5.0 TRANSPORTATION ELEMENT

5.0 TRANSPORTATION ELEMENT

5.1 PURPOSE OF THE ELEMENT

This Transportation Element is intended to provide the circulation framework that will support the Land Use and other elements of the St. Helena General Plan. The element identifies the principal components of the street and highway system as well as issues relating to parking, transit, pedestrian and bikeway routes and railroad services. Standards and guiding principles for the implementation of transportation facilities are also included.

5.2 CURRENT TRANSPORTATION CONDITIONS AND ISSUES

For the purposes of the General Plan, the existing conditions for the circulation system can be defined in terms of three areas:

- The existing street classification system
- Traffic operating conditions on the street system
- General Circulation

STREET CLASSIFICATION SYSTEM

As with most cities in California, the City of St. Helena has defined a hierarchy of streets as part of its existing general plan. Two types of streets have been defined: collector streets and local streets. Figure 5.1 shows the hierarchy of streets citywide. The following streets are defined as collector streets in the current general plan:

North-South Collector Streets

- SR 29 (Main Street) throughout the City
- Silverado Trail from Deer Park Road to Pope Street (this street lies entirely within the County rather than the City)
- Oak Avenue from Madrona Street to Spring Street
- Valleyview Street and Crane Avenue from Spring Street to Sulphur Springs Avenue

East-West Collector Streets

- Pratt Avenue from Main Street to Silverado Trail
- Madrona Avenue from Hudson Avenue to Main Street
- Fulton Lane from Main Street to the eastern terminus
- Adams Street from Main Street to the eastern terminus
- Spring Street from Valleyview Street to Main Street
- Pope Street from Highway 29 to Silverado Trail
- Dowdell Lane from Main Street to the future intersection of Starr Avenue

Sulphur Springs Avenue from Crane Avenue to Main Street

OPERATING CONDITIONS

The traffic engineering profession has developed a standard method of evaluating operating conditions on City and rural street systems. The method involves the definition and evaluation of the "Service Level." In urban areas, Service Levels are generally evaluated at intersections, whereas in rural areas, highway segments are generally evaluated. Table 5-1 defines the standard list of six Service Levels (A through F), together with criteria for evaluating these levels at signalized intersections. Table 5-2 extends the definition to intersections controlled by stop signs. For the St. Helena study, the 1985 Highway Capacity manual techniques were used to evaluate the stop-controlled intersections; the signalized intersections were analyzed using the HCM Planning Method of analysis. Both of these techniques are standard ones used throughout the profession for the evaluation of traffic operations. The HCM Planning Method is specifically noted in the Napa County Congestion Management Plan as an acceptable method for evaluation of General Plans.

The two methods differ somewhat in their definition. Volume/capacity ratios and delays at signalized intersections provide data that apply to the entire intersection. At stop-controlled intersections, the evaluation is of the minor movements (vehicles on the side street, and left turns from the major street). In the General Plan update assessment of the stop-controlled intersections, all of the minor movements are evaluated, but the intersection service level is defined on the basis of the worst case among all of the minor movements.

The General Plan has chosen to make one small change in the interpretation of the HCM Planning Method for signalized intersections. The new Planning Method does not produce answers in terms of the familiar Service Levels A-F. Instead, the answers are supposed to be interpreted as "Under Capacity," "Near Capacity," and "Over Capacity." Given the CMP standards for service level along SR 29 and the need for consistency elsewhere in the City, the General Plan interprets the HCM Planning volume/capacity ratios in terms of Service Levels as shown in Table 5-1. The technique thus uses the computational techniques of the HCM and the interpretation technique of the older Circular 212 Planning Method.

Table 5-3 documents existing service levels at 15 intersections in the City of St. Helena.

Table 5-1
Level of Service Interpretation
Signalized Intersections

Level of Service	Vehicle	Volume to Delay (seconds)[1]	Capacity RatioDescription
A	≤ 5.00	0.00 - 0.59	**Free Flow/Insignificant Delays:** No approach phase is fully utilized by traffic and no vehicle waits longer than one red indication.
B	5.1 - 15.0	0.60 - 0.69	**Stable Operation/Minimal Delays:** An occasional approach phase is fully utilized. Many drivers begin to feel somewhat restricted within platoons of vehicles.
C	15.1 - 25.0	0.70 - 0.79	**Stable Operation/Acceptable Delays:** Major approach phases fully utilized. Most drivers feel somewhat restricted.
D	25.1 - 40.0	0.80 - 0.89	**Approaching Unstable/Tolerable Delays:** Drivers may have to wait through more than one red signal indication. Queues may develop but dissipate rapidly, without excessive delays.
E	40.1 - 60.0	0.90 - 0.99	**Unstable Operation/Significant Delays:** Volumes at or near capacity. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
F	≥ 60	N/A	**Forced Flow/Excessive Delays:** Represents jammed conditions. Intersection operates below capacity with low volumes. Queues may block upstream intersections.

Source: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington D.C., 1985.

Notes: (1) For information only; for the planning method, volume/capacity ratio is the criterion for service level.

Table 5.2
Level of Service Interpretation
Unsignalized Intersections

Level Service	Expected Delay	Reserve Capacity (Vehicles/Hour)
A	Little or no delay	≥ 400
B	Short traffic delays	300 - 399
C	Average traffic delays	200 - 299
D	Long traffic delays	100 -199
E	Very long traffic delays	0 - 99
F	Extreme delays potentially affecting other traffic movements in the intersection	≤ 0

Source: Highway Capacity Manual, Transportation Research Board, Special Report No. 209, Washington D.C., 1985.

Table 5-3
CITY OF ST. HELENA EXISTING CONDITIONS
LEVEL OF SERVICE

Intersection	cntrl[1]	AM			PM			Weekend		
		LOS	Delay/ Veh.	V/C	LOS	Delay/ Veh.	V/C	LOS	Delay/ Veh.	V/C
# 1 Main/Sulphur Springs	2	D			E			D		
# 2 Main/Grayson/Mills	2	E			F			E		
# 3 Main/Pope/Mitchell	s	B	17.3	0.61	D	19.1	0.80	D	16.5	0.81
# 4 Main/Spring St.	2	B			D			A		
# 5 Main/Hunt	2	A			D			B		
# 6 Main/Adams	s	B	15.4	0.62	D	27.8	0.84	C	19.6	0.76
# 7 Main/Pine	2	D			D			D		
# 8 Main/Madrona/Fulton	s	B	13.3	0.61	D	21.6	0.83	D	19.7	0.80
# 9 Main/Pratt	2	D			E			E		
#10 Madrona/Oak	2	A			A			A		
#11 Oak/Adams	4	A	2.8	0.29	A	3.5	0.41	A	2.4	0.30
#12 Spring St./Oak	4	A	2.9	0.35	A	4.2	0.40	A	2.6	0.27
#13 Spring Mtn/Madrona	2	A			A			A		
#14 Pratt/Silverado Trail	2	A			B			A		
#15 Pope/Silverado Trail	2	A			D			B		

Notes: *(1) Cntrl Definitions: 2=2way stop, 4=4way stop, S=Signal*
(2) Delay/Vehicle and V/C ratio are computed for signalized and four-way-stop intersections only.

Overall, the evaluation of existing conditions indicates that there are relatively few problems in the AM peak hour. Only the side street, Grayson Avenue, experiences significant delay in the morning. In the evening, three of the minor streets intersecting Main Street show delay in the E-F range; in addition, the intersection of Main and Adams is estimated to operate at Service Level D. On weekends, intersections south of Adams operate at level E or F.

GENERAL CIRCULATION

The "general circulation" category is not evaluated in as formal a manner as the operation conditions in the previous section. Rather, it is intended to identify the ease with which people can travel around St. Helena at various times.

As the main spine of the City, SR 29 (Main Street) is the focal point for all circulation in the City. Main Street is the only street in the City with significant continuity, which means that it must be used for many internal trips in the City. Oak Avenue, Railroad Avenue, Allyn Avenue, Valleyview Street and Crane Avenue provide some opportunities for north-south movement, but their continuity is limited. Among the General Plan proposals to improve north-south continuity is an extension of Oak Avenue to the south and the creation of Starr Avenue parallel to Main Street and Silverado Trail.

East-west circulation is also affected by Main Street due to the difficulty of crossing Main during those periods when the highway is congested. The intersection of Main/Pope/Mitchell has been one of the most difficult for crossing maneuvers due to heavy Main Street traffic. However, the recent approval of signalization of this intersection by CALTRANS should make significant improvements in east-west circulation. The new signal will create gaps that may also improve access and egress for Spring Street at Main.

Adams and Madrona/Fulton Streets also provide part of the solution to east-west circulation. The problem with these streets is that there is little connectivity between them and other areas on the east side of town.

Overall, St. Helena's circulation systems performs adequately in periods when there is relatively little congestion on Main Street. However, when Main becomes clogged, circulation is affected throughout the City, particularly on the east side where there are fewer connections on north-south streets.

5.3 THE GENERAL PLAN STREET SYSTEM

An evaluation of the issues discussed above, combined with an evaluation of needs in support of the Land Use Element, has lead the City to adapt a circulation element that represents an extension of the existing system documented above. Figure 5-2 illustrates the complete system.

Guiding Policies

5.3.1 Designate a system of collector and local streets as a basis for managing traffic in the City

The City of St. Helena street system includes two street classes: collector streets and local streets. The purpose of the collector streets is to provide the dual function of providing access to adjacent properties and service as corridors for travel within the community and between the community and points external. Because of this dual nature, traffic volumes on the collector streets may exceed the level that is deemed tolerable for a local street.

Local streets are intended to serve only to provide access to their adjacent properties; the City may at its discretion employ control measures to assure environmentally acceptable volumes on local streets. Unless specifically excepted by City policy, local streets should not carry more than 3,000 vehicles per day (vpd). Pope Street, while defined as a local street between Starr Avenue and Main Street, is specifically exempted from the 3,000 vpd limit, though the City will attempt to minimize traffic to the extent feasible.

5.3.2 Add the following streets to the existing system:

- Adams Street from its current eastern terminus to Silverado Trail
- McCorkle Avenue from Mariposa Lane to the extension of Starr Avenue
- Oak Avenue from Mitchell Drive to Grayson Avenue
- Library Lane from its current terminus to Fulton Lane
- An unnamed new street located east of Edwards Street connecting Hunt Avenue and Pope Street
- Starr Avenue from the extension of Adams Street to the Urban Limit Line

5.3.3 Preserve rights-of-way for future collector streets within the planning area of the City as follows:

- Starr Avenue from Pratt Avenue to Adams Street and from the Urban Limit Line to Dowdell Lane
- Mills Lane from SR 29 to Starr Avenue, including a potential realignment with Grayson Avenue at SR 29
- Oak Avenue from Vidovich Avenue to Grayson Avenue

The City recognizes that development may or may not proceed along the lines envisioned in this plan, and that some areas not currently identified for potential development may in fact precede those that are so designated. The intent of the right-of-way preservation designation is to clearly define the interest of the City in maintaining the option for extending its collector street system into these areas. Special setback areas shall be established along collector streets to allow for future widening.

5.4 TRAFFIC SERVICE STANDARDS

The section on existing conditions above describes the six levels of service for street systems together with the method by which the LOS is evaluated. In addition, this General Plan includes a Service Level standard which the City will attempt to maintain throughout the duration of the Plan.

Guiding Policies

5.4.1 Service Level C shall be maintained at all signalized intersections in St. Helena except along Main Street, where Service Level D shall be permitted. Exceptions to this policy are that lower service levels shall be permitted at any location where the existing service level does not meet this standard; in these locations, the Service Level shall not be lower than that shown in Table 5-3. The City Council may also allow an exception to this policy if it finds overriding circumstances which make maintenance of this policy impractical or infeasible.

5.4.2 Service Level C is a goal at stop-sign-controlled intersections. If the Service Level degrades below Level C, an evaluation of the need for traffic signalization shall be undertaken according to standard CALTRANS signal warrants. If signals are not initially warranted, the location shall continue to be monitored for signal warrants on a regular basis.

The Napa County Congestion Management Plan (CMP) is a document mandated by the State of California for all metropolitan areas. Among its requirements are the adoption of a service level policy on all highways that make up the CMP network. In St. Helena, only SR 29 (Main Street) is on the CMP network. Napa County has adopted Service Level E as its standard, except that Highway 29 north of Oak Knoll Avenue has a standard of Level D. The City of St. Helena policy above is consistent with the County standard. The CMP also permits the use of the Highway Capacity Manual Planning method for General Plan evaluation. The evaluation in Table 5-3 is consistent with that methodology, except that where the HCM planning method only identifies "under capacity", "at capacity" and "over capacity", Table 5-3 uses the volume/capacity ratios to arrive at a Service Level in accordance with earlier evaluation methodologies.

5.5 ROADWAY IMPROVEMENT STANDARDS

Guiding Policies

5.5.1 Collector Streets: All collector streets designated in the Circulation Diagram should be developed with one lane in each direction for moving traffic. Rights of way for a parking lane and sidewalks shall also be provided on each side. In undeveloped areas without development constraints, the right-of-way width for collector streets shall be 60 feet. The City Engineer may at his discretion require additional right-of-way at selected locations to permit inclusion of left-turn lanes.

5.5.2 Local streets in newly developing areas should be laid out in a manner consistent with the grid system currently in place in the older portions of St. Helena and in conformance with adopted City standards. Care should be taken to insure that these grids contain enough discontinuity to

discourage their use by non-local traffic. Local streets should have a paved width of 36 feet with a ten-foot wide area adjacent to curb for sidewalk and landscaping.

5.5.3 In locations where right-of-way is constrained by existing development or natural features, the City Engineer may allow exceptions to this policy.

5.5.4 Construction of curbs, gutters, and sidewalks may be deferred in rural areas outside of the Urban Limit Line.

5.6 PARKING STANDARDS

Parking is a significant concern in the downtown portion of St. Helena. The City has identified the "Parking Impact Area" shown in Figure 5-3 as the portion of the City where parking supply and demand are to be closely monitored.

Guiding Policies

5.6.1 The City finds that the parking supply in 1993 represents a reasonable balance of parking supply and demand within the Downtown Parking Impact Area. New development in the downtown shall not degrade the current balance between supply and demand.

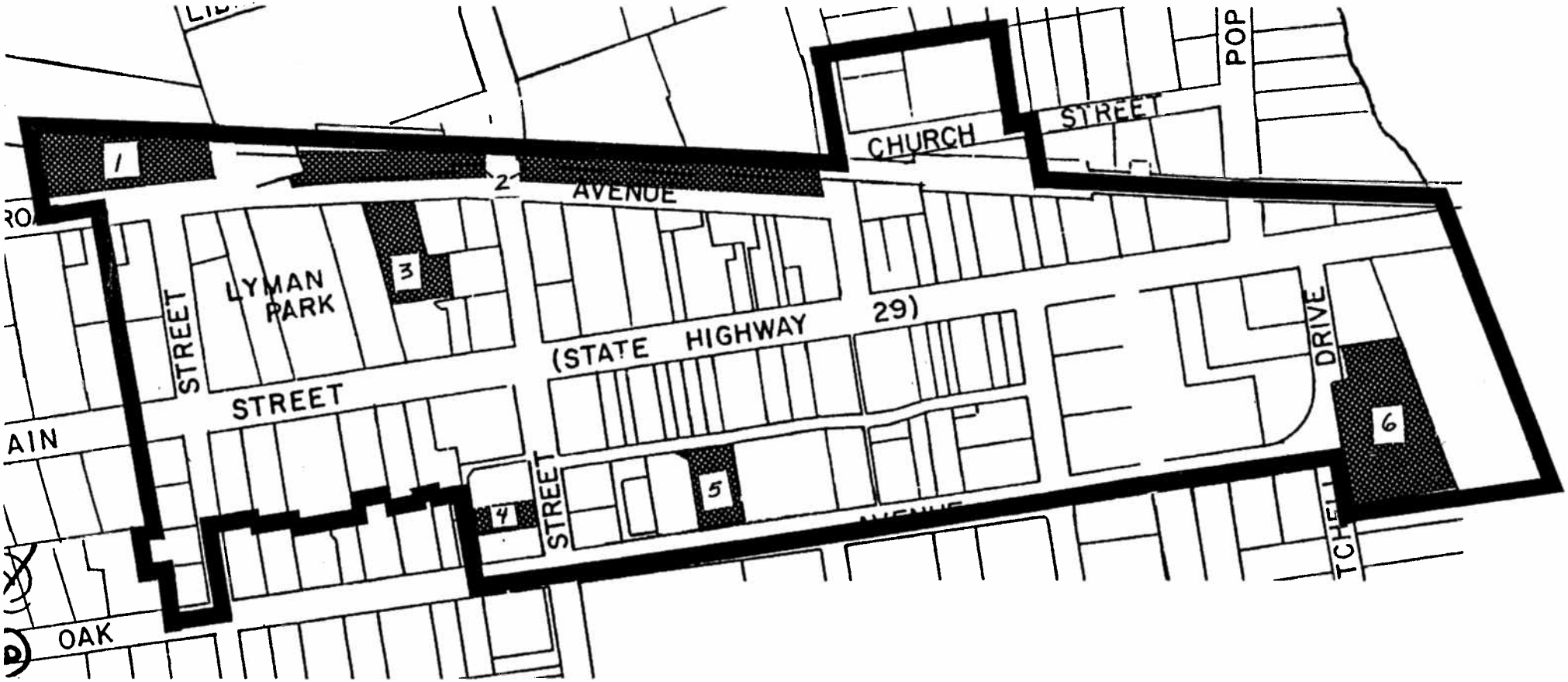
5.6.2 Maintain on-street parking on Main Street in the Central Business District for the convenience of shoppers and to provide a physical and psychological buffer between Main Street traffic and pedestrians.

Implementing Policies

5.6.3 Any new development within the Parking Impact Area that would produce more demand for parking than it proposes to supply must either provide the additional parking as part of the development proposal or must contribute an in-lieu fee to the City's off-street parking program.

5.6.4 The City will develop and maintain an off-street parking program for the Parking Impact Area. The program will identify and prioritize locations where additional off-street parking can be provided. When sufficient funds have accumulated for the acquisition of a site and construction of parking on that site, the City will commence with implementation of providing parking on that site.

5.6.5 Parking demand shall be based on the City's an Off-Street Parking Ordinance.



Parking Impact Area

1. "City Depot Property"
(APN 9-193-03) Owned by the City of St. Helena
Approximately 95 potential parking spaces.

2. "Napa Valley Wine Train Property"
(portion of APN 9-210-01) Owned Napa Valley Wine Train
Approximately 20 potential parking spaces.
(51 parking spaces are already developed).

3. "Donaldson Property"
(portion of APN 9-211-05) Owned by Richard & Gladys Donaldson
Approximately 35 potential parking spaces.

4. "Harris Property"
(APN 9-223-22) Owned by Rennick and Marilyn Harris
Approximately 30 potential parking spaces.

5. "Alliguie Property"
(APN 9-240-15) Owned by Armand Alliguie
Approximately 30 potential parking spaces.

6. "PG&E Property"
(APN 9-263-05) Owned by Pacific Gas and Electric
Approximately 75 potential parking spaces.

St. Helena
General Plan Update

Downtown Parking Improvement Plan Candidate Parcels

Wallace Roberts & Todd

Figure 5 - 3

5.7 TRANSIT

Transit Service in St. Helena is presently provided by Napa County. Napa Valley Transit provides inter-city transit service along the Highway 29 corridor, from Vallejo (Kaiser Hospital) through Napa to Calistoga. Amtrak connecting bus service and Greyhound bus service is also provided to St. Helena.

Guiding Policies

5.7.1 St. Helena will continue to support Napa County in the provision of convenient transit service.

The size of the City is such that additional local transit service is not currently feasible.

5.8 PEDESTRIAN ROUTES AND BIKEWAYS

Guiding Policies

5.8.1 All new development on collector streets shall provide sidewalks or walkways to be located with the City's right-of-way for the collector street. Further, unless exempted or deferred by the City Council, all residential developments shall provide sidewalks on all local streets within the development.

It is a goal of the City that it continue to remain at a size where the majority of development is within a 10 minute walk of the downtown. Sidewalks or walkways will reinforce the pedestrian orientation of the City.

5.8.2 The City shall develop a system of bicycle routes to be located on collector streets and along open space corridors. In the interest of safety, bicycles shall be discouraged from using Main Street and shall be encouraged to use other parallel streets.

5.9 RAIL

The Napa Valley Wine Train, which operates on the former Southern Pacific Rail line, is a tourist-oriented, recreational ride which carries passengers on a round trip between Napa and St. Helena. The train, which does not currently stop to board or disembark passengers (due to an agreement with the Public Utilities Commission) at any location other than the point of origination in Napa, provides meals to its passengers while they enjoy the views of the Valley. The train is not intended as a local commuter service.

The City of St. Helena is strongly opposed to the proposed expansion of Wine Train service. The expanded service runs counter to the direction of the City's long-range

planning in several ways. Perhaps foremost is the fact that the proposal of for a tourist-only train service is diametrically opposed to the balance that the community is trying to maintain between tourism and the needs of the local community. The introduction of thousands of tourists weekly to the downtown area would substantially change the community and create significant pressures for the development of tourist-serving uses in an area specifically designated for local-serving uses only. In addition, the traffic attracted to the proposed 125-space parking lot and the movement of the proposed shuttle bus service to and from the station would create a major new traffic generator east of Main Street.

In general, the City's position is, and has been, that the rail right-of-way should be used for the public good, given its central location in the community and the Valley, and not limited to strictly tourist uses. In particular, the corridor should be used to improve public transportation either through creation of a true commuter service that could serve both residents and tourists, or as a regional open space corridor for pedestrian and bicycle traffic. In addition, the City feels strongly that, given the significant impact that any use of the corridor could have on St. Helena, that there needs to be a more formal local review and permitting process for future uses.

Guiding Policies

5.9.1 Encourage use of the rail corridor that benefits the St. Helena community by providing improved public transportation/circulation.

Implementing Policies

5.9.2 Rail corridor uses shall be subject to Use Permit review; passenger facilities shall be located within zone districts which minimize impacts to established and proposed land uses.

5.10 IMPROVEMENTS AND PHASING

Implementing Policies

5.10.1 All new collector streets shown in the Circulation Diagram shall be constructed as development occurs along the proposed streets. The exception to this policy is that the City Council may require additional construction to reinforce system continuity.

5.10.2 The City desires that the Adams Street extension to Silverado Trail be completed in an expeditious manner; the City will work with potential developers to acquire the needed combination of public and private financing required to implement this project.

5.10.3 The City shall collect Traffic Mitigation Fees to assist in financing improvements to the citywide circulation system.

Traffic Mitigation fees are necessary to mitigate existing traffic congestion and congestion caused by new development. To offset the capacity, safety and service levels which new development will cause, the revenues generated by impact fees will provide the needed improvements in a timely manner.