



CITY OF SAUSALITO

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Gate 6 Road Intersection Improvements Study

Background

This document provides information regarding plans being developed for improvements at the intersection of Bridgeway/Gate 6 Road/Highway 101/North Bridge Boulevard in and just north of Sausalito, Marin County, California. The City of Sausalito, acting as the lead agency in collaboration with the County of Marin and the California Department of Transportation, is seeking public comment on changes to the intersection being considered to improve safety and operational efficiency for motor vehicles, pedestrians and bicyclists. Your comments are invited on the developed alternatives as well as the improvement features being considered. Your suggestions regarding improvement features that haven't been considered are also welcome.

In 2004 the City of Sausalito implemented several projects to create the on-street ("Class 2") Bike Lanes on Bridgeway. Those Sausalito projects included some minor modifications of the traffic signal at the subject intersection, mostly with regard to timing. The modifications were inadequate and Caltrans staff working with Marin County and Sausalito staff revised the timing so that it works as it currently does.

In 2008 the City of Sausalito received a Federal Non-Motorized Transportation Pilot Program grant to develop a plan to evaluate existing pedestrian and bicycle paths of travel including the off-street multi-use path between Gate 6 Road and the Ferry Landing in Downtown Sausalito (the "**Ferry Terminal to Gate 6 Road Path Feasibility Study**"). Over a nearly three-year period Alta Planning and Design consultants working with an advisory committee of elected Sausalito officials, business representatives, pedestrian and bicycle advocates and laymen and the general public develop the **Ferry Terminal to Gate 6 Road Path Feasibility Study** which was adopted by the Sausalito City Council in February 2011. Depending on the specific area, the **Ferry Terminal to Gate 6 Road Path Feasibility Study** identifies facilities to replace and enhance old and now deficient path segments along the side of Bridgeway and proposed new facilities where none currently exist. The adopted **Ferry Terminal to Gate 6 Road Path Feasibility Study** is considered important to the region as it provides some strong recommendations for improvements along a portion of the regional route in Sausalito that is often referred to as the North South Greenway. The North-South Greenway is intended to provide a continuous route for pedestrians and bicyclists from the Golden Gate Bridge to the Sonoma County Boundary, between Novato and Petaluma. The **Ferry Terminal to Gate 6 Road Path Feasibility Study** documented opportunities to enhance the subject intersection as a master planning document (not sufficiently detailed to be used directly for construction of improvements).

To enable development of plans that can result in construction to occur, the City of Sausalito submitted a grant proposal to regional transportation authorities for intersection improvements at the subject Gate 6 intersection owing to its priority as an intersection with multiple modes and potential conflicts. The City was awarded grant funds for a \$100,000 effort (the "**Gate 6 Road Intersection Improvements Study**"). The effort is required to comply with Federal and State transportation and environmental regulations. With grant agreements developed and executed, the City hired a team of transportation professionals lead by the firm called Urban Design Consulting Engineers to develop detailed plans.

On December 10, 2013 at a regular City Council meeting the Sausalito City Council was briefed on the alternatives that have been developed in advance of doing a broader public outreach that is now underway. At that briefing, members of the public inquired regarding consideration of other improvements developed in the **Ferry Terminal to Gate 6 Road Path Feasibility Study**. Grant limitations prevent consideration of these suggestions at this time (the grant is for the Gate 6 intersection). It is anticipated that the City of Sausalito will seek other funds for the remained of the **Ferry Terminal to Gate 6 Road Path Feasibility Study** areas in the future. For purposes of the

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Recreation: (415) 289-4189

Community Development: (415) 339-2256
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Public Works Maintenance: (415) 289-4138

Library: (415) 331-7943

current **Gate 6 Road Intersection Improvements Study** project consideration is limited to the intersection of Bridgeway/Gate 6 Road/Highway 101/North Bridge Boulevard.

Problem Statement

Signal indicators

Pedestrians have the greatest rights of all travelers -- yet at the subject intersection motor vehicle operators and cyclists outnumber pedestrians by large amounts. In order to keep traffic flowing reasonable efficiently, pedestrians are not given exclusive time in the signal timing cycle to cross Bridgeway. This is not optimal from a safety standpoint.

Also, the signal indicators (the actual traffic signal lights) that travelers (motorists, pedestrians and cyclists) departing from the Gate 6 leg of the intersection see and react to are inconsistent with the indicators on the other intersection legs. Left turning vehicles departing from Gate 6 Road are not given any specific indication that it is ok to turn left. A solid ball green light is what travelers see. A green arrow indicator and/or other improvement elements would be desirable but when it is ok for vehicles to turn left under current circumstances, they face a situation that pedestrians and/or bicyclists may be attempting to cross Bridgeway in the crosswalk at the same time. A green arrow indicator is typically operated when the traveling vehicle has exclusive right-of-way to turn. The North Bridge Boulevard leg of the intersection is offered a "green arrow" indicator but they also see signs requiring them to yield to pedestrians. That arrangement is not ideal and inconsistent with the highest standards of signal operations. This project is looking into that operation inconsistency and attempting to correct it in a way that does not increase congestion.

Multi-use path intersection leg

The intersection is the primary gateway into the City of Sausalito. It is the only way into Waldo Point Harbor, Kappas Marina, and the Gates Cooperative Houseboat Community. It is also the only exit point for people living in or visiting Marin City. While it is a four (4)-legged motor vehicle intersection it also contains the southerly terminus of the Sausalito Mill Valley Multi-use path --an important regional facility for pedestrians and cyclists. So the intersection is an unusual five (5)-legged intersection. Northbound bicycle and pedestrian movements onto the path are working reasonably well. Southbound path movements are problematic for cyclists who desire to move onto the southbound Class 2 bike path on the westerly side of Bridgeway, for cyclists who prefer to stay on the off-street path on the east side of Bridgeway at that location, and for motorists and pedestrians who have to interact with these travelers.

Alternatives-General

This **Gate 6 Road Intersection Improvements Study** identified four alternatives for improving operations at the intersection. Since that time a fifth alternative was suggested by Caltrans staff familiar with the conditions at the intersection as well as constraints of operating the traffic signal and the intersection in general. A sixth alternative was identified by the consultant team in collaboration with engineering staffs at Caltrans, Marin County and the City of Sausalito. The alternative names are as follows:

- Alternative 1: Bike and exclusive left turn lane.
- Alternative 2: Gate 6½ Road Connector
- Alternative 3: Bike Signal
- Alternative 4: Gate 6 Road Improvements
- Alternative 5: Bike Box
- Alternative 6: 2 Step Bicycle Left turn with new corner island.

All of the alternatives contain improvement features that can be added or removed. Though the project goal is to develop construction plans for improvements, none of the alternatives has been identified, yet, as the technically "preferred alternative." In addition, the potential environmental impacts of the potential project have not yet been evaluated, so compliance with the California Environmental Quality Act ("CEQA") and the National Environmental Policy Act ("NEPA") is required prior to identification of the "preferred alternative." The City, Marin

County and Caltrans are informing the public regarding the **Gate 6 Road Intersection Improvements Study** and soliciting comments and feedback on the alternatives as well as the improvement features. The primary benefit of identifying the alternatives, as they are currently developed, was to allow some analysis and predictive modeling to assess the impacts of the changes as compared to current operations.

Alternatives-Elements

Mandatory Elements

- Signal Cycle Time
- Signal Cycle Phasing
- Intersection delineation (Pavement Markings/Striping):
 - Lane Lines
 - Crosswalks/Stop bars
 - Lane turn legends
- Signal vehicle detectors/Pedestrian Activators (push buttons)
- Signage-traffic control
- Compliance with standards (the California Manual on Uniform Traffic Control Devices)
- Compliance with the Americans with Disabilities Act

Optional Elements

- Lane turn legend locations
- Type of signal phasing used
 - Protected Pedestrian crossing
 - Protected left turn
 - Allowing or disallowing opposite leg movements at the same time
- Signal time cycle length
- Signal Indicators
 - Left turn indicators (green arrow)
 - Bicycle intersection indicators
 - Turn prohibiting indicators (red arrow)
 - Flashing indicators
- Special Delineation:
 - Sharrows (on-pavement “share the road” legend showing a bicycle with two chevrons above it)
 - On-pavement color markings for bicycles
 - Bike Box (striped box in the vicinity of a stop bar for bicycle queuing)
- Signage-Way finding, Special signs for unique destinations in the area
- Intersection approach route (on the path, along Gate 6½ Rd, along Gate 6 Road)
- Special detectors(on bike lane detectors, video detection, more/less sensitive inductive loops)
- Intersection shoulder “bump outs”
- Intersection islands
- Other improvements
 - Curbs and Gutters
 - Street width (very limited given right-of-way width constraints)
 - Path width
 - Accessible corner ramps
 - Landscaping

Alternatives Specific

The following describes improvement features that are being proposed.

All Alternatives include the proposal of adding a left turn indicator facing the Gate 6 Road leg for vehicles (cars, trucks, motorcycles, buses, bicycles)

All Alternatives include the proposal of creating a protected pedestrian crossing on Bridgeway

All proposals include consideration of revision of corner ramps to acknowledge/accommodate bicycle allowed sidewalk use into Marin City

Alternative 1: Bike and exclusive left turn lane.

Adds a Class 2 bike lane on Gate 6 Rd from Gate 6½ Rd. to Bridgeway

Adds "sharrow" thru intersection

Moves the thru lane to shoulder lane

Changes existing thru/left operations to left turn only for motor vehicles

Adds necessary signage to affect proposed changes

Alternative 2: Gate 6½ Road Connector

Add signage on trail to direct SB Cyclists to Gate 6 ½ Road

Adds Bike Box

Adds "Sharrows" thru intersection

Considers possible signal timing changes if it does not significantly add to delay/cycle length

Adds necessary signage to affect proposed changes at the intersection

Alternative 3: Bike Signal

Adds Bump out on Hwy 101 leg of intersection for additional bicycle queuing area

Adds Bike Signal-rare facility in region

Adds Colored pavement-rare facility in the region

Bike Left turn would be exclusive

Free motor vehicle right turn from Gate 6 to Hwy 101 would be restricted, when bike signal activated

Alternative 4: Gate 6 Road Improvements

Similar to Alternative 2

Adds Bike Box

Adds "Sharrows" thru intersection

Adds Left turn indicator

Directs bike traffic to Gate 6 ½ along an improved Gate 6 sidewalk

Alternative 5: Bike Box

Adds Bike Box Striping

Adds Sharrows through the intersection

Alternative 6: 2 Step Bicycle Left turn with new corner island.

Reconfigures a striped "gore" Northwesterly corner of intersection into a raised corner Island

Creates second crossing area for cyclists and pedestrians, two legs to cross

Exclusively developed for bicycles but pedestrians might disregard and use the crossing as well

All of the alternatives preserve current through capacity ("Levels of Service" (LOS)). The various alternatives will add from 1.5 to 7.9 seconds of additional delay (see 11/18/2013 Kittelson & Assoc. Report for detail info).

Documents have been created showing the alternatives as currently developed, engineering analysis showing the impacts of the alternatives as compared to current operations, the previously developed and adopted feasibility study, public notice for a workshop on the project and alternatives, and this letter.

The City of Sausalito, County of Marin and Caltrans request comments in the form of letters, plan markups, e-mails. Feedback is requested no later than February 14, 2014. Send written comments to:

City of Sausalito
Department of Public Works-Engineering Division
attn: Gate 6 Intersection Study
420 Litho Street
Sausalito CA 94965-1933

e-mail comments to: PublicWorks@ci.sausalito.ca.us with Gate 6 Intersection Study in the subject line

The City and its partners will aggregate and synthesize the comments to attempt to identify a consensus technically-preferred alternative. Your comments and the City's proposed plans will be reported back to the Sausalito City Council, to Marin County and Caltrans officials for conceptual approval. After that formal construction plans and environmental clearance documents will be developed and finalized with the goal of completing construction plan development in Spring of 2014.

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