

3. Improvements Funded by Mitigation Fees

Freeway, street and intersection improvements will be needed to offset the impacts of future development. Traffic mitigation fees will be used to fund some of these improvements. In addition, it is anticipated that Federal, State, Measure A and local funds will be used to fund major highway projects and to supplement the available local funding for needed transportation improvements. This section outlines the improvements that will be fully or partially funded through traffic mitigation fees. More detailed descriptions of the improvements are provided in Part 3, Appendix A.

Freeway and Interchange Improvements

The freeway system in San Mateo County serves regional travel demand. This includes trips either originating in or destined for the City of San Mateo. Because of their regional function and the extremely high costs of freeway widening it is generally not feasible for a single local jurisdiction to fund freeway improvements. However, improvements to freeways, while very expensive, have been partially funded by some local jurisdictions. The San Mateo Traffic Mitigation Program anticipates partially funding one major freeway improvement project:

SR 92 Auxiliary Lane and El Camino Real Interchange Modification

- *Partially Funded (8%) Through Mitigation Fees*
- *Partially Funded (92%) Through Measure A, State or Federal Funds*

SR 92 is proposed to be widened to six lanes between I-280 and U.S. 101 and is included in the Measure A Strategic Plan. The El Camino Real/SR 92 interchange will be examined as part of the SR 92 widening project. Improvements have been completed between US 101 and the San Mateo Bridge. Caltrans and the Transit Authority have prepared a PSR for improvements in this section of SR 92.

Major Street Improvements

The City of San Mateo Traffic Mitigation Program includes several major street improvements. These include street widening, railroad grade separations, and extending existing streets to provide better system connectivity. It is anticipated that the dedication of right of way and in some cases construction of the actual improvements will be accomplished in conjunction with anticipated future development. The improvements to be funded by the traffic mitigation fee program are:

3rd and 4th Avenue Widening

- *Fully Funded Through Mitigation Fees*

Third Avenue and Fourth Avenue would be widened, east of Delaware Street through a combination of street widening and removal of parking. Also, Delaware Street would be widened between Third Avenue and Fourth Avenue.

20th Avenue Widening

- *Partially Funded (50%) Through Mitigation Fees*
- *Partially Funded (50%) by Developer Contribution*

The north side of 20th Avenue between the Corte Bella property and Elkhorn Court (200 block) is to be widened approximately five feet to provide a consistent curb line along the north side of the street to provide a full parking lane and travel lane.

Grade Separations

25th, 28th and 31st Avenue Grade Separations

- *5% Local Share Funded Through Traffic Mitigation Fees*
- *95% Transportation Authority Joint Powers Board Funds, State and Federal Funds*

As part of the 25th Avenue grade separation project, the Caltrain railroad tracks will be elevated between Hillsdale Boulevard and SR 92. This will provide the opportunity to extend 28th and 31st Avenues under the railroad tracks to connect to the planned Delaware Street extension. Mitigation fees will be used to offset the incremental costs of adding grade separations at 28th and 31st Avenues.

Signalization Modifications

New Signals and Signal Upgrades

- *Fully Funded Through Mitigation Fees*

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

Intersection Improvements

Intersection improvements at signalized intersections will be funded through this program. The City currently has seventy-nine signalized intersections. Improvements may include capacity enhancements based on level of service needs, or safety improvements.

Signalized Intersections with Feasible LOS Mitigations

Signalized Intersection Mitigation Improvements

- **Fully Funded Through Mitigation Fees**

The majority of the signalized intersections will continue to operate at acceptable levels of service (mid D LOS with an average delay of less than 45 seconds) in 2030, with anticipated levels of development. However, three intersections will exceed the established level of service standard if development reaches the level anticipated by 2030. Physical improvements, or in some cases traffic control changes (signing and markings) will be required at these intersections. Improvements are recommended at the following intersection to maintain acceptable levels of service with the addition of future development:

- Delaware Street and 19th Avenue
- Grant Street and 19th Avenue
- El Camino Real and Crystal Springs Road

A figure in Appendix A (*Part 3, Appendix*) illustrates the proposed intersection improvements. Mitigated levels of service are summarized in Table 1-4.

**Table 1-4
Signalized Intersection Mitigated Levels of Service**

Signalized Intersections	2030 Without Mitigation				2030 With Mitigation			
	AM Peak Hr		PM Peak Hr		AM Peak Hr		PM Peak Hr	
	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Delaware Street and 19th Avenue	29.1	C	50.3	D	24.1	C	27.4	C
Grant Street and 19th Avenue	47.7	D	35.5	D	37.1	D	39.0	D
El Camino Real at Crystal Springs	59.5	E	21.7	C	39.8	D	18.4	B

Note: Year 2030 Conditions include improvements currently under construction

Mitigation needs should be reviewed periodically to evaluate the impacts of actual development versus that forecast in the traffic model.

Additional Identified Signalized Intersection Improvements El Camino Real/Crystal Springs SB Right-Turn Lane (\$250,000)

- **Partially Funded (94%) through Mitigation Fees**
- **Partially Funded (6%) by Developer Contribution**

Construction of a southbound right-turn lane at Crystal Springs. The Villa Terrace project in the northwest quadrant of the intersection was constructed with the building set back and temporary landscaping improvements along the El Camino Real frontage to accommodate a future widening for the dedicated right-turn lane.

SB El Camino Real Right-Turn Lane at 20th Avenue (\$100,000)

- *Partially Funded (80%) through Mitigation Fees*
- *Partially Funded (20%) by Developer Contribution*

Extend the existing bus turn-out on the west side of El Camino Real north of 20th Avenue to provide an extended dedicated right-turn lane from southbound El Camino Real to westbound 20th Avenue.

WB Duel Left-Turn Pockets at 17th Avenue/Bovet Road with El Camino Real (\$200,000)

- *Fully Funded Through Mitigation Fees*

Provide additional westbound lane for separate through and right-turn movements and split phasing of the El Camino Real/Bovet Road intersection with El Camino Real. Additional roadway width, and right-of-way, is required for this improvement on the 17th Avenue side of the intersection. This improvement may be forced to wait until the redevelopment of either the northern or southern property at the intersection on the east side of El Camino Real.

Intersection Modification & Safety Improvements

Stop Sign Evaluations - Citywide Stop Sign Evaluations (\$250,000)

- *Fully Funded through Traffic Mitigation Fees*

The City also evaluates the need for stop signs at various intersections in compliance with our adopted Stop Sign Policy document. Evaluations require data collection, field work and the development of a recommendation to the Director of Public Works. Often the decision of the Director is appealed to the Public Works Commission and City Council. Warrant evaluations are completed based on increased intersection traffic due to general cumulative traffic impacts. Traffic Mitigation fee anticipates funding these stop sign warrant studies.

Safety Improvements - Citywide Safety Improvements (\$500,000)

- *Fully Funded through Traffic Mitigation Fees*

The City conducts site reviews of traffic conditions based on complaints from the community or as otherwise brought to our attention. Many times, safety improvements are implemented as a result of a site review to mitigate an unsafe condition. The need for safety improvement mitigations are the result of an increase in the cumulative traffic added to the City's roadway network.

Amphlett/Poplar/US 101 Ramp Safety Improvements (\$1,000,000)

- *Partially Funded (90%) Through Traffic Mitigation Fees*

- **10% Roadway Reconstruction Funds**

Currently, the US 101 on and off-ramps forms a four-legged, three-way stop-controlled intersection with Poplar Avenue and Amphlett Boulevard. All turning movements are allowed at this intersection. The freeway off-ramp is uncontrolled; the other three legs of the intersection are controlled by stop signs.

Existing traffic conditions at the intersection of Amphlett Boulevard with Poplar Avenue and the US 101 ramps are heavily congested during peak traffic times. The heavy traffic congestion at this location also adversely affects safety and quality of traffic operations at the nearby Idaho/Poplar and Humboldt/Poplar intersections. The long queues that appear on Poplar Avenue as a result of the congestion at Amphlett Boulevard often create visibility problems and lead to confusing conditions for many drivers. As a result, the intersection of Poplar Avenue/Amphlett Boulevard has significantly higher accident rates than other intersections in the area. The Idaho/Poplar intersection also exhibits an unusually high accident rate. These conditions warrant the investigation of potential safety improvements.

Other Program Elements

The *Traffic Mitigation Program* includes other elements that are non-location specific. These elements provide for the use of alternative modes of travel, protection of residential neighborhoods and on-going planning and analysis efforts to monitor the program. Toward this end, the current Traffic Mitigation Fee Program anticipates funding the following improvements:

Neighborhood Traffic Management Measures (\$2,500,000)

- *Fully Funded Through Traffic Mitigation Fees*

The *Traffic Mitigation Program* includes a component to protect residential neighborhoods from the intrusion of cut-through traffic and excessive traffic speeds. Increased traffic on the City's arterials and collector streets as a result of future development may increase traffic on residential streets as drivers seek ways to avoid congestion. Often this cut-through traffic includes vehicles exceeding the safe speeds for residential streets. The *Traffic Mitigation Program* provides funding for improvements on arterial and collector streets to reduce congestion and for residential traffic calming measures. The arterial and collector improvements will reduce the potential for cut-through traffic. The traffic calming measures will reduce the impacts in neighborhoods where the problem persists, even after the collector and arterial improvements have been provided.

Bicycle and Pedestrian Improvements (\$250,000)

- *Fully Funded Through Traffic Mitigation Fees*

Bicycle and pedestrian mobility play a significant role in the City's Sustainable Initiatives Plan (SIP). By 2020, the City goal is to increase mode share for pedestrian and bicycle travel to 30% for trips on one mile or less. As developments occur in the City, there will be an additional burden placed on the bicycle and pedestrian networks. The Mitigation Fee Program will be used for funding off-site pedestrian and bicycle improvements needed to create and maintain a safe and logical bikeways system and walkable

community. The City will develop master plans for both bicycle and pedestrian networks throughout San Mateo. Through this process, it is anticipated that a list of capital improvement projects will be generated to identify necessary improvements or gaps in the system. These improvements, along with development of the master plans, will be funded through the Mitigation Fee Program.

Traffic Model Maintenance and Updates (\$75,000)

- *Fully Funded Through Traffic Mitigation Fees*

The *Traffic Mitigation Program* requires the evaluation of future development using the City's traffic model. This model must be consistent with the requirements outlined in the San Mateo County Congestion Management Program. The travel demand model is also used to evaluate future traffic conditions as required in traffic impact studies for proposed developments. To meet these requirements, the model must be updated periodically to reflect changes in land use forecasts or anticipated road improvements. The model updates will be funded using traffic mitigation fees since the model's primary function is the analysis of cumulative traffic impacts.

3. Recommended Fee Program

The recommended fee is \$3,763 per PM peak hour trip. Application of the fee is based on the number of dwelling units for residential development or square footage for commercial and industrial development. The proposed fee varies based on the trip generation of each specific use. As a result, the fee is lower for condominium and apartment units since they do not, on average, generate as many trips as single-family units. Similarly, industrial uses do not generate as many trips as office or retail uses. As a result, the fee per 1,000 square feet of industrial development is lower than for an equivalent amount of office and retail floor space. The recommended fee amounts are shown in Table 2-3.

Table 2-3
Proposed Traffic Mitigation Fees

Land Use	Growth	Units	Trip Rate ¹	Fee per Unit	Estimated Fees
Residential:					
Single-Family Homes ²	-	du	0.7373	\$ 3,422	
Multi-Family Homes ²	8,330	du	0.4526	\$ 2,101	\$ 17,500,733
Commercial and Industrial:					
Industrial	2,820	ksf	0.71	\$ 2,042	\$ 5,757,259
Retail	1,230	ksf	2.04	\$ 5,893	\$ 7,250,474
Office	1,432	ksf	1.09	\$ 3,135	\$ 4,489,968
<i>Total:</i>					\$ 34,998,434
Generic Fee per trip = \$ 3,763					

Notes:

¹ Based on ITE PM Peak Hour Trip Generation with a 27% reduction for intra-city trips

² All residential growth is assumed to be multi-family (for determining total added trips). Thus the fee per trip is calculated as such. However any single-family homes will be charged in accordance with their corresponding trip rate.

TRAFFIC IMPACT FEE CREDITS

When calculating a development's traffic impact fee, the following two scenarios shall be used in determining the fee credit that should be applied to existing developments that are full/partially occupied, and 100% vacant. The occupancy rate used for determination of fee credits shall be that in effect at the time of the planning application submittal. The basis of credit shall be based on the current impact fee schedule rate at the time of the planning application submittal. The traffic mitigation fee credits are shown in Table 2-4.

Table 2-2
Projected Household and Employment Growth

Land Use	Baseline (2005)	Future (2030)	Growth (2030-2005)	Area (ksf) per job	Growth (ksf)
Total Households	40,030	48,360	+8,330		
Industrial Employment ¹	13,353	20,754	+7,401	0.381	2,820
Retail Employment ²	10,871	16,786	+5,915	0.208	1,230
Office Employment ²	21,057	32,513	+11,456	0.125	1,432
Total Employment	45,840	70,780	+24,940		

Conversion For Application

For ease of application, the per-trip fee has been converted to a fee per dwelling unit and commercial square footage. The conversion was based on the trip generation rates from the Institute of Transportation Engineers (ITE) manual entitled *Trip Generation*, Eighth Edition. These rates are consistent with the rates used in developing the traffic forecasts for the General Plan.

Sometimes, unique uses are proposed that do not fit within the land use categories established within the traffic mitigation fee. In these cases, the “per trip” fee can be used to calculate an appropriate fee for the use. Trip generation for unique uses may be established using direct measurement of similar uses that are in operation elsewhere or through a rational analysis based on number of employees, residents, visitors or other factors that affect trip generation.

Retail uses tend to attract some of their customers from the existing traffic stream. In developing trip generation estimates for retail developments these trips, referred to as pass-by trips, are subtracted leaving an estimate of “new trips” added to the street system. For the development of the San Mateo Traffic Mitigation Fee Program, it has been assumed that approximately 25 percent of trips to and from retail stores are pass-by trips. This assumption is supported by data contained in the Institute of Transportation Engineers (ITE) *Trip Generation Handbook, 2004* (Figure 5.5).

Table 2-4
Traffic Mitigation Fee Credits

Building Occupancy	Driveway Count *	ITE Trip Determination	Basis of Credit
Full/partially	Physical determination during peak periods	Based on percentage of usage of building	Lowest value between driveway count or ITE
100 % vacant	None	None	None

*Count is obtained during the Traffic Impact Analysis.

Comparison of Fees

A survey of existing traffic mitigation fees in other Bay Area jurisdictions was conducted. A combination of published information and telephone inquiries has been combined in Table 2-5. This information is provided to illustrate how the proposed traffic mitigation fee for San Mateo compares to fees being applied by other jurisdictions.

Direct comparison of fees to other communities can vary due to differences in the definitions of improvements and land use categories. As discussed earlier in this report, each fee is directly related to the cost of required traffic mitigation and the amount of development to which the costs are to be applied. Therefore, other fees cannot be used to determine if the proposed San Mateo fee is appropriate. Instead, the comparative information is provided to permit an evaluation of parity with other communities.

**Table 2-5
Comparison of Traffic Impact Fees**

Jurisdiction	Residential ¹		Commercial ²		Industrial ²
	Single-Family	Multi-Family	Office/R&D	Comm. Retail	
San Mateo	\$3,422	\$2,101	\$3,135	\$5,893	\$2,042
South San Francisco ³	N/A	N/A	\$4,600	\$19,080	N/A
Pacifica ⁴	\$3,734	\$3,734	\$1,500	\$1,500	N/A
Millbrae ⁵	N/A	\$8,500	N/A	N/A	N/A
Burlingame ⁶	N/A	N/A	\$2,064	\$7,596	\$3,128
Half Moon Bay	\$1,913	\$1,026	\$5,227	\$5,227	N/A
Redwood City	\$1,502	\$1,021	\$3,450	\$4,970	\$900
Menlo Park ⁷	\$708	\$708	\$1,600	\$1,600	\$1,600
Palo Alto ⁸	\$2,627	\$1,613	\$3,880	\$3,880	N/A

N/A = not available or not applicable

¹ Fee per dwelling unit

² Fee per 1,000 square feet

³ Fee applies to area east of US 101.

⁴ Highway 1 Improvement Fee for area south of Sharp Park Road.

⁵ Applies to development within the Millbrae Station Area Specific Plan Area and in addition to roadway infrastructure improvements, the fee is applied to water, sewer, and landscape improvements.

⁶ Applies to development within the Burlingame Bayfront Specific Plan Area.

⁷ In addition to above one-time fees, an annual shuttle fee of \$105 per 1,000 square feet is assessed.

⁸ Based on Palo Alto's traffic impact fee per trip, average project sizes, and ITE Trip Generation rates as discussed in a report by the Palo Alto City Manager to the City Council entitled, "Proposed Citywide Transportation Impact Fee" (April 17, 2007).