each board and commission shall, within the month of July each year, or during the next regularly scheduled meeting if a July meeting is not otherwise necessary, elect one of its members as presiding officer, to serve commencing after the end of the meeting, upon completion of mandatory chair training and ideally in time to advise staff on the agenda for the next regularly-scheduled meeting. The Board of Building Code Appeals must meet in July to select a Chair and Vice Chair if no meetings if no meetings are scheduled in the future. The selection of Chair and Vice Chair shall

be the last item on the agenda at the scheduled meeting. All boards and commissions shall select their chair and vice chair in accordance with practices and procedures outlined by the Office of the City Clerk.

4

Boards and Commissions may propose study and budget issues throughout the year. In order to be considered by Council for study in the following year, however, all study issues must be proposed by boards and commissions by no later than September. Any Study Issues proposed by a board/commission after September shall roll over to the next year's process (the only other recourse a b/c member has is to get Council to sponsor the Study Issue Paper). Study Issue papers must be signed by the City Manager prior to being ranked by a board or commission.

5

Boards and Commissions must rank their study issues by no later than November of each year so that staff can complete the work necessary to add these issues to the list Council will consider for ranking early in the next calendar year. Chairs of boards and commissions are encouraged to attend the Council's public hearing on study/budget issues to champion the issues ranked and prioritized by their body.

6

All Boards and Commissions must review the City's Code of Ethics and Conduct for Elected and Appointed Officials annually near the end of the calendar year prior to Council review, and by no later than December.



# City of Sunnyvale

## Agenda Item

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**17-0724**

**Agenda Date: 7/20/2017**

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Active Items List - July 2017

# Bicycle and Pedestrian Advisory Commission

## Active Items List

Item #	Item	PR	Due Date (Approx)	Status	Last Updated
1	Stevens Creek Trail	Steffens, Lo	TBD	The next step for the Stevens Creek Trail Project is development of Segment 1 (Dale / Heatherstone Bridge to Fremont Avenue). The City of Mountain View is leading development of this segment and they plan to assemble a multi-city staff group to gauge interest and commitment from the affected Cities. As discussed with Council as part of the budget process, no work will occur on Segment 2 (Fremont Avenue to Homestead Road) until the City has more clarity on the location of connection points for Segment 1. For Segment 3 (Homestead Road / SR 85 Bridge), the City of Sunnyvale will need to collaborate with the cities of Cupertino and Los Altos to seek out grant funding. Recent passage of Measure B appears to be a good potential funding source and staff is following this and other transportation grant sources as potential opportunities.	7/20/2017
2	Vision Zero Plan	Garcia	N/A	Vision Zero consultant (Fehr and Peers) is working on initial findings, setting up web-site, and preparing for community and stakeholder meetings.	7/20/2017
3	Road Overlay, Slurry, Reconstruction & Chip Schedule	T. Pineda	Annual	Transmitted at Mar. 2017 BPAC meeting.	3/16/2017
4	Old Mountain View-Alviso Road	Ng, Javed	Construction 2017	The City of Sunnyvale is currently designing a bridge replacement project on Old Mountain View-Alviso Road between Patrick Henry Drive and Reamwood Avenue. The proposed project will replace the existing bridge with a wider bridge structure that accommodates pedestrian and bicycle facilities. To help facilitate construction and ensure pedestrian/bicyclist/motor safety, there will be temporary trail and road closures. The road closure is anticipated to last for 3 months and trail closure is anticipated to last for 4 months. Under design.	2/16/2017
5	Establishment of Bike Lanes on Mary Avenue (Evelyn to Maude)	Nguyen	Construction 2017	Construction anticipated to begin in 2017.	2/16/2017
6	East-West Channel Trail	Abbas	Annual	Feasibility study/concept plan for the West Channel Trail corridor capital project approved by Council. East and West Channel trail concepts provided to SCVWD for inclusion in flood control project. City can't begin on trail projects until SCVWD is done with the flood control project. SCVWD plans to complete the project in 2017/2018.	2/16/2017
7	Priority Development Area Grants	Abbas, Uribe, Pineda, Zulueta	Fall, 2017	Mathilda Avenue Plan Line is completed. Precise Plan for El Camino Real is on-going.	2/16/2017
8	Bernardo Caltrain Under-crossing	R. Lo	TBD	A Feasibility Study completed in 2004 was accepted by the City Council. The project is included in VTP 2040, is listed as a Tier 1 project in the 2008 Countywide Bicycle Plan, and is included in the City's Traffic Impact Fee at a cost of \$9.5 million (\$2013). The project was also included in the preliminary bicycle-pedestrian project list for VTA's Envision Silicon Valley at a cost of \$9.8 (\$2017). This list is intended to be funded by Measure B, which passed in November 2016. In 2016, an OBAG grant in the amount of \$500,000 was awarded for environmental review and preliminary concept design. An RFP for environmental review and preliminary concept design (with the option to augment the scope to include 100% design) will be released in early 2017.	1/19/2017
9	Utility Bill Insert	Shariat	Annual	BPAC to see proof during June 2017 meeting, Scheduled to go out in July/Aug.	1/19/2017
10	Bike to Work Day	Shariat	Annual	Bike to Work Day scheduled for May 11, 2017.	1/19/2017
11	Safe Routes to Schools Projects	Price	Design, March 2017	Safe Route to School Comprehensive Pedestrian Infrastructure Improvements project underway. Project funds is \$1.9 Million. Project plans will be done by March 2017 and ready to bid in Summer 2017.	1/19/2017
12	Establishment of Bike Lanes on Mary Avenue (Fremont to Evelyn)	Nguyen	N/A	Construction completed in November 2016.	12/15/2016
13	One Bay Area Grants	Abbas	2016	Updates provided in December 2016.	12/15/2016



# City of Sunnyvale

## Agenda Item

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**17-0725**

**Agenda Date:** 7/20/2017

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State of the City - VIP Meet and Greet