



# Citywide Multimodal Improvement Plan

DRAFT  
June 12, 2018



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## **ACKNOWLEDGMENT**

This section to be completed with assistance of the City.

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## APPENDIX

- APPENDIX A. Comparison of VTA Deficiency Plan Action List and BAAQMD Transportation Control Measures
- APPENDIX B. Planning Context
- APPENDIX C. Action Plan Compliance with BAAQMD TCMs and VTA Deficiency Plan Requirements

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# EXECUTIVE SUMMARY

## Plan and Requirements

In 2012, the City adopted the 2030 General Plan, which included new growth targeted to key Change Areas (such as North Bayshore and El Camino Real), and policies encouraging multimodal transportation. Based on analyses of 2030 General Plan growth, growth under the El Camino Real, San Antonio and North Bayshore Precise Plans, as well as regional growth, several intersections are projected to fall below the CMP LOS standard, level of service “E”. LOS stands for “Level of Service”, and describes the level of congestion or delay on a roadway segment or through an intersection. In general, LOS standards are maintained through street widening.

The Mountain View 2030 General Plan’s policy direction, however, does not support street widening as a strategy (see Policy MOB 10.3: Avoidance of Street Widening, Page 114). This is due to limited space for additional right-of-way, increased crossing distances for pedestrians, induced demand, and other issues related to the City’s desired future character. Instead, the General Plan directs future actions to include transportation demand management, operational improvements, and multimodal improvements and services.

The Citywide Multimodal Improvement Plan (MIP), also referred to as the Deficiency Plan per state’s Congestion Management Program (CMP)

legislation, is a planning document that identifies measures to improve transportation conditions on the CMP network instead of making physical traffic capacity expansions such as widening an intersection or roadway. The MIP is based on the VTA Deficiency Plan Requirements, which describes required content, actions, and implementation standards to assist Member Agencies with deficiency plan preparation and responsibilities.

With VTA’s approval of the MIP, the City of Mountain View maintains compliance with the CMP, even if LOS impacts to CMP intersections occur. Future Mountain View developments may not be required to mitigate LOS impacts, especially if they help implement this MIP.

The MIP plan area is generally the Mountain View City Limits and includes several multi-jurisdictional CMP facilities surrounding Mountain View. VTA’s 2015 Congestion Management Program document identified 12 intersections as City of Mountain View’s responsibility for deficiency analysis (shown in **Figure ES-1**). In addition, the impact analysis for Mountain View Precise Plans, including the 2017 update to the North Bayshore Precise Plan, has identified impacts to several intersections outside the City. These intersections are listed in Chapter 4.



## Planning Context

The City’s 2030 General Plan established a long-term vision outlining the City’s growth, with goals and policies to maintain quality of life. In addition to the General Plan, the MIP includes a list of relevant documents and studies to establish a planning foundation for the development of the multimodal actions, including:

- Pedestrian Master Plan (2014)
- Bicycle Transportation Plan Update (2015)
- El Camino Real Precise Plan (2014)
- North Bayshore Precise Plan (2014)
- San Antonio Precise Plan (2014)
- Shoreline Boulevard Corridor Study (2014)
- California/Escuela/Shoreline Complete Streets

## EXECUTIVE SUMMARY

Feasibility Study (2016)

- Joint Cities Coordinated Stevens Creek Trail Feasibility Study (2015)
- San Antonio/Mayfield Pedestrian and Bicycle Tunnel Feasibility Report (2008)

The goals, policies, design guidelines and standards, programs, and improvement projects in these documents play an important role in identifying actions for the MIP that are efficient and sustainable for the City and regional transportation network development. A comprehensive review of these documents is provided in **Appendix B**.

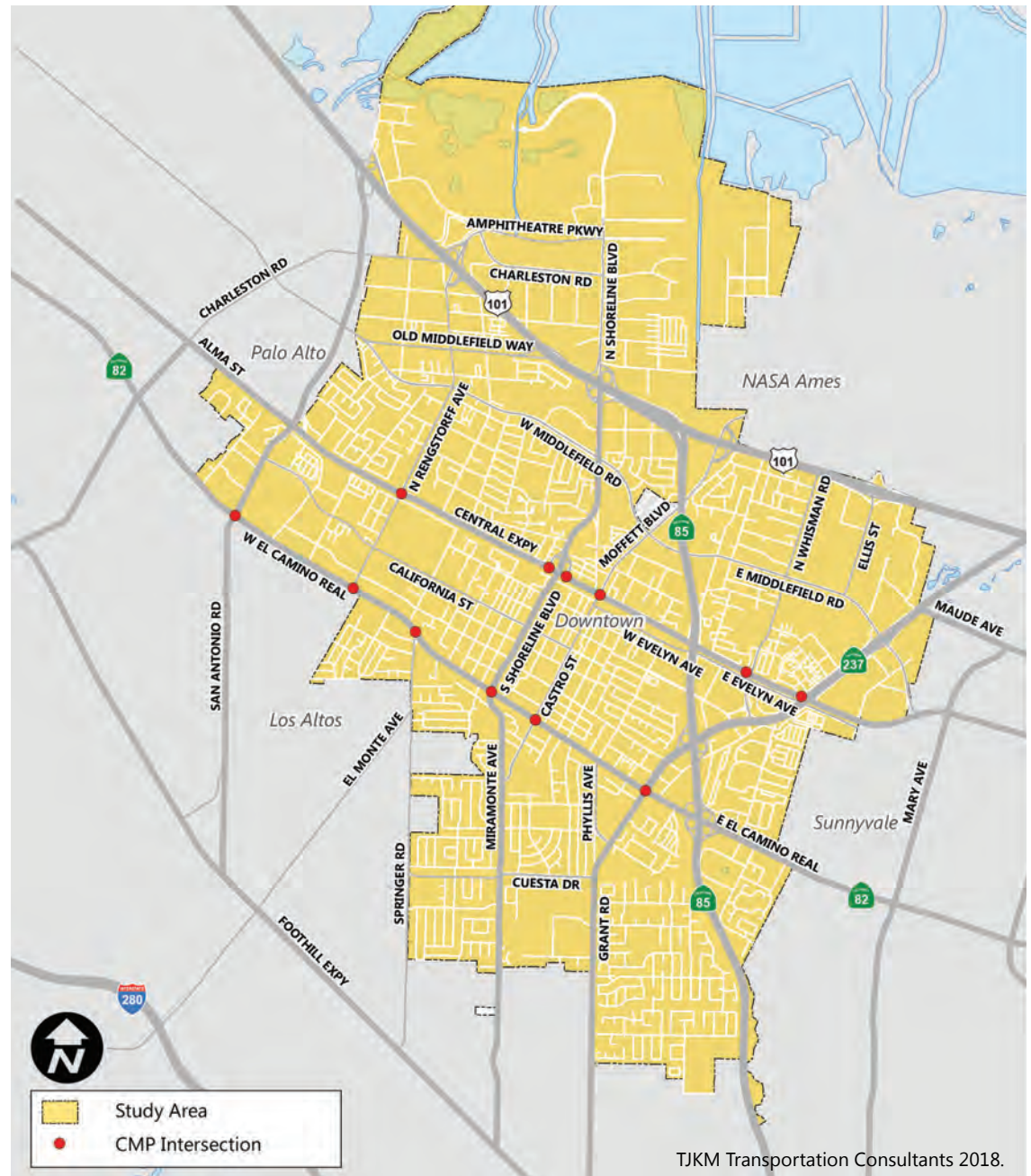


Figure ES-1. MIP Study Area and CMP Intersections

Table ES-1. CMP Intersection LOS - Existing and Future Conditions  
Future Conditions include anticipated City and regional growth.

| Intersection   | Jurisdiction       | Existing Conditions <sup>1</sup> |     | Future Conditions <sup>2</sup> |     |
|--|--------------------|----------------------------------|-----|--------------------------------|-----|
|  |                    | AM                               | PM  | AM                             | PM  |
|  |                    | LOS                              | LOS | LOS                            | LOS |
| Castro Street/El Camino Real <sup>4</sup>  | State              | C                                | C   | F                              | F   |
| El Monte Ave/El Camino Real  | State              | C-                               | C   | F                              | D   |
| SR 237 Ramps-Grant Road/El Camino Real <sup>4</sup>  | State              | D                                | D+  | F                              | E   |
| Shoreline Boulevard/El Camino Real   | State              | D+                               | C   | F                              | F   |
| Rengstorff Avenue/El Camino Real   | State              | B                                | B   | D                              | F   |
| San Antonio Road/El Camino Real  | State              | C-                               | C-  | F                              | F   |
| Rengstorff Avenue/Central Expressway   | Santa Clara County | D-                               | D-  | F                              | F   |
| Moffett Blvd-Castro Street/Central Expressway  | Santa Clara County | D                                | D   | F                              | F   |
| Shoreline Boulevard EB Ramps/Central Expressway  | Santa Clara County | B                                | B   | F                              | F   |
| Shoreline Boulevard WB Ramps/Central Expressway  | Santa Clara County | B+                               | B+  | F                              | F   |
| Whisman Station Road/Central Expressway  | Santa Clara County | B+                               | B+  | B                              | F   |
| Ferguson Drive/Central Expressway  | Santa Clara County | B                                | B+  | D                              | F   |
| <b>Note</b><br>1. Existing conditions base year 2012, retrieved from the San Antonio Precise Plan EIR.<br>2. 2030 conditions based on North Bayshore Precise Plan Traffic Impact Analysis 2017 or the San Antonio Precise Plan EIR 2014. |                    |                                  |     |                                |     |

## Multimodal Action List and Action Plan

The list of actions in the MIP will help offset future citywide LOS deficiencies on CMP facilities. The identified actions and policies help improve systemwide mobility and/or regional air quality. The actions improve multimodal circulation, set regulations reducing vehicle trips, manage parking, and create plans for infill, transit-oriented developments. The list of actions is based on the City's recent transportation related plans and policies, the 2030 General Plan, new Precise Plans, Capital Improvement Programs (CIP), public outreach and feedback from the Council Transportation Committee (CTC), and analyses of local roadways. The list of actions follows the Transportation Control Measures (TCMs) listed in the 2010 BAAQMD Clean Air Plan for supporting air quality improvements in the transportation sector. The actions are presented in the following categories:

- Transit Service
- Bicycle and Pedestrian Access and Facilities
- Freeway and Arterial Operations
- Transportation Demand Management Strategies
- Land Use Strategies

The actions have all been either programmed or identified since the 2012 adoption of the City's 2030 General Plan. The action plan presents how the MIP actions will be implemented, including responsible agencies, potential fund sources, estimated timing for implementing, and approval criteria for each action. A summary of the cost and



## EXECUTIVE SUMMARY

funding sources for actions in the Action Plan are shown in **Table ES-2**.

**Figure ES-2** provides an overview of the physical projects by mode of transportation, and **Table ES-3** provides a summary of Action Plan projects by category.

Table ES-2. Summary of Action Plan Estimated Costs and Funding Sources

| Project Schedule                                  | Estimated Costs<br>(in thousand) |
|---|----------------------------------|
| Completed, Underway and Funded Projects           | \$42,510,650                     |
| Future Projects                                   |                                  |
| Outside Funding Sources (Regional or Private)     | \$353,761,000                    |
| New Transportation Impact Fee and Related Sources | \$97,870,000                     |
| Supplemental Sources <sup>1</sup>                 | \$105,288,000                    |
| Other Projects <sup>1</sup>                       | \$861,000                        |
| <b>TOTAL</b>                                      | <b>\$600,290,650</b>             |

Note

1. Supplemental Sources and Other Projects' funding sources include North Bayshore Transportation Impact Fee, CIP funding sources (such as the CIP Reserve and Construction Conveyance Tax), and other opportunities including community benefits programs, grants, development requirements and developer contributions.

Table ES-3 Summary of Projects by Category

| Category                                     | Number of Projects |
|--|--------------------|
| Transit Services                             | 17                 |
| Bicycle and Pedestrian Access and Facilities | 45                 |
| Freeway and Arterial Operations              | 14                 |
| Transportation Demand Management Strategies  | 4                  |
| Land Use Strategies                          | 10                 |
| <b>TOTAL</b>                                 | <b>90</b>          |

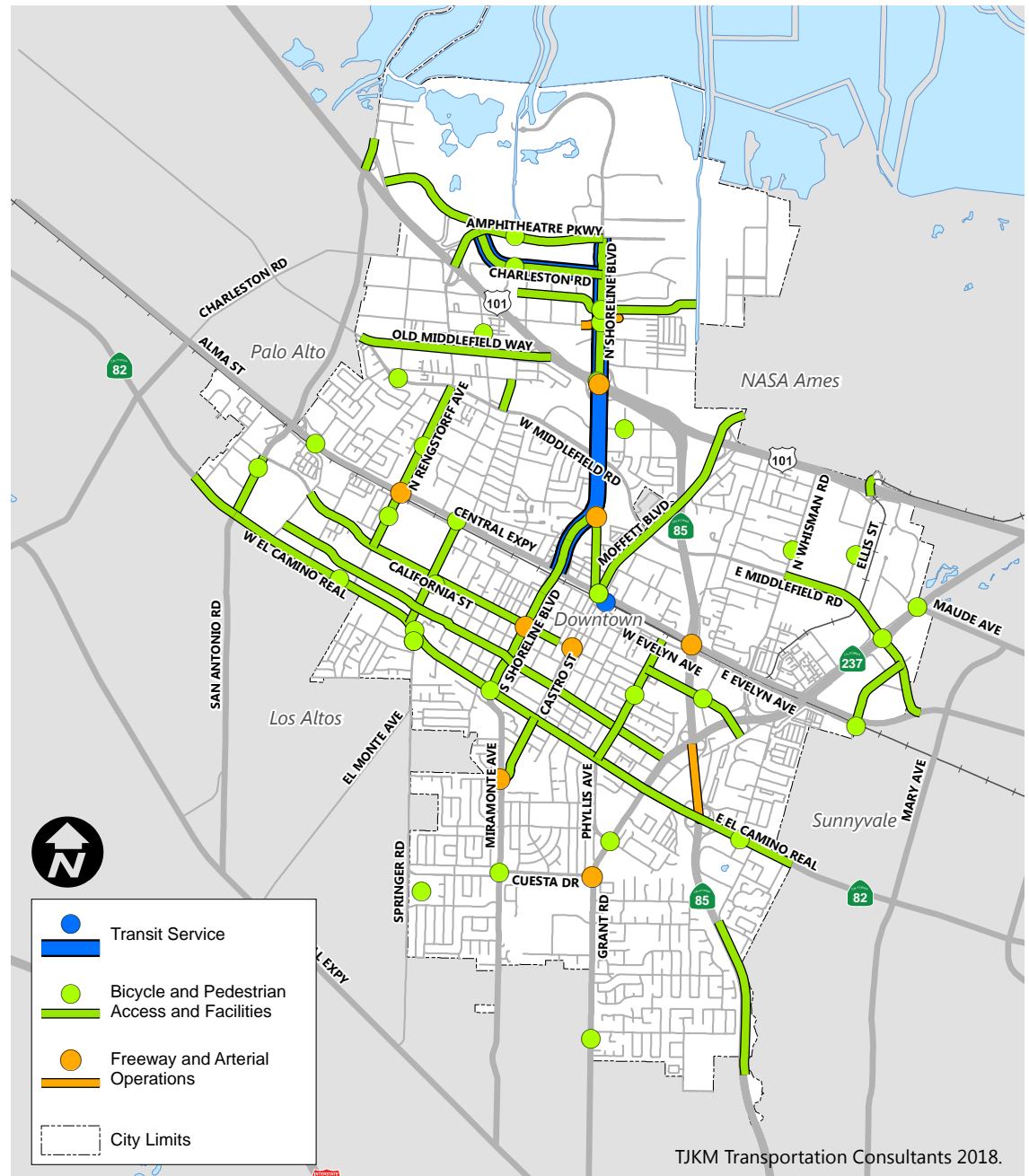


Figure ES-2. Summary Map of Action List



# 1 INTRODUCTION



In 2012, the City adopted the 2030 General Plan, which included new growth targeted to key Change Areas (such as North Bayshore and El Camino Real), and policies encouraging multimodal transportation. Based on analyses of 2030 General Plan growth, growth under the El Camino Real, San Antonio and North Bayshore Precise Plans, as well as regional growth, several intersections are projected to fall below the CMP LOS standard, level of service “E”. LOS stands for “Level of Service”, and describes the level of congestion or delay on a roadway segment or through an intersection. In general, LOS standards are maintained through street widening.

The Mountain View 2030 General Plan’s policy direction, however, does not support street widening as a strategy (see Policy MOB 10.3: Avoidance of Street Widening, Page 114). This is due to limited space for additional right-of-way, increased crossing distances for pedestrians, induced demand, and other issues related to the City’s desired future character. Instead, the General Plan directs future actions to include transportation demand management, operational improvements, and multimodal improvements and services.

The Citywide Multimodal Improvement Plan (MIP), also referred to as the Deficiency Plan per state’s Congestion Management Program (CMP) legislation, is a planning document that identifies measures to improve transportation conditions on the CMP network instead of making physical traffic capacity expansions such as widening an intersection or roadway. The CMP legislation requires local jurisdictions to prepare MIPs for CMP

system facilities (such as key arterial roadways or Expressway intersections) located within their jurisdictions that exceed the established traffic Level-of-Service (LOS) standard, LOS E in the County of Santa Clara. The legislation requires that MIPs maintain or improve system-wide traffic LOS and contribute to a significant improvement in air quality.

The City of Mountain View anticipates future CMP facility impacts due to growth analyzed in the 2030 General Plan and regional growth. Roadway widening would be necessary to address these LOS impacts, but this is not supported by General Plan policy as previously noted.

The adoption of the MIP makes the City of Mountain View in compliance with the VTA CMP. As the approved MIP becomes in effect, individual projects in the MIP are not required to mitigate impacts, if any, identified in the traffic impact analyses conducted for each project.

## 1.1 Santa Clara County Congestion Management Program

The California Government Code requires each urbanized county to develop a comprehensive Congestion Management Plan (CMP) that must be updated every two years. In Santa Clara County, Valley Transportation Authority (VTA) is the designated Congestion Management Agency (CMA) responsible for leading all CMP related efforts and assuring that the County and its jurisdictions comply with state requirements. VTA updates the CMP in every odd-numbered year.

In prior years, the CMP primarily focused on developing and implementing policies and programs to relieve congestion on freeways and major corridors, thereby improving air quality. In recent years, the CMP efforts have been centered around a much broader theme of reducing solo auto trips, increasing use of walking, bicycling and transit; and utilizing Transportation Demand Management (TDM) strategies, to achieve the established regional transportation and clean air goals.

## 1.2 MIP Area/Study Facilities

Mountain View must prepare an MIP for any CMP facility within its jurisdiction, as well as any facility in other jurisdictions impacted by Mountain View actions. The MIP plan area is generally the Mountain View City Limits and includes several multi-jurisdictional CMP facilities surrounding Mountain View. According to the 2015 Congestion Management Program document prepared by VTA, 12 intersections are identified as City of Mountain View’s responsibility including the intersections of Rengstorff Avenue/El Camino Real and San Antonio Road/El Camino Real, both located within the border of the City of Los Altos. In addition, the impact analysis for recent Mountain View Precise Plans, including the North Bayshore Precise Plan, identified impacts to several intersections outside the City. **Table 1** lists these CMP intersections. **Figure 1** shows the locations of the CMP intersections included in the MIP.

CMP facilities include roadways, intersections,

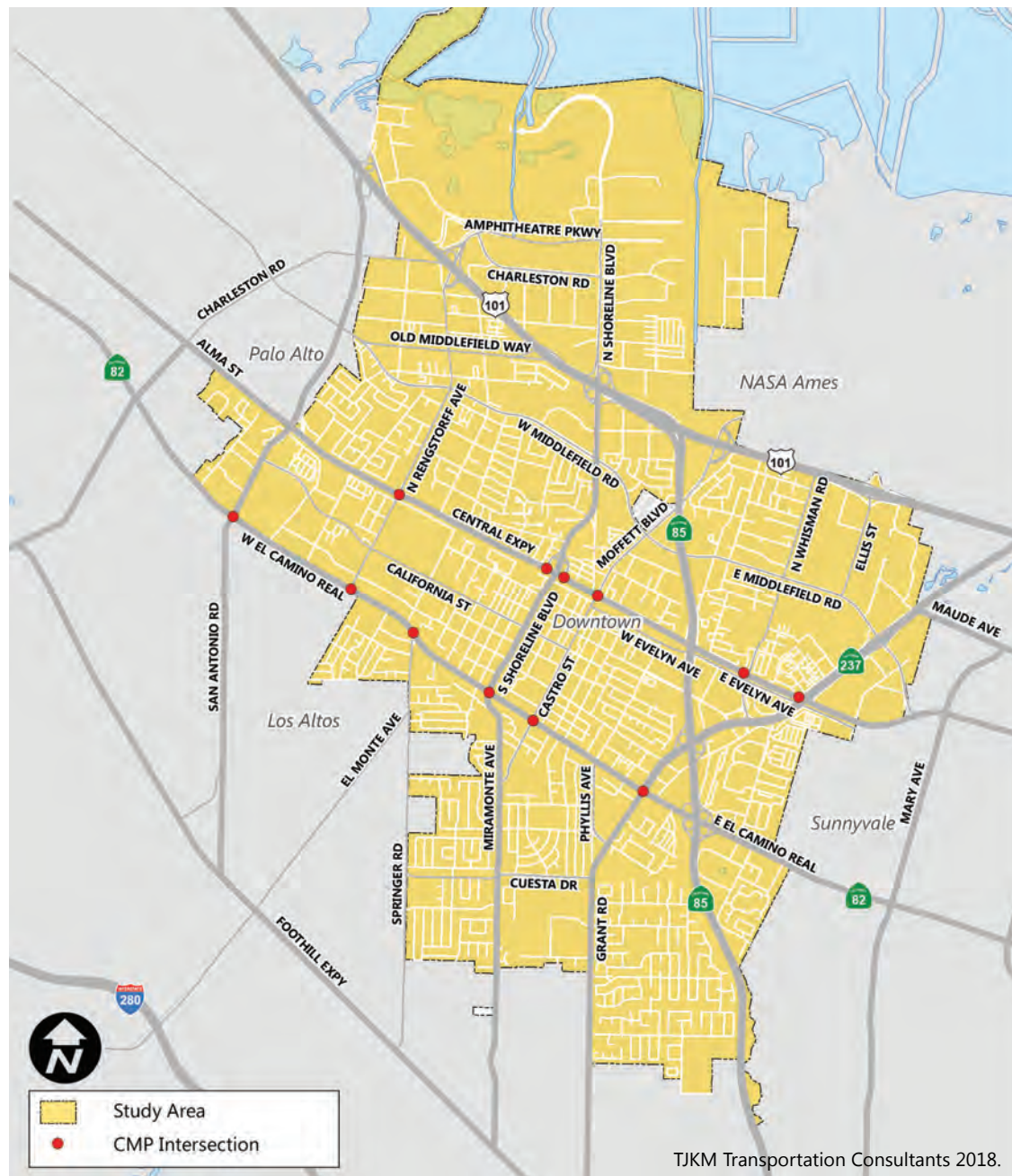
freeways and freeway ramps. Intersection level of service is used by the City and the CMP to measure the performance of CMP roadways and intersections. This analysis is based on the LOS standard established by VTA's Congestion Management Program, to identify operational deficiencies. Freeways and freeway ramps have also been identified with deficiencies based on growth in Mountain View. However, based on the size of these facilities and their regional nature, the City has a limited responsibility for correcting these deficiencies. Despite this, the City is including projects related to these regional facilities in the Action List to help support regional mobility.

**Table 1. Impacted Intersections**

| Intersection  | Location      | Jurisdiction       |
|---|---------------|--------------------|
| Castro Street/El Camino Real                                    | Mountain View | State              |
| El Monte Ave/El Camino Real                                     | Mountain View | State              |
| SR 237 Ramps-Grant Road/El Camino Real                          | Mountain View | State              |
| Shoreline Boulevard/El Camino Real                              | Mountain View | State              |
| Rengstorff Avenue/El Camino Real                                | Los Altos     | State              |
| San Antonio Road/El Camino Real                                 | Los Altos     | State              |
| Rengstorff Avenue/Central Expressway                            | Mountain View | Santa Clara County |
| Moffett Blvd-Castro Street/Central Expressway                   | Mountain View | Santa Clara County |
| Shoreline Boulevard EB Ramps/Central Expressway                 | Mountain View | Santa Clara County |
| Shoreline Boulevard WB Ramps/Central Expressway                 | Mountain View | Santa Clara County |
| Whisman Station Road/Central Expressway                         | Mountain View | Santa Clara County |
| Ferguson Drive/Central Expressway <sup>1</sup>                  | Mountain View | Santa Clara County |
| Mary Avenue/Central Expressway <sup>2,3</sup>                   | Sunnyvale     | Santa Clara County |
| Arastradero Road-Charleston Road/El Camino Real <sup>3</sup>    | Palo Alto     | State              |
| San Antonio Road/Charleston Road <sup>3</sup>                   | Palo Alto     | Palo Alto          |
| San Antonio Road/Middlefield Road <sup>3</sup>                  | Palo Alto     | Palo Alto          |
| Oregon Expressway/Middlefield Road <sup>3</sup>                 | Palo Alto     | Santa Clara County |
| Arastradero Road/Foothill Expressway <sup>3</sup>               | Palo Alto     | Santa Clara County |
| Springer Road-Magdalena Avenue/Foothill Expressway <sup>3</sup> | Los Altos     | Santa Clara County |

Note (Table 1)

1. Central Expressway and Highway 237 operates at grade separation. Ferguson Drive and Central Expressway is the representative of the intersection.
2. This intersection, identified in CMP as the City of Sunnyvale jurisdiction, is impacted due City of Mountain View growth.
3. Impacted intersections identified in the North Bayshore Precise Plan Traffic Impact Analysis 2017.



**Figure 1. MIP Study Area and CMP Intersections**

### 1.3 Multimodal Improvement Plan Requirements

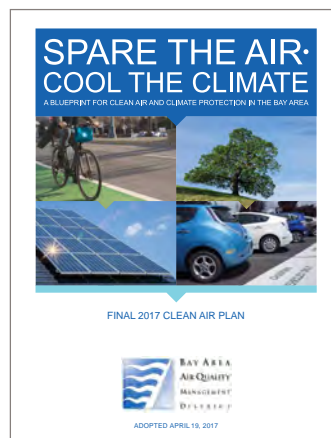
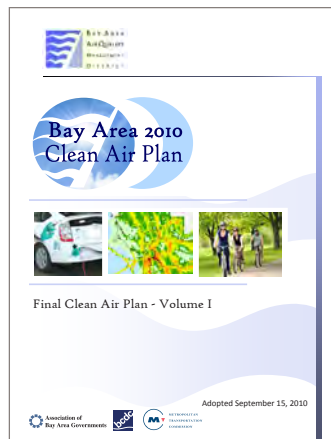
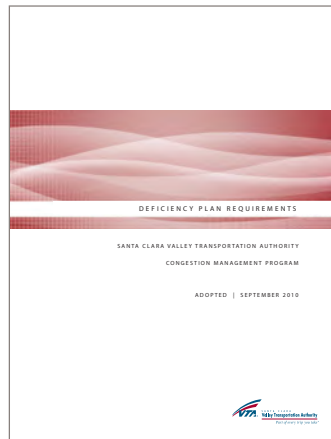
MIP requirements are equivalent to VTA Deficiency Plan Requirements. The Deficiency Plan Requirements adopted by VTA in 2010 describes required content, actions, and implementation standards to assist Member Agencies with deficiency plan preparation and responsibilities.

### 1.4 The BAAQMD Clean Air Plan

One goal of deficiency plans is to improve air quality. The VTA Deficiency Plan Requirements requires Member Agencies to use transportation control measures (TCMs) listed in the Air District's most recent Clean Air Plan in creating their Action List.

The current Clean Air Plan (CAP) was adopted in April 2017 during the development of this MIP. This CAP updates the 2010 CAP, including control strategy of feasible measures that envision into year 2050. The list of transportation control measures in the 2017 CAP, though not used, was reviewed and will be integrated with future updates of the MIP.

**Appendix A** compares the BAAQMD 2010 Clean Air Plan Transportation Control Measures (TCM) and the VTA Deficiency Plan Action List.



## 1.5 Transportation Analysis Under the MIP

The adoption of this MIP changes how Traffic Impact Analyses (TIAs) are conducted for specific development projects. Individual development projects must still conduct TIAs in compliance with the CMP. However, facility-specific mitigation may not be required if the project results in LOS impacts, as long as the project:

- is within the growth projections established in Chapter 4; and
- contributes to the Citywide MIP actions (eg, through payment of an impact fee).

If a project changes the City's projected growth and identifies new or greater impacts to CMP facilities, it shall mitigate those impacts. If the project cannot mitigate those impacts, the City may require that the project provide funding to update to this MIP, including additional actions to offset the new impacts.

## 1.6 Outreach and Plan Development

The MIP is largely based on previous Plans and Studies adopted by the City. Each of these Plans and Studies were developed and adopted with significant public input. In addition, the following additional outreach and input were collected during preparation of the MIP:

- A website was created to inform the public and identify ways to provide input.
- Four public meetings were held with the City Council and Council Transportation Committee.
- Informational Sessions were held with VTA advisory committees.
- Meetings with staff representatives of affected agencies were held at multiple times through the process.
- Meetings were held with developers and property owners to review the transportation impact fee.

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**2 EXISTING CONDITIONS**



This chapter provides an overview of the existing CMP roadway configurations, pedestrian environment, bicycle facilities and transit emphasizing on the major corridors that establish the City's transportation network, as of 2017.

## 2.1 CMP Roadway Network

### *Miramonte Avenue-Shoreline Boulevard*

Miramonte Avenue-Shoreline Boulevard runs between the North Bayshore to the north and the City limits to the south. Miramonte Avenue's General Plan street type is Residential Collector. It connects Foothill Expressway in the City of Los Altos with El Camino Real in the heart of Mountain View. It is generally four lanes with striped centerlines or landscaped medians.

Miramonte Avenue becomes Shoreline Boulevard at the intersection of El Camino Real. Shoreline Boulevard runs through a variety of land uses with respective street classifications. Its General Plan street type is partially a Residential Collector between El Camino Real and Central Expressway, a Major Retail Street between Highway 101 and Charleston Road, a Park Street north of Crittenden Lane, and an Avenue for the remaining parts. Shoreline Boulevard is generally four or six lanes with landscaped medians or an additional center turn lane. Note that the street classification is consistent with the 2030 General Plan.

### *Pedestrian Environment*

Street network primarily supports vehicular traffic with normal accommodations for pedestrians.

### *Bicycle Connectivity*

In most sections, Class II bike facility exists, with Class III in the remaining sections.

### *Transit Service*

VTA has designated Routes 34, 40, 52, 81, and 120 operating on disconnected segments of Miramonte Avenue and Shoreline Boulevard. The direct corridor connections are provided by MVgo West Bayshore and East Bayshore routes, operating from Amphitheatre Parkway to the Mountain View Transit Center.

SHORELINE BOULEVARD BETWEEN EL CAMINO REAL AND WRIGHT AVENUE



MIRAMONTE BOULEVARD BETWEEN YARDIS COURT AND EL CAMINO REAL





### Grant Road

Grant Road is a two-lane divided Avenue with striped left-turn pockets in the lower section, and a four-lane major arterial with landscaped median islands in the upper section where it connects to SR-237. The lower section is mostly residential while the upper section towards 237 mostly supports retail and commercial land uses. The Average Daily Traffic volumes range between 25,000 and 35,000 vehicles. The 2030 General Plan Goal LUD-10 emphasizes on Transit Oriented Developments (TOD) with strong connections with rest of the City for area residents and workers. Two specific policies; LUD 19.1 and LUD 19.4 propose increased land use intensities, Transit Oriented Developments and implementation of Transportation Demand Management (TDM) strategies.

### Pedestrian Environment

A minimum of five-foot wide sidewalk is provided on both sides along Grant Road. Crosswalks are provided at intersections.

### Bicycle Connectivity

Class II bike facility exists in the lower section of the street while a Class III bike facility exists in the upper section.

### Transit Service

The Mountain View Community Shuttle operates free shuttle service on Grant Road to connect with VTA Light Rail and Caltrain stations, and to serve El Camino Hospital.

GRANT ROAD BETWEEN CUESTA DRIVE AND PHYLLIS AVENUE



### ***El Camino Real***

El Camino Real is a six-lane divided Arterial and a major auto and transit corridor running through the center of Mountain View. It is owned and maintained by the State (Route 82). The average daily traffic volumes ranges between 35,000 to 55,000 vehicles. It supports a variety of land uses including retail, commercial and multi-family residential. Due to heavy traffic and multiple lanes throughout most of the entire length, crossing the street at many points is rather challenging making it difficult to connect neighborhoods on both sides. The 2030 General Plan, Goal LUD-20 calls for a vibrant transit and pedestrian corridor with a mix of land uses. Policies LUD 20.5 and LUD 20.7 will introduce new street designs and improve pedestrian facilities resulting in safety and accessibility within the corridor. The El Camino Real Precise Plan includes the entire segment within Mountain View for future improvements.

### ***Pedestrian Environment***

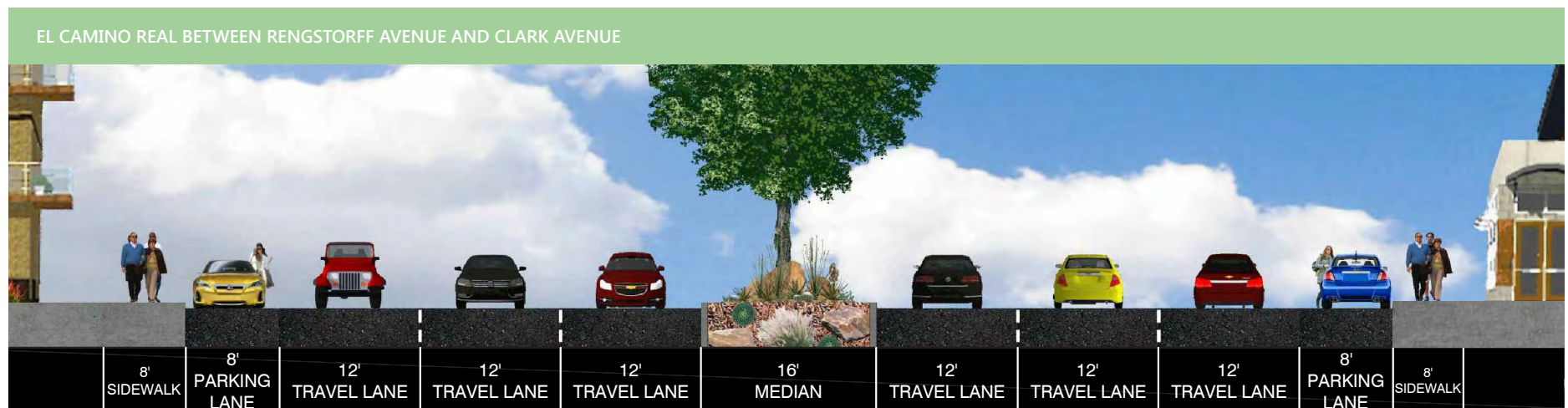
Sidewalks are fully built out on both sides along El Camino Real. Crossing locations are limited at major intersections.

### ***Bicycle Connectivity***

No bike facilities are provided on El Camino Real.

### ***Transit Service***

VTA operates cross-cities connections and rapid buses along El Camino Real.



### **Central Expressway**

Central Expressway is a County-owned and -operated route that runs from San Antonio Road through the Cities of Sunnyvale, Santa Clara and San Jose. It is typically four to six lanes with Average Daily Traffic in excess of 25,000 vehicles. It provides connections with major thoroughfares and highways within Mountain View, including San Antonio Road, Rengstorff Avenue, Shoreline Boulevard, Moffett Boulevard, CA-85, Whisman Road, and CA-237. The City has worked with the County to install sidewalk along the north side of Central Expressway from San Antonio Road to Moffett Boulevard.

### **Pedestrian Environment**

Pedestrian access is limited along the corridor.

### **Bicycle Connectivity**

Bicycles are allowed on Central Expressway but not encouraged due to high vehicle speed and free flow right turns.

### **Transit Service**

There are no transit services currently on Central Expressway.

CENTRAL EXPRESSWAY BETWEEN RENGSTORFF AVENUE AND THOMPSON AVENUE





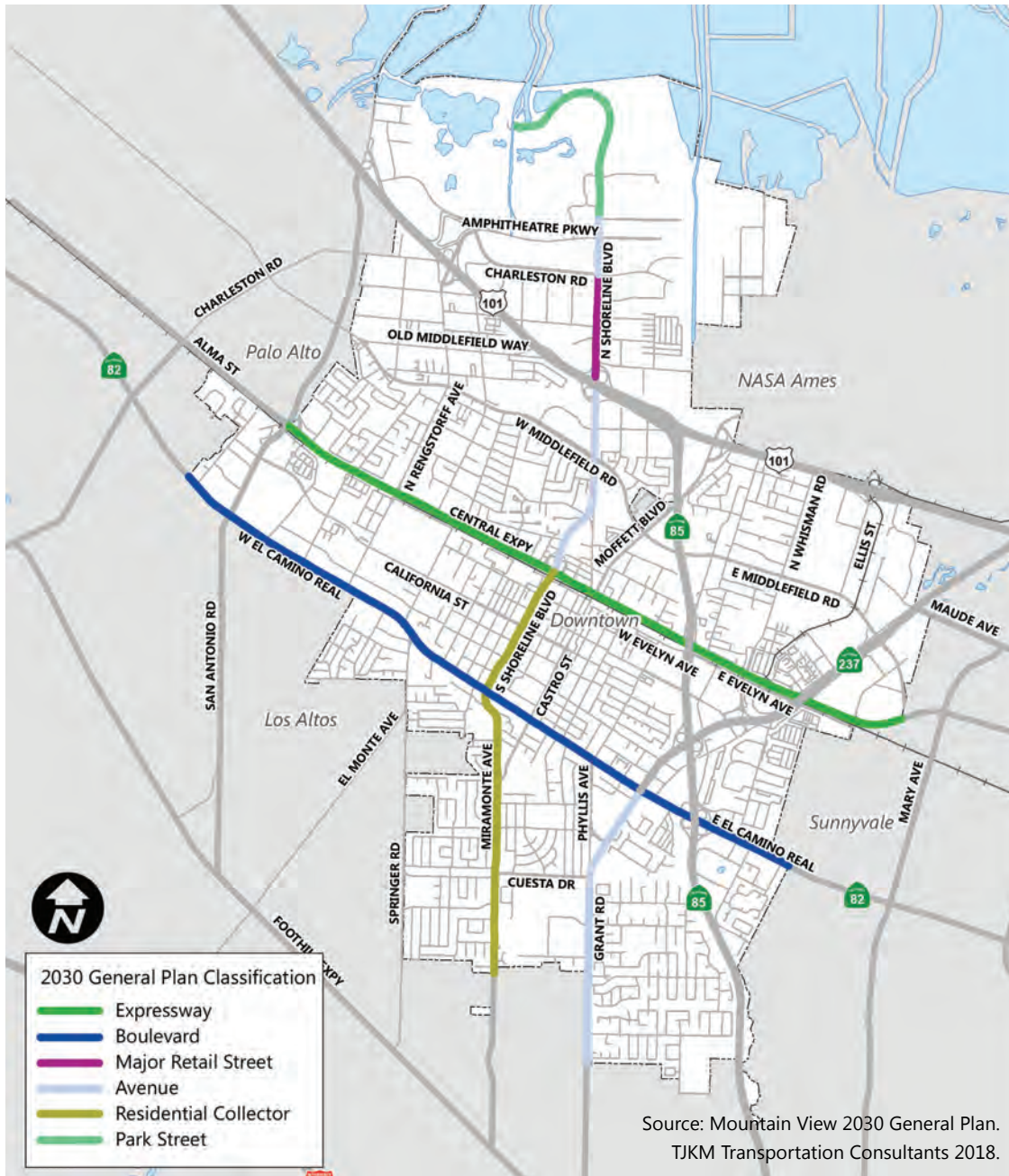


Figure 2. CMP Roadway Network

## 2.2 Pedestrian Environment

Mountain View's street network is fully built-out with sidewalks on both sides of most of the streets. The City has several recreational trails such as Stevens Creek Trail, Hetch Hetchy Trail and Permanente Creek Trail, offering recreational opportunities. Since pedestrian activity is dependent on many factors including the land use, density, street environment, vehicle speeds and volumes, the actual walkability varies from neighborhood to neighborhood.

The City has long realized the importance of walkability and therefore made significant improvements through sound policies identified in the 1982 and 1992 General Plans and subsequent investments in the pedestrian facilities.

The most recent update, 2030 General Plan builds on prior accomplishments and identifies opportunities to remove any barriers to walkability and create new opportunities for Mountain View residents and employees to walk to retail/shopping, entertainment, employment and transit.

The Pedestrian Master Plan (PMP) and precise plans identified major gaps and barriers in the citywide pedestrian network. This includes the lack of sidewalks (four percent of the City streets) in some residential neighborhoods south of El Camino Real and west of San Antonio Road, as well as in some light-industrial land uses within downtown.

Other elements of a safe and comprehensive pedestrian network, including well-designed curb

cuts, safe crossings at major roads and railroad tracks, are emphasized in these plans as potential improvement areas.

Central Expressway, in connection with neighborhoods on San Antonio Road and Caltrain Station, and the Mountain View Transit Center improvements are identified as potential opportunities that will increase walkability and connectivity with transit hubs.

In 2017, VTA adopted a Pedestrian Access to Transit Plan. This Plan includes key projects to improve access to major transit corridors and stations, including several focus areas on El Camino Real in Mountain View.



## 2.3 Bicycle Facilities

The City promotes bicycling as a primary mode of travel and strives to provide both commuters and recreational bicyclists opportunities to embrace bicycling over auto travel. Currently, the City streets provide nearly 60 miles of bikeways, connecting neighborhoods with employment bases, transit and commercial/retail establishments. This includes about 15 miles of Class I, 26 miles of Class II and nearly 17 miles of Class III bike facilities.

The Bicycle Transportation Plan Update (BTP) identified various types of bicycle network gaps along Central Expressway, El Camino Real, Shoreline

Boulevard, and other non-CMP facilities. The BTP also developed many policies, projects and strategies to close gaps and provide amenities and connectivity with transit nodes.

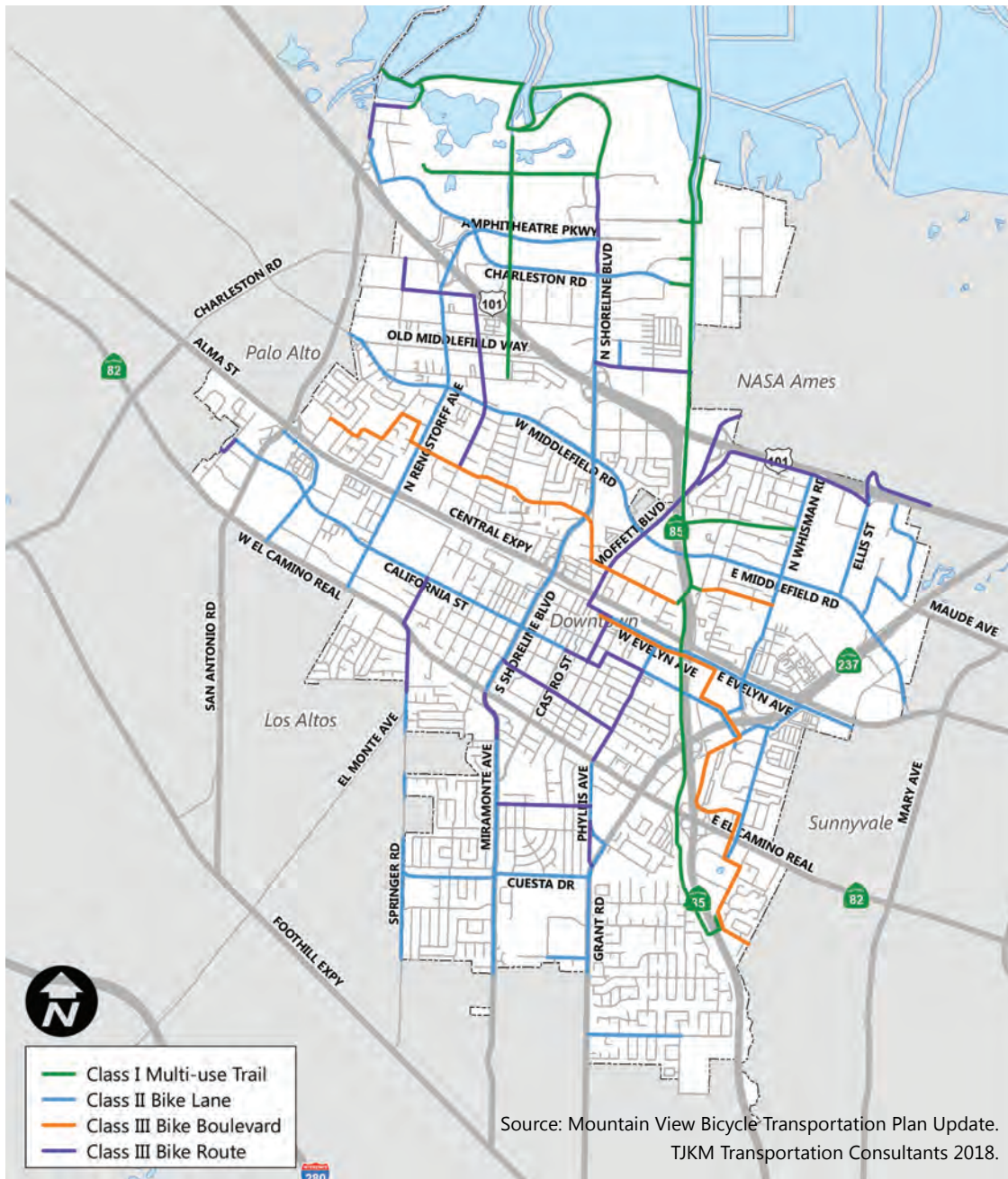
As of early 2018, VTA is developing a Countywide Bicycle Plan. This Plan includes key projects to improve regional bicycle travel, and identifies several key projects in Mountain View.

**Figure 3** shows the existing bicycle facilities within the City.

Google bicycle riders.  
Credit: Mini







**Figure 3. Existing Bicycle Facilities**

## 2.4 Transit Services

The City works with various public and private agencies to maintain a robust transit network. The City's extensive transit options that include private employer shuttles, Caltrain as well as VTA light rail and buses, provide safe and convenient access to employment, schools, retail and recreational facilities. The County's premier transit agency, VTA provides local and express bus services as well as light rail services. Caltrain provides high-speed commuter rail services that connect Mountain View to San Francisco towards the north end and Gilroy towards the south end of the service. Two Caltrain stations, Mountain View and San Antonio are within the City limits.

MVgo is a service of the Mountain View Transportation Management Association (MVTMA). It provides two routes on Shoreline Boulevard connecting North Bayshore with the Mountain View Transit Center. It also operates a loop line that connects the Whisman Change Area with the Mountain View Transit Center.

The Mountain View Community Shuttle is a free shuttle service, managed through a public-private partnership between the City of Mountain View and Google. The loop route serves 50 stops, including the Mountain View Transit Center, Whisman and Middlefield Roads, Rengstorff Park, and the Senior Center. A fleet of four electric shuttles, currently funded through 2018, are deployed seven days a week which emit zero greenhouse gas (GHG).



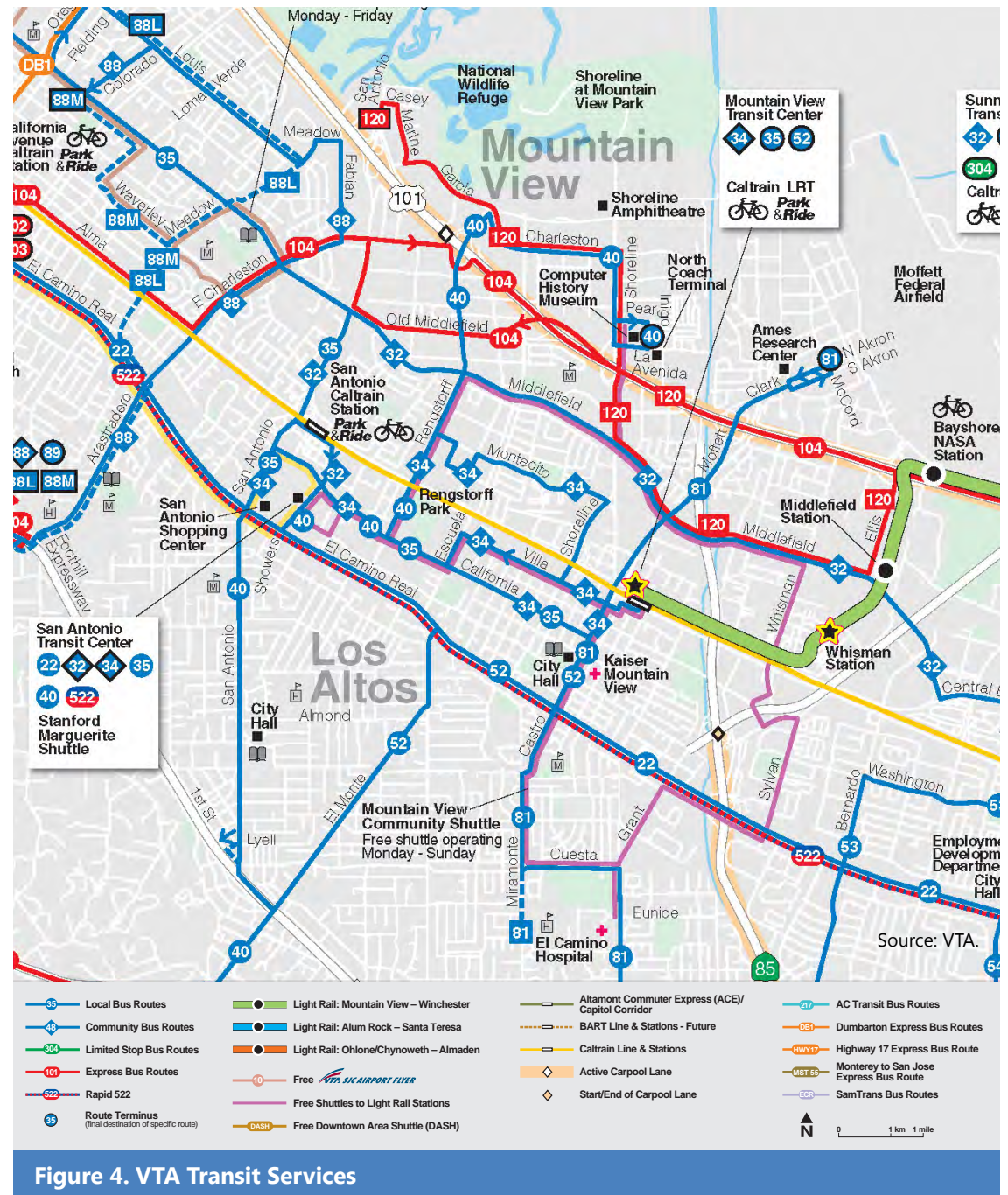
There are numerous employer-run shuttles that pick up and drop off commuters in Mountain View. Such services, provided by companies like Apple, Google, Facebook, Microsoft and Genentech significantly increase transit mode share and thereby relieve freeway congestion and reduce GHG emissions.

The Mountain View Transit Center supports multimodal transportation needs of the city residents and commuters. It currently accommodates over 12,000 daily trips, and requires significant expansion and enhancements to support the future needs. In summer 2017, the City adopted an ambitious Transit Center Master Plan that will guide future planning and investments, and create an integrated multimodal transit hub with double the capacity of the current transit center.

**Figure 4** shows VTA's transit service in Mountain View as of 2017. However, in 2018 VTA is expected to implement service based on their "Next Network", which will change routes significantly in Mountain View.

**Figure 5** shows local community shuttle routes.

Caltrain and VTA Light Rail.  
Credit: VTA





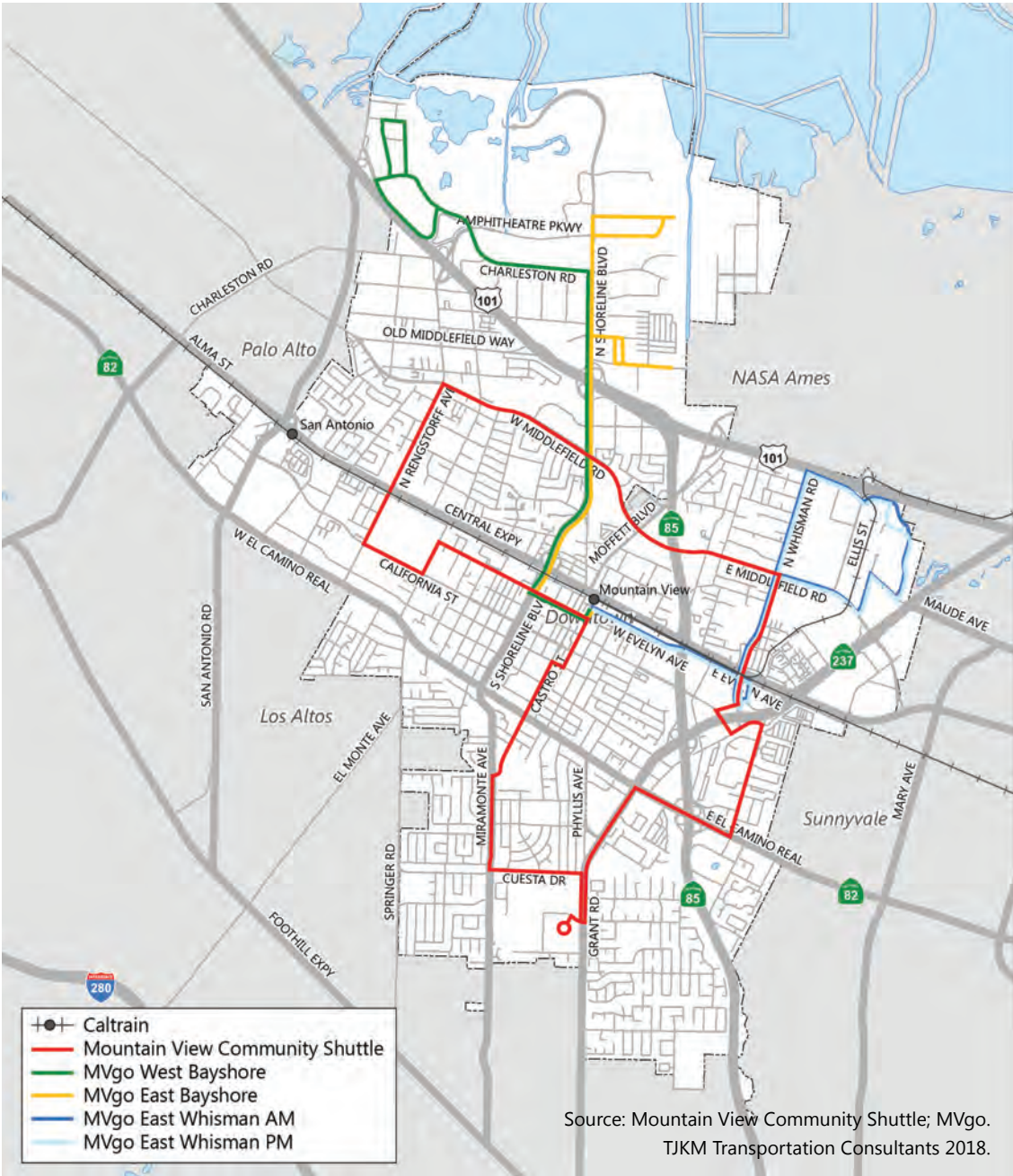
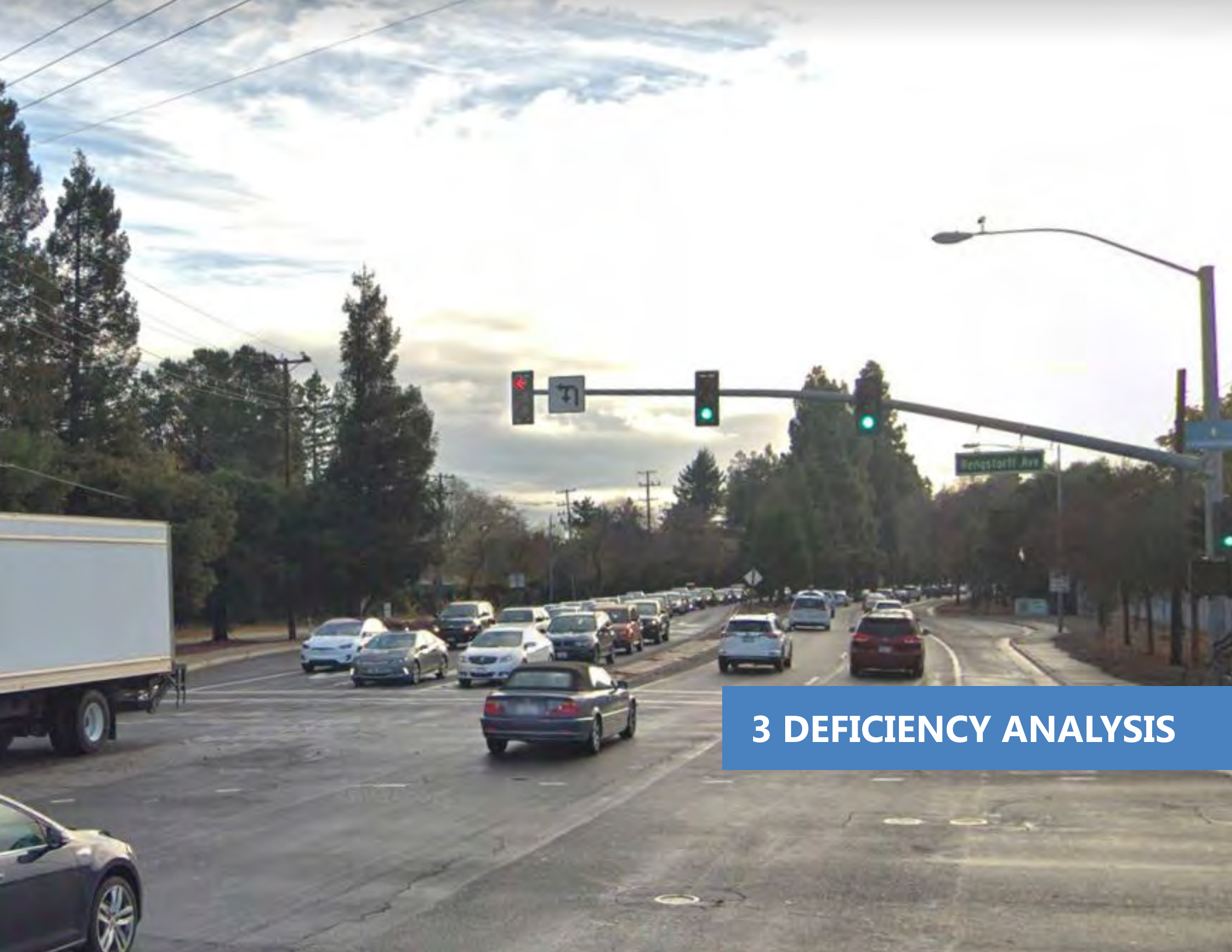


Figure 5. Existing City Transit Programs



### 3 DEFICIENCY ANALYSIS

This Chapter summarizes the Level of Service (LOS) analysis and results from the MIP deficiency analysis. In addition, the chapter concludes that LOS deficiencies cannot be brought into conformance without road widening, which would be inconsistent with the City's policies. The City of Mountain View is responsible for implementing multimodal actions in this document for offsetting the CMP deficiencies described in this chapter.

### 3.1 Development Projections and Traffic Growth

For the purpose of evaluating the potential effects on the transportation infrastructure, the City's 2030 General Plan prepared an estimate for future housing units, jobs, and population per implementation and likely levels of development of the General Plan. Since its adoption in 2012, new Precise Plans, Rezoning actions, and General Plan amendments have reported their effects on the transportation system through Transportation Impact Analyses (TIAs). These TIAs are reviewed by VTA, provide information for decision-makers, and inform mitigations relating to levels of service. The TIAs prepared as of 2018 formed the projected LOS impacts in this document.

Table 2. Analyzed Growth

| Land Use                              | General Plan Baseline (2012) | Analyzed Growth | Future Total |
|---------------------------------------|------------------------------|-----------------|--------------|
| Single Family Housing (dwelling unit) | 14,300                       | 2,149           | 16,449       |
| Multifamily Housing(dwelling unit)    | 19,581                       | 15,733          | 35,314       |
| Lodging (rooms)                       | 1,616                        | 564             | 2,180        |
| Retail/Services (square feet)         | 5,790,849                    | 560,800         | 6,351,649    |
| Office/R&D/Industrial (square feet)   | 19,268,745                   | 7,781,798       | 27,050,543   |

Source: City of Mountain View

As of 2018, the City's General Plan and Precise Plan analyses anticipate an approximately 52 percent growth in housing unit, 10 percent growth in retail and services, and 40 percent growth in offices, R&D and industrial space. **Table 2** shows the growth in number of dwelling units and square footage per land use type.



### 3.2 Level of Service Analysis

An MIP is required when a Member Agency's CMP facilities are projected to fall to LOS "F", or when a Member Agency's projects may impact another jurisdiction's CMP facilities, as determined in that project's TIA analysis.

Baseline conditions for this MIP are the existing conditions as of the adoption of the 2030 General Plan, in 2012. Intersection LOS was not studied at that time, but the analysis for the San Antonio, El Camino Real and North Bayshore Precise Plans (2014) did include intersection-level analysis. The baseline for these Precise Plans was also in 2012. The 2012 intersection-level LOS is shown in **Figure 6** for those CMP intersections within Mountain View. **Table 3** summarizes existing and future conditions for the intersections. No Mountain View intersections operated at LOS "F" in 2012.

Baseline dates for intersections outside Mountain View are based on the TIA that included the impact. Mountain View project impacts on other jurisdictions' facilities are based on multiple thresholds, including future LOS, change in delay, and near-term and cumulative scenarios. These facilities are listed in **Table 4**.

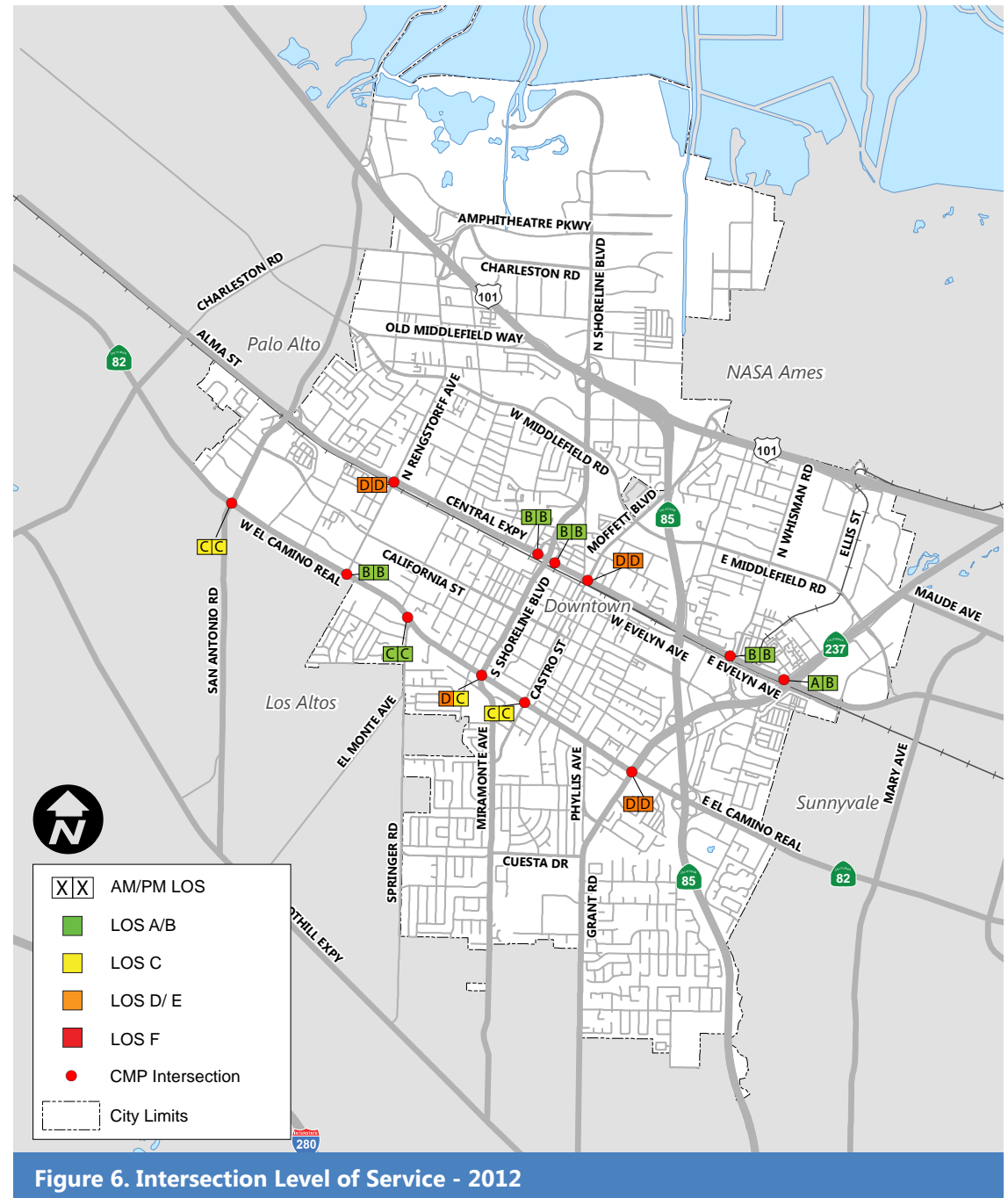


Figure 6. Intersection Level of Service - 2012

Table 3. CMP Intersection LOS - Existing and Future Conditions

| Intersection   | Jurisdiction       | Existing Conditions <sup>1</sup> |     | Future Conditions <sup>2</sup> |     |
|--|--------------------|----------------------------------|-----|--------------------------------|-----|
|  |                    | AM                               | PM  | AM                             | PM  |
|  |                    | LOS                              | LOS | LOS                            | LOS |
| Castro Street/El Camino Real <sup>4</sup>  | State              | C                                | C   | F                              | F   |
| El Monte Ave/El Camino Real  | State              | C-                               | C   | F                              | D   |
| SR 237 Ramps-Grant Road/El Camino Real <sup>4</sup>  | State              | D                                | D+  | F                              | E   |
| Shoreline Boulevard/El Camino Real   | State              | D+                               | C   | F                              | F   |
| Rengstorff Avenue/El Camino Real   | State              | B                                | B   | D                              | F   |
| San Antonio Road/El Camino Real  | State              | C-                               | C-  | F                              | F   |
| Rengstorff Avenue/Central Expressway   | Santa Clara County | D-                               | D-  | F                              | F   |
| Moffett Blvd-Castro Street/Central Expressway  | Santa Clara County | D                                | D   | F                              | F   |
| Shoreline Boulevard EB Ramps/Central Expressway  | Santa Clara County | B                                | B   | F                              | F   |
| Shoreline Boulevard WB Ramps/Central Expressway  | Santa Clara County | B+                               | B+  | F                              | F   |
| Whisman Station Road/Central Expressway  | Santa Clara County | B+                               | B+  | B                              | F   |
| Ferguson Drive/Central Expressway  | Santa Clara County | B                                | B+  | D                              | F   |
| <b>Note</b><br>1. Existing conditions base year 2012, retrieved from the San Antonio Precise Plan EIR.<br>2. 2030 conditions based on North Bayshore Precise Plan Traffic Impact Analysis 2017 or the San Antonio Precise Plan EIR 2014. |                    |                                  |     |                                |     |

Table 4. Impacted Intersections Outside Mountain View

| Intersection                                       | Jurisdiction       | Existing Conditions <sup>1</sup> |     | Future Conditions <sup>1</sup> |     |
|--|--------------------|----------------------------------|-----|--------------------------------|-----|
|  |                    | AM                               | PM  | AM                             | PM  |
|  |                    | LOS                              | LOS | LOS                            | LOS |
| Mary Avenue/Central Expressway <sup>2</sup>        | Santa Clara County | E-                               | D   | F                              | F   |
| Arastradero Road-Charleston Road/El Camino Real    | State              | D                                | D   | F                              | F   |
| San Antonio Road/Charleston Road                   | Palo Alto          | D                                | D   | F                              | F   |
| San Antonio Road/Middlefield Road                  | Palo Alto          | D                                | E+  | F                              | F   |
| Oregon Expressway/Middlefield Road                 | Santa Clara County | D                                | D   | F                              | F   |
| Arastradero Road/Foothill Expressway               | Santa Clara County | E+                               | F   | F                              | F   |
| Springer Road-Magdalena Avenue/Foothill Expressway | Santa Clara County | F                                | F   | F                              | F   |

Note

1. Existing Conditions (base year 2015) and Future Conditions, if not specified, retrieved from the North Bayshore Precise Plan Traffic Impact Analysis 2017.

2. Existing and Future Conditions retrieved from San Antonio Precise Plan EIR.

### 3.3 Mitigation Measures for Deficient Intersections

The VTA Deficiency Plan Requirements includes a requirement that Agencies make a finding that full mitigation of the roadway impact is infeasible. To do this, each intersection within the City was studied to determine what improvements would be necessary to maintain the CMP LOS standard (LOS "E"). Intersections outside the City are not under Mountain View's control, so improvements would need to be approved by the local jurisdiction.

The mitigation measures (shown in **Table 5**) increase vehicle traffic capacity at the intersections and will improve intersection operations to maintain the CMP's required LOS. The mitigation measures include adding travel lanes or reallocating lanes, which usually require widening the roadway or replacing pedestrian or bicycle right-of-way to accommodate vehicular traffic. As a result, the mitigation measures contradict to the visions, policies and plans established in the City's 2030 General Plan and other planning documents and are therefore considered infeasible for implementation.

Table 5. Impacted Intersections - Mitigation Measures and Feasibility

| Intersection  | Jurisdiction | Future Conditions <sup>1</sup> |     | Improvements Necessary to Maintain LOS  | Feasibility  |
|---|--------------|--------------------------------|-----|---|--|
|   |              | AM                             | PM  |   |  |
|   |              | LOS                            | LOS |   |  |
| Castro Street/El Camino Real <sup>2</sup>           | State        | F                              | F   | An additional EB right-turn only lane, an additional WB right-turn only lane on El Camino Real, and an additional NB through travel lane on Castro Street with signal optimization. | Infeasible. Adding EB and WB right-turn lanes conflicts with bicycle facility implementation on El Camino Real; or additional right-of-way needed for roadway widening.                    |
| El Monte Ave/El Camino Real                         | State        | F                              | D   | An additional NB right-turn only lane on El Monte Avenue with signal optimization.  | Infeasible. Adding a NB right-turn lane will result in the elimination of existing bike lane on El Monte Avenue, conflicting with City's visions of multimodal transportation development. |
| SR 237 Ramps-Grant Road/El Camino Real <sup>2</sup> | State        | F                              | E   | An additional EB and WB through lane.   | Infeasible. Improvements will require roadway widening on El Camino Real and will not result in significant improvement on average intersection stop delays.                               |



| Intersection                                  | Jurisdiction       | Future Conditions <sup>1</sup> |     | Improvements Necessary to Maintain LOS   | Feasibility  |
|---|--------------------|--------------------------------|-----|--|--|
|   |                    | AM                             | PM  |  |  |
|   |                    | LOS                            | LOS |  |  |
| Shoreline Boulevard/El Camino Real            | State              | F                              | F   | An additional WB through lane, an additional SB right-turn only lane, and an additional SB left-turn lane.   | Infeasible. Improvements will maintain acceptable LOS in 2030 without roadway widening, while affecting planned improvements for other travel modes.   |
| Rengstorff Avenue/El Camino Real              | State              | D+                             | F   | An additional SB right-turn only lane, a WB through lane, and a WB right-turn lane.  | Infeasible. The improvements will require roadway widening on both Rengstorff Avenue and El Camino Real.   |
| San Antonio Road/El Camino Real               | State              | F                              | F   | Two additional WB through lanes, an additional EB through lane, and an additional NB through lane.   | Infeasible. The improvements will require roadway widening on both San Antonio Road and El Camino Real. The grade separation proposed in the Action Plan may improve LOS performance                 |
| Rengstorff Avenue/Central Expressway          | Santa Clara County | F                              | F   | Two additional WB and EB through lanes; convert NB to one left-turn, one through, and one shared through and right-turn lane.  | Infeasible. The improvements will require roadway widening on Central Expressway.  |
| Moffett Blvd-Castro Street/Central Expressway | Santa Clara County | F                              | E+  | Add one NB right-turn lane; convert NB shared left-turn and through lane to through lane; add one SB right-turn lane and convert SB shared through and right to through lane; add one EB left-turn lane, one EB through lane, one WB through lane; convert split phase to protected left turns; optimize cycle length. | Infeasible. Improvements conflicts with bicycle improvement projects at the intersection, or requires roadway widening. The grade separation proposed in the Action Plan may improve LOS performance |
| Ferguson Drive/Central Expressway             | Santa Clara County | D-                             | F   | Add one WB through lane; optimize cycle length.  | Infeasible. Improvements cannot be implemented without roadway widening, while impacting on planned improvements for other modes of travel.  |

## Note

1. Future conditions, if not specified, retrieved from the North Bayshore Precise Plan Traffic Impact Analysis 2017.
2. Future conditions retrieved from San Antonio Precise Plan EIR.

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## 4 MULTIMODAL ACTION LIST AND ACTION PLAN



## CHAPTER 4

This Chapter describes the draft list of actions and implementation plan to offset future citywide LOS deficiencies previously discussed on CMP facilities. All the identified actions and policies improve systemwide mobility and/or regional air quality. The actions improve multimodal circulation, set regulations to reduce vehicle trips, manage parking, and create plans for infill, transit-oriented developments. The list of actions is developed from the City's recent transportation related plans and policies, the 2030 General Plan, recent Precise Plans, Capital Improvement Programs (CIP), public outreach and feedback from the Council Transportation Committee (CTC), City Council, and VTA and other jurisdictions' staff, and extensive analyses of local roadways. The Draft Action List was also reviewed and supported by VTA Committees in Spring 2017.

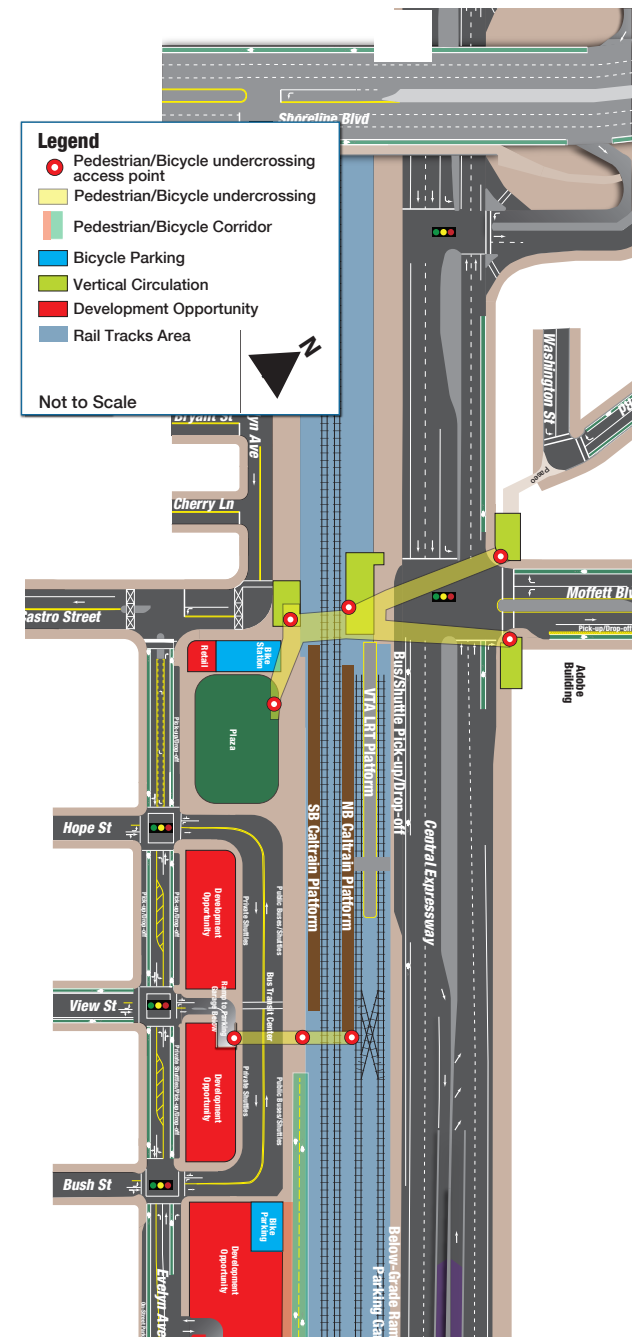
The list of actions follows the Transportation Control Measures (TCMs) listed in the 2010 BAAQMD Clean Air Plan for supporting air quality improvements in the transportation sector. Though the City has attempted to include every BAAQMD TCM among the actions, some TCMs are not relevant to the City of Mountain View. Specifically, TCM B-4 (Goods Movement Improvements and Emission Reduction Strategies) is not relevant to Mountain View, since the City is not a significant origin or destination for goods movement; and TCM E-1 (Value Pricing Strategies) is not relevant to Mountain View, since the TCM refers specifically to bridges and the City & County of San Francisco. Every other BAAQMD TCM is represented in the list.

The actions are presented in the following categories:

- Transit Service
- Bicycle and Pedestrian Access and Facilities
- Freeway and Arterial Operations
- Transportation Demand Management Strategies
- Land Use Strategies

The actions have all been programmed or identified since the adoption of the City's 2030 General Plan. The statuses shown in the Schedule column denote the following:

- Completed: Actions programmed after the General Plan, and have since been completed
- Programmed/Underway: Actions programmed after the General Plan, but have not been completed
- Unscheduled: Actions with no defined implementation date or funding
- Ongoing: Actions (or policies) that are not expected to end



Credit: City of Mountain;  
Kimley-Horn.



Potential Funding Sources are also identified for each unfunded action. Sources in the table are general, to support future flexibility. They are:

- Existing City Funding Sources: these include CIP and General Fund sources, such as the CIP Reserve and Construction-Conveyance Tax; grants; developer requirements and contributions; and others. The North Bayshore Transportation Impact Fee is another existing funding source, specifically identified for some actions.
- New Transportation Impact Fee and Related Sources: Some actions are included in a nexus study for funding through a new transportation impact fee. These project costs are also supplemented with Existing Funding Sources and outside sources. See the Nexus Study for more information.
- Funded actions do not identify a source.
- Ongoing actions are funded through existing staffing.

The action list and action plan is summarized in **Table 6** through **Table 10**. **Figure 7** provides an overview of the physical projects by mode of transportation.

## 4.1 Transit Service

The City has long maintained forward-looking land use and transportation policies that promote use of public transit. The 2030 General Plan identifies goals and policies for the community's growing needs for safe, convenient and efficient transit services, both within the City and regional.

This section describes actions to improve the City and regional bus and rail services; and improve transit efficiency to make it more convenient for users, listed in **Table 6**. The actions - transit studies, programs, and transit facility design and constructions, support these goals and will not only help the City increase transit use, but also help reduce Greenhouse Gas emissions and improve air quality.

Standards required for this section include the overarching guidelines outlined in the 2030 General Plan and the subsequent Precise Plans. Any item that includes bicycle and pedestrian improvements should also be consistent with the City's Pedestrian Master Plan, Bicycle Transportation Plan Update and VTA's Pedestrian and Bicycle Technical Guidelines.

Unless otherwise specified, the approval criteria is that VTA will verify project completion.

Table 6. Action List and Action Plan : Transit Service

| ID  | Action Name  | Description   | Estimated Cost | Potential Funding Sources                          | Responsibility / Review | Schedule and Timing | Standards and Approval Criteria   |
|-----|--|---|----------------|--|-------------------------|---------------------|---|
| 1.1 | Mountain View Community Shuttle                                | Continue to partner with Google to operate the Mountain View Community Shuttle.   | N/A            | -  | City and partners       | Ongoing             | Frequent collaboration and meetings with Google to ensure constant operations.                                      |
| 1.2 | Shoreline Transit Corridor, Feasibility Study                  | Perform study of a dedicated pedestrian, bicycle, and transit corridor between the Downtown Transit Center and the North Bayshore Area, including the possible construction of an additional bridge connection over U.S. Route 101 near the existing Shoreline Boulevard crossing, as well as the accommodation of evolving transportation modes in the future (e.g., personal rapid transit, automated people movers, etc.). | \$600,000      | Funded   | City                    | Completed           | Study should be based on visions, goals, and guidelines provided in the City's 2030 General Plan and Precise Plans. |
| 1.3 | Shoreline Boulevard Bus Lane and Utility Improvements (Design) | Design the reversible bus lane along Shoreline Boulevard from Middlefield Road to Space Park Way.   | \$2,955,000    | Existing City Funding Sources (North Bayshore TIF) | City                    | Underway 1-3 years  | -   |

| ID  | Action Name  | Description  | Estimated Cost                    | Potential Funding Sources   | Responsibility / Review                        | Schedule and Timing                               | Standards and Approval Criteria  |
|-----|--|--|-----------------------------------|---|--|---|--|
| 1.4 | Shoreline Boulevard Bus Lane and Utility Improvements (Construction) | Construct the reversible bus lane along Shoreline Boulevard from Middlefield Road to Space Park Way.   | \$12,514,000                      | Existing City Funding Sources (North Bayshore TIF)                  | City   | Programmed 1-3 years                              | -  |
| 1.5 | Transit Center Master Plan   | Implement the Transit Center Master Plan in two phases: 1) Eliminate existing at-grade vehicle and pedestrian track crossings (including new ramp to Shoreline Boulevard and new pedestrian and bicycle under-crossing); expand and realign Caltrain platforms; add connecting protected bike facilities; modify Centennial Plaza; and 2) Engage a private sector partner to reconstruct the Transit Center with expanded bus/shuttle facilities, additional parking and integrated joint development. The Master Plan includes grade separation alternatives; Station improvements (e.g., platform dimensions, bicycle and pedestrian access to platforms, other passenger amenities); bus and shuttle loading areas; bicycle and pedestrian access; parking; and land use and potential development. <b>Approved 5/23/16</b> | \$1,000,000                       | Funded  | City with Regional and Private Sector Partners | Completed   | -  |
| 1.6 | Transit Center Next Steps  | More detailed study of options and preliminary design of the Transit Center.   | \$1,000,000                       | Funded  | City   | Underway 1-3 years                                | -  |
| 1.7 | Transit Center Master Plan Construction                              | Phase I - Grade Separation of Castro/Moffett with tracks<br><br>Phase II - Joint Development for Parking Structure, Retail, etc.   | \$60,000,000<br><br>\$130,000,000 | New Transportation Impact Fee and Related Sources (See Nexus Study) | Measure B Funding<br><br>Private Development   | Programmed 4-7 years<br><br>Programmed 8-10 years | VTA will expect the City to continue to make progress on both Phase I and Phase II planning, design and environmental clearance. |
| 1.8 | Charleston Road Improvements (Feasibility Study)                     | Feasibility study to develop the first phase of transit boulevard improvements along Charleston Road from Shoreline Boulevard to Amphitheatre Parkway within the existing right-of-way as described in the North Bayshore Precise Plan. This project will provide infrastructure for mass transit and relieve traffic congestion.  | \$762,000                         | Existing City Funding Sources (North Bayshore TIF)                  | City   | Underway 1-3 years                                | -  |
| 1.9 | Charleston Road Improvements (Design)                                | Design of Charleston Road Improvements.  | \$2,365,000                       | Existing City Funding Sources (North Bayshore TIF)                  | City   | Underway 1-3 years                                | Design should be based on the analysis conducted in the feasibility study.   |

| ID   | Action Name  | Description   | Estimated Cost | Potential Funding Sources                          | Responsibility / Review     | Schedule and Timing  | Standards and Approval Criteria  |
|------|--|---|----------------|--|-----------------------------|----------------------|--|
| 1.10 | Charleston Road Improvements (Construction)                | Construction of Charleston Road Improvements.   | \$16,110,000   | Existing City Funding Sources (North Bayshore TIF) | City                        | Programmed 4-7 years | Construction should be based on detailed design of the improvements.   |
| 1.11 | MOB 5.1: Transit Agencies (2030 General Plan)              | Coordinate with local and regional transit agencies including Metropolitan Transportation Commission, VTA, JPB (Caltrain), SamTrans and the California High-Speed Rail Authority to improve transportation service, infrastructure and access in the city.  | N/A            | -  | City with Regional Agencies | Ongoing              | -  |
| 1.12 | MOB 5.2: California High-Speed Rail (2030 General Plan)    | Actively participate with the California High Speed Rail Authority in planning any future high-speed rail service to address urban design, traffic, noise and compatibility issues.   | N/A            | -  | City with CHSRA             | Ongoing              | -  |
| 1.13 | MOB 5.3: Local Transportation services (2030 General Plan) | Create or partner with transit providers, employers, educational institutions, major commercial entities and event organizers to improve local transportation services.   | N/A            | -  | City and other Partners     | Ongoing              | Action should be implemented through more detailed plans developed by the City in collaboration with involved stakeholders and agencies.   |
| 1.14 | MOB 5.5: Access to Transit Services (2030 General Plan)    | Support right-of-way design and amenities consistent with local transit goals to make it easier to get to transit services and improve transit as a viable alternative to driving. Pursue bus stop improvements citywide (e.g. bus stop amenities, connection sidewalks, ADA access and lighting). Continue to work with VTA on prioritizing transit speed and reliability especially on major corridors such as El Camino Real and Shoreline Blvd. | N/A            | -  | City and VTA                | Ongoing              | -  |
| 1.15 | Expand MVTMA Service                                       | Using the development entitlement process to create the Mountain View Transportation Management Association (MVTMA), and to continue to add members and services. (The MVTMA currently operates the MVGo Shuttle)   | N/A            | -  | City and MVTMA              | Ongoing              | Ongoing outreach efforts should be programmed to foster future collaborations. VTA will require to include this ongoing action in the Implementation Status Report as part of the monitoring process |



| ID   | Action Name   | Description  | Estimated Cost | Potential Funding Sources   | Responsibility / Review | Schedule and Timing    | Standards and Approval Criteria  |
|------|---|--|----------------|---|-------------------------|------------------------|--|
| 1.16 | Automated Guideway Transit Feasibility Study                        | The study focuses on a new transit line linking the Downtown Transit Center and the North Bayshore area, which will look into the automated-guideway transit (AGT) and potential routes for the AGT. | \$302,000      | Funded  | City                    | Underway               | Study should be based on visions, goals, and guidelines provided in the City's 2030 General Plan and Precise Plans. VTA will require to include this ongoing action in the Implementation Status Report as part of the monitoring process. |
| 1.17 | Stevens Creek Transit Bridge (between NASA Ames and North Bayshore) | A new bicycle and pedestrian transit-only bridge across Stevens Creek between NASA Ames and North Bayshore, facilitating a connection from North Bayshore to VTA light rail.                         | \$50,000,000   | New Transportation Impact Fee and Related Sources (See Nexus Study) | City                    | Unscheduled 8-10 years | A study should be conducted for feasibility analysis. Design and construction should be based on directions and guidelines provided in the feasibility study. VTA will require this action be implemented by expected timing.              |

## 4.2 Bicycle and Pedestrian Access and Facilities

This section describes actions to improve access and safety for bicyclists and pedestrians in the vicinity of schools and transit nodes and thereby encourage more bicycling and walking, listed in **Table 7**. The bicycle-related actions conform with the goal of the City's Bicycle Transportation Plan of providing safe and efficient bicycling network that improves access, eliminates barriers to bicycle travel, encourages auto trip reduction and promotes cycling as a recreational activity and a transportation option. Improvement projects generally include gap closure, bicycle place making, enhanced bicycle safety by creating protected and buffered bicycle lanes, and bicycle connectivity with other modes, e.g., transit nodes.

The pedestrian-related actions were identified to improve the walking environment by addressing these deficiencies in a number of ways that included lowering speeds on city streets, improving connections to the transit centers and updating its Pedestrian Master Plan with appropriate policies and strategies. Some of the proposed projects include road diet studies, sidewalks and streetscape enhancements, trails improvements and ADA accessibility related enhancements.

All projects shall be consistent with the City's Pedestrian Master Plan, Bicycle Transportation Plan Update and VTA's Pedestrian and Bicycle Technical Guidelines. Additionally, multiple items with intersections between bike/peds and transit should meet the standards in VTA's Pedestrian Access to Transit Plan. VTA's Countywide Bicycle Plans shall also be referenced as many of the items improve routes on both the City's and VTA's Plans.

Unless otherwise specified, the approval criteria is that VTA will verify project completion.



Table 7. Action List and Action Plan: Bicycle and Pedestrian Access and Facilities

| ID  | Action Name   | Description  | Estimated Cost | Potential Funding Sources   | Responsibility / Review | Schedule and Timing  | Standards and Approval Criteria |
|-----|---|--|----------------|---|-------------------------|----------------------|---------------------------------|
| 2.1 | San Antonio/Mayfield Pedestrian and Bicycle Tunnel (Design)       | The tunnel will serve pedestrians and bicyclists crossing Central Expressway at Mayfield Avenue to avoid conflicts with surface traffic and increase walking and bicycle usage from and to the Caltrain station. | \$3,200,000    | Funded  | City                    | Programmed 1-3 years | -                               |
| 2.2 | San Antonio/Mayfield Pedestrian and Bicycle Tunnel (Construction) | Construction of the San Antonio/Mayfield Pedestrian and Bicycle Tunnel   | \$7,000,000    | New Transportation Impact Fee and Related Sources (See Nexus Study) | City                    | Programmed 4-7 years | -                               |

| ID  | Action Name                                       | Description   | Estimated Cost | Potential Funding Sources   | Responsibility / Review | Schedule and Timing   | Standards and Approval Criteria  |
|-----|---|---|----------------|---|-------------------------|-----------------------|--|
| 2.3 | Crosswalk Safety and Traffic Calming Improvements | Improvements along South Shoreline Boulevard, at Mercy Street/Calderon Avenue intersection, Dana Street/Pioneer Way intersection, Ellis Street/Hetch-Hetchy intersection, and Middlefield Road/Independence Ave intersection.   | \$455,000      | N/A   | City                    | Completed             | -  |
| 2.4 | Planned Pedestrian Improvements                   | Major pedestrian improvements will be implemented on Cuesta Drive, at Springer Elementary School, Castro Elementary School, El Monte Ave/Marich Way intersection, Linda Vista Avenue/Terra Bella Avenue intersection, and across El Camino Real at Distel Drive and across San Antonio Road and Miller Avenue.  | \$700,000      | New Transportation Impact Fee and Related Sources (See Nexus Study) | City and Los Altos      | 1-3 years and ongoing | -  |
| 2.5 | Green Bicycle Lanes                               | Green bicycle lanes at Shorebird Way, Crittenden Lane, Cuesta Drive/Miramonte Avenue intersection, Grant Road/Bryant Street intersection, and El Camino Real/Sylvan Avenue intersection.  | \$161,000      | N/A   | City                    | Completed             | Projects should be consistent with City's Pedestrian Master Plan, and VTA's Pedestrian Technical Guidelines. VTA will require a proof of project completion on this completed action 12 months within the adoption of MIP. |
| 2.6 | Planned Green Bicycle Improvements                | Planned green bicycle lane projects at Ellis Street (connecting to the NASA Bayshore LRT station), Middlefield Road (east of Whisman Road), San Antonio Road (between El Camino Real and California Street), Moffett Boulevard/Central Expressway intersection, Maude Avenue/237 intersection, Bernardo Avenue/Evelyn Avenue intersection, Whisman Road/Google Drive intersection, Rengstorff Avenue/Montecito Avenue intersection. | \$600,000      | New Transportation Impact Fee and Related Sources (See Nexus Study) | City                    | 1-3 years and ongoing | Projects should be consistent with City's Bicycle Transportation Plan Update, and VTA's Bicycle Technical Guidelines. VTA will require this action be implemented by expected timing.                                      |
| 2.7 | Planned Green Bicycle Improvements                | Planned green bicycle lane projects at Castro Street (between El Camino Real and Miramonte Avenue)  | \$1,363,000    | Funded  | City                    | Completed             | Projects should be consistent with City's Bicycle Transportation Plan Update, and VTA's Bicycle Technical Guidelines. VTA will require this action be implemented by expected timing.                                      |

| ID   | Action Name  | Description  | Estimated Cost | Potential Funding Sources   | Responsibility / Review      | Schedule and Timing   | Standards and Approval Criteria   |
|------|--|--|----------------|---|------------------------------|---|---|
| 2.8  | Planned Green Bicycle Improvements                     | Planned green bicycle lane projects at Calderon Avenue   | \$500,000      | Existing City Funding Sources                                       | City                         | Programmed 1-3 years  | Projects should be consistent with City's Bicycle Transportation Plan Update, and VTA's Bicycle Technical Guidelines. VTA will require this action be implemented by expected timing. |
| 2.9  | New Signal at Mountain View Community Center           | A new traffic signal will be installed at the intersection of Rengstorff Avenue and Stanford Avenue; pedestrian phase will be provided for the existing crosswalk.   | \$1,500,000    | Funded  | City                         | Underway 1-3 years  | Project should be constructed based on detailed signal plans for the intersection. VTA will require this action be implemented by expected timing.                                    |
| 2.10 | New Standards for Bicycle Parking and Amenities        | Update the Zoning Ordinance Bicycle Parking Standards, such as requiring more bicycle parking and requiring bicycle commuter amenities in office developments.   | N/A            | N/A   | City                         | Unscheduled 1-3 years                                       | Projects should be consistent with City's Bicycle Transportation Plan Update, and VTA's Bicycle Technical Guidelines. VTA will require this action be implemented by expected timing. |
| 2.11 | El Camino Real Streetscape and Pedestrian Improvements | Implement the El Camino Real Precise Plan standards and guidelines for streetscape improvements, including improved crosswalks, landscaping, widened sidewalks, bus bulbs, pedestrian lighting and passenger amenities. The El Camino Real Streetscape Plan will provide additional guidance for these improvements. | \$5,964,000    | Funded  | City and private development | 1- 3 years for Streetscape Plan, Ongoing for redevelopment. | Projects should be consistent with the El Camino Real Precise Plan, and VTA's Pedestrian Technical Guidelines. VTA will require this action be implemented by expected timing.        |
| 2.12 | San Antonio Streetscape and Pedestrian Improvements    | Implement the San Antonio Precise Plan standards and guidelines for streetscape improvements, including improved crosswalks, landscaping, widened sidewalks, pedestrian lighting and amenities.  | \$1,924,650    | Existing City Funding Sources                                       | City and private development | Ongoing   | Projects should be consistent with design guidelines and details in the San Antonio Precise Plan.   |
| 2.13 | Central Expressway Bicycle Overpass Feasibility Study  | Conduct a feasibility study for a bicycle overpass over Central Expressway, linking Escuela Avenue and Farley Street (part of the Permanente Creek trail).   | \$450,000      | Existing City Funding Sources                                       | City                         | Unscheduled 1-3 years                                       | -   |
| 2.14 | Central Expressway Bicycle Overpass                    | Construct a grade-separated bicycle path across Central Expressway, linking Escuela Avenue and Farley Street (part of the Permanente Creek trail).   | \$20,000,000   | New Transportation Impact Fee and Related Sources (See Nexus Study) | Regional Partnership         | Unscheduled 8-10 years                                      | -   |



| ID   | Action Name                                 | Description   | Estimated Cost | Potential Funding Sources   | Responsibility / Review        | Schedule and Timing   | Standards and Approval Criteria   |
|------|---|---|----------------|---|--------------------------------|-----------------------|---|
| 2.15 | Stevens Creek Trail Extension.              | Design and construct the Stevens Creek Trail from Dale/Heatherstone to Mountain View High.  | \$15,000,000   | New Transportation Impact Fee and Related Sources (See Nexus Study) | City, Sunnyvale, and Los Altos | Unscheduled 4-7 years | Project should be consistent with guidelines provided in the City' Bicycle Transportation Plan Update, and existing/ prospective trails in other jurisdictions. |
| 2.16 | Bicycle path along Shoreline Boulevard      | The project will construct a bicycle path on Shoreline Boulevard between Villa Street and Wright Avenue. Feasibility study for this project is in progress.   | \$3,200,000    | New Transportation Impact Fee and Related Sources (See Nexus Study) | City                           | Programmed 1-3 years  | -   |
| 2.17 | City-wide, On-street Bicycle Improvements   | Design and construction of bicycle network improvements at El Monte Ave to Escuela Avenue across El Camino Real   | \$165,000      | Existing City Funding Sources                                       | City                           | Unscheduled 4-7 years | -   |
| 2.18 | City-wide, On-street Bicycle Improvements   | Design and construction of bicycle network improvements at Shoreline Boulevard to Miramonte Avenue across El Camino Real  | \$165,000      | Existing City Funding Sources                                       | City                           | Unscheduled 4-7 years | -   |
| 2.19 | City-wide, On-street Bicycle Improvements   | Design and construction of bicycle network improvements at Bernardo Avenue from Central Expressway to Middlefield Rd  | \$81,000       | Existing City Funding Sources                                       | City                           | Unscheduled 4-7 years | -   |
| 2.20 | Latham / Church Bike Boulevard Study        | Design of a bike boulevard or other bike improvements on Latham and Church from Grant Road to Showers Drive.  | \$130,000      | Funded  | City                           | Underway 1-3 years    | -   |
| 2.21 | Latham / Church Bike Boulevard Construction | Construction Phase I.   | \$2,430,000    | New Transportation Impact Fee and Related Sources (See Nexus Study) | City                           | Programmed 4-7 years  | -   |
| 2.22 | Colony Street to Creek Trail                | Construct bridge over creek to connect Colony Street to Permanente Creek Trail.   | \$1,150,000    | New Transportation Impact Fee and Related Sources (See Nexus Study) | City                           | Programmed 4-7 years  | -   |
| 2.23 | Cycle Track Study                           | City-wide Cycle-track feasibility studies, which may include: Rengstorff Avenue Cycle Track, Moffett Boulevard Cycle Track, Old Middlefield Way Cycle Track, East Dana Cycle Track (Calderon Avenue to Moorpark), and West Evelyn Avenue Cycle Track. | \$1,500,000    | New Transportation Impact Fee and Related Sources (See Nexus Study) | City                           | Unscheduled 4-7 years | -   |

| ID   | Action Name   | Description   | Estimated Cost | Potential Funding Sources | Responsibility / Review | Schedule and Timing   | Standards and Approval Criteria  |
|------|---|---|----------------|---------------------------|-------------------------|-----------------------|--|
| 2.24 | Modifications to Castro Street, between El Camino Real and Miramonte Avenue | Improve pedestrian and bicycle safety by reducing vehicle lanes from two to one in each direction, add bicycle lanes, install curb bulb-outs at intersections, add high-visibility crosswalks with in-roadway warning lights at two crosswalks, and eliminate the free right turn from Castro Street to Miramonte Avenue. (14-36) | \$1,300,000    | Funded                    | City                    | Underway<br>1-3 years | -  |
| 2.25 | Permanente Creek Trail - Charleston Road and Amphitheatre Parkway Crossings | Design and construct a new at-grade signalized trail crossing at Charleston Road and design improvements to the existing undercrossing at Amphitheatre Parkway to eliminate/reduce flooding impacts on the trail and improve the vertical clearance for bicyclists.   | \$605,000      | Funded                    | City                    | Underway<br>1-3 years | -  |
| 2.26 | Grant/Phyllis/Martens Intersection  | Pedestrian improvements including shortened pedestrian crossing distances, elimination of free right-turn lanes to reduce vehicle speeds, and replacement of an aging traffic signal with a new signal with a dedicated left-turn movement.   | \$897,000      | Funded                    | City                    | Underway<br>1-3 years | -  |
| 2.27 | Castro/Moffett/Central Intersection Near Term Improvements                  | Design, permit and construct near-term pedestrian and bicycle improvements at the Castro Street/Moffett Boulevard/Central Expressway intersection. Includes the elimination of the free right turn lane at the Northeast corner of Moffett Boulevard and Central Expressway.  | \$1,700,000    | Funded                    | City, JPB, and County   | Underway<br>1-3 years | Project should be consistent with visions and goals provided in the 2030 General Plan and Precise Plans. |
| 2.28 | Permanente Creek Trail – Rock Street to West Middlefield Road, Construction | The City is partnering with the Mountain View Whisman School District (MVWSD) to integrate the extension of the Permanente Creek Trail extension from Rock Street to West Middlefield Road with the school site improvements at Crittenden Middle School currently under design.  | \$1,375,000    | Funded                    | City                    | Underway<br>1-3 years | -  |
| 2.29 | El Monte/Marich Pedestrian Improvements                                     | Design and construct pedestrian enhancements at and around the Marich/El Monte intersection.  | \$250,000      | Funded                    | City                    | Underway<br>1-3 years | -  |

| ID   | Action Name   | Description   | Estimated Cost | Potential Funding Sources                          | Responsibility / Review                | Schedule and Timing       | Standards and Approval Criteria  |
|------|---|---|----------------|--|--|---------------------------|--|
| 2.30 | East Whisman Area Transportation Oriented Development (TOD) Improvements          | Complete pedestrian, bicycle and other complete street projects at the Middlefield/237 interchange, the median islands on East Middlefield Road from North Whisman Road to the VTA light rail tracks, and pedestrian enhancements at the Ellis/101 interchange. Funding is primarily from TOD payments from three development locations: 690 Middlefield, 331 Fairchild, and 625 Clyde. | \$3,000,000    | Funded   | City                                   | Underway<br>1-3 years     | -  |
| 2.31 | Shoreline Boulevard at Highway 101 Bicycle/Pedestrian Bridge (Preliminary Design) | Conduct an alignment analysis and prepare a preliminary design of a bicycle and pedestrian bridge parallel and adjacent to Shoreline Boulevard over Highway 101 as described in the Shoreline Corridor Study.   | \$2,000,000    | Existing City Funding Sources (North Bayshore TIF) | City                                   | Underway<br>1-3 years     | -  |
| 2.32 | Shoreline Boulevard at Highway 101 Bicycle/Pedestrian Bridge (Construction)       | Construction of the Shoreline Boulevard at Highway 101 Bicycle/Pedestrian Bridge.   | \$20,000,000   | Existing City Funding Sources (North Bayshore TIF) | City                                   | Programmed<br>4-7 years   | Construction should be based on detailed design of the approved project. |
| 2.33 | Stierlin Road Bicycle and Pedestrian Improvements, (Design)                       | Design of bicycle and pedestrian improvements along Stierlin Road between the Transit Center and Montecito Avenue.  | \$555,000      | Funded   | City                                   | Underway<br>1-3 years     | -  |
| 2.34 | Stierlin Road Bicycle and Pedestrian Improvements, (Construction)                 | Construction of bicycle and pedestrian improvements along Stierlin Road between the Transit Center and Montecito Avenue.  | \$2,810,000    | Existing City Funding Sources                      | City                                   | Programmed<br>4-7 years   | Construction should be based on detailed design of the approved project. |
| 2.35 | Shoreline Boulevard Pedestrian and Bicycle Improvements.                          | Proposed improved sidewalks and two-way cycle tracks from Highway 101 to Amphitheatre Parkway.  | \$16,505,000   | Existing City Funding Sources (North Bayshore TIF) | City                                   | Unscheduled<br>7-10 years | -  |
| 2.36 | Garcia Avenue Improvements.   | Proposed improved sidewalks and two-way cycle tracks on both sides.   | \$4,928,000    | Existing City Funding Sources (North Bayshore TIF) | City, private development and Caltrans | Unscheduled<br>7-10 years | -  |
| 2.37 | East-West Greenway Connection #1 and #2.  | Potential multiuse path south of Charleston Road connecting to Permanente and Stevens Creek trails, including signalized crossings at Shoreline Boulevard.  | \$7,965,000    | Existing City Funding Sources (North Bayshore TIF) | City                                   | Unscheduled<br>7-10 years | -  |



| ID   | Action Name  | Description  | Estimated Cost | Potential Funding Sources     | Responsibility / Review      | Schedule and Timing   | Standards and Approval Criteria  |
|------|--|--|----------------|-------------------------------|------------------------------|-----------------------|--|
| 2.38 | Mountain View Bike Share   | Investigate the feasibility of a Bike Share system and, implement the system in coordination with private sector partners. The system could provide first/last mile access to transit and serve key employment and activity centers within the City of Mountain View.  | N/A            | N/A                           | City and Private Partnership | Completed             | Program should be developed to achieve City's visions and goals of bicycle transportation network.   |
| 2.39 | Regional Bikeway Study   | The City is working on a partnership with other regional cities, including Palo Alto, Redwood City and Menlo Park, to develop a regional bikeway.  | N/A            | N/A                           | Regional Partnership         | Unscheduled 1-3 years | Project should be as consistent as possible throughout the involving agencies.   |
| 2.40 | Safe Routes to Schools Education Program.                        | Vehicle Emissions Reductions Based at Schools (VERBS) grant funding to continue current program to reduce greenhouse gas emissions around schools and encourage bicycling and walking to school to age-appropriate educational programs for Grades K-12 in all public and private schools in the City, as well as Los Altos High School. | \$565,000      | Existing City Funding Sources | City                         | Completed             | Program should implement City's visions and goals of Safe Routes to Schools.   |
| 2.41 | MOB 6.1: Safe routes to schools (2030 General Plan)              | Promote Safe Routes to Schools programs for all schools serving the city.  | N/A            | N/A                           | City                         | Ongoing               | Action should be implemented through more detailed plans developed by the City.  |
| 2.42 | MOB 6.4: Education (2030 General Plan)                           | Support education programs that promote safe walking and bicycling to schools.   | N/A            | N/A                           | City                         | Ongoing               | Action should be implemented through more detailed plans developed by the City.  |
| 2.43 | Bicycle Transportation Plan Update.                              | A comprehensive, City-wide plan of bicycle facility needs, including spot improvements and corridors.  | \$200,000      | N/A                           | City                         | Completed             | Project should implement City's visions and goals established in the 2030 General Plan.  |
| 2.44 | Pedestrian Master Plan.  | A City-wide plan with pedestrian-related policies and guidelines providing tools for future pedestrian improvements.   | \$125,000      | N/A                           | City                         | Completed             | Project should implement City's visions and goals established in the 2030 General Plan.  |
| 2.45 | California/Escuela/ Shoreline Complete Streets Feasibility Study | Study includes wider sidewalks, bike lanes, traffic calming devices and streetscape beautification that enhance non-motorized safety, accessibility, and mobility.   | \$341,000      | N/A                           | City                         | Completed             | Project should implement City's visions and goals established in the 2030 General Plan, and consistent with Precise Plans and VTA's Pedestrian and Bicycle Technical Guidelines. |

### 4.3 Freeway and Arterial Operations

This section summarizes actions that will improve performance and efficiency of freeway and arterial systems through operational improvements. Measures include city-wide signalization improvements, computerized traffic and transit control/management on arterials, and other operational treatments, listed in **Table 8**. The City's 2030 General Plan recognizes that although the City places very high priority on walking, bicycling and public transit, improving accessibility and enhancing safety for all users is very critical, including for those who must use auto.

The City does not anticipate street widening projects to relieve congestion. Rather, the City desires to manage its existing roadway system more efficiently, and thereby improve travel times and safety along its major corridors. It should be noted that the City's goals and policies that improve street infrastructure are not intended to primarily benefit vehicular travel. These goals and policies, are designed to improve accessibility and safety for all users, including auto, transit and truck travel. The City recognizes the benefits of effective street system that supports movement of public transit, trucks and emergency vehicles, which promotes public health, safety and commerce. In addition to the roadway operation and safety enhancing goals and policies, the 2030 General Plan recognizes the benefits of a well-maintained transportation infrastructure and identifies key policies that will help the City achieve its goals specific to system maintenance.

As many of these project span local, regional and state facilities, the standards for vehicular must meet City of Mountain View, County of Santa Clara Roads and Airports and Caltrans requirements. In general as traffic operational improvements are made, the project will strive to improve, and at least do no harm to, transit speed and reliability.

Unless otherwise specified, the approval criteria is that VTA will verify project completion.

Table 8. Action List and Action Plan: Freeway and Arterial Operations

| ID  | Action Name   | Description   | Estimated Cost | Potential Funding Sources | Responsibility / Review | Schedule and Timing | Standards and Approval Criteria |
|-----|---|---|----------------|---------------------------|-------------------------|---------------------|---------------------------------|
| 3.1 | MOB 10.1: Efficient automobile infrastructure (2030 General Plan) | Strive to maximize the efficiency of existing automobile infrastructure and manage major streets to discourage cut-through traffic on neighborhood streets. | N/A            | -                         | City                    | Ongoing             | -                               |

| ID  | Action Name   | Description  | Estimated Cost | Potential Funding Sources   | Responsibility / Review             | Schedule and Timing    | Standards and Approval Criteria  |
|-----|---|--|----------------|---|-------------------------------------|------------------------|--|
| 3.2 | Traffic Operations Center Study   | Study for the implementation of a centralized operations center to coordinate intelligent transportation systems and other traffic operational programs.   | \$130,000      | Funded  | City                                | Ongoing 4-7 years      | -  |
| 3.3 | Traffic Operations Center Construction  | Construction of the Traffic Operations Center  | \$3,000,000    | New Transportation Impact Fee and Related Sources (See Nexus Study) | City                                | Programmed 4-7 years   | -  |
| 3.4 | Rengstorff Grade Separation   | Environmental clearance for a proposed grade separation project at Rengstorff and Central Expressway/Caltrain tracks.  | \$3,500,000    | Funded  | City, County, JPB, Regional Funding | Underway 1-3 years     | Environmental Clearance should be compliant with State and Federal procedures.                       |
| 3.5 | Rengstorff Grade Separation   | Construction of proposed grade separation project at Rengstorff and Central Expressway/Caltrain tracks.  | \$150,000,000  | New Transportation Impact Fee and Related Sources (See Nexus Study) | City, County, JPB, Regional Funding | Unscheduled 4-7 years  | Construction should be consistent with City's and regional multimodal development visions and goals. |
| 3.6 | Rengstorff Avenue Adaptive Signal System                                      | Installation of adaptive traffic signal technology and interconnect system along Rengstorff Avenue to proactively adjust signal timing in real time to address the fluctuating demands throughout the day and to enhance operations for all modes of transportation. | \$3,500,000    | New Transportation Impact Fee and Related Sources (See Nexus Study) | City                                | Unscheduled 4-7 years  | Project should consider mobility and efficiency of other modes of transportation.                    |
| 3.7 | Shoreline Boulevard NB Off-Ramp   | Proposed off-ramp realignment to improve vehicular operations and capacity. This could potentially include a designated bus-only lane.   | \$20,500,000   | Existing City Funding Sources (North Bayshore TIF)                  | City                                | Ongoing 1-3 years      | -  |
| 3.8 | Preliminary Design: Plymouth/Space Park Connection Across Shoreline Boulevard | Proposed new streets with two-lane travel lanes and bicycle lanes on each side, plus sidewalks.  | \$1,091,000    | Existing City Funding Sources (North Bayshore TIF)                  | City                                | Ongoing 1-3 years      | -  |
| 3.9 | 85/El Camino Real/237   | Continue to work with VTA and Caltrans to implement the existing PSR for this interchange.   | \$1,000,000    | New Transportation Impact Fee and Related Sources (See Nexus Study) | City with Regional Agencies         | Unscheduled 7-10 years | -  |

| ID   | Action Name                                   | Description   | Estimated Cost | Potential Funding Sources   | Responsibility / Review     | Schedule and Timing    | Standards and Approval Criteria  |
|------|---|---|----------------|---|-----------------------------|------------------------|--|
| 3.10 | Additional City-wide Roadway Improvements     | Conduct further analysis of potential capacity-increasing improvements within the existing right-of-way at multiple intersections through-out the City. (Examples: SB 85 off-ramp to Central Expressway, Shoreline Boulevard and California Street, Castro Street and California Street, Miramonte Avenue and Castro Street, Shoreline Blvd and Montecito Ave/ Stierlin Rd, and Grant Road and Cuesta Drive.) | \$2,551,000    | New Transportation Impact Fee and Related Sources (See Nexus Study) | City and County             | Unscheduled 7-10 years | Project should improve operations of considered intersections, be consistent with City's development visions, goals, and should consider mobility of other travel modes. |
| 3.11 | Traffic Management                            | Continue to implement the neighborhood traffic management program in new areas, including traffic calming, radar speed feedback signs, speed humps and other improvements   | N/A            | N/A   | City                        | Ongoing                | Program should be consistent with City ordinance with respect to neighborhood traffic management.  |
| 3.12 | HOV Improvements                              | Continue to participate in projects and programs implementing the regional HOV network.   | N/A            | N/A   | City with Regional Agencies | Ongoing                | Action should include participation of County and/or State development process.  |
| 3.13 | State Route 85 Corridor                       | Actively participate with Caltrans and VTA in the State Route 85 Corridor Planning Process. Explore opportunities to support the advancement of the SR 85 Transit Guideway Study  | N/A            | N/A   | City with VTA and Caltrans  | Ongoing                |  |
| 3.14 | Castro Street / Moffett Blvd Grade Separation | Grade Separation of Castro/Moffett with tracks (See 1.7)  | \$60,000,000   | New Transportation Impact Fee and Related Sources (See Nexus Study) | Measure B                   | Programmed 4-7 years   | VTA will expect the City to continue to make progress on both Phase I and Phase II planning, design and environmental clearance.   |



## 4.4 Transportation Demand Management Strategies

This section summarizes actions to reduce single-occupancy vehicles and promote ridesharing, bicycling, walking, transit, employer-based trip reduction programs and other trip reduction strategies. TDM strategies also include effective parking policies and regulations that limit building new parking spaces through new developments, and improve management of the existing parking supply to meet the current and future demand, listed in **Table 9**.

Unless otherwise specified, the approval criteria is that VTA will verify project completion.

Table 9. Action List and Action Plan: Transportation Demand Management Strategies

| ID  | Action Name   | Description   | Estimated Cost | Potential Funding Sources     | Responsibility / Review | Schedule Timing                                    | Standards and Approval Criteria   |
|-----|---|---|----------------|-------------------------------|-------------------------|--|---|
| 4.1 | Adopt a City-wide TDM ordinance                         | <p>The TDM ordinance may include the following strategies that are at or above those on existing projects:</p> <ul style="list-style-type: none"> <li>Standards and requirements for trip-reductions</li> <li>TDM operational measures, including ridesharing, joining TMA, outreach/coordination, preferential parking, etc.</li> <li>Guidance for reduced parking ratio.</li> </ul> | N/A            | -                             | City                    | Unscheduled 1-3 years                              | Ordinance should be developed to achieve City's TDM visions of vehicular trip reduction.  |
| 4.2 | Adoption of a Residential Parking Permit Program (RPPP) | The RPPP is a parking management strategy that secures parking available for the residents without increasing parking supply. This supports new development with reduced parking ratios to effectively limit vehicle trips.   | N/A            | -                             | City                    | Completed  | Parking study should be conducted to determine parking utilization and needs assessment for the development of RPPP.                          |
| 4.3 | North Bayshore Congestion Pricing Strategy              | Develop a strategy for adoption of congestion pricing if North Bayshore trip cap measures are unsuccessful.   | N/A            | -                             | City                    | To be implemented only if trip cap is unsuccessful | Evaluation and measures of effectiveness should be developed to determine potential benefits and costs as part of the implementation process. |
| 4.4 | Downtown Paid Parking Study                             | The Downtown Paid Parking Study will provide a roadmap on how to implement paid parking in downtown Mountain View. The objective of the study is to increase public parking capacity within the existing public parking system and reduce public parking demand to preclude building a third parking structure.   | \$75,000       | Existing City Funding Sources | City                    | Underway 1-3 years                                 | Include strategies and options to implement paid parking downtown.  |

## 4.5 Land Use Strategies

This section summarizes actions to promote more compact and sustainable developments to make the City more transit, pedestrian and bicycle friendly. The measures can include policies, regulations, and guidelines for higher density, transit-oriented mixed-use developments, listed in **Table 10**.

Actions should be implemented through detailed plans, e.g., City's Pedestrian Master Plan Bicycle transportation Plan Update and new development agreements. All items to be consistent with the City's 2030 General Plan.

Unless otherwise specified, the approval criteria is that VTA will verify project completion.

**Table 10. Action List and Action Plan: Land Use Strategies**

| ID  | Action Name  | Description  | Estimated Cost | Potential Funding Sources | Responsibility / Review                  | Schedule and Timing | Standards and Approval Criteria |
|-----|--|--|----------------|---------------------------|--|---------------------|---------------------------------|
| 5.1 | LUD 3.1: Land use and transportation                                     | Focus higher land use intensities and densities within a half-mile of public transit service, and along major commute corridors.   | N/A            | -                         | City                                     | Ongoing             | -                               |
| 5.2 | LUD 8.2: Streets friendly to bicyclists and pedestrians                  | Encourage a network of streets friendly to bicyclists and pedestrians that create a safe and comfortable environment and include convenient amenities and features.  | N/A            | -                         | City                                     | Ongoing             | -                               |
| 5.3 | LUD 8.3: Enhanced publicly-accessible bicycle and pedestrian connections | Encourage new and existing developments to enhance publicly-accessible bicycle, pedestrian and transit connections.  | N/A            | -                         | City                                     | Ongoing             | -                               |
| 5.4 | LUD 8.4: Pedestrian-oriented civic and public spaces                     | Create and encourage new pedestrian-oriented civic and public spaces throughout the city.  | N/A            | -                         | City                                     | Ongoing             | -                               |
| 5.5 | LUD 8.5: Pedestrian and bicycle amenities                                | Encourage attractive pedestrian and bicycle amenities in new and existing developments, and ensure that roadway improvements address the needs of pedestrians and bicyclists.  | N/A            | -                         | City                                     | Ongoing             | -                               |
| 5.6 | El Camino Real Precise Plan  | The document contains guidance for change in land use and zoning to create a pedestrian- and bicycle-friendly environment with higher intensity, transit-oriented retail and residential units, includes a priority for affordable housing, and identified TDM strategies. | \$134,000      | N/A                       | City (supported by State and MTC grants) | Completed           | -                               |

| ID   | Action Name   | Description   | Estimated Cost | Potential Funding Sources | Responsibility / Review             | Schedule and Timing | Standards and Approval Criteria |
|------|---|---|----------------|---------------------------|-------------------------------------|---------------------|---------------------------------|
| 5.7  | San Antonio Precise Plan                              | The Plan describes guidance and direction for future land use and zoning to transform the area to have higher intensity, transit-oriented development; pedestrian, bicycle and transit streetscape improvements; and TDM requirements.  | \$332,000      | N/A                       | City (supported by State grant)     | Completed           | -                               |
| 5.8  | North Bayshore Precise Plan                           | The Plan describes land use and zoning guidance for future development in the area to accommodate highly sustainable offices with comprehensive TDM strategies. This includes single-occupant vehicles trip cap of 45 percent, vehicle trip-cap at gateway locations, maximum parking requirements, provision of minimum rideshare and carpool parking, and future consideration of congestion pricing. In addition, the Plan identified a series of pedestrian, bicycle, and transit improvements in the area to support the potential change in mode share. | \$1,455,000    | N/A                       | City                                | Completed           | -                               |
| 5.9  | North Bayshore Precise Plan Update: Residential Uses. | This Update to the North Bayshore Precise Plan includes up to 10,000 new residential units. The increase is anticipated to potentially reduce the number of regional trips considering North Bayshore as both origin and destination.   | \$1,965,000    | N/A                       | City                                | Underway 1-3 years  | -                               |
| 5.10 | East Whisman Precise Plan                             | The Plan describes guidance on future land use and zoning changes that envision highly sustainable office development in close proximity to the VTA Light Rail Transit stations. New residential uses will be added to reduce regional trips, along with pedestrian, bicycle, and transit improvements, TDM and parking requirements that enhance multimodal utilization of the Plan Area.  | \$690,000      | Funded                    | City (supported by VTA & MTC grant) | Underway 1-3 years  | -                               |



Figure 7. Summary Map of Action List and Action Plan



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## 5 ENVIRONMENTAL DOCUMENTATION

This chapter describes the reconciliation of CEQA with actions included in the Multimodal Improvement Plan (MIP). Per Public Resources Code 21080 (b)(13), congestion management programs are exempt by statute from the provisions of the California Environmental Quality Act (CEQA). As established in Government Code 65089 et seq., a deficiency plan is a required part of a congestion management program when certain conditions are met. As such and within certain parameters, a deficiency plan enjoys the same statutory exemption as the CMP.

The purpose of the MIP is to identify and implement multimodal measures that will improve transportation network and air quality in the City of Mountain View and the Bay Area as a whole. The action items identified in the MIP are based on the action list developed by VTA, and the action list is consistent with the BAAQMD Transportation Control Measures (TCM). These TCMs are identified by the BAAQMD as actions that will have positive impact on regional air quality when implemented. To the degree that individual projects identified in the MIP have the potential for creating ancillary (i.e., localized) impacts to the environment, such impacts will be evaluated as individual projects come forward for design and construction.



## 6 MULTIJURISDICTIONAL COORDINATION AND MONITORING





This chapter describes how the City works with other jurisdictions in developing this MIP and in its future implementation. It also describes how the City monitors implementation of the actions described in the MIP.

Development and implementation of this MIP require coordination with VTA, as the county's transit operator and Congestion Management Agency.

## 6.1 Multijurisdictional Coordination

Land use and transportation decisions have impacts on the neighboring cities as well as the region. The VTA Deficiency Plan Requirements requires that such a Plan be developed and monitored in collaboration with the neighboring jurisdictions and other affected entities. The level of participation by neighboring cities depends on the level of impacts on the corridors that run through those cities. During the development of the MIP, staff representatives from Palo Alto, Los Altos, Sunnyvale, Santa Clara County, VTA and Caltrans were consulted on the content of the action plan, the appropriateness of the measures, and the procedures for implementation and mitigation as impacts arise.

The VTA Deficiency Plan Requirements also include a detailed process for addressing inter-jurisdictional impacts, which this MIP has used as a resource.

The City's long-term planning documents identified impacts to CMP facilities outside Mountain View.

The actions in this MIP are offsetting measures for those impacts. However, future development may cause additional impacts to other CMP facilities outside Mountain View. In that case, the City will work with the affected jurisdiction, as prescribed through the TIA process. Solutions to these impacts may include fair-share implementation of their Deficiency Plans or Multimodal Improvements Plans, fair-share roadway impact mitigations, additional Mountain View off-setting measures, or some other mutually-agreed-upon solution. If the impact is unmitigable, it will be reported in the next MIP status report.

Jurisdictions will also continue to coordinate on future local and regional transportation improvements, programs and funding, such as through the Valley Transportation Plan, Regional Transportation Plan and Plan Bay Area processes.

## 6.2 MIP Monitoring

Once the MIP is finalized and approved by the VTA, Mountain View will monitor the action items included in the MIP.

To assure the effectiveness of all plans, VTA utilizes a two-prong approach that will be followed for the MIP. As required by VTA, Mountain View will implement and monitor all action items identified in this document. In addition, VTA will evaluate the cumulative effectiveness of all deficiency plans in improving systemwide Level of Service and air quality. Mountain View will ensure conformance with the approved timing established as the development levels planned for each action.

In order to keep all action items on track, and to update VTA and affected neighboring cities, Mountain View will prepare and submit a Multimodal Improvement Plan Implementation Status Report. In addition, the City will prepare and submit a Financial Report that will identify sources and amounts of funds utilized to implement various deficiency plan action items. While developing this report, the City will follow all requirements outlined in the VTA's Deficiency Plan Requirements. Typically, the City will provide information on the current status of an action item, percent completion, anticipated completion date and any unforeseen circumstances or challenges that may have caused delays (if any).

To ascertain that Mountain View's Multimodal Improvement Plan Implementation Status Report conforms with the CMP requirements, VTA will review the report in the course of its annual monitoring process and provide feedback to the City. The City will take appropriate actions and/or make necessary revisions as recommended by VTA.

If actions in the MIP are found to be infeasible or less effective than intended, the City will work with VTA on revisions to the action list that are consistent in scope and efficacy as previously approved.

# APPENDIX

APPENDIX A. Comparison of VTA Deficiency Plan Action List and BAAQMD Transportation Control Measures

APPENDIX B. Planning Context

APPENDIX C. Action Plan Compliance with BAAQMD TCMs and VTA Deficiency Plan Requirements

## **APPENDIX A.**

### **Comparison of VTA Deficiency Plan Action List and BAAQMD Transportation Control Measures**

Table A-1. Comparison of VTA Deficiency Plan Action List and BAAQMD Clean Air Plan Transportation Control Measures

| BAAQMD Clean Air Plan Transportation Control Measures  | VTA Deficiency Plan Action List   |
|--|---|
| <p>TCM A-1: Improve Local and Areawide Bus Service</p> <p>Improve transit by providing new Express Bus or Bus Rapid Transit on major travel corridors, funding the replacement of older and dirtier buses, and implementing Transit Priority Measures on key transit routes.</p>                                       | <p>B1. Improvement of Bus, Rail and Ferry Transit Services.</p> <p>B4. Preferential Treatment for Buses and In-Street Light Rail Vehicles (LRVs).</p> <p>B9. Improved and Expanded Timed Transfer Programs.</p> <p>B11. Signal Preemption by Transit Vehicles.</p> <p>B12. Bus Stop Bulbs.</p> <p>B13. School Bus Transit Service.</p>  |
| <p>TCM A-2: Improve Local and Regional Rail Service</p> <p>Improve rail service by sustaining and expanding local and regional rail services and by providing funds to maintain railcars, stations, and other rail capital assets.</p>   | <p>B1. Improvement of Bus, Rail and Ferry Transit Services.</p> <p>B2. Expansion of Rail Transit Service.</p> <p>B9. Improved and Expanded Timed Transfer Programs.</p>   |
| <p>TCM B-1: Implement Freeway Performance Initiative</p> <p>Improve the performance and efficiency of freeway and arterial systems through operational improvements, including implementing the Freeway Performance Initiative, the Arterial Management Program, and the Bay Area Freeway Service Patrol.</p>          | <p>F2. Ramp Metering.</p> <p>F4. Signalization Improvements.</p> <p>F5. Computerized Traffic and Transit Control/Management on Arterials.</p>   |
| <p>TCM B-2: Improve Transit Efficiency and Use</p> <p>Improve transit efficiency and use through continued operation of 511 Transit, and full implementation of TransLink® fare payment system and the Transit Hub Signage Program.</p>  | <p>B5. Transit Information and Promotion.</p> <p>B8. Transit Centers.</p> <p>B10. Improved and Expanded Fare Coordination.</p>  |
| <p>TCM B-3: Bay Area Express Lane Network</p> <p>Introduce roadway pricing on Bay Area highways through the implementation of an express lane network, also known as a High Occupancy Toll (HOT) lane network.</p>   | <p>C1. Preferential Treatment for Shared Ride Vehicles.</p> <p>D1. Preferential Treatment for HOVs.</p> <p>D2. Bus and Carpool/Buspool/Vanpool/Taxipool Priority Lanes on Local Arterials.</p> <p>D3. Accelerated Implementation of the 2005 HOV Master Plan.</p> <p>D4. HOV to HOV Facilities.</p> <p>D5. Direct HOV Lane Entrance/Exit Ramps to Arterials and Special Generators.</p> <p>F1. Preferential Treatment of HOVs.</p> <p>F3. Auxiliary Lanes of Up to One Mile in Length Where HOV Lanes are Provided.</p> |
| <p>TCM B-4: Goods Movement Improvements and Emission Reduction Strategies</p> <p>Improve goods movement and reduce emissions from diesel equipment through implementation of the Bay Area's Trade Corridors Improvement Fund (TCIF) projects and various funding programs to replace or retrofit diesel equipment.</p> | N/A   |



| BAAQMD Clean Air Plan Transportation Control Measures  | VTA Deficiency Plan Action List   |
|--|---|
| <p>TCM C-1: Support Voluntary Employer- Based Trip Reduction Program</p> <p>Support voluntary employer trip-reduction programs through the implementation of the 511 Regional Rideshare Program and Congestion Management Agency rideshare programs, the Spare the Air Program, encouraging cities to adopt transit benefit ordinances, and supporting Bay Area shuttle service providers.</p> | <p>B7. Transit Fare Subsidy Programs.</p> <p>E1. Stricter Travel Demand Management/Trip Reduction Ordinance.</p> <p>E5. Telecommuting Centers and Work-at-Home Programs.</p>  |
| <p>TCM C-2: Implement Safe Routes to Schools and Safe Routes to Transit</p> <p>Facilitate safe routes to schools and transit by providing funds and working with transportation agencies, local governments, schools, and communities to implement safe access for pedestrians and cyclists.</p>   | <p>A2. Transit and Bicycle Integration.</p>   |
| <p>TCM C-3: Promote Rideshare Services and Incentives</p> <p>Promote rideshare services and incentives through the implementation of the 511 Regional Rideshare Program and Congestion Management Agency rideshare programs including marketing rideshare services, operating rideshare information call center and website, and providing vanpool support services.</p>                       | <p>C1. Preferential Treatment for Shared Ride Vehicles.</p> <p>C2. Increased use of Commuter/Employer Services.</p> <p>D1. Preferential Treatment for HOVs.</p> <p>D2. Bus and Carpool/Buspool/Vanpool/Taxipool Priorities Lanes on Local Arterials.</p> <p>D3. Accelerated Implementation of the 2005 HOV Master Plan.</p> <p>D4. HOV to HOV Facilities.</p> <p>D5. Direct HOV Lane Entrance/Exit Ramps to Arterials and Special Generators.</p> <p>F1. Preferential Treatment of HOVs.</p> <p>F3. Auxiliary Lanes of Up to One Mile in Length Where HOV Lanes are Provided.</p> |
| <p>TCM C-4: Conduct Public Outreach and Education</p> <p>Educate the public about the air quality, environmental, and social benefits of carpooling, vanpooling, taking public transit, biking, walking, and telecommuting, through the Spare the Air campaign and Transportation Climate Action Campaign.</p>   | <p>E2. Expanded Public Education Programs.</p>  |
| <p>TCM D-1: Improve Bicycle Access and Facilities</p> <p>Expand bicycle facilities serving transit hubs employment sites, educational and cultural facilities, residential areas, shopping districts, and other activity centers.</p>  | <p>A1. Improved Roadway Bicycle Facilities and Bike Paths.</p> <p>A2. Transit and Bicycle Integration.</p> <p>A3. Bicycle lockers and Racks at Park and Ride lots.</p> <p>A4. Bicycle Facilities and Showers at Developments.</p>   |
| <p>TCM D-2: Improve Pedestrian Access and Facilities</p> <p>Provide funding for projects to improve pedestrian access to transit hubs, employment sites, educational and cultural facilities, residential areas, shopping districts, and other activity centers.</p>   | <p>A5. Improved Pedestrian Facilities.</p> <p>A6. Pedestrian Signals.</p> <p>A7. Lighting for Pedestrian Safety.</p>  |
| <p>TCM D-3: Support Local Land Use Strategies</p> <p>Promote land use patterns, policies, and infrastructure investments that support mixed-use, transit-oriented development that reduce motor vehicle dependence and facilitate walking, bicycling and transit use.</p>  | <p>E3. Child Care Facilities at or close to Employment Sites, Transit Centers and Park and Ride Lots.</p> <p>E4. Retail Services at or close to Employment Sites, Transit Centers and Park and Ride Lots.</p> <p>E8. Land Use Measures.</p>   |

| BAAQMD Clean Air Plan Transportation Control Measures   | VTA Deficiency Plan Action List  |
|---|--|
| <p>TCM E-1: Value Pricing Strategies</p> <p>Implement value pricing (congestion pricing) on Bay Bridge; consider expanding value pricing to other Bay Area toll bridges to manage travel demand during congested periods. Measure may also include value pricing in the City of San Francisco.</p>  | N/A  |
| <p>TCM E-2: Parking Pricing and Management Strategies</p> <p>Promote policies to implement market-rate pricing of parking facilities, reduce parking requirements for new development projects, parking "cash-out", unbundling of parking in residential and commercial leases, shared parking at mixed-use facilities, etc.</p>                  | <p>E6. Parking Management.</p> <p>E7. Parking "Cash-Out" Program/Travel Allowance.</p>   |
| <p>TCM E-3: Implement Transportation Pricing Reform</p> <p>Develop a regional transportation pricing strategy that includes policy evaluation and implementation. Pricing policies to be evaluated include gasoline taxes, bridge tolls, congestion pricing, parking pricing, HOT lanes, VMT or carbon fees, pay-as-you-drive insurance, etc.</p> | B6. Transit Pricing Strategies to Encourage Ridership and, where applicable, Reduce Transit Vehicle Crowding.  |
| N/A   | <p>B3. Expansion of Ferry Services.</p> <p>F6. Turn Lanes at Intersections.</p> <p>F7. Turn Restrictions at Intersections.</p> <p>F8. Reversible Lanes.</p> <p>F9. One-Way Streets.</p> <p>F10. Targeted Traffic Enforcement Programs.</p> <p>F11. Restrictions on Curb Side Deliveries and On-Street Parking.</p> |

## **APPENDIX B.**

### **Planning Context**





## PLANNING CONTEXT



The City's 2030 General Plan established a long-term vision outlining the City's growth, with goals and policies to maintain quality of life. In addition to the General Plan, the City relies on a number of studies and plans that help manage transportation, utilities, land uses, housing, sustainability and other community interests. The documents described here establish a planning foundation for the multimodal actions identified in Chapter 6. In the following paragraphs, a high-level summary of such plans is provided.

## B.1 Summary of Relevant Documents

### ***Mountain View 2030 General Plan***

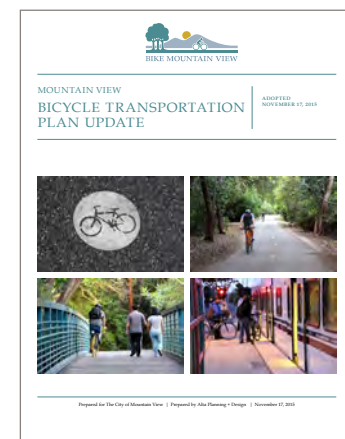
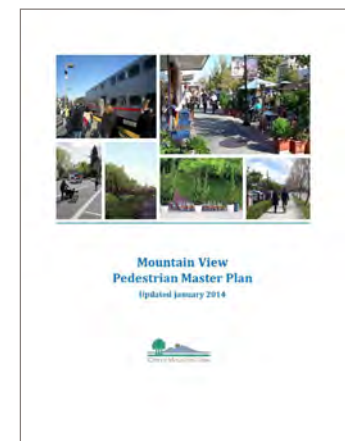
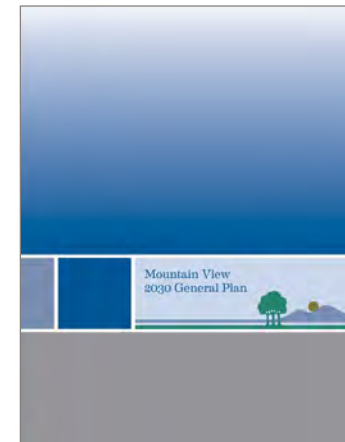
The 2030 General Plan lays out the City's vision for growth, including goals and policies regarding land use, mobility, infrastructure and other topics. The 2030 General Plan's anticipated growth is expected to impact CMP facilities, triggering the requirement for this MIP. In addition, the 2030 General Plan includes policies consistent with the region's transportation control measures and set the policy foundation for multimodal transportation throughout the City.

### ***Pedestrian Master Plan***

The Pedestrian Master Plan (PMP) describes the City's policies and guidelines for future pedestrian-oriented improvements. This plan furthers the non-motorized transportation mobility goals of the 2030 General Plan to increase walkability in the City. The PMP focuses on land use, demographics, major activity generators, pedestrian amenities and safety conditions. The PMP identified potential projects and programs to enhance citywide pedestrian accessibility and mobility, which the MIP includes in the Action List.

### ***Bicycle Transportation Plan Update***

The Mountain View Bicycle Transportation Plan Update (BTP), adopted in 2015, provides recommendations to implement a citywide bicycle network of bicycle paths, lanes, and routes along with bicycle programs to ensure bicycling continues to be a viable mode in the City of Mountain View. The MIP Action Plan includes bicycle-related actions from the BTP.



### ***El Camino Real Precise Plan***

The El Camino Real Precise Plan (ECRPP), adopted in 2014, established planning guidelines, design standards, and identified improvements for the El Camino Real corridor in Mountain View, consistent with the General Plan's Change Area direction. MIP actions along El Camino Real are consistent with the ECRPP plan area.

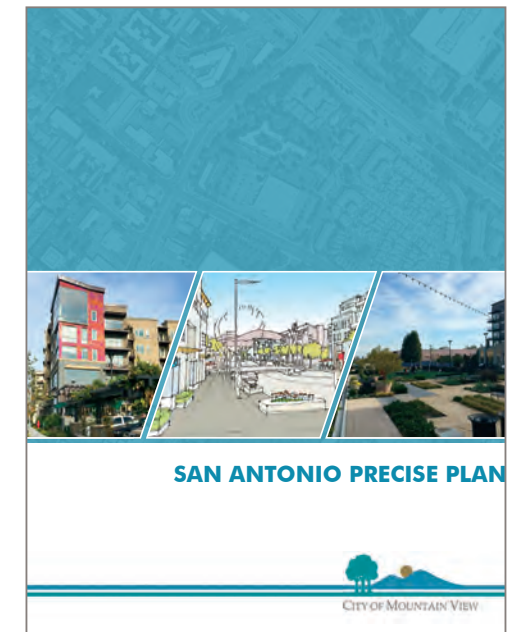
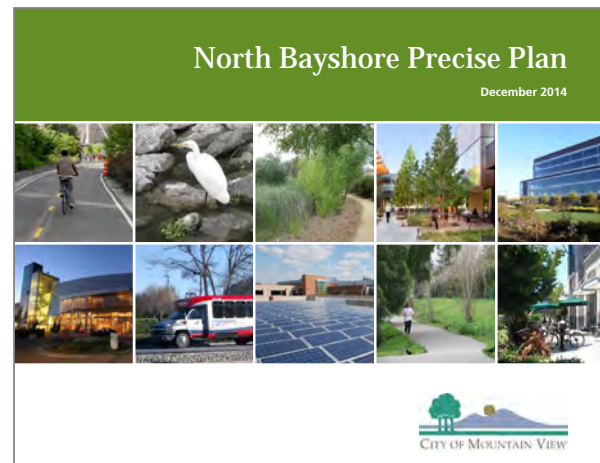
### ***North Bayshore Precise Plan***

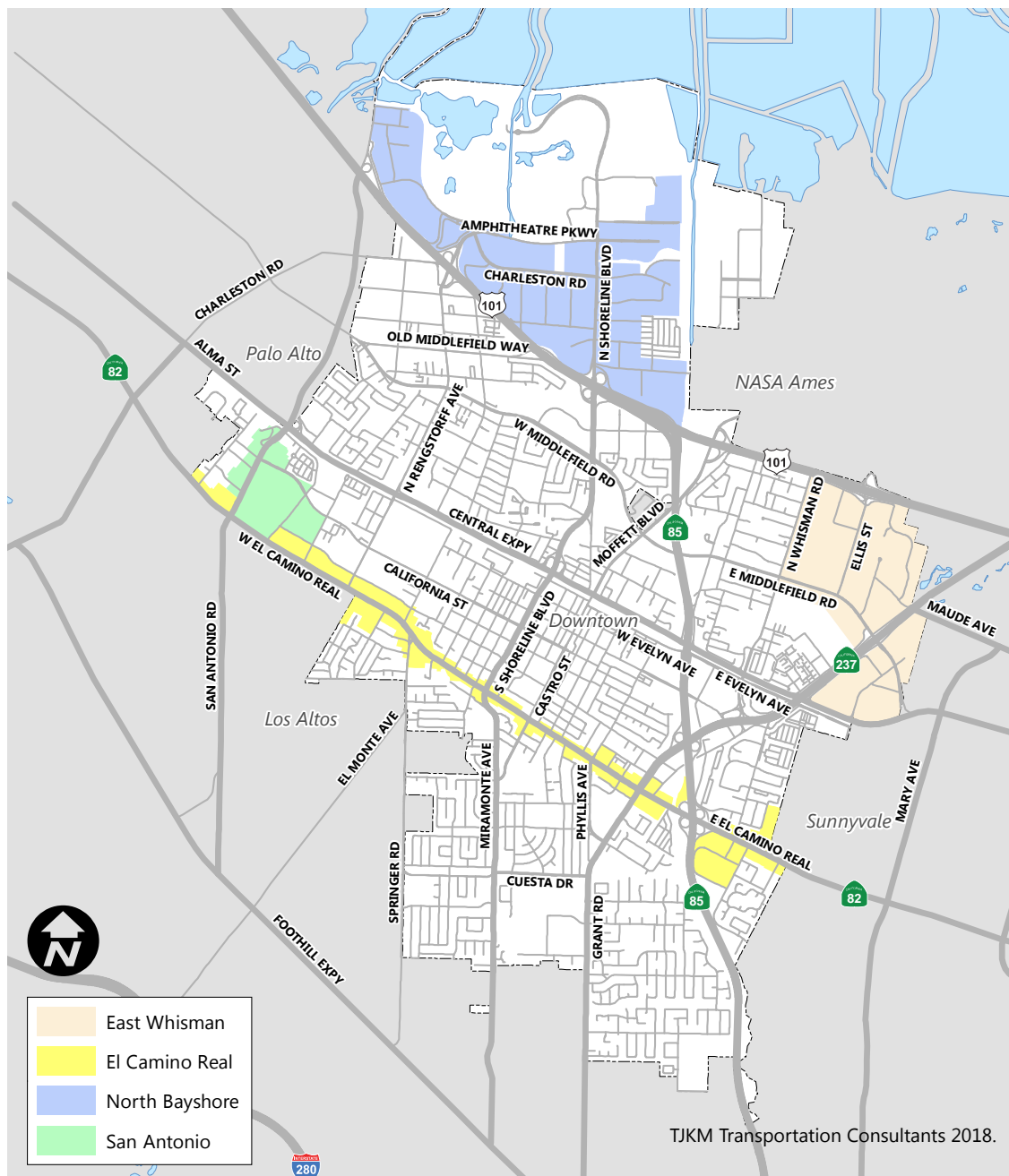
The North Bayshore Precise Plan (NBPP), adopted in 2014, implements the 2030 General Plan's goals and policies for the North Bayshore Change Area. The NBPP guides land use and development for the area, focusing on sustainability, preservation and enhancement of natural resources while furthering its prominence as a leading employment district. The NBPP was updated in 2017 to create new residential neighborhoods close to this employment center. MIP actions in North Bayshore are consistent with the NBPP.

### ***San Antonio Precise Plan***

The San Antonio Precise Plan (SAPP), adopted in 2014, includes development standards and guidelines, and transportation improvements for the San Antonio area, consistent with the 2030 General Plan. MIP actions in San Antonio are consistent with the SAPP.

**Figure B1** shows the Plan Areas of the three Precise Plans. The East Whisman Precise Plan is currently under development, and is anticipated to be adopted in early 2019.





## Shoreline Boulevard Corridor Study

The Shoreline Boulevard Corridor Study, adopted in 2014, envisions Shoreline Boulevard as a safe and convenient corridor for all modes of transportation. It provides a package of multimodal projects, streetscape opportunities, and operational improvements as well as potential funding sources. The study segment of Shoreline Boulevard roughly stretches from Space Park Way in the north to Central Expressway in the south. MIP actions for the Shoreline corridor are based on this study.

## California/Escuela/Shoreline Complete Streets Feasibility Study

The California/Escuela/South Shoreline Complete Streets Feasibility Study, adopted in 2016, includes multimodal improvements and streetscape enhancements to these streets. The MIP refers to the final design alternatives presented in the study for the action list.



### ***Joint Cities Coordinated Stevens Creek Trail Feasibility Study***

The Joint Cities Coordinated Stevens Creek Trail Feasibility Study was developed to assess the feasibility of extending the Steven Creek Trail within cities of Sunnyvale, Cupertino, Los Altos and Mountain View. The MIP includes the Mountain View segment as part of the bicycle-related actions.

### ***San Antonio/Mayfield Pedestrian and Bicycle Tunnel Feasibility Report***

The San Antonio/Mayfield Pedestrian and Bicycle Tunnel Feasibility Report studied the physical and technical feasibility of constructing a pedestrian and bicycle tunnel connecting the Mayfield development to the San Antonio Caltrain Station. The MIP includes this project as part of the multimodal improvement actions.



Stevens Creek Trail Dale-Heatherstone Pedestrian and Bicycle Overpass.  
Credit: Ron Horii





## **APPENDIX C.**

### **Action Plan Compliance with BAAQMD TCMs and VTA Deficiency Requirements**

Table D-1. Action Plan Compliance with BAAQMD and VTA Deficiency Plan Requirements: Transit Service

| ID  | Action Name  | Description  | Related BAAQMD TCMs                 | Related VTA Deficiency Plan Requirements                     |
|-----|--|--|-------------------------------------|--|
| 1.1 | Mountain View Community Shuttle                                      | Continue to partner with Google to operate the Mountain View Community Shuttle.  | TCM A-1                             | B1, B13  |
| 1.2 | Shoreline Transit Corridor, Feasibility Study                        | Perform study of a dedicated pedestrian, bicycle, and transit corridor between the Downtown Transit Center and the North Bayshore Area, including the possible construction of an additional bridge connection over U.S. Route 101 near the existing Shoreline Boulevard crossing, as well as the accommodation of evolving transportation modes in the future (e.g., personal rapid transit, automated people movers, etc.).  | TCM A-1, TCM B-2, TCM D-1, TCM D-2  | B1, B4, B5, B8, B9, B11, B12, A1, A2, A3, A4, A5, A6, A7, D2 |
| 1.3 | Shoreline Boulevard Bus Lane and Utility Improvements (Design)       | Design the reversible bus lane along Shoreline Boulevard from Middlefield Road to Space Park Way.  | TCM A-1, TCM B-2, TCM D-1, TCM D-2" | B1, B4, B5, B8, B9, B11, B12, A1, A2, A3, A4, A5, A6, A7, D2 |
| 1.4 | Shoreline Boulevard Bus Lane and Utility Improvements (Construction) | Construct the reversible bus lane along Shoreline Boulevard from Middlefield Road to Space Park Way.   | TCM A-1, TCM B-2, TCM D-1, TCM D-2" | B1, B4, B5, B8, B9, B11, B12, A1, A2, A3, A4, A5, A6, A7, D2 |
| 1.5 | Transit Center Master Plan   | Implement the Transit Center Master Plan in two phases: 1) Eliminate existing at-grade vehicle and pedestrian track crossings (including new ramp to Shoreline Boulevard and new pedestrian and bicycle under-crossing); expand and realign Caltrain platforms; add connecting protected bike facilities; modify Centennial Plaza; and 2) Engage a private sector partner to reconstruct the Transit Center with expanded bus/shuttle facilities, additional parking and integrated joint development. The Master Plan includes grade separation alternatives; Station improvements (e.g., platform dimensions, bicycle and pedestrian access to platforms, other passenger amenities); bus and shuttle loading areas; bicycle and pedestrian access; parking; and land use and potential development. <b>Approved 5/23/16</b> | TCM A-1, TCM B-2, TCM D-1, TCM D-2  | B1, B4, B5, B8, B9, B10, B11, B12, A1, A2, A3, A5, A6, A7    |
| 1.6 | Transit Center Next Steps  | More detailed study of options and preliminary design of the Transit Center.   | TCM A-1, TCM B-2, TCM D-1, TCM D-2  | B1, B4, B5, B8, B9, B10, B11, B12, A1, A2, A3, A5, A6, A7    |
| 1.7 | Transit Center Master Plan Construction                              | Construction of the Transit Center.  | TCM A-1, TCM B-2, TCM D-1, TCM D-2  | B1, B4, B5, B8, B9, B10, B11, B12, A1, A2, A3, A5, A6, A7    |
| 1.8 | Charleston Road Improvements (Feasibility Study)                     | Feasibility study to develop the first phase of transit boulevard improvements along Charleston Road from Shoreline Boulevard to Amphitheatre Parkway within the existing right-of-way as described in the North Bayshore Precise Plan. This project will provide infrastructure for mass transit and relieve traffic congestion.  | TCM A-1, TCM B-2                    | B1, B4, B5, B8, B9, B11, B12, D2                             |

| ID   | Action Name   | Description  | Related BAAQMD TCMs                         | Related VTA Deficiency Plan Requirements                           |
|------|---|--|---|--|
| 1.9  | Charleston Road Improvements (Design)                               | Design of Charleston Road Improvements.  | TCM A-1, TCM B-2                            | B1, B4, B5, B8, B9, B11, B12, D2                                   |
| 1.10 | Charleston Road Improvements (Construction)                         | Construction of Charleston Road Improvements.  | TCM A-1, TCM B-2                            | B1, B4, B5, B8, B9, B11, B12, D2                                   |
| 1.11 | MOB 5.1: Transit Agencies   | Coordinate with local and regional transit agencies including Metropolitan Transportation Commission, VTA, JPB (Caltrain), SamTrans and the California High-Speed Rail Authority to improve transportation service, infrastructure and access in the city. | TCM A-1, TCM B-2                            | B1, B4, B5, B8, B10, B9, B11, B12                                  |
| 1.12 | MOB 5.2: California High-Speed Rail                                 | Actively participate with the California High Speed Rail Authority in planning any future high-speed rail service to address urban design, traffic, noise and compatibility issues.  | TCM A-2, TCM B-2                            | B1, B2, B5, B8, B9, B10  |
| 1.13 | MOB 5.3: Local Transportation services                              | Create or partner with transit providers, employers, educational institutions, major commercial entities and event organizers to improve local transportation services.  | TCM A-1, TCM A-2, TCM B-2, TCM C-3, TCM C-4 | B1, B2, B4, B5, B8, B9, B10, B11, B12, B13, C1, C2, D1, D2, E2, F3 |
| 1.14 | MOB 5.5: Access to Transit Services                                 | Support right-of-way design and amenities consistent with local transit goals to make it easier to get to transit services and improve transit as a viable alternative to driving.   | TCM B-2                                     | B5, B8, B10  |
| 1.15 | Expand MVTMA Service  | Using the development entitlement process to create the Mountain View Transportation Management Association (MVTMA), and to continue to add members and services. (The MVTMA currently operates the MVGo Shuttle)  | TCM B-2                                     | B5, B8, B10  |
| 1.16 | Automated Guideway Transit Feasibility Study                        | The study focuses on a new transit line linking the Downtown Transit Center and the North Bayshore area, which will look into the automated-guideway transit (AGT) and potential routes for the AGT.   | TCM A-1, TCM B-2                            | B1, B4, B5, B6, B8, B9, B10, B11, B12                              |
| 1.17 | Stevens Creek Transit Bridge (between NASA Ames and North Bayshore) | A new transit-only bridge across Stevens Creek between NASA Ames and North Bayshore, facilitating a connection from North Bayshore to VTA light rail.  | TCM A-1, TCM B-2                            | B1, B4, B5, B9, B11, B12   |

Table D-2. Action Plan Compliance with BAAQMD and VTA Deficiency Plan Requirements: Bicycle and Pedestrian Access and Facilities

| ID  | Action Name   | Description   | Related BAAQMD TCMs             | Related VTA Deficiency Plan Requirements |
|-----|---|---|---------------------------------|--|
| 2.1 | San Antonio/Mayfield Pedestrian and Bicycle Tunnel (Design)       | The tunnel will serve pedestrians and bicyclists crossing Central Expressway at Mayfield Avenue to avoid conflicts with surface traffic and increase walking and bicycle usage from and to the Caltrain station.  | TCM D-1,<br>TCM D-2,<br>TCM B-2 | A1, A2, A3, A5, A6, A7, B5, B8           |
| 2.2 | San Antonio/Mayfield Pedestrian and Bicycle Tunnel (Construction) | Construction of the San Antonio/Mayfield Pedestrian and Bicycle Tunnel  | TCM D-1,<br>TCM D-2,<br>TCM B-2 | A1, A2, A3, A5, A6, A7, B5, B8           |
| 2.3 | Crosswalk Safety and Traffic Calming Improvements                 | Improvements along South Shoreline Boulevard, at Mercy Street/Calderon Avenue intersection, Dana Street/Pioneer Way intersection, Ellis Street/Hetch-Hetchy intersection, and Middlefield Road/Independence Ave intersection.   | TCM D-1,<br>TCM D-2             | A1, A2, A3, A5, A6, A7                   |
| 2.4 | Planned Pedestrian Improvements                                   | Major pedestrian improvements will be implemented on Cuesta Drive, at Springer Elementary School, Castro Elementary School, El Monte Ave/Marich Way intersection, Linda Vista Avenue/Terra Bella Avenue intersection, and across El Camino Real at Distel Drive and across San Antonio Road and Miller Avenue.  | TCM D-1,<br>TCM D-2             | A1, A2, A3, A5, A6, A7                   |
| 2.5 | Green Bicycle Lanes   | Green bicycle lanes at Shorebird Way, Crittenden Lane, Cuesta Drive/Miramonte Avenue intersection, Grant Road/Bryant Street intersection, and El Camino Real/Sylvan Avenue intersection.  | TCM D-1,<br>TCM D-2             | A1, A2, A3, A5, A6, A7                   |
| 2.6 | Planned Green Bicycle Improvements                                | Planned green bicycle lane projects at Ellis Street (connecting to the NASA Bayshore LRT station), Middlefield Road (east of Whisman Road), San Antonio Road (between El Camino Real and California Street), Moffett Boulevard/Central Expressway intersection, Maude Avenue/237 intersection, Bernardo Avenue/Evelyn Avenue intersection, Whisman Road/Google Drive intersection, Rengstorff Avenue/Montecito Avenue intersection. | TCM D-1,<br>TCM D-2             | A1, A2, A3, A5, A6, A7                   |
| 2.7 | Planned Green Bicycle Improvements                                | Planned green bicycle lane projects at Castro Street (between El Camino Real and Miramonte Avenue)  | TCM D-1,<br>TCM D-2             | A1, A2, A3, A5, A6, A7                   |
| 2.8 | Planned Green Bicycle Improvements                                | Planned green bicycle lane projects at Calderon Avenue  | TCM D-1,<br>TCM D-2             | A1, A2, A3, A5, A6, A7                   |
| 2.9 | New Signal at Mountain View Community Center                      | A new traffic signal will be installed at the intersection of Rengstorff Avenue and Stanford Avenue; pedestrian phase will be provided for the existing crosswalk.  | TCM D-1<br>TCM D-2              | A1, A2, A3, A5, A6, A7                   |



| ID   | Action Name   | Description   | Related BAAQMD TCMs | Related VTA Deficiency Plan Requirements |
|------|---|---|---------------------|--|
| 2.10 | New Standards for Bicycle Parking and Amenities                                     | Update the Zoning Ordinance Bicycle Parking Standards, such as requiring more bicycle parking and requiring bicycle commuter amenities in office developments.  | TCM D-1             | A1, A2, A3, A4                           |
| 2.11 | El Camino Real Streetscape and Pedestrian Improvements                              | Implement the El Camino Real Precise Plan standards and guidelines for streetscape improvements, including improved crosswalks, landscaping, widened sidewalks, bus bulbs, pedestrian lighting and amenities. The El Camino Real Streetscape Plan will provide additional guidance for these improvements.    | TCM D-2             | A5, A6, A7, B12                          |
| 2.12 | San Antonio Streetscape and Pedestrian Improvements                                 | Implement the San Antonio Precise Plan standards and guidelines for streetscape improvements, including improved crosswalks, landscaping, widened sidewalks, pedestrian lighting and amenities.   | TCM D-2             | A5, A6, A7, B12                          |
| 2.13 | California/Escuela/Shoreline Streetscape, Pedestrian and Bicycle Improvements       | Construct improvements proposed along segments of California Street, Escuela Avenue, and Shoreline Boulevard with wider sidewalks, bike lanes, parking protected bike lanes, and other traffic calming devices and streetscape beautification that enhance non-motorized safety, accessibility, and mobility. | TCM D-2             | A5, A6, A7                               |
| 2.14 | Shoreline Boulevard Corridor Study Streetscape, Pedestrian and Bicycle Improvements | Improvements proposed in the Study include protected bicycle lanes, high visibility crosswalks, corner refuge islands.  | TCM D-2             | A5, A6, A7                               |
| 2.15 | Central Expressway Bicycle Overpass Feasibility Study                               | Conduct a feasibility study for a bicycle overpass over Central Expressway, linking Escuela Avenue and Farley Street (part of the Permanente Creek trail).  | TCM D-1             | A1                                       |
| 2.16 | Central Expressway Bicycle Overpass   | Construct a grade-separated bicycle path across Central Expressway, linking Escuela Avenue and Farley Street (part of the Permanente Creek trail).  | TCM D-1             | A1                                       |
| 2.17 | Stevens Creek Trail Extension.  | Design and construct the Stevens Creek Trail from Dale/Heatherstone to Mountain View High.  | TCM D-1             | A1                                       |
| 2.18 | Bicycle path along Shoreline Boulevard  | The project will construct a bicycle path on Shoreline Boulevard between Villa Street and Wright Avenue. Feasibility study for this project is in progress.   | TCM D-1             | A1, A2                                   |
| 2.19 | City-wide, On-street Bicycle Improvements   | Design and construction of bicycle network improvements at El Monte Ave to Escuela Avenue across El Camino Real   | TCM D-1             | A1, A2                                   |
| 2.20 | City-wide, On-street Bicycle Improvements   | Design and construction of bicycle network improvements at Shoreline Boulevard to Miramonte Avenue across El Camino Real  | TCM D-1             | A1, A2                                   |
| 2.21 | City-wide, On-street Bicycle Improvements   | Design and construction of bicycle network improvements at Bernardo Avenue from Central Expressway to Middlefield Rd  | TCM D-1             | A1, A2                                   |

| ID   | Action Name  | Description   | Related BAAQMD TCMs           | Related VTA Deficiency Plan Requirements |
|------|--|---|-------------------------------|--|
| 2.22 | Latham / Church Bike Boulevard Study   | Design of a bike boulevard or other bike improvements on Latham and Church from Grant Road to Showers Drive.  | TCM D-1                       | A1, A2, A3, F7                           |
| 2.23 | Latham / Church Bike Boulevard Construction  | Construction Phase I.   | TCM D-1                       | A1, A2, A3, F7                           |
| 2.24 | Colony Street to Creek Trail   | Construct bridge over creek to connect Colony Street to Permanente Creek Trail.   | TCM D-1                       | A1, A2, A3                               |
| 2.25 | Cycle Track Study  | City-wide Cycle-track feasibility studies, which may include: Rengstorff Avenue Cycle Track, Moffett Boulevard Cycle Track, Old Middlefield Way Cycle Track, East Dana Cycle Track (Calderon Avenue to Moorpark), and West Evelyn Avenue Cycle Track.   | TCM D-1                       | A1, A2, A3                               |
| 2.26 | Modifications to Castro Street, between El Camino Real and Miramonte Avenue        | Improve pedestrian and bicycle safety by reducing vehicle lanes from two to one in each direction, add bicycle lanes, install curb bulb-outs at intersections, add high-visibility crosswalks with in-roadway warning lights at two crosswalks, and eliminate the free right turn from Castro Street to Miramonte Avenue. (14-36)   | TCM D-1<br>TCM D-2            | A1, A2, A3, A5, A6, A7                   |
| 2.27 | Permanente Creek Trail - Charleston Road and Amphitheatre Parkway Crossings        | Design and construct a new at-grade signalized trail crossing at Charleston Road and design improvements to the existing undercrossing at Amphitheatre Parkway to eliminate/reduce flooding impacts on the trail and improve the vertical clearance for bicyclists.   | TCM D-1<br>TCM D-2            | A1, A2, A3, A5, A6, A7                   |
| 2.28 | Grant/Phyllis/Martens Intersection   | Pedestrian improvements including shortened pedestrian crossing distances, elimination of free right-turn lanes to reduce vehicle speeds, and replacement of an aging traffic signal with a new signal with a dedicated left-turn movement.   | TCM D-2                       | A5, A6, A7, F4, F5, F7                   |
| 2.29 | Castro/Moffett/Central Intersection Near Term Improvements                         | Design, permit and construct near-term pedestrian and bicycle improvements at the Castro Street/Moffett Boulevard/Central Expressway intersection. Includes the elimination of the free right turn lane at the Northeast corner of Moffett Boulevard and Central Expressway.  | TCM D-2                       | A5, A6, A7, F4, F5, F7                   |
| 2.30 | Permanente Creek Trail – Rock Street to West Middlefield Road, Construction        | The City is partnering with the Mountain View Whisman School District (MVWSD) to integrate the extension of the Permanente Creek Trail extension from Rock Street to West Middlefield Road with the school site improvements at Crittenden Middle School currently under design.  | TCM D-1<br>TCM D-2            | A1, A2, A3, A5, A6, A7                   |
| 2.31 | El Monte/Marich Pedestrian Improvements  | Design and construct pedestrian enhancements at and around the Marich/El Monte intersection.  | TCM D-2                       | A5, A6, A7                               |
| 2.32 | East Whisman Area Transportation Oriented Development (TOD) Improvements           | Complete pedestrian, bicycle and other complete street projects at the Middlefield/237 interchange, the median islands on East Middlefield Road from North Whisman Road to the VTA light rail tracks, and pedestrian enhancements at the Ellis/101 interchange. Funding is primarily from TOD payments from three development locations: 690 Middlefield, 331 Fairchild, and 625 Clyde. | TCM D-1<br>TCM D-2<br>TCM D-3 | A1, A2, A3, A5, A6, A7, E3, E4, E8       |
| 2.33 | Shoreline Boulevard at Highway 101 Bicycle/ Pedestrian Bridge (Preliminary Design) | Conduct an alignment analysis and prepare a preliminary design of a bicycle and pedestrian bridge parallel and adjacent to Shoreline Boulevard over Highway 101 as described in the Shoreline Corridor Study.   | TCM D-1<br>TCM D-2            | A1, A2, A3, A5, A6, A7                   |

| ID   | Action Name   | Description  | Related BAAQMD TCMs           | Related VTA Deficiency Plan Requirements |
|------|---|--|-------------------------------|--|
| 2.34 | Shoreline Boulevard at Highway 101 Bicycle/Pedestrian Bridge (Construction) | Construction of the Shoreline Boulevard at Highway 101 Bicycle/Pedestrian Bridge.  | TCM D-1<br>TCM D-2            | A1, A2, A3, A5, A6, A7                   |
| 2.35 | Stierlin Road Bicycle and Pedestrian Improvements, (Design)                 | Design of bicycle and pedestrian improvements along Stierlin Road between the Transit Center and Montecito Avenue.   | TCM D-1<br>TCM D-2            | A1, A2, A3, A5, A6, A7                   |
| 2.36 | Stierlin Road Bicycle and Pedestrian Improvements, (Construction)           | Construction of bicycle and pedestrian improvements along Stierlin Road between the Transit Center and Montecito Avenue.   | TCM D-1<br>TCM D-2            | A1, A2, A3, A5, A6, A7                   |
| 2.37 | Shoreline Boulevard Pedestrian and Bicycle Improvements.                    | Proposed improved sidewalks and two-way cycle tracks from Highway 101 to Amphitheatre Parkway.   | TCM A-1<br>TCM D-1<br>TCM D-2 | A1, A2, A3, A5, A6, A7, B1, B4, B9, B12  |
| 2.38 | Garcia Avenue Improvements.   | Proposed improved sidewalks and two-way cycle tracks on both sides.  | TCM D-1<br>TCM D-2            | A1, A2, A3, A5, A6, A7                   |
| 2.39 | East-West Greenway Connection #1 and #2.                                    | Potential multiuse path south of Charleston Road connecting to Permanente and Stevens Creek trails, including signalized crossings at Shoreline Boulevard.   | TCM D-1<br>TCM D-2            | A1, A2, A3, A5, A6, A7                   |
| 2.40 | Mountain View Bike Share  | Investigate the feasibility of a Bike Share system and, implement the system in coordination with private sector partners. The system could provide first/last mile access to transit and serve key employment and activity centers within the City of Mountain View.  | TCM D-1                       | A1, A2, A3, F7                           |
| 2.41 | Regional Bikeway Study  | The City is working on a partnership with other regional cities, including Palo Alto, Redwood City and Menlo Park, to develop a regional bikeway.  | TCM D-1                       | A1, A2, A3, F7                           |
| 2.42 | Safe Routes to Schools Education Program.                                   | Vehicle Emissions Reductions Based at Schools (VERBS) grant funding to continue current program to reduce greenhouse gas emissions around schools and encourage bicycling and walking to school to age-appropriate educational programs for Grades K-12 in all public and private schools in the City, as well as Los Altos High School. | TCM C-2,<br>TCM C-4           | E2                                       |
| 2.43 | MOB 6.1: Safe routes to schools.  | Promote Safe Routes to Schools programs for all schools serving the city.  | TCM C-2,<br>TCM C-4           | E2                                       |
| 2.44 | MOB 6.4: Education.   | Support education programs that promote safe walking and bicycling to schools.   | TCM C-2,<br>TCM C-4           | E2                                       |
| 2.45 | Bicycle Transportation Plan Update.   | A comprehensive, City-wide plan of bicycle facility needs, including spot improvements and corridors.  | TCM C-2<br>TCM D-1            | A1, A2                                   |
| 2.46 | Pedestrian Master Plan.   | A City-wide plan with pedestrian-related policies and guidelines providing tools for future pedestrian improvements.   | TCM C-2<br>TCM D-2            | A5, A6, A7                               |
| 2.47 | California/Escuela/Shoreline Complete Streets Feasibility Study             | Study includes wider sidewalks, bike lanes, traffic calming devices and streetscape beautification that enhance non-motorized safety, accessibility, and mobility.   | TCM D-2                       | A5, A6, A7                               |

Table D-3. Action Plan Compliance with BAAQMD and VTA Deficiency Plan Requirements: Freeway and Arterial Operations

| ID   | Action Name  | Description  | Related BAAQMD TCMs           | Related VTA Deficiency Plan Requirements |
|------|--|--|-------------------------------|--|
| 3.1  | MOB 10.1: Efficient automobile infrastructure                                  | Strive to maximize the efficiency of existing automobile infrastructure and manage major streets to discourage cut-through traffic on neighborhood streets.  | TCM B-1                       | F4, F5                                   |
| 3.2  | Traffic Operations Center Study  | Study for the implementation of a centralized operations center to coordinate intelligent transportation systems and other traffic operational programs.   | TCM B-1                       | F4, F5                                   |
| 3.3  | Traffic Operations Center Construction   | Construction of the Traffic Operations Center  | TCM B-1                       | F4, F5                                   |
| 3.4  | Rengstorff Grade Separation  | Environmental clearance for a proposed grade separation project at Rengstorff and Central Expressway/ Caltrain tracks.   | TCM B-1                       | F4, F5                                   |
| 3.5  | Rengstorff Grade Separation  | Construction of proposed grade separation project at Rengstorff and Central Expressway/Caltrain tracks.  | TCM B-1                       | F4, F5                                   |
| 3.6  | Rengstorff Avenue Adaptive Signal System                                       | Installation of adaptive traffic signal technology and interconnect system along Rengstorff Avenue to proactively adjust signal timing in real time to address the fluctuating demands throughout the day and to enhance operations for all modes of transportation.   | TCM B-1                       | F4, F5                                   |
| 3.7  | Shoreline Boulevard NB Off-Ramp  | Proposed off-ramp realignment to improve vehicular operations and capacity. This could potentially include a designated bus-only lane.   | TCM B-1                       | F4, F5                                   |
| 3.8  | Preliminary Design: Plymouth/ Space Park Connection Across Shoreline Boulevard | Proposed new streets with two-lane travel lanes and bicycle lanes on each side, plus sidewalks.  | TCM B-1<br>TCM D-1<br>TCM D-2 | A1, A2, A3, A5, A6, A7, F4, F5           |
| 3.9  | 85/El Camino Real/237  | Continue to work with VTA and Caltrans to implement the existing PSR for this interchange.   | TCM B-1                       | F4                                       |
| 3.10 | Additional City-wide Roadway Improvements                                      | Conduct further analysis of potential capacity-increasing improvements within the existing right-of-way at multiple intersections through-out the City. (Examples: SB 85 off-ramp to Central Expressway, Shoreline Boulevard and California Street, Castro Street and California Street, Miramonte Avenue and Castro Street, Shoreline Blvd and Montecito Ave/Stierlin Rd, and Grant Road and Cuesta Drive.) | N/A                           | F4, F6                                   |
| 3.11 | Traffic Management   | Continue to implement the neighborhood traffic management program in new areas, including traffic calming, radar speed feedback signs, speed humps and other improvements  | TCM C-5                       | F10                                      |
| 3.12 | HOV Improvements   | Continue to participate in projects and programs implementing the regional HOV network.  | TCM B-3                       | D1, D2, D4, F1                           |



Table D-4. Action Plan Compliance with BAAQMD and VTA Deficiency Plan Requirements: Transportation Demand Management Strategies

| ID  | Action Name   | Description   | Related BAAQMD TCMs                      | Related VTA Deficiency Plan Requirements |
|-----|---|---|--|--|
| 4.1 | Adopt a City-wide TDM ordinance                         | <p>The TDM ordinance may include the following strategies:</p> <ul style="list-style-type: none"> <li>Standards and requirements for trip-reductions</li> <li>TDM operational measures, including ridesharing, joining TMA, outreach/coordination, preferential parking, etc.</li> <li>Guidance for reduced parking ratio.</li> </ul> | TCM C-1<br>TCM C-3<br>TCM C-4<br>TCM D-3 | A4, B5, B7, C1, C2, D1, E1, E2, E5, E6   |
| 4.2 | Adoption of a Residential Parking Permit Program (RPPP) | The RPPP is a parking management strategy that secures parking available for the residents without increasing parking supply. This supports new development with reduced parking ratios to effectively limit vehicle trips.   | TCM E-2                                  | E6                                       |
| 4.3 | North Bayshore Congestion Pricing Strategy              | Develop a strategy for adoption of congestion pricing if North Bayshore trip cap measures are unsuccessful.   | TCM E-3                                  |  |

Table D-5. Action Plan Compliance with BAAQMD and VTA Deficiency Plan Requirements: Land Use Strategies

| ID  | Action Name  | Description   | Related BAAQMD TCMs           | Related VTA Deficiency Plan Requirements |
|-----|--|---|-------------------------------|--|
| 5.1 | LUD 3.1: Land use and transportation                                     | Focus higher land use intensities and densities within a half-mile of public transit service, and along major commute corridors.                                    | TCM D-3                       | E3, E4, E8                               |
| 5.2 | LUD 8.2: Streets friendly to bicyclists and pedestrians                  | Encourage a network of streets friendly to bicyclists and pedestrians that create a safe and comfortable environment and include convenient amenities and features. | TCM D-1<br>TCM D-2<br>TCM D-3 | A1, A2, A3, A5, A6, A7, E3, E4, E8       |
| 5.3 | LUD 8.3: Enhanced publicly-accessible bicycle and pedestrian connections | Encourage new and existing developments to enhance publicly-accessible bicycle, pedestrian and transit connections.   | TCM D-1<br>TCM D-2<br>TCM D-3 | A1, A2, A3, A5, A6, A7, E3, E4, E8       |
| 5.4 | LUD 8.4: Pedestrian-oriented civic and public spaces                     | Create and encourage new pedestrian-oriented civic and public spaces throughout the city.   | TCM D-2<br>TCM D-3            | A5, A6, A7, E4, E8                       |

| ID   | Action Name   | Description   | Related BAAQMD TCMs                                 | Related VTA Deficiency Plan Requirements                           |
|------|---|---|---|--|
| 5.5  | LUD 8.5: Pedestrian and bicycle amenities             | Encourage attractive pedestrian and bicycle amenities in new and existing developments, and ensure that roadway improvements address the needs of pedestrians and bicyclists.   | TCM D-1<br>TCM D-2<br>TCM D-3                       | A1, A2, A3, A4, A5, A6, A7, E4, E8                                 |
| 5.6  | El Camino Real Precise Plan                           | The document contains guidance for change in land use and zoning to create a pedestrian- and bicycle-friendly environment with higher intensity, transit-oriented retail and residential units, includes a priority for affordable housing, and identified TDM strategies.  | TCM C-1<br>TCM C-3<br>TCM D-1<br>TCM D-2<br>TCM D-3 | B7, E1, E5, E6, C1, C2, A1, A2, A3, A4, A5, A6, A7, E3, E4, E8     |
| 5.7  | San Antonio Precise Plan                              | The Plan describes guidance and direction for future land use and zoning to transform the area to have higher intensity, transit-oriented development; pedestrian, bicycle and transit streetscape improvements; and TDM requirements.  | TCM C-1<br>TCM C-3<br>TCM D-1<br>TCM D-2<br>TCM D-3 | B7, E1, E5, E6, C1, C2, A1, A2, A3, A4, A5, A6, A7, E3, E4, E8     |
| 5.8  | North Bayshore Precise Plan                           | The Plan describes land use and zoning guidance for future development in the area to accommodate highly sustainable offices with comprehensive TDM strategies. This includes single-occupant vehicles trip cap of 45 percent, vehicle trip-cap at gateway locations, maximum parking requirements, provision of minimum rideshare and carpool parking, and future consideration of congestion pricing. In addition, the Plan identified a series of pedestrian, bicycle, and transit improvements in the area to support the potential change in mode share. | TCM C-1<br>TCM C-3<br>TCM D-1<br>TCM D-2<br>TCM D-3 | B7, E1, E5, E6, C1, C2, D1, A1, A2, A3, A4, A5, A6, A7, E3, E4, E8 |
| 5.9  | North Bayshore Precise Plan Update: Residential Uses. | This Update to the North Bayshore Precise Plan includes up to 10,000 new residential units. The increase is anticipated to potentially reduce the number of regional trips considering North Bayshore as both origin and destination.   | TCM D-3   | E3, E4, E6, E8   |
| 5.10 | East Whisman Precise Plan                             | The Plan describes guidance on future land use and zoning changes that envision highly sustainable office development in close proximity to the VTA Light Rail Transit stations. New residential uses will be added to reduce regional trips, along with pedestrian, bicycle, and transit improvements, TDM and parking requirements that enhance multimodal utilization of the Plan Area.  | TCM C-1<br>TCM C-3<br>TCM D-1<br>TCM D-2<br>TCM D-3 | B7, E1, E5, E6, C1, C2, D1, A1, A2, A3, A4, A5, A6, A7, E3, E4, E8 |