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Sausalito Public Safety Building

Parking and Traffic Study

Prepared for the
City of Sausalito
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1. Introduction

This is an analysis of the potential parking and traffic impacts of the Sausalito Police and Fire Building project. The project would replace the existing temporary police station and existing fire house with a new Public Safety Building. The new building would be on Johnson Street at Caledonia Street. The project would make use of the site of the existing fire house combined with the site of the former police station. The project site plan is shown in Figure 1.

This report is organized as follows. The introduction includes a brief description of the project. The existing parking and traffic conditions in the project area are described in the second section of the report. The third report section provides an analysis of the impact of the project on parking and the fourth report section provides an analysis of the project impact on traffic. A cumulative impact analysis is provided in the fifth report section. Mitigation measures needed to offset the impact of the project are described in the last section of the report.

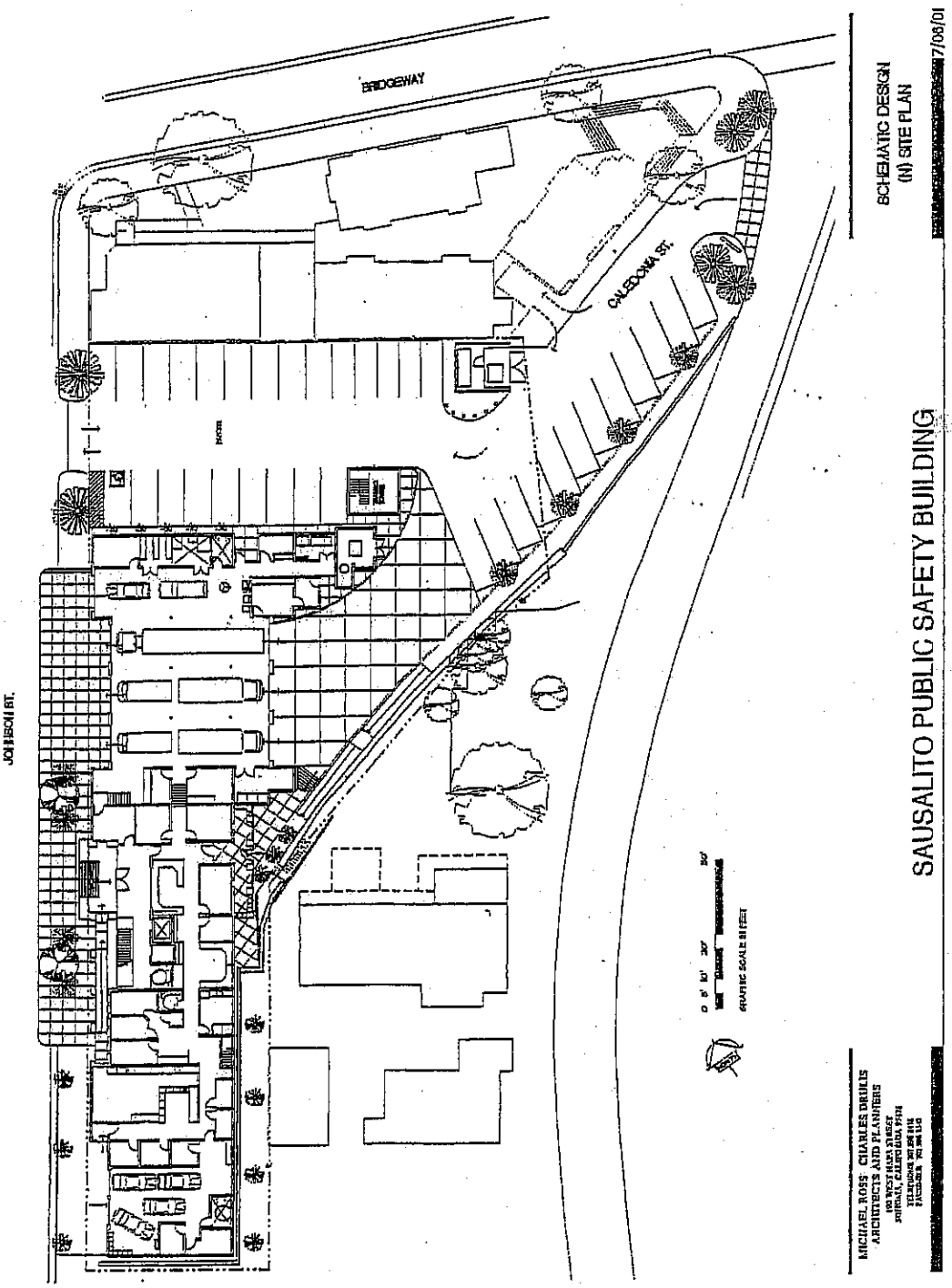
Project Description

The project includes the following components:

- Remove the existing police and fire buildings;
- Construct a new Public Safety Building on Johnson Street at the intersection with Caledonia Street. The new 22,000 sq.ft. building would make use of the site of the existing fire station and former police station;
- The project would provide 39 on-site parking spaces. On weekdays all of these spaces would be needed for police and fire activities. On weekend days, up to 14 spaces in the lot on the east side of the building would be available for public parking;
- The project would require the closure of the block of Caledonia Street between Bridgeway and Johnson Street and the removal of 25 existing on-street parking spaces;
- The intersection of Bridgeway with San Carlos and Ensign Streets would be redesigned as a four leg two-way stop intersection. The Caledonia Street leg of this intersection would be designed as a driveway to the Public Safety Building and would serve the parking garage under 1001 Bridgeway.

Figure 1

Project Site Plan



2. Existing Parking and Traffic Conditions

Existing Parking Conditions

The primary impact of the project on parking would be the removal of the 25 existing parking spaces on the block of Caledonia Street between Bridgeway and Johnson Street. The on-street parking supply includes 18 metered angle spaces, 4 unrestricted angle spaces, 2 metered parallel spaces and 1 accessible 90 degree space.

Surveys of the existing parking demand on Caledonia Street were conducted on several weekdays and weekend days in April and May 2001. The Sausalito Fire Department (SFD) conducted a seven consecutive day hour by hour survey from May 6th through 12th. Parking data was collected every hour from 7:00 a.m. to 7:00 p.m. for each day of the week. The SFD survey counted total parked vehicles and also noted the number of vehicles that were employees of or visitors to the Fire Department.

Surveys of parking were also conducted on April 4th, 6th, 9th, 10th, and 12th. Where more than one count of parking was made for a particular hour on any day of the week, the highest count recorded is used in this analysis. A detailed report of the existing parking demand is provided in the Appendix to this report. A summary of parking demand is shown in Table 1.

The peak existing weekday parking demand occurs between 11:00 a.m. and 2:00 p.m. on Thursday and at about noon to 1:00 p.m. on weekend days. The peak weekday parking demand observed is 22 vehicles and the peak weekend day demand observed is 25 vehicles. On Saturday May 12th a street fair was held near the project site and all 25 on-street parking spaces were occupied at various times through the middle of the day.

The impact of the project on parking is described in the next section of this report.

Table 1
Summary of Existing On-Street Parking Demand
Caledonia Street Between Bridgeway and Johnson Street

		Week Day			Weekend Day		
Time of Day	On-Street Parking Supply	Average Day	Peak Day	Peak % Occupied	Average Day	Peak Day	Peak % Occupied
7:00 a.m.	25	6	9	36%	10	15	60%
8:00 a.m.	25	8	13	52%	10	17	68%
9:00 a.m.	25	12	18	72%	9	16	64%
10:00 a.m.	25	13	17	68%	13	20	80%
11:00 a.m.	25	17	21	84%	15	24	96%
12:00 noon	25	17	22	88%	16	25	100%
1:00 p.m.	25	17	20	80%	22	25	100%
2:00 p.m.	25	15	21	84%	23	24	96%
3:00 p.m.	25	16	19	76%	23	24	96%
4:00 p.m.	25	13	15	60%	22	24	96%
5:00 p.m.	25	13	13	52%	19	21	84%
6:00 p.m.	25	13	17	68%	14	19	76%
7:00 p.m.	25	13	20	80%	12	19	76%

Sources: Parking survey by Sausalito Fire Department
Robert L. Harrison Transportation Planning

Existing Traffic Conditions

The best measure of how well an urban street system is working is to determine the amount of congestion or delay experienced by motorists at important intersections. The quality of traffic movement is reported in terms of Level of Service (LOS) ranging from a letter grade of A to a grade of F. At LOS A an intersection experiences little or no congestion while LOS E and F indicate long and unacceptable delays for drivers. LOS is measured in terms of average delay per vehicle for a fixed study period. The ranges of delay in seconds per vehicle and a summary description for each service level letter grade are shown on Table 2.

Except for the intersections of Bridgeway with Johnson, Bay and Princess Streets, the Sausalito General Plan sets LOS C as the standard for signalized intersections. The Plan recognizes that capacity improvements at the three excepted intersections would cause unacceptable adverse impact to the built and natural environments in the downtown area. The Plan does not establish a LOS standard for unsignalized intersections.

Existing weekday afternoon and weekend day peak period traffic was counted at three intersections near the project site in March 2001. The intersections counted were Bridgeway at Johnson Street and at Caledonia /San Carlos/Ensign Street and Johnson at Caledonia Streets. To develop a peak season

traffic condition, the March counts were adjusted by seasonal variation factors developed in previous studies. Summer counts are greater than Winter counts by 28% for weekend days and 25% for weekday afternoon peak hour. Existing traffic counts are shown under separate cover in the appendix to this report.

Table 2
Description of Level of Service

Signal Controlled Intersections

Level of Service	Vehicle Delay* (Seconds)	Description
A	0 - 5.0	Free Flow - Insignificant Delays.
B	5.1-15.0	Stable Operation - Minimal Delays.
C	15.1-25.0	Stable Operation - Acceptable Delays.
D	25.1-40.0	Approaching Unstable Operation.
E	40.1-60.0	Unstable Operation - Significant Unacceptable Delays.
F	>60.0	Forced Flow - Excessive Delays.

Stop Sign Controlled Intersections

Level of Service	Vehicle Delay** (Seconds)	Description
A	0 - 5.0	Little or no delay.
B	5.1-10.0	Short traffic delay.
C	10.1-20.0	Average traffic delay.
D	20.1-30.0	Long traffic delay.
E	30.1-45.0	Very long traffic delays.
F	>45.0	Excessive traffic delays.

* Average stopped delay per vehicle in seconds.
** Total average delay per vehicle in seconds.

Source: Transportation Research Board, *Highway Capacity Manual*, Third Edition 1994. Tables 9-1 and 10-3.

Existing Intersection Level of Service

The existing peak season peak hour operation at the intersections studied is shown in Table 3. The existing intersection LOS is calculated using the methods of the *Highway Capacity Manual* (HCM), Third Edition, 1994. The calculation of LOS is shown under separate cover in the technical appendix to this report.

On weekdays, most intersections studied operate at LOS C or better, even during the peak season. Exceptions are the left turns from San Carlos / Ensign Street onto Bridgeway that experience LOS D in the weekday afternoon peak hour in the peak season. Through traffic on Bridgeway is not delayed at these intersections. However, through traffic can be delayed by congestion in the downtown. Southbound traffic may queue back through the Caledonia or Johnson Street intersections.

Table 3
Existing Intersection Level of Service (LOS)
Peak Season

Intersection	Week Day Afternoon Peak Hour March 13, 2001 LOS[1]	Delay[2]	Week Day Afternoon Peak Hour Peak Season LOS[1]	Delay[2]	Weekend Day Peak Season LOS[1]	Delay[2]
Bridgeway with:						
Johnson Street[3]	B	9	C	16	C	20
Caledonia / Ensign / San Carlos Streets[3]	C	14	D	26	D	25
Johnson Street with Caledonia Street	A	2	A	2	A	3

Notes: 1 - Level of Service (LOS) shown for overall intersection average condition at signalized intersections. At two-way stop sign controlled intersections, LOS is shown for the most congested turning movement, usually a left turn from the side street. Traffic on the main street does not stop and thus operates at LOS A.

2 - Seconds of average delay per vehicle.

3 - Delay, particularly on weekends, is exacerbated by downstream congestion in the downtown that effects the intersections on the approaches to downtown.

Source: Robert L. Harrison Transportation Planning

In Table 3, weekend day peak hour LOS is shown as C and D at Johnson and Caldeonia/San Carlos/Ensign Streets respectively. Actual delay at the intersections of Bridgeway with Johnson and with Caledonia/San Carlos/Ensign Streets is often greater on the peak season weekends than as shown in Table 3 because of the congestion in the downtown.

While delay is often significant, the left turn from San Carlos Street onto Bridgeway can be easier to make when southbound traffic is stopped due to congestion in the downtown. Drivers of stopped vehicles tend to permit the side street traffic to cross. It is more difficult to find a gap in both the southbound and northbound flow of traffic if vehicles on Bridgeway are moving at the speed limit.

Existing Transit

The project area is well served by public transit. Golden Gate Transit Routes 10, 20 and 50 stop near the project site on Bridgeway at Pine Street southbound and at Ensign Street northbound. These buses provide connections to all Marin County destinations and to San Francisco. Service is provided daily at 30 minute headways from before 7:00 a.m. to after 7:00 p.m. and at 60 minute headways thereafter up to 11:00 p.m.

In addition to Golden Gate Transit service, the City of Sausalito plans to provide a local transit service on Bridgeway starting in the Summer of 2001. A trial of the Sausalito Shuttle Bus operated from July 17 to October 17 providing an hourly service during daytime hours from Fort Baker to Gate 5 Road. The trial demonstrated that there was a demand for such a service. The Sausalito Shuttle would stop on Bridgeway at stops immediately adjacent to the project site.

3. Parking Impact Analysis

Standard of Significant Impact

The impact of the project on parking shall be considered significant if the project does not meet the parking space requirements of the City of Sausalito and/or the proposed parking plan is not adequate in number or design to serve the proposed project.

Demand for Parking

The project parking requirements are estimated using data prepared by the Sausalito Police and Fire Departments on staffing requirements and vehicle assignments. The departments analysis was conducted for each day of the week on an hour by hour basis. A summary of the results of this analysis is shown in Table 4. A more complete summary of the departments analysis is shown in the Appendix to this report. The entire detailed analysis developed by the Police and Fire Departments is available at the Community Development Department.

The total demand for parking includes a fixed demand for City owned equipment, staff parking requirements and visitor parking. The fixed parking requirement of 12 spaces assumes the following equipment will need a parking space at the Public Safety Building: 6 marked patrol units; 2 unmarked patrol units; 3 parking service units; and 1 fire prevention officer unit. In addition, 2 police motorcycles will be parked in the fire apparatus bays and 2 radar trailers will be parked at the City corporation yard.

Estimates of staff parking needs account for shift changes when there will be parked vehicles owned by both the shift going off and the shift coming on duty. The staff parking requirements assume full staffing and do not account for any absences. The requirements also do not include having a trainee on-duty, training days or special events.

Table 4
Parking Requirements at the Public Safety Building

Time of Day	Monday	Tuesday Wednesday	Thursday	Friday	Weekend Day
7:00 a.m.	30	31	32	29	25
8:00 a.m.	29	30	31	28	22
9:00 a.m.	34	35	36	33	24
10:00 a.m.	35	37	37	35	25
11:00 a.m.	35	37	37	35	25
12:00 noon	35	37	38	35	25
1:00 p.m.	36	38	39	36	25
2:00 p.m.	36	38	39	36	25
3:00 p.m.	35	37	38	35	25
4:00 p.m.	33	35	35	34	25
5:00 p.m.	30	31	31	31	24
6:00 p.m.	24	24	25	25	23
7:00 p.m.	26	27	28	27	25

Sources: Sausalito Police and Fire Departments
Robert L. Harrison Transportation Planning

Up to five visitor parking spaces are assumed on weekdays between 9:00 a.m. and 5:00 p.m. On weekend days, three visitor spaces are assumed. Loading and deliveries are assumed to take place on Johnson Street at the front of the building.

As shown on Table 4, the greatest parking demand is projected to occur in the early afternoon on weekdays with the 39 parking spaces needed between 1:00 p.m. and 2:00 p.m. on Thursdays representing the peak project parking requirement.

Parking Supply

The project would provide 39 off-street parking spaces for police and fire employees, visitors and official vehicles. As shown on the project site plan, the on-site parking would be provided as follows:

- 23 spaces in a parking lot east of the building;
- 12 60 degree spaces on the former Caledonia Street right-of-way;
- 4 spaces within the building at the sally port on Johnson Street.

As described above, the peak parking requirement for the Public Safety building would be 39 parking spaces. The project would provide sufficient on-site parking to meet the maximum project parking demand. The impact of the project on parking would be the removal of the 25 existing on-street parking spaces on Caledonia Street between Bridgeway and Johnson Streets.

The use of the 25 existing Caledonia Street spaces was documented in the existing conditions section above. The peak parking demand observed in this block of Caledonia Street was 22 vehicles on weekdays and 25 vehicles on weekend days. The existing on-street parking demand includes vehicles from the SFD and the Chamber of Commerce. The existing on-street SFD parking will be accommodated on the site of the project and would not use on-street parking. The existing on-street SFD parking demand is excluded from the calculation of the impact of the project.

The Chamber of Commerce currently occupies the former police building and will have to move to make room for the new Public Safety Building. The relocation of the Chamber would remove the existing on-street parking demand caused by that agency. The existing on-street parking demand caused by the Chamber staff also needs to be set aside to determine the parking demand that would be impacted by the project.

The maximum impact of the project would occur at midday on weekdays when the existing public parking use of on-street parking on Caledonia Street is high. At peak weekday parking hours, the Chamber staff uses three spaces on Caledonia Street. The SFD also uses four spaces at these peak weekday hours. The net impact of the project on the Caledonia Street parking supply is a maximum potential loss of 15 spaces. This maximum impact condition is projected to occur on Thursdays at 12 noon. At all other hours and on all other days, the impact of the project would be less than the loss of 15 parking spaces.

On weekends fire department staff typically occupy three of the 25 parking spaces on Caledonia Street. Because of reduced police and fire parking needs, the project will provide 14 spaces for public parking in the lot east of the building on weekends. The net impact of the project on weekend parking will be the loss of eight spaces (25, -3, -14). This maximum weekend day impact of the project is projected to occur midday when a special event is held near the project site. At other times and on days when no events were scheduled, the weekend day impact of the project would be less than the loss of eight parking spaces.

The projects impact on the existing parking supply would be a significant adverse impact of the project. Measures to off set this impact are described in the mitigation chapter of this report.

4. Traffic Impact Analysis

The traffic impact of the project is based on the study of the potential effect of project generated trips on the operation of three intersections near the project site. The intersections studied are:

- Bridgeway at Johnson Street - Signal Control;
- Bridgeway at Caledonia/San Carlos/Ensign Streets - Stop sign control;
- Johnson at Caledonia Streets - Stop sign Control.

Standards of Significant Impact

Based on the policy of the City of Sausalito that, except in the downtown area, signalized intersections should operate at LOS C or better, a significant impact is defined as follows:

- For signalized intersections, except in the downtown, the addition of project traffic degrades LOS from level C or better to level D or worse.

Standard practice and experience has found the following additional criteria are appropriate for the evaluation of the impact caused at unsignalized intersections:

- For unsignalized intersections, the addition of project traffic degrades LOS of the most congested turning movement from level D or better to level E or worse, or from level E to level F.

Potential Impact of the Project on LOS

Project Trip generation. The project assumes no change in the staffing at the Police and Fire Departments. The project trip generation would be a combination of the existing trips generated by these departments less the trips generated by the existing use of the former police building and less the trips generated by the existing parking on Caledonia Street. It is assumed that trips to and from the Fire Department would remain the same as currently exists.

Table 5
Project Trip Generation
Net Project Trips Compared to Existing Trips Generated at the Project Site

	Week Day Afternoon Peak Hour			Weekend Day Peak Hour		
Trip Generator	In	Out	Total	In	Out	Total
Police Department	5	9	14	6	6	12
Less: Existing use of the former police building	-1	-4	-5	-1	-1	-2
Fire Department	The existing trip generation to remain unchanged.					
Trips To/From On-Street Parking Removed by Project	-4	-5	-9	-5	-5	-10
Net Project Trip Generation	**0**	**0**	**0**	**0**	**0**	**0**

Source: Robert L. Harrison Transportation Planning

As shown in Table 5, the project would generate the same number of trips generated by the existing uses of the project site. There would be no increase in vehicle trips caused by the project.

Project Impact on Traffic Patterns. The project would require the closure of Caledonia Street between Bridgeway and Johnson Street. This street closure would reroute traffic coming from the south that currently uses the first block of Caledonia Street to reach the Caledonia Street commercial area.

Traffic counts conducted at the intersection of Bridgeway with San Carlos and Caledonia Streets found the volume of traffic using the one-way northbound block of Caledonia Street is 63 vehicles at the weekday afternoon peak hour and 84 vehicles at weekend day peak hour. Most of the drivers traveling on the first block of Caledonia Street are looking for a parking space. If the existing on-street parking were removed, the existing traffic count would be greatly reduced.

Residents of the hillside area served by San Carlos Street indicate that they sometimes use the first block of Caledonia Street to avoid making a left turn from San Carlos Street onto Bridgeway. There were 10 vehicles counted making the left turn from San Carlos to Caledonia Street at the weekday afternoon peak hour and 13 vehicles counted making this movement at the weekend day peak hour.

The project would discourage but would not prohibit the left turn from San Carlos Street onto the former Caledonia Street. With the project, drivers could make the left turn from San Carlos Street into the former Caledonia Street reconstructed as a one-way driveway entrance into the project, pass through the project parking lot, and exit the project onto Johnson Street.

The project traffic impact analysis assumes that, with the closure of the first block of Caledonia Street, all existing traffic would be diverted from the turns into Caledonia from both Bridgeway and San Carlos Streets. Northbound traffic on Bridgeway that uses Caledonia is assumed to be added to the left turn at Johnson Street. Southbound traffic that currently turns right from Bridgeway onto Caledonia Street is assumed to continue south on Bridgeway. Traffic currently turning from San Carlos to Caledonia Street is reassigned to the left turn from San Carlos Street onto Bridgeway.

The traffic analysis also assumes that, except for emergency vehicles responding to a call, there would be no traffic southbound on the block of Caledonia Street converted to a project driveway. The former Caledonia Street would be operated as a driveway northbound to the 1001 Bridgeway garage and for vehicles entering the parking area at the Public Safety Building.

Project Impact on Intersection LOS. The impact of the project on intersection LOS is shown on Table 6. Development of the project including the closure of Caledonia Street would not cause any existing service level letter grade to be degraded. Intersection delay at Bridgeway with Johnson Street would be increased by about 7% in the peak season at late afternoon weekday peak hour. Delay would be increased by about 12% at the intersection of Bridgeway with Caledonia/San Carlos/Ensign Streets in the peak season weekday afternoon peak hour. Delay would be increased by smaller amounts on weekend day peak hours. The impact of the project would be less than significant on intersection LOS.

Table 6
Impact of the Project on Intersection Level of Service (LOS)
Peak Season

	Week Day Afternoon Peak Hour				Weekend Day	
	Off-Peak Season		Peak Season		Peak Season	
Intersection	LOS[1]	Delay[2]	LOS[1]	Delay[2]	LOS[1]	Delay[2]
Bridgeway with Johnson Street[3]						
Existing	B	9	C	16	C	20
Existing plus Project	B	10	C	17	C	21
Bridgeway with Caledonia / Ensign / San Carlos Streets[3]						
Existing	C	14	D	26	D	25
Existing plus Project	C	14	D	29	D	26
Johnson with Caledonia Streets						
Existing	A	2	A	2	A	3
Existing plus Project	A	2	A	3	A	3

Notes: 1 - Level of Service (LOS) shown for overall average condition at signalized and all-way stop intersections. At two-way stop sign controlled intersections, LOS is shown for the most congested turning movement, usually a left turn from the side street.

2 - Seconds of average delay per vehicle.

3 - Delay, particularly on weekends, is exacerbated by downstream congestion in the downtown that effects the intersections on the approaches to downtown.

Source: Robert L. Harrison Transportation Planning

Traffic Signal Warrants. The installation of a traffic signal is based on studies of traffic volume, accident history and pedestrian flows. When traffic volumes, accident rates or pedestrian flows reach certain thresholds, a warrant for the particular condition is said to be met. A traffic signal is not usually installed unless several warrants are fulfilled.

For this study, the available data is sufficient to conduct an analysis of the peak hour volume warrant. The satisfaction of the peak hour volume warrant is an indication that a full traffic signal warrants study should be made.

The peak hour traffic volumes are shown for the existing and the existing plus project peak hour conditions in Table 7. The peak hour volume warrant is not met at the intersection of Bridgeway with Caledonia / San Carlos / Ensign Streets for either the existing or the existing plus project conditions.

Traffic volumes at the intersection of Johnson and Caledonia Streets are lower than those counted at Bridgeway with Caledonia / San Carlos / Ensign Streets. It is clear that, for existing traffic volumes, a traffic signal is not warranted at either of the unsignalized intersections studied in this report.

Table 7
Peak Hour Volumes and Traffic Signal Warrant
Peak Season

Intersection	Week Day Afternoon Peak Hour Volumes	Warrant?	Weekend Day Peak Hour Volumes	Warrant?
Bridgeway with San Carlos / Ensign Streets				
Existing - Major Street	1,235	No	1,342	No
Minor Street	43		57	
Existing + Project				
Major Street	1,235	No	1,342	No
Minor Street	43		57	

Source: Robert L. Harrison Transportation Planning

Impact on Glen Drive. Glen Drive provides a route for hillside residents between San Carlos and Johnson Streets. However, the route is somewhat circuitous and because of the width of the street, patterns of parking and lack of safe pedestrian areas, difficult to drive. Because the project will maintain the left turn from San Carlos Street into the former Caledonia Street and permit drivers to pass through the project site to Johnson Street, the project should cause no diversion of traffic to the block of Glen Drive between San Carlos and Johnson Streets.

5. Cumulative Impact Analysis

The cumulative analysis considers the build out of the Sausalito General Plan. The traffic impacts of the Plan were evaluated in the report titled *Transportation Impacts of the Proposed General Plan Development Policies* prepared for the City of Sausalito in May 1992. The weekday and weekend day peak hour trips that would be generated by the build out of the plan are developed in the referenced report.

Impact of the Project on Cumulative Traffic

Intersection LOS. The impact of the cumulative development on intersection LOS is shown in Table 8. Both existing and cumulative conditions are presented on Table 8 for ease of comparison.

The cumulative condition without the project assumes the buildout of the General Plan with the roadways near the project site remaining the same as currently exists. The cumulative plus project condition assumes the closure of the block of Caledonia Street between Bridgeway and Johnson Streets. As was described above, the project would not add new trips to the street system but would require the closure of Caledonia Street. The impact of the project on intersection operations is not caused by added trip generation, but would be the result of the required street closure.

Under cumulative traffic loads, the stop sign controlled intersection of Bridgeway with Caledonia / San Carlos / Ensign Streets would operate at LOS F with long delays for traffic attempting to make the left turns onto Bridgeway from the side streets. The project would exacerbate the projected cumulative condition. Delay would be longer at this intersection if the first block of Caledonia Street is closed. While LOS F is generally not considered an acceptable condition, the General Plan policy to exempt intersections in the downtown area from meeting service level standards means the projected LOS F for side street left turns at this intersection would not be considered a significant adverse impact of the project.

Table 8
Intersection Level of Service (LOS)
Existing and Cumulative Conditions
Peak Season

Intersection	Week Day Afternoon Peak Hour LOS[1]	Week Day Afternoon Peak Hour Delay[2]	Weekend Day Peak Hour LOS[1]	Weekend Day Peak Hour Delay[2]
Bridgeway with Johnson Street[3]				
Existing	C	16	C	20
Existing plus Project	C	17	C	21
Cumulative	C	18	E	48
Cumulative plus Project	C	22	E	55
Bridgeway with Caledonia / Ensign / San Carlos Streets[3]				
Existing	D	26	D	25
Existing plus Project	D	29	D	26
Cumulative	F	>45[4]	F	>45
Cumulative plus Project	F	>>45[5]	F	>45
Johnson with Caledonia Streets				
Existing	A	2	A	3
Existing plus Project	A	3	A	3
Cumulative	A	3	A	4
Cumulative plus Project	A	4	A	4

Notes: 1 - Level of Service (LOS) shown for overall intersection average condition at signalized intersections. At two-way stop sign controlled intersections, LOS is shown for the most congested turning movement, usually a left turn from the side street. Traffic on the main street does not stop and thus operates with minimal delay at LOS A.

2 - Seconds of average delay per vehicle.

3 - Delay, particularly on weekends, is exacerbated by downstream congestion in the downtown that effects the intersections on the approaches to downtown.

4 - Average delay greater than 45 seconds per vehicle. Specific estimates of delay not shown for severely congested conditions.

5 - Average delay much greater than 45 seconds per vehicle.

Source: Robert L. Harrison Transportation Planning

The intersection of Bridgeway with Johnson Street would operate at LOS C for all conditions studied except weekend day peak hour cumulative traffic. The build out of the General Plan would cause this intersection to operate at LOS E at peak season weekend day peak hour. The project would exacerbate the projected LOS E condition but would not degrade LOS to level F. The closure of the first block of Caledonia Street would increase delay at this intersection by about 15%. This intersection is exempt under the polices of the General Plan from meeting LOS standards. The projected LOS E under cumulative traffic loads would, therefore, not be considered a significant adverse impact of the project.

The intersection of Johnson with Caledonia Streets would operate at LOS A under all conditions studied. The project would have no significant impact at this intersection.

Cumulative Traffic Signal Warrants. The cumulative peak hour traffic volumes are shown in Table 9. The cumulative peak hour volume warrant is not satisfied at the intersection of Bridgeway with Caledonia / San Carlos / Ensign Streets with or without the project.

Table 9
Cumulative Peak Hour Volumes and Traffic Signal Warrant
Peak Season

Intersection	Week Day Afternoon Peak Hour Volumes	Warrant?	Weekend Day Peak Hour Volumes	Warrant?
Bridgeway with San Carlos / Ensign Streets				
Cumulative - Major Street	1,815	No	1,682	No
Minor Street	43		67	
Cumulative + Project				
Major Street	1,813	No	1,681	No
Minor Street	60		80	

Source: Robert L. Harrison Transportation Planning

6. Mitigation Measures

The project has been found to cause one significant adverse impact. The following mitigation measure is intended to offset the impact of the project.

Project Impact and Mitigation Measure

Impact 1. The development of the project would reduce the available on-street parking supply by 25 spaces. Surveys have found that not all of the 25 existing spaces are used by the general public. Of the 25 existing spaces, the project would remove up to 15 spaces on weekdays that are currently used by the public. The net loss of public parking on weekend days would be up to eight spaces. The loss of up to 15 public parking spaces on weekdays and up to eight public parking spaces on weekend days would be a significant adverse impact of the project.

Mitigation Measure 1. To offset the loss of 15 weekday and eight weekend day public parking spaces, the City will convert 15 restricted spaces in Municipal Parking Lot No. 4 to spaces available to the general public. Lot 4 is located one block east of Bridgeway between Johnson Street and a point south of Ensign Street. This parking lot is no more than a two minute walk from the block on Caledonia Street where parking will be removed by the project.

Currently, Lot 4 provides 81 spaces available only to vehicles displaying a City permit. In addition there are 15 metered spaces in Lot 4. Surveys of Lot 4 over the past five years have found that not all of the existing permit spaces are filled at any one time. A summary of recent surveys of permit parking conducted at Lot 4 is shown in Table 10.

On weekdays, the least available peak season permit parking counted was 36 spaces. On weekend days, the least available permit parking occurred at 3:00 p.m. on one Sunday in August 1997 when just 10 permit spaces were found unoccupied. On another Sunday in August 1997 available parking at 3:00 p.m. was 31 spaces. In the August 1996 survey, 15 spaces were available on the weekend at 3:00 p.m. Surveys conducted on June 2001 found 54 and 53 spaces were available at this hour on Saturday and Sunday respectively.

Table 10
Available Permit Parking Spaces in City Parking Lot 4

Time of Day	August 1996 Weekend	August 1997 Weekday	August 1997 Weekend	June 2001 Weekday	June 2001 Weekend
11:00 a.m.	73	–	–	64	–
12 Noon	75	–	80	51	61
1:00 p.m.	53	36	49; 33[1]	55	58
2:00 p.m.	28	–	26	61	65
3:00 p.m.	15	41	31; 10[1]	52	53; 54[1]
4:00 p.m.	–	–	42	55	61
5:00 p.m.	–	50	46	57	–
7:00 p.m.	–	67	–	–	–
11:00 p.m.	–	78	–	–	–

Note 1: Surveys on more than one day conducted at this hour.

Sources: August 1996 - Multitrans
August 1997 and June 2001 - Robert L. Harrison Transportation Planning

A search of the history of permits issued for Lot 4 has found that, consistent with the result of the parking surveys as shown in Table 10, the number of permits issued has been decreasing in recent years. The record of past permits issued is maintained by the Police Department for about two years. The permit record for Lot 4 is shown in Table 11. The use of permits in Lot 4 has shown a significant decline from 1998 to 2001. For the April - June period, the number of permits issued has declined from 180 to 118, or a reduction of 62 permits.

Table 11
Parking Permits Issued for City Parking Lot 4

Months	Year	Permits
July - September	1998	181
April - June	1999	180
July - September	1999	141
April - June	2000	147
July - September	2000	140
April - June	2001	118

Source: Sausalito Police Department

It is clear that there are at least 15 existing permit spaces in Lot 4 not used on weekdays. The conversion of 15 existing permit only parking spaces to general public parking in Lot 4 to replace the Caledonia Street parking removed by the project would be adequate mitigation to offset the weekday parking impact of the project.

In the past, the use of permit parking spaces in Lot 4 was higher on weekend days as compared to weekdays. In June 2001, the use of permit parking spaces was about the same on weekend days as on weekdays. The reduced number of permits issued in 2001 as compared to previous years substantiates the reduced use of permit parking in Lot 4.

In June 2001 there were never less than 53 permit spaces available on weekend days. In surveys from 1996 and 1997, the available permit spaces were as low as 10 on weekend days. It appears that, based on recent use of permit spaces, the conversion of 15 permit parking spaces to general public parking would not effect the need for weekend permit spaces and would fully mitigate the weekend parking impact of the project. The City will monitor the number of permits issued for Lot 4 to insure the weekend demand for permit parking does not exceed the available spaces.

APPENDIX

City of Sausalito

Police / Fire Building Parking - Site Plan 7/5/01

Impact of Lost Caledonia Street Parking

(Removes the 2 existing parallel spaces)

Existing Conditions — Police / Fire Building Parking

Monday

Hour	Demand Removed Spaces	Demand for Parking	Adjustments SFD	Adjustments CofC	Fixed Demand*	Staff Parking	Visitor Parking	Total Demand	On-site Spaces	Net On-site Spaces	Potential Shared Spaces	Net Impact on Parking
7:00 am	25	4	0	0	12	16	2	30	39	9	0	-4
8:00 am	25	3	0	-1	12	14	3	29	39	10	0	-2
9:00 am	25	13	0	-3	12	17	5	34	39	5	0	-10
10:00 am	25	12	0	-4	12	18	5	35	39	4	0	-8
11:00 am	25	14	0	-4	12	18	5	35	39	4	0	-10
12:00 n	25	13	0	-3	12	18	5	35	39	4	0	-10
12:30 pm	25	15	0	-3	12	19	5	36	39	3	0	-12
1:00 pm	25	16	0	-4	12	19	5	36	39	3	0	-12
2:00 pm	25	11	0	-3	12	19	5	36	39	3	0	-8
3:00 pm	25	17	0	-4	12	18	5	35	39	4	0	-13
4:00 pm	25	6	0	-3	12	16	5	33	39	6	0	-3
5:00 pm	25	11	0	-3	12	14	4	30	39	9	0	-8
6:00 pm	25	10	0	-1	12	9	3	24	39	15	0	-9
7:00 pm	25	5	0	0	12	12	2	26	39	13	0	-5

Tuesday — Police / Fire Building Parking

Hour	Demand Removed Spaces	Demand for Parking	Adjustments SFD	Adjustments CofC	Fixed Demand*	Staff Parking	Visitor Parking	Total Demand	On-site Spaces	Net On-site Spaces	Potential Shared Spaces	Net Impact on Parking
7:00 am	25	3	-3	0	12	17	2	31	39	8	0	0
8:00 am	25	5	-3	-1	12	15	3	30	39	9	0	-1
9:00 am	25	11	-3	-3	12	18	5	35	39	4	0	-5
10:00 am	25	9	-2	-4	12	20	5	37	39	2	0	-3
11:00 am	25	18	-2	-4	12	20	5	37	39	2	0	-12
12:00 n	25	16	-3	-3	12	20	5	37	39	2	0	-10
12:30 pm	25	16	-3	-3	12	21	5	38	39	1	0	-10
1:00 pm	25	15	-3	-4	12	21	5	38	39	1	0	-8
2:00 pm	25	15	-3	-3	12	21	5	38	39	1	0	-9
3:00 pm	25	19	-3	-4	12	20	5	37	39	2	0	-12
4:00 pm	25	17	-2	-3	12	18	5	35	39	4	0	-12
5:00 pm	25	16	-2	-3	12	15	4	31	39	8	0	-11
6:00 pm	25	13	-2	-1	12	9	3	24	39	15	0	-10
7:00 pm	25	10	-2	0	12	13	2	27	39	12	0	-8

* Assumes:

	Equipment	Parking Spaces at Police/Fire Building
1	Fire Prevention Officer Unit (FPO)	1
6	Marked patrol units (MPU)	6
2	Unmarked patrol units (UMPU)	2
2	Police motorcycles (Parked in fire apparatus bays)	0
2	Radar education trailors (Parked at Corporation Yard)	0
4	Parking service units (PSU) (1 PSU parked at corporation yard)	3
Totals 17		12

City of Sausalito

Police / Fire Building Parking - Site Plan 7/5/01

Impact of Lost Caledonia Street Parking

(Removes the 2 existing parallel spaces)

Existing Conditions

Police / Fire Building Parking

Wednesday

Hour	Spaces Removed	Demand for Parking	Adjustments SFD	Adjustments CofC	Fixed Demand*	Staff Parking	Visitor Parking	Total Demand	On-site Spaces	Net On-site Spaces	Potential Shared Spaces	Net Impact on Parking
7:00 am	25	5	-2	0	12	17	2	31	39	8	0	-3
8:00 am	25	7	-2	-1	12	15	3	30	39	9	0	-4
9:00 am	25	7	-2	-3	12	18	5	35	39	4	0	-2
10:00 am	25	11	-2	-4	12	20	5	37	39	2	0	-5
11:00 am	25	19	-4	-4	12	20	5	37	39	2	0	-11
12:00 n	25	19	-4	-3	12	20	5	37	39	2	0	-12
12:30 pm	25	16	-1	-3	12	21	5	38	39	1	0	-12
1:00 pm	25	15	-1	-4	12	21	5	38	39	1	0	-10
2:00 pm	25	12	-1	-3	12	21	5	38	39	1	0	-8
3:00 pm	25	11	-1	-4	12	20	5	37	39	2	0	-6
4:00 pm	25	8	0	-3	12	18	5	35	39	4	0	-5
5:00 pm	25	8	0	-3	12	15	4	31	39	8	0	-5
6:00 pm	25	8	0	-1	12	9	3	24	39	15	0	-7
7:00 pm	25	12	0	0	12	13	2	27	39	12	0	-12

Police / Fire Building Parking

Thursday

Hour	Spaces Removed	Demand for Parking	Adjustments SFD	Adjustments CofC	Fixed Demand*	Staff Parking	Visitor Parking	Total Demand	On-site Spaces	Net On-site Spaces	Potential Shared Spaces	Net Impact on Parking
7:00 am	25	9	-1	0	12	18	2	32	39	7	0	-8
8:00 am	25	12	-2	-1	12	16	3	31	39	8	0	-9
9:00 am	25	10	-2	-3	12	19	5	36	39	3	0	-5
10:00 am	25	17	-4	-4	12	20	5	37	39	2	0	-9
11:00 am	25	21	-4	-4	12	20	5	37	39	2	0	-13
12:00 n	25	22	-4	-3	12	21	5	38	39	1	0	-15
12:30 pm	25	19	-4	-3	12	22	5	39	39	0	0	-12
1:00 pm	25	20	-4	-4	12	22	5	39	39	0	0	-12
2:00 pm	25	21	-4	-3	12	22	5	39	39	0	0	-14
3:00 pm	25	19	-4	-4	12	21	5	38	39	1	0	-11
4:00 pm	25	15	-4	-3	12	18	5	35	39	4	0	-8
5:00 pm	25	13	-4	-3	12	15	4	31	39	8	0	-6
6:00 pm	25	17	-4	-2	12	10	3	25	39	14	0	-11
7:00 pm	25	20	-4	-3	12	14	2	28	39	11	0	-13

* Assumes:

	Equipment	
1	Fire Prevention Officer Unit (FPO)	1
6	Marked patrol units (MPU)	6
2	Unmarked patrol units (UMPU)	2
2	Police motorcycles (Parked in fire apparatus bays)	0
2	Radar education trailors (Parked at Corporation Yard)	0
4	Parking service units (PSU) (1 PSU parked at corporation yard)	3
Totals 17		12

City of Sausalito

Police / Fire Building Parking - Site Plan 7/5/01

Impact of Lost Caledonia Street Parking

(Removes the 2 existing parallel spaces)

Existing Conditions

Police / Fire Building Parking

Friday Hour	Removed Spaces	Demand for Parking	Adjustments SFD	Adjustments CofC	Fixed Demand*	Staff Parking	Visitor Parking	Total Demand	On-site Spaces	Net On-site Spaces	Potential Shared Spaces	Net Impact on Parking
7:00 am	25	9	-2	0	12	15	2	29	39	10	0	-7
8:00 am	25	13	-2	-1	12	13	3	28	39	11	0	-10
9:00 am	25	18	-2	-3	12	16	5	33	39	6	0	-13
10:00 am	25	16	-2	-4	12	18	5	35	39	4	0	-10
11:00 am	25	15	-3	-4	12	18	5	35	39	4	0	-8
12:00 n	25	14	-3	-3	12	18	5	35	39	4	0	-8
12:30 pm	25	16	-3	-3	12	19	5	36	39	3	0	-10
1:00 pm	25	20	-3	-4	12	19	5	36	39	3	0	-13
2:00 pm	25	14	-4	-3	12	19	5	36	39	3	0	-7
3:00 pm	25	14	-4	-4	12	18	5	35	39	4	0	-6
4:00 pm	25	17	-4	-3	12	17	5	34	39	5	0	-10
5:00 pm	25	15	-2	-3	12	15	4	31	39	8	0	-10
6:00 pm	25	15	-2	-1	12	10	3	25	39	14	0	-12
7:00 pm	25	16	-2	0	12	13	2	27	39	12	0	-14

* Assumes:

	Equipment	
1	Fire Prevention Officer Unit (FPO)	1
6	Marked patrol units (MPU)	6
2	Unmarked patrol units (UMPU)	2
2	Police motorcycles (Parked in fire apparatus bays)	0
2	Radar education trailors (Parked at Corporation Yard)	0
4	Parking service units (PSU) (1 PSU parked at corporation yard)	3
Totals 17		12

City of Sausalito

Police / Fire Building Parking - Site Plan 7/5/01

Impact of Lost Caledonia Street Parking

(Removes the 2 existing parallel spaces)

Existing Conditions

Police / Fire Building Parking

Saturday

Hour	Spaces Removed	Demand for Parking	Adjustments SFD	Adjustments CofC	Fixed Demand*	Police / Fire Building Parking Staff Parking	Police / Fire Building Parking Visitor Parking	Police / Fire Building Parking Total Demand	On-site Spaces	Net On-site Spaces	Potential Shared Spaces	Net Impact on Parking
7:00 am	25	15	-3	0	12	12	1	25	39	14	14	2
8:00 am	25	17	-3	0	12	8	2	22	39	17	17	3
9:00 am	25	16	-3	0	12	9	3	24	39	15	15	2
10:00 am	25	20	-3	-1	12	10	3	25	39	14	14	-2
11:00 am	25	24	-3	-1	12	10	3	25	39	14	14	-6
12:00 n	25	25	-3	-1	12	10	3	25	39	14	14	-7
12:30 pm	25	25	-3	0	12	10	3	25	39	14	14	-8
1:00 pm	25	24	-3	0	12	10	3	25	39	14	14	-7
2:00 pm	25	24	-3	0	12	10	3	25	39	14	14	-7
3:00 pm	25	24	-3	0	12	10	3	25	39	14	14	-7
4:00 pm	25	24	-3	0	12	10	3	25	39	14	14	-7
5:00 pm	25	21	-3	0	12	9	3	24	39	15	15	-3
6:00 pm	25	19	-3	0	12	9	2	23	39	16	16	0
7:00 pm	25	19	-3	0	12	12	1	25	39	14	14	-2

Sunday

Hour	Spaces Removed	Demand for Parking	Adjustments SFD	Adjustments CofC	Fixed Demand*	Staff Parking	Visitor Parking	Total Demand	On-site Spaces	Net On-site Spaces	Potential Shared Spaces	Net Impact on Parking
7:00 am	25	4	0	0	12	12	1	25	39	14	14	10
8:00 am	25	3	0	0	12	8	2	22	39	17	17	14
9:00 am	25	2	0	0	12	9	3	24	39	15	15	13
10:00 am	25	6	0	0	12	10	3	25	39	14	14	8
11:00 am	25	5	0	0	12	10	3	25	39	14	14	9
12:00 n	25	7	0	0	12	10	3	25	39	14	14	7
12:30 pm	25	19	0	0	12	10	3	25	39	14	14	-5
1:00 pm	25	19	0	0	12	10	3	25	39	14	14	-5
2:00 pm	25	21	0	0	12	10	3	25	39	14	14	-7
3:00 pm	25	21	0	0	12	10	3	25	39	14	14	-7
4:00 pm	25	19	0	0	12	10	3	25	39	14	14	-5
5:00 pm	25	17	0	0	12	9	3	24	39	15	15	-2
6:00 pm	25	8	0	0	12	9	2	23	39	16	16	8
7:00 pm	25	4	0	0	12	12	1	25	39	14	14	10

* Assumes:

	Equipment	
1	Fire Prevention Officer Unit (FPO)	1
6	Marked patrol units (MPU)	6
2	Unmarked patrol units (UMPU)	2
2	Police motorcycles (Parked in fire apparatus bays)	0
2	Radar education trailors (Parked at Corporation Yard)	0
4	Parking service units (PSU) (1 PSU parked at corporation yard)	3
Totals 17		12