



APPENDIX

Traffic Engineering and Analysis Report

Golden Gate Bridge Moveable Median Barrier Study

Prepared for the Golden Gate Bridge Highway and Transportation District

Federal Project Number STPL-6003(037)



Appendix A
Model Calibration Analysis Memorandum



AECOM
2101 Webster Street
Suite 1900
Oakland, CA 94612
www.aecom.com

510 622 6600 tel
510 834 5220 fax

Memorandum

Date: January 11, 2013
To: Jeffrey Lee
From: Bill Burton
James Watson
Subject: Golden Gate Bridge Moveable Median Barrier – Traffic Engineering and Analysis:
Model Calibration Analysis

This memorandum presents the model calibration analysis for use in the Golden Gate Bridge Moveable Median Barrier Project in San Francisco, California. The analysis methodology is outlined in Task 6 (Traffic Engineering and Analysis) of the *Golden Gate Bridge Moveable Median Barrier Scope of Work*.⁽¹⁾ This document is herein referred to as the “Moveable Median Barrier Project Scope of Work”.

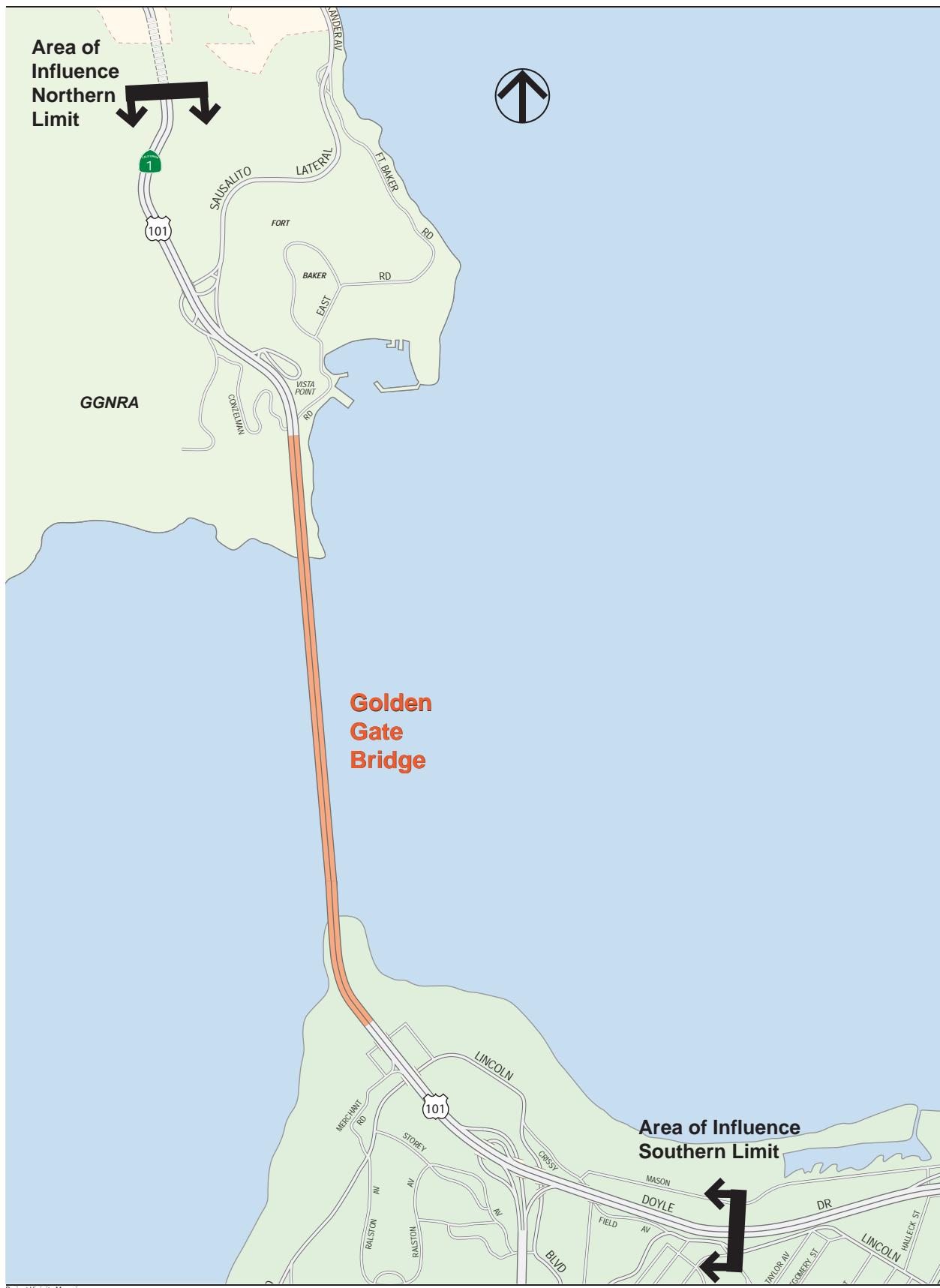
Introduction

The model calibration analysis consists of a comparative evaluation of the simulated freeway results to the observed freeway results. This comparison is conducted at several locations on the US 101 freeway between the Sausalito Lateral Interchange (north) and the Park Presidio Boulevard interchange (south). The project area vicinity map is shown in **Figure 1**.

The model calibration analysis includes an outline of the methodology utilized to develop, calibrate, and validate the traffic simulation model for use in this evaluation. A description of the modeling software and methodology is included in the following sections:

- Model Calibration Analysis Methodology;
- Model Development Procedure;
- Model Development Process;
- Model Calibration Process;
- Model Calibration Results; and
- Model Validation.

⁽¹⁾ Golden Gate Bridge Moveable Median Barrier Scope of Work. November 10, 2008. Prepared for Golden Gate Bridge Highway and Transportation District by AECOM.



GOLDEN GATE BRIDGE MOVEABLE MEDIAN BARRIER - MODEL CALIBRATION ANALYSIS

Figure 1
Project Vicinity Map

Model Calibration Analysis Methodology

A network simulation model was developed to evaluate the operations of the regional freeway facilities. The simulation model was developed in McTrans' TSIS-CORSIM 6.1 (Build 509) software program. The CORSIM software is a specialized corridor simulation tool that was originally developed by the Federal Highway Administration (FHWA). The model development process was consistent with the methodology presented in the *Traffic Analysis Toolbox Volume IV: Guidelines for Applying CORSIM Microsimulation Modeling Software*.⁽²⁾

The CORSIM model was calibrated based on travel speed and traffic volumes. This calibration methodology is consistent with the procedures recommended by the FHWA.

Travel speed data on the US 101 freeway were utilized as a quantitative calibration parameter. The travel speeds simulated in the CORSIM model were calibrated to replicate observed travel speed within a 20 percent confidence level.⁽³⁾

Traffic volumes were evaluated on a segment by segment basis and were utilized as a quantitative parameter. The traffic volumes were examined by utilizing the following conditional criteria included in **Table 1**.

Table 1: Freeway Traffic Volume Calibration Criteria

Simulated Segment Traffic Volume	Calibration Target ^(a)
≤ 700 vph	≤ 100 vph
> 700 vph and $\leq 2,700$ vph	$\leq 15\%$
$> 2,700$ vph	≤ 400 vph

Source: *Traffic Analysis Toolbox Volume IV*, Federal Highway Administration, 2007.

Notes:

- Calibration target in terms of absolute vehicles on the segment.

- vph = Vehicles Per Hour

^(a) Calibration target based on comparison of simulated traffic volumes to observed traffic volumes.

It should be noted that the FHWA does not have a standard of acceptance for the number of calibration criteria that must be met to validate a model. The number of calibration criteria that should be met varies depends on factors such as the size of the model, resources available, purpose and objectives of the analysis, and types of alternatives analyzed. Although not required per the FHWA guidelines, a typical standard of acceptance is 85 percent. That is, at least 85 percent of the calibrated segments should meet the calibration targets.

⁽²⁾ *Traffic Analysis Toolbox Volume IV: Guidelines for Applying CORSIM Microsimulation Modeling Software*. Section 5.0 – Calibration. U.S. Department of Transportation. Federal Highway Administration, 400 Seventh Street S.W. Room 4410 Washington, DC 20590, Publication No. FHWA-HOP-07-079, January 2007.

⁽³⁾ Advanced CORSIM Training Manual. Minnesota Department of Transportation. SEH No. A-MNDOT0318.00. January 31, 2008.

The regional freeway analysis was developed to evaluate peak period conditions. Typically, on weekdays, vehicles in the vicinity of the US 101 freeway experience congested conditions between 7:00am and 9:00am in the morning peak period and between 4:00pm and 6:00pm in the evening peak period. Herein, these analysis periods are presented as the weekday AM peak period and weekday PM peak period, respectively.

The peak hour of congestion represents the most congested one (1) hour within the corresponding peak period. Typically, on weekdays, vehicles in the vicinity of the US 101 freeway experience the peak hour conditions between 8:00am and 9:00am in the weekday AM peak period and between 5:00pm and 6:00pm in the weekday PM peak period. Herein, these analysis periods are presented as the weekday AM peak hour and weekday PM peak hour, respectively. Unless otherwise noted, the analysis and results presented herein are a representation of the peak hour of congestion.

Model Development Procedure

Micro-simulation tools are typically preferable to more simplistic analyses, such as empirically developed *Highway Capacity Manual* (HCM) evaluations, for complex transportation networks. Micro-simulation tools are preferred because they are designed to model transportation networks temporally and account for interactions with other facilities. For example, micro-simulation tools can model the impacts of fluctuations in traffic characteristics over time and space. Likewise, these tools can model interactive geometric configurations, such as closely spaced intersections in relation to ramp metering. Ultimately, micro-simulation tools can be utilized to model unique conditions over time, whereas simplistic analysis tools are utilized to model an isolated facility for an independent moment.

A flow diagram of the CORSIM modeling process is shown in **Figure 2**. This process was developed by the FHWA and is based on the best practices for simulation modeling. This diagram provides a specific outline of the model development process, the calibration procedure, and the stage at which the model is validated for alternatives analyses.

As shown in the CORSIM modeling process flow diagram, the complete development of a project alternative analysis is a nine (9) step process. The nine (9) step process consists of three (3) sections:

1. Work prior to actual modeling (*Step 1* to *Step 3*);
2. Initial modeling (*Step 4* and *Step 5*); and
3. Final modeling (*Step 6* to *Step 9*).

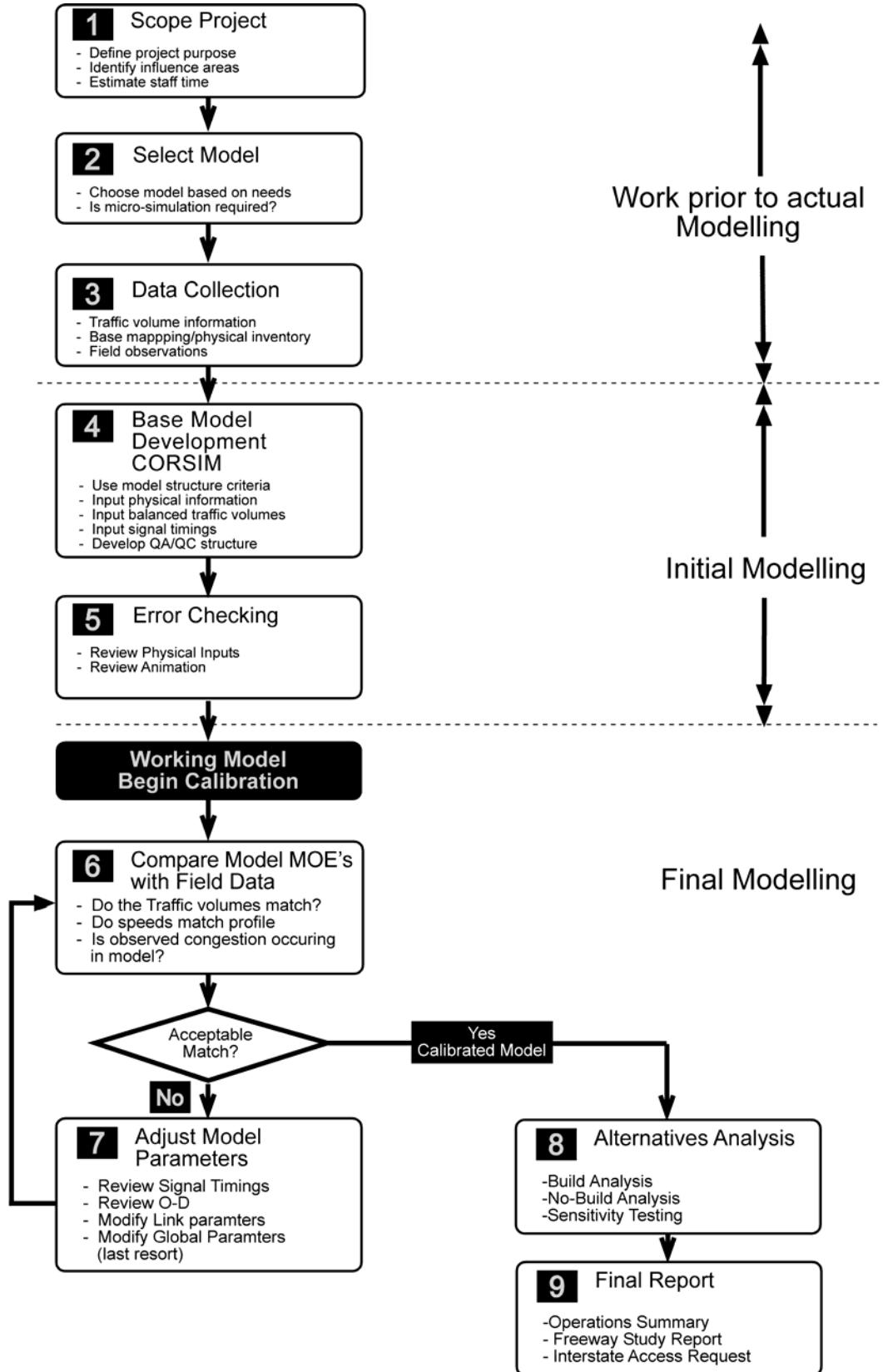
The work prior to actual modeling section of the CORSIM modeling process flow diagram includes project scoping (*Step 1*), model selection (*Step 2*), and data collection (*Step 3*). The project scoping and model selection were conducted as part of the Moveable Median Barrier Project Scope of Work.

Model Development Process

The initial modeling section of the CORSIM modeling process flow diagram includes the base model development (*Step 4*) and error checking (*Step 5*). The development of the base CORSIM model consists of four (4) fundamental components. These components include:

Component 1: Link-Node Diagram Development

The purpose of this component is to create a geometrically accurate representation of the freeway and arterial network. The physical roadway layout is discretized into a network of links and nodes for input into the CORSIM software.



Component 2: Lane Geometry Development

The purpose of this component is to input all of the freeway and arterial roadway lane geometry attributes. These lane geometry attributes include the number of lanes, length of the turn pockets, length of the acceleration and deceleration areas, etc. This information is collected using as-built drawings, aerial photographs, and field measurements. The network geometry is stored in a quality assurance (QA) / quality control (QC) database.

Component 3: Free-Flow Link Speeds Development

The purpose of this component is to input all of the freeway and arterial roadway free-flow link speeds. This information was collected based on posted speed limit signage and design speed throughout the study area. The free-flow link speeds are included in the QA / QC database.

Component 4: Traffic Volumes Database Development

The purpose of this component is to input all of the freeway volumes. The CORSIM model was utilized to simulate traffic conditions for the weekday AM peak period (7:00am to 9:00am) and the weekday PM peak period (4:00pm to 6:00pm).

Traffic volumes throughout the freeway and arterial network were divided into 15-minute time intervals for the two (2) hour simulation periods. Where 15-minute interval traffic volume data were available (e.g., mainline freeway segments), the source data were utilized. Where 15-minute interval traffic volume data were unavailable (e.g., freeway ramps), the 60-minute interval traffic volume source data were disaggregated into 15-minute intervals assuming a 0.95 peak hour factor.

The regional mainline freeway traffic volumes were balanced utilizing one (1) mainline control point and upstream / downstream ramps. Equilibrium was maintained throughout the freeway network.

Error checking (*Step 5*) was conducted by reviewing the physical model inputs and reviewing the animation. Once the inputs and animation were verified, the initial modeling section was completed.

Model Calibration Process

The final modeling section of the CORSIM modeling process flow diagram includes the model comparison to field data (*Step 6*), model parameter adjustments (*Step 7*), alternatives analysis (*Step 8*), and the final report (*Step 9*).

Mainline US 101 freeway travel speed surveys were conducted by “floating vehicles”, or moving observers, on a typical weekday.

The model comparison to field data (*Step 6*) and the model parameter adjustments (*Step 7*) are iterative. That is, the steps must be repeated until the conditional criteria are met. The model calibration methodology is an informed “guess and check” process. Typically, there are best practices for calibrating a model. For example, if observed congestion is caused by tight horizontal curvature, the desired free-flow speed or headway spacing may need to be adjusted. However, every transportation network is unique and the specific calibration parameters must be adjusted accordingly. The calibration process sequentially consists of the following four (4) conditions:

1. No modifications to the default parameters – No adjustments are made to the known global parameters (e.g., vehicle type distribution), local parameters (e.g., headway factors), or unknown global parameters (e.g., car following factors). If the model MOE meet the model calibration criteria, the model calibration is complete. If not, the known global parameters must be modified;
2. Modify the known global parameters – Adjustments are made to the global parameters that can be quantified. Known global parameters include vehicle headway distributions, vehicle type

distribution, and lane biases (for heavy vehicles). If the model MOE meet the model calibration criteria, the model calibration is complete. If not, the local parameters must be modified;

3. Modify the local parameters – Adjustments are made to the local parameters that cannot be quantified but can be observed. Local parameters include warning sign locations for exit ramps / lane drops (for lane changing behavior) and free-flow speeds / headway factors (for geometric features). If the model MOE meet the model calibration criteria, the model calibration is complete. If not, the unknown global parameters must be modified; and
4. Modify the unknown global parameters – Adjustments are made to the global parameters that cannot be quantified or observed. Unknown global parameters include driver behavior, lane change parameters, and model parameters. Modifications to these parameters affect the model logic and should only be pursued if other calibration parameter adjustments are ineffective.

Upon completion of the model comparison to field data (*Step 6*) and model parameter adjustments (*Step 7*), the calibration of the model is complete. The model is only calibrated for the Existing Conditions. Calibration is not applicable to design year or project alternative analyses. The alternatives analysis (*Step 8*) and the final report (*Step 9*) components of the CORSIM modeling process flow diagram are included in this document.

The CORSIM model required several modifications to meet the calibration criteria. Unless otherwise noted, these calibration modifications are consistent for both the weekday AM and PM peak periods. The model calibration process included the following modifications:

Link Travel Speeds

The link travel speeds were adjusted for two (2) freeway segments to represent the typical speed of the vehicles, rather than the posted freeway speed. The link travel speed was changed from 45 mph (posted) to 55 mph (field) at the following locations:

- Southbound US 101 between Sausalito Lateral and Vista Point; and
- Northbound US 101 between Vista Point and Sausalito Lateral.

Throughout the remainder of the US 101 corridor the posted speed was maintained.

Warning Sign Locations

The warning sign locations were adjusted for two (2) ramps to accurately model the anticipatory lane changing behavior of vehicles on the mainline freeway. The warning sign locations were changed from 2,500 feet (default) to 1,000 feet (field) for the following off-ramps:

- Southbound US 101 Off-Ramp at Park Presidio Boulevard; and
- Northbound US 101 Off-Ramp at Merchant Road.

Car Following Factor

The car following factor was adjusted at several locations to represent the driver behavior at horizontal and vertical curves on the mainline freeway. For vertical curves, the car following factor was typically increased from 1.00 (default) to 1.10 (field). For the majority of the horizontal curves, the car following factor was typically increased from 1.00 (default) to 1.25 (field). The only exception was the abrupt horizontal curve at the northbound toll plaza, where the car following factor was increased from 1.00 (default) to 1.50 (field). The mainline freeway location that was calibrated to represent the vertical curve is:

- US 101 Overcrossing at Sausalito Lateral.

The mainline freeway locations that were calibrated to represent the horizontal curves include:

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- US 101 between the Park Presidio Boulevard Ramps;
- US 101 between the Toll Plaza and the Golden Gate Bridge (south); and
- US 101 between the Golden Gate Bridge (north) and the Sausalito Lateral Ramps.

Model Calibration Results

An evaluation of the CORSIM simulation model was conducted prior to calibration (default model) and after calibration (calibrated model). Typically, the simulation model required approximately ten (10) minutes to seed, or initialize, the network. For the purposes of this analysis, all results represent the average of five (5) simulation runs. Each simulation run was conducted for the two (2) hour peak period. The mainline traffic volumes data were collected between Saturday, May 19, 2012 and Friday, May 25, 2012. The mainline travel speed data and field observations were all collected on Tuesday, September 25, 2012.

The CORSIM model was calibrated based mainline travel speed and traffic volumes. The results of the model calibration includes the following components:

Travel Speed

Travel speed data on the US 101 freeway were utilized as a quantitative calibration parameter. The travel speeds simulated in the CORSIM model were calibrated to replicate observed travel speeds within a 20 percent confidence level. Vehicle speed data were collected at the following seven (7) locations in the southbound direction:

1. Southbound US 101 at the Sausalito Lateral On-Ramp;
2. Southbound US 101 at the Golden Gate Bridge Entrance (north);
3. Southbound US 101 at the Golden Gate Bridge Center Span;
4. Southbound US 101 at the Golden Gate Bridge Exit (south);
5. Southbound US 101 at the Golden Gate Bridge Toll Plaza;
6. Southbound US 101 at the Merchant Road Off-Ramp; and
7. Southbound US 101 at the Park Presidio Boulevard On-Ramp.

Vehicle speed data were collected at the following eight (8) locations in the northbound direction:

1. Northbound US 101 at the Park Presidio Boulevard On-Ramp.
2. Northbound US 101 at the Merchant Road Off-Ramp;
3. Northbound US 101 at the Golden Gate Bridge Toll Plaza;
4. Northbound US 101 at the Golden Gate Bridge Entrance (south);
5. Northbound US 101 at the Golden Gate Bridge Center Span;
6. Northbound US 101 at the Golden Gate Bridge Exit (north);
7. Northbound US 101 at the Vista Point On-Ramp; and
8. Northbound US 101 at the Sausalito Lateral On-Ramp.

The calibrated CORSIM simulation travel speeds during the weekday AM peak hour (8:00am to 9:00am) and the weekday PM peak hour (5:00pm to 6:00pm) for the southbound and northbound directions are shown in **Figure 3**. The travel speeds from the CORSIM simulation model prior to the calibration are included (shown as “default model”) to show the impacts of the calibration on the accuracy of the results.

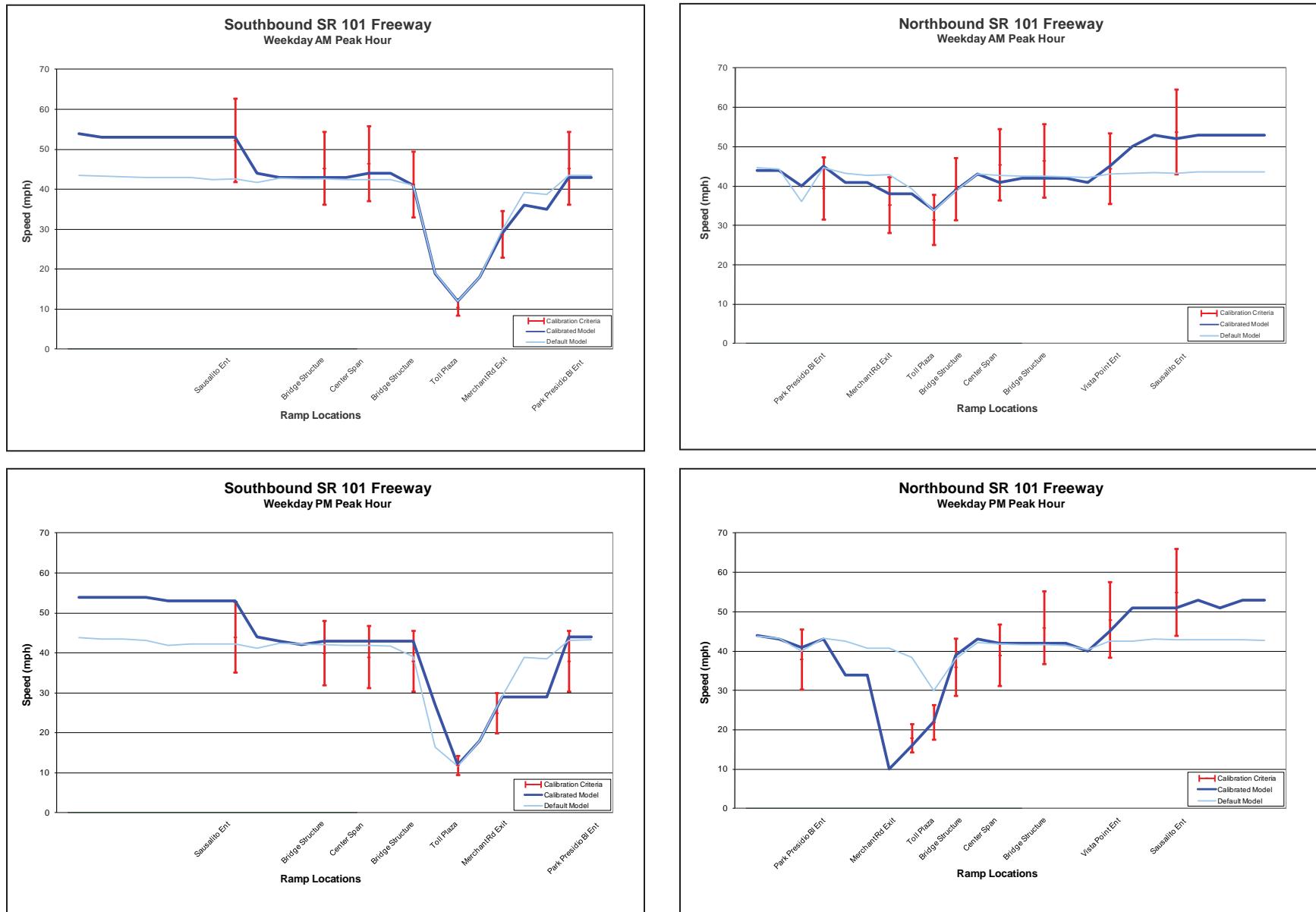


Figure 3
Simulation Model Freeway Travel Speeds

In the weekday AM peak hour simulation, the model meets the travel speed calibration criteria at all seven (7) locations in the southbound direction. The model meets the travel speed calibration criteria at all eight (8) locations in the northbound direction. The travel speed calibration criteria are met at 100 percent of the locations in the weekday AM peak hour simulation.

In the weekday PM peak hour simulation, the model meets the travel speed calibration criteria at all seven (7) locations in the southbound direction. The model meets the travel speed calibration criteria at all eight (8) locations in the northbound direction. The travel speed calibration criteria are met at 100 percent of the locations in the weekday PM peak hour simulation.

Traffic Volumes

Traffic volumes were evaluated on a segment by segment basis and were utilized as a quantitative calibration parameter. A comparison of traffic demand to the traffic simulated in the model was conducted at the seven (7) southbound locations and eight (8) northbound locations on the mainline freeway where the travel speed was collected.

A comparison of calibrated CORSIM simulation volumes to the traffic demand during the weekday AM peak hour (8:00am to 9:00am) and the weekday PM peak hour (5:00pm to 6:00pm) for the US 101 freeway are included in **Table 2**.

In the weekday AM peak hour simulation, the model meets the traffic volume calibration criteria at all seven (7) locations in the southbound direction. On average, the simulation is within one (1) percent of the observed traffic demand. The model meets the traffic volume calibration criteria at all eight (8) locations in the northbound direction. On average, the simulation is within two (2) percent of the observed traffic demand. The traffic volumes calibration criteria is met at 100 percent of the locations in the weekday AM peak hour simulation.

In the weekday PM peak hour simulation, the model meets the traffic volume calibration criteria at all seven (7) locations in the southbound direction. On average, the simulation is within one (1) percent of the observed traffic demand. The model meets the traffic volume calibration criteria at all eight (8) locations in the northbound direction. On average, the simulation is within two (2) percent of the observed traffic demand. The traffic volumes calibration criteria is met at 100 percent of the locations in the weekday PM peak hour simulation.

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Table 2: Simulation Model Traffic Volumes

Freeway Section	Weekday AM Peak Hour			Weekday PM Peak Hour		
	Demand	Served	Difference	Demand	Served	Difference
Southbound US 101 Freeway						
1	Sausalito Lateral On-Ramp	4,900	4,910	10	3,150	3,155
2	Golden Gate Bridge Entrance (north)	5,182	5,189	7	3,524	3,530
3	Golden Gate Bridge Center Span	5,182	5,190	8	3,524	3,533
4	Golden Gate Bridge Exit (south)	5,182	5,198	17	3,524	3,535
5	Golden Gate Bridge Toll Plaza	5,182	5,197	15	3,524	3,539
6	Merchant Rd Off-Ramp	4,946	5,005	59	3,408	3,431
7	Park Presidio Bl On-Ramp	3,617	3,660	43	1,964	1,956
Northbound US 101 Freeway						
1	Park Presidio Bl On-Ramp	2,787	2,798	11	3,564	3,564
2	Merchant Rd Off-Ramp	2,787	2,797	10	3,564	3,567
3	Golden Gate Bridge Toll Plaza	3,023	2,939	84	5,171	5,082
4	Golden Gate Bridge Entrance (south)	3,023	2,942	81	5,171	5,079
5	Golden Gate Bridge Center Span	3,023	2,947	76	5,171	5,076
6	Golden Gate Bridge Exit (north)	3,023	2,953	70	5,171	5,074
7	Vista Point On-Ramp	3,023	2,951	72	5,171	5,071
8	Sausalito Lateral On-Ramp	2,896	2,831	65	5,044	4,947

Source: AECOM – January 2013

Notes:

- Volume in terms of vehicles per hour.
- Demand represents the peak hour mainline traffic volume demand.
- Served represents the peak hour mainline traffic demand volume that is served in the freeway simulation.
- Where the demand volume is greater than 2,700 vph, the difference represents the absolute peak hour mainline traffic volume difference between the demand traffic volume and the served traffic volume (400 vph criteria).
- Where the demand volume is less than or equal to 2,700 vph, the difference represents the percentage difference between the demand traffic volume and the served traffic volume (15 percent criteria).
- **Bold** denotes calibration target not met.

Model Validation

The CORSIM simulation model was developed based on the procedure provided by the FHWA and is based on the best practices for simulation modeling. The process consisted of work prior to modeling, initial modeling, and final modeling.

The initial model development process consisted of the development of a link-node diagram, lane geometry, free-flow link speeds, a traffic volumes database, and traffic control devices. Error checking was conducted by reviewing the physical model inputs and reviewing the animation.

The model calibration process conditionally consisted of modifying the known global parameters, modifying the local parameters, and modifying the unknown global parameters. The model was calibrated by modifying the link travel speeds, the warning sign locations, and the car following factor.

Travel speeds were utilized as a quantitative calibration parameter for the CORSIM model. In the weekday AM peak hour simulation, the travel speed calibration criteria is met at 100 percent of the locations. In the weekday PM peak hour simulation, the travel speed calibration criteria is met at 100 percent of the locations.

Traffic volumes were utilized as a quantitative calibration parameter for the CORSIM model. In the weekday AM peak hour simulation, the traffic volumes calibration criteria is met at 100 percent of the locations. In the weekday PM peak hour simulation, the traffic volumes calibration criteria is met at 100 percent of the locations.

The development and calibration of the Existing Conditions CORSIM model is consistent with the methodology and procedure recommended by the FHWA. Based on the results of the regional freeway calibration analysis, the CORSIM model meets the recommended calibration criteria. The Existing Conditions CORSIM model is therefore valid for design year alternatives analyses and the final report.

Appendix B
Median Barrier Warrant Analysis Memorandum

Memorandum

To	Mr. Jeffrey Lee	Page	1
cc	Project file		
Golden Gate Bridge Moveable Median Barrier Project			
Federal Project No: STPL-6003(037), GGBHTD Contract No: 2008-B-5			
Subject	Median Barrier Warrants		
From	Bill Burton, PE Joy Villafranca, PE		
Date	September 25, 2012		

This memorandum has been prepared to summarize the results of our evaluation of median barrier study warrants prepared as part of the Golden Gate Bridge Moveable Median Barrier project.

Background

This memorandum has been prepared to demonstrate that the project meets median barrier warrants in accordance with Chapter 7 of the Caltrans Traffic Manual.

The project proposes to install a Moveable Median Barrier (MMB) along Route 101 that extends across the 1.7-mile-long Golden Gate Bridge (GGB) between the City and County of San Francisco (SF) and Marin County (MRN) for a total length of about 13,750 feet. The purpose of this project is to enhance safety and minimize the potential for crossover collisions by installing a physical barrier to separate opposing directions of traffic on the Golden Gate Bridge. It should be noted that the project is conforming to the north and the south in areas that have/will have concrete median barrier.

Existing Highway

The existing highway is an access controlled highway that traverses through an urban environment on the San Francisco side of the bridge and hilly terrain on the Marin side. Toll booths and an approach curve are located on the south side of the bridge which limits speeds. There are a series of reverse curves on the north side of the bridge which also limits speeds.

Existing highway characteristics vary along the Route 101 corridor. Below is a description of the existing highway characteristics specific to each segment north and south of the bridge:

- Route 101, South of the GGB at the right of way boundary - At the south project limit and within District right of way, Route 101 is currently a 9-lane highway with lane widths that vary from 10 to 11.5 feet and outside shoulder width of 2.5 feet in both directions. The roadway widens as it approaches to the Toll Plaza to the north. Existing manually placed plastic pylons currently

separate opposing traffic, extend south beyond the right of way boundary and are used to delineate lane drops depending on the lane configuration.

The Presidio Parkway Project (EA#1637U1), which is currently under construction, includes the construction of a new Route 1/ 19th Avenue connector on ramp which would merge onto the Golden Gate Bridge approach and Route 101 within the District right of way and proposed project limits. The Presidio Parkway Project's north construction limit is at the southern end of the Lincoln Blvd. Undercrossing structure (PM 9.8) and just south of the Toll Plaza. Four SB and five (three lanes from Route 101, two lanes from Route 1) NB lanes are proposed at the construction limits. South of the District right of way, median barriers would separate opposing directions of traffic along Route 101 and would terminate at the District right of way boundary. The proposed lane widths of the interchange are as follows:

- NB Route 101 Mainline Lanes 1, 2 and 3: 11 ft
- NB Route 1/19th Avenue Lane 1: 11 ft
- NB Route /19th Avenue Lane 2: 12 ft
- SB Route 101 Mainline Lanes 1, 2 and 3: 11 ft
- SB Route 101 Mainline Lane 4: 12 ft

The outside shoulder widths in both directions will range from 10 feet to 4 feet at the northern conform.

- Golden Gate Bridge (portion of Route 101) – The GGB, constructed in 1937, is a 6 lane bridge that can be configured to 2 lanes NB/4 lanes SB (2N/4S), 3 lanes NB/3 lanes SB (3N/3S), or 4 lanes NB/2 lanes SB (4N/2S). The GGB connects San Francisco and Marin Counties. The GGB is under the jurisdiction of the Golden Gate Bridge Highway and Transportation District (District). The District changes the lane configurations on the bridge and its approaches using plastic delineators that are manually placed in pre-drilled holes in the roadway. The outside lanes are 11 ft wide, and the remaining 4 lanes are each 10 ft wide. The bridge does not have a permanent barrier or separation between opposing directions of travel. There is no inside shoulder (in both directions). The outside lanes are adjacent to a curb so there are no outside shoulders in either direction. The Bridge spans approximately 9,000 ft from the San Francisco abutment to the Marin abutment.
- Route 101, North of the GGB – The segment of Route 101 north of the GGB is an 8 lane freeway (4 lanes in each direction). The SB direction has 4 lanes, but drops to 3 lanes during the 3N/3S configuration, and drops to 2 lanes during the 4N/2S configuration. Within the project limits, there are two existing interchanges: Vista Point (NB on- and off-ramps) and the Alexander Avenue interchange (NB and SB on and off-ramps). The distance between these two interchanges is approximately 1,200 ft, which is nonstandard.

At the District/Caltrans right of way limit, the freeway is 6 lanes wide. Over a distance of 350 ft, the freeway widens to 9 lanes to accommodate 4 lanes in

each direction and one NB exit lane to the Vista Point. Depending on the bridge configuration, the 4 SB lanes can be reduced to 3 or 2 at this location. The existing lane widths are nonstandard in this area and range from 11 ft to 12 ft 6 in. Within this same 350 ft, there is no permanent barrier or separation between opposing directions of travel. Existing plastic pylons currently provide a separation or “buffer” between opposing directions of travel. Existing lanes, adjacent to this separation, vary between 10 ft and 11.5 ft.

After the first 350 ft within Caltrans right of way, there is an existing Type 60C concrete barrier that separates opposing directions of travel. This barrier continues through the north limit of the project. The inside shoulder width in the NB and SB direction varies between 2 ft to 3 ft along the existing median barrier for a total existing median width of 7 ft to 8 ft. In the SB direction, the existing lane tapers from a 4 to 3 lane configuration and from a 4 to 2 lane configuration via temporary plastic pylons. During the times when these lane tapers occur, the inside shoulder increases when the pylons divert vehicles away from the median barrier.

The outside shoulder widths in the NB and SB directions range from about 0 ft to 10 ft within the project limits.

Barrier Warrants

For freeways, the median width, ADT and number/severity of cross-median type accidents are used to determine if the warrants for median barrier installation are met (See Topic 7-04- Median Barrier of the Traffic Manual). Each segment of the project was evaluated for barrier warrants. These segments, from Post Mile to Post Mile, are the following:

- Route 101 (divided), from 04 SF 101 009.300 to 04 SF 101 009.399
- Route 101 (undivided), from 04 SF 101 009.400 to 04 SF 101 011.181
- Route 101 (undivided), from 04 MRN 101 L000.000 to 04 MRN 101 L000.494
- Route 101 (divided), from 04 MRN 000.000 to 04 MRN 000.600

It should be noted that 04 SF 101 011.181 is equivalent to 04 MRN 101 L000.000, and 04 MRN 101 L000.494 is equivalent to 04 MRN 101 000.000.

Freeway Traffic Volume/Width Study Warrant

Traffic Data

In 1989, the Average Daily Traffic (ADT) on the GGB was 120,000. The 2009 ADT was 110,000 and it is forecast to increase to 138,000 by 2030.

Figure 7-12 of the Traffic Manual indicates the need for median barrier based on median width and ADT (See Attachment 1). According to Figure 7-12, the need for a median barrier should be considered on freeways whenever the volume and median width plot in the gray area. The following **Table 1** shows the values utilized for median width and ADT for each segment of the project and indicates “Yes” or “No” for meeting barrier study warrants when the parameters were plotted onto Figure 7-12.

Table 1: Volume and Median Width Warrant per Segment

Freeway Segment (Post Mile to Post Mile)	ADT (veh per day)	Median Width (ft)	Meets Warrant? Y/N
04 SF 101 009.300 to 04 SF 101 009.399 (long-term)	110,000 (existing) 138,000 (design year)	15-42, 0 15-42, 0	Y Y
04 SF 101 009.400 to 04 SF 101 011.181, and 04 MRN 101 L000.000 to 04 MRN 101 L000.494 ^(a)	110,000 138,000	0 0	Y Y
04 MRN 101 000.000 to 04 MRN 101 000.600	110,000 138,000	0-8 0-8	Y Y

Source: AECOM – August 2012. Caltrans – 2012.

Notes:

(a) 04 MRN 101 L000.494 = 04 MRN 101 000.000

Collision Study Warrant

According to Section 7-04.04 of the Traffic Manual, the locations with cross-median accident rate data that exceed either 0.50 total collisions/per mile/per year (cpmpy) or 0.12 fatal collisions/per mile/per year should be identified for improvements that would reduce the severity of accidents.

Accidents

Traffic Accident Surveillance and Analysis System (TASAS) and collision data from the Statewide Integrated Traffic Records System (SWITRS) were obtained for freeway facilities along Route 101. TASAS collision data was reviewed for a five (5) year period, from January 1, 2006 to December 31, 2010.

Of the 304 collisions that occurred on the undivided highway segment of the Golden Gate Bridge between 04 SF 101 009.400 and 04 SF 101 011.181, eight (8) of the collisions were cross-median collisions, which resulted in five (5) injuries and no fatalities. Of the 17 collisions that occurred on the undivided highway segment of Route 101 between 04 MRN 101 L000.000 and 04 MRN 101 L000.494, none of the collisions were cross-median collisions.

Crossover collision rates in terms of total accidents/per mile/per year and fatal accidents/per mile/per year for the undivided freeway segments are summarized below.

Total Crossover Collision Rate

- Route 101, from 04 SF 101 009.400 to 04 SF 101 011.181 – 0.90 total cpmpy
- Route 101, from 04 MRN 101 L000.000 to 04 MRN 101 L000.494 – 0.00 total cpmpy
- Total Undivided Segment of Route 101, from 04 SF 101 009.400 to 04 MRN 101 L000.494 – 0.70 total cpmpy

Fatal Crossover Collision Rate

- Route 101, from 04 SF 101 009.400 to 04 SF 101 011.181 – 0.00 fatal cpmpy

- Route 101, from 04 MRN 101 L000.000 to 04 MRN 101 L000.494 – 0.00 fatal cpmpy
- Total Undivided Segment of Route 101, from 04 SF 101 009.400 to 04 MRN 101 L000.494 – 0.00 fatal cpmpy

The Total Crossover Collision Rate on the undivided highway segment of Route 101 from 04 SF 101 009.400 to 04 MRN 101 000.494 is 0.70, which exceeds the accident criteria warrant of 0.50 total crossover collisions/per mile/per year.

Recommendations

Based on the results of the traffic volume/width and collision study warrants, the installation of a median barrier within the proposed project area is warranted.

Attachments

Attachment 1 – Figure 7-12: Freeway Median Barrier Study Warrant

All studies must document the decision to install or not to install a median barrier on the freeway system, and the District Traffic Safety Engineer must approve the decision to install or not install median barrier, and the decision must be documented in the project files.

2. *Expressways:* An expressway is defined as an arterial highway with at least partial control of access, and which may or may not be divided. Expressways normally do not have grade separations at intersections.

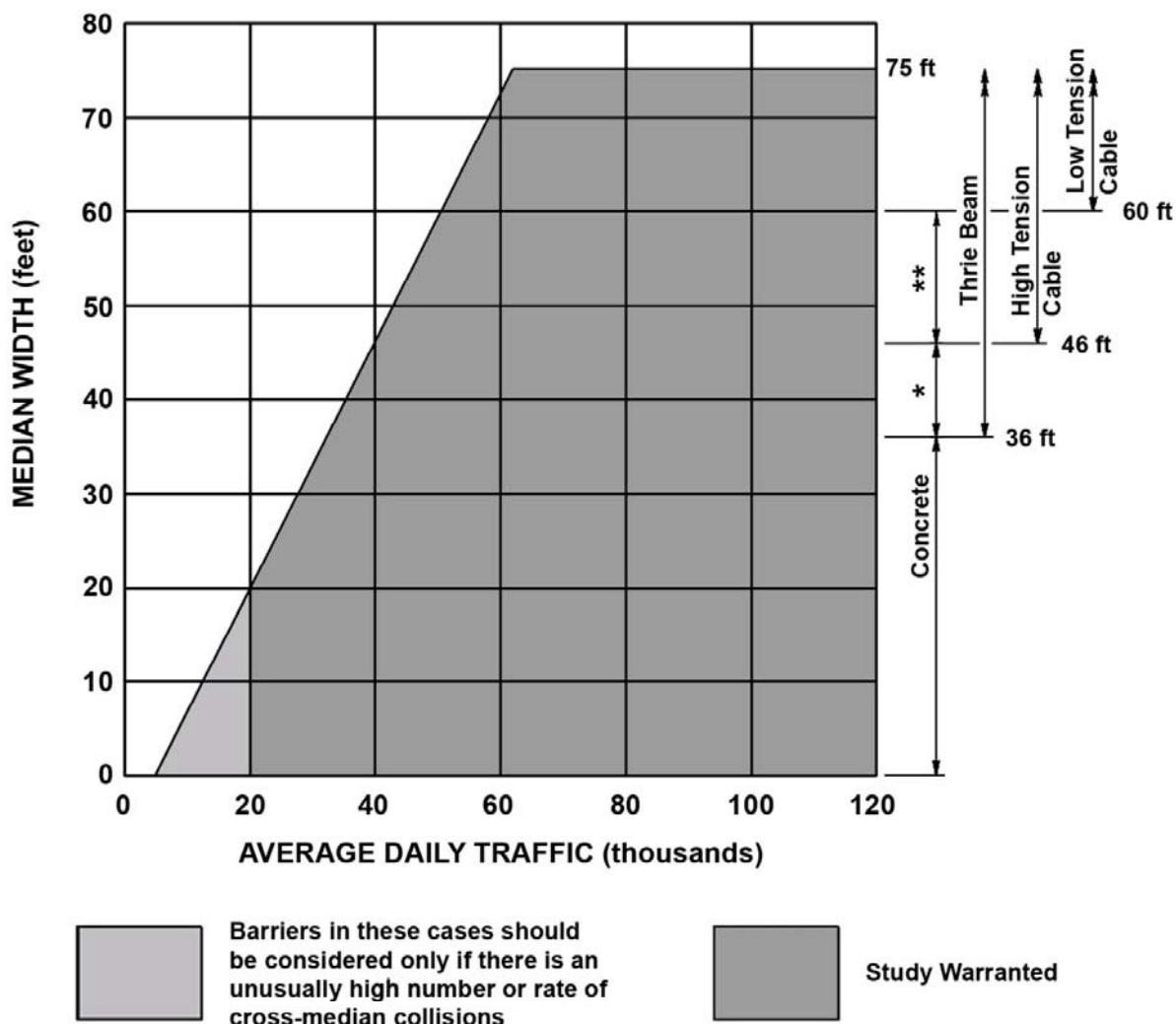
Expressway locations are to be reviewed when the collision study warrant is met. The freeway volume/width study warrant, although developed for freeways, may be used for studying expressways for the installation of median barrier.

For new construction and when upgrading

from a conventional highway to an expressway, if there are less than five years of existing collision data the District Traffic Safety Engineer must be consulted to determine if a study should be conducted to install median barrier. Any decision to install or not to install a median barrier must be documented in the study.

Note: Access openings on expressways, multilane conventional highways and two-lane and three-lane conventional highway facilities present sight distance issues with respect to installation of a median barrier. All access openings must be studied to maintain both corner sight distance at approach intersections and stopping sight distance on the specific facility types themselves (see the *Highway Design Manual* for sight distance standards).

Figure 7-12: Freeway Median Barrier Study Warrant



* Consult with the Headquarters Traffic Liaison

** Offset up to 17 ft from the ETW and pave up to the barrier face

Appendix C
Lane Capacity Analysis Calculations

GGB MMB

LANE CAPACITY ANALYSIS CALCULATIONS

Lane Capacities

Configuration	3 Lanes				4 Lanes				2 Lanes			2 x 4 Total	
	Curb	Middle	Inside	Total	Curb	Middle R	Middle L	Inside	Total	Inside	Curb	Total	
Existing Capacity	11' 0"	10' 0"	10' 0"	31' 0"	11' 0"	10' 0"	10' 0"	10' 0"	41' 0"	10' 0"	11' 0"	21' 0"	62' 0"
Existing Lane Width Capacity	1,780	1,760	1,630	5,170	1,790	1,770	1,770	1,640	6,970	1,590	1,680	3,270	10,240
Proposed Project Capacity	11' 0"	9' 4"	10' 2"	30' 6"	11' 0"	9' 4"	10' 8"	9' 8"	40' 8"	9' 4"	11' 0"	20' 4"	61' 0"
Proposed Lane Width Capacity	1,780	1,600	1,810	5,190	1,790	1,630	1,840	1,770	7,030	1,600	1,680	3,280	10,310
Alternative Capacity	11' 0"	9' 6"	10' 0"	30' 6"	11' 0"	10' 0"	10' 0"	9' 6"	40' 6"	9' 6"	11' 0"	20' 6"	61' 0"
Alternative Lane Width Capacity	1,780	1,610	1,800	5,190	1,790	1,770	1,770	1,770	7,100	1,590	1,680	3,270	10,370

Capacity Calculation

$$Flw \cdot Fhv \cdot Fe \cdot C + Sd$$

Shy distance factor added to inside lane (lane closest to barrier) under project conditions

Adjustment Factors

Flw	lane width / lateral clearance
Fhv	heavy vehicles
Fe	type of highway
C	existing conditions calibration
Sd	shy distance

Flw
Lane Width and Lateral Clearance Factors

Facility Type	Lateral Clearance	Lane Width (ft)						
		12	11	10.75	10.5	10	9.75	9.5
8 Lane Facility	>6	1.00	0.98	0.97	0.96	0.93	0.91	0.89
	0	1.00	0.95	0.93	0.92	0.88	0.85	0.82
6 Lane Facility	>6	1.00	0.97	0.96	0.94	0.91	0.89	0.86
	0	0.94	0.91	0.90	0.88	0.85	0.82	0.80
4 Lane Facility	>6	1.00	0.95	0.94	0.92	0.89	0.86	0.83
	0	0.90	0.85	0.84	0.83	0.80	0.78	0.75

Source: 1994 HCM

Notes:

1. Lateral clearance adjustment factors for the 3 lane configuration analyzed as a 6 lane facility, 4 lane configuration analyzed as 8 lane facility, 2 lane configuration analyzed as 4 lane facility

2. Lateral clearance adjustment factors linearly extrapolation for 9.75 and 10.75 lane widths

Fhv
Heavy Vehicle Factor

$$Fhv = 1/(1+Phv(Ehv-1))$$

$$Ehv = 1.7$$

Percent Heavy Vehicles (Phv)

	3 Lanes				4 Lanes				2 Lanes				
	Curb	Middle	Inside	Avg	Curb	Middle R	Middle L	Inside	Avg	Inside	Curb	Avg	
Average	6.3%	0.3%	0.0%	2.2%	9.4%	0.7%	0.1%	0.0%	2.5%	0.1%	5.9%	3.0%	

Source: Feasibility Studies - Phase 2 of GGB MMB Project. PB 2002.

Notes:

1. Avg. = heavy vehicle percent per lane

Fe
Type of Highway

Undivided 1

C
Existing Conditions Calibration

Capacity 2012 passenger cars per hour per lane

Observed Max Weekday Hourly Traffic Volumes by Lane

	3 Lanes			
	Curb	Middle	Inside	Total
NB	1780	1760	1630	5170

Source: Feasibility Studies - Phase 2 of GGB MMB Project. PB 2002.

Notes:

1. Existing capacities calibrated to the existing maximum weekday hourly traffic volume observed in the 3 lane northbound configuration

2. Shy distance is equal to the difference in vehicles per hour per lane between the middle and inside lanes

3. Shy distance factor added to inside lane

Sd
Shy Distance Factor

$$Sd = 130$$

Appendix D
Toll Plaza Analysis Calculations

GGB MMB

TOLL PLAZA ANALYSIS CALCULATIONS

Volumes

Peak Hour	Existing (2012)	Design (2035)
Weekday AM Peak Hour (8-9am)	5,182	6,567
Weekday PM Peak Hour (5-6pm)	3,524	5,097
Saturday Peak Hour (4-5pm)	3,589	5,403
Sunday Peak Hour (4-5pm)	3,987	5,188

Toll Plaza Types - Capacities per Hour

Toll Plaza Type	Capacity		
	FasTrak	Cash / Carpool	Carpool / Transit
FasTrak Lane	1,100	-	-
Cash Only Lane	-	380	-
Cash / FasTrak Lane	30	370	-
Transit Lane	-	-	1,100

Payment Type Splits

Peak Hour	Existing (2012) Conditions			Design (2035) Conditions		
	FasTrak	Cash	Carpool / Transit	FasTrak	Cash	Carpool / Transit
Weekday AM Peak Hour (8-9am)	75.0%	20.4%	4.6%	95.4%	0.0%	4.6%
Weekday PM Peak Hour (5-6pm)	66.0%	29.4%	4.6%	95.4%	0.0%	4.6%
Saturday Peak Hour (4-5pm)	48.0%	51.5%	0.5%	99.5%	0.0%	0.5%
Sunday Peak Hour (4-5pm)	48.0%	51.5%	0.5%	99.5%	0.0%	0.5%

Demand - By Payment Type

Peak Hour	Existing (2012) Conditions			Design (2035) Conditions		
	Toll Booths Required			FasTrak	Cash	Carpool / Transit
	FasTrak	General	Total	FasTrak	Cash	Carpool / Transit
Weekday AM Peak Hour (8-9am)	3,887	1,057	238	6,265	0	302
Weekday PM Peak Hour (5-6pm)	2,326	1,036	162	4,863	0	234
Saturday Peak Hour (4-5pm)	1,723	1,848	18	5,376	0	27
Sunday Peak Hour (4-5pm)	1,914	2,054	20	5,162	0	26

Toll Plaza - Proposed Operations

Peak Hour	Existing (2012) Conditions			Design (2035)	
	Toll Booths Required			Cash / FasTrak	FasTrak
	FasTrak	General	Total		
Weekday AM Peak Hour (8-9am)	3.7	2.9	7	3	7
Weekday PM Peak Hour (5-6pm)	2.2	2.8	5	3	6
Saturday Peak Hour (4-5pm)	1.5	5.0	7	5	6
Sunday Peak Hour (4-5pm)	1.6	5.6	8	6	6

Toll Plaza - Proposed Throughput

Peak Hour	Existing (2012) Conditions			Design (2035) Conditions		
	Toll Booths Proposed			Toll Booths Proposed		
	FasTrak	General	Total	FasTrak	General	Total
Weekday AM Peak Hour (8-9am)	5.0	3.0	8	7.0	1.0	8
Weekday PM Peak Hour (5-6pm)	5.0	3.0	8	7.0	1.0	8
Saturday Peak Hour (4-5pm)	3.0	5.0	8	7.0	1.0	8
Sunday Peak Hour (4-5pm)	3.0	6.0	9	7.0	1.0	8

Toll Plaza Capacity

Peak Hour	Existing (2012) Conditions					
	Existing Demand		Excess Capacity			
	FasTrak	General	Total	FasTrak	General	Total
Weekday AM Peak Hour (8-9am)	4,125	1,057	5,182	1,375	83	1,458
Weekday PM Peak Hour (5-6pm)	2,488	1,036	3,524	3,012	104	3,116
Saturday Peak Hour (4-5pm)	1,741	1,848	3,589	1,559	52	1,611
Sunday Peak Hour (4-5pm)	1,934	2,054	3,988	1,366	226	1,592

Toll Plaza Capacity

Peak Hour	Design (2035) Conditions					
	Demand		Excess Capacity			
	FasTrak	General	Total	FasTrak	General	Total
Weekday AM Peak Hour (8-9am)	6,265	302	6,567	1,435	78	1,513
Weekday PM Peak Hour (5-6pm)	4,863	234	5,097	2,837	146	2,983
Saturday Peak Hour (4-5pm)	5,376	27	5,403	2,324	353	2,677
Sunday Peak Hour (4-5pm)	5,162	26	5,188	2,538	354	2,892

Appendix E
Simulation Modeling Workbook

Link-Node Diagram



CONSULTANT:
AECOM
2101 WEBSTER STREET, ST 1900, OAKLAND, CA 94612
OFFICE (510) 763-2929 FAX (510) 834-5220

CLIENT:

GOLDEN GATE BRIDGE
HIGHWAY AND
TRANSPORTATION DISTRICT
P.O. BOX 9000, PRESIDIO STATION, SAN FRANCISCO, CA 94129
OFFICE (415) 923-2023 FAX (415) 563-0809
PROJECT NO. 2008-B-5

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MOVEABLE MEDIAN BARRIER
TRAFFIC ENGINEERING AND ANALYSIS
CORSIM LINK-NODE DIAGRAM

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DATE: 04/27/2010
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AECOM
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OFFICE (510)763-2929 FAX (510) 834-5220

CLIENT:

GOLDEN GATE BRIDGE
HIGHWAY AND
TRANSPORTATION DISTRICT
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CLIENT:

GOLDEN GATE BRIDGE
HIGHWAY AND
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AECOM

2101 WEBSTER STREET, ST 1900, OAKLAND, CA. 94612
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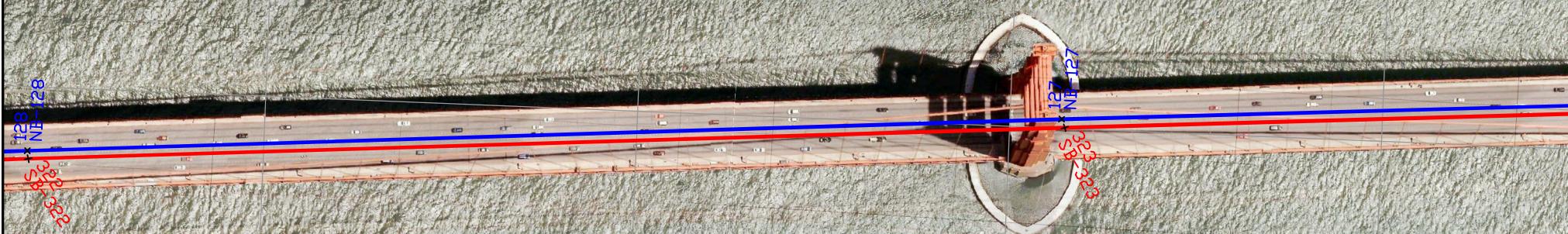
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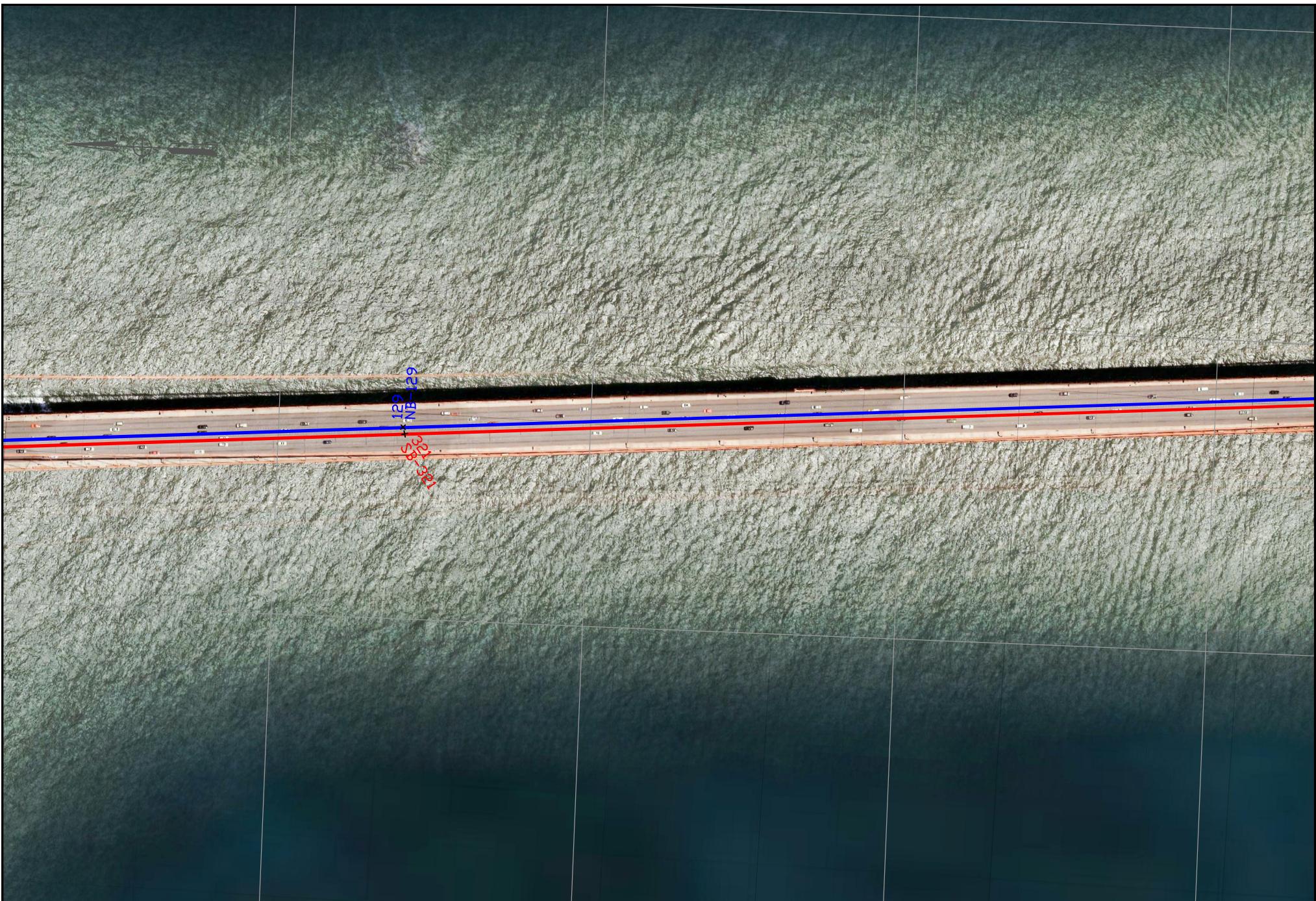
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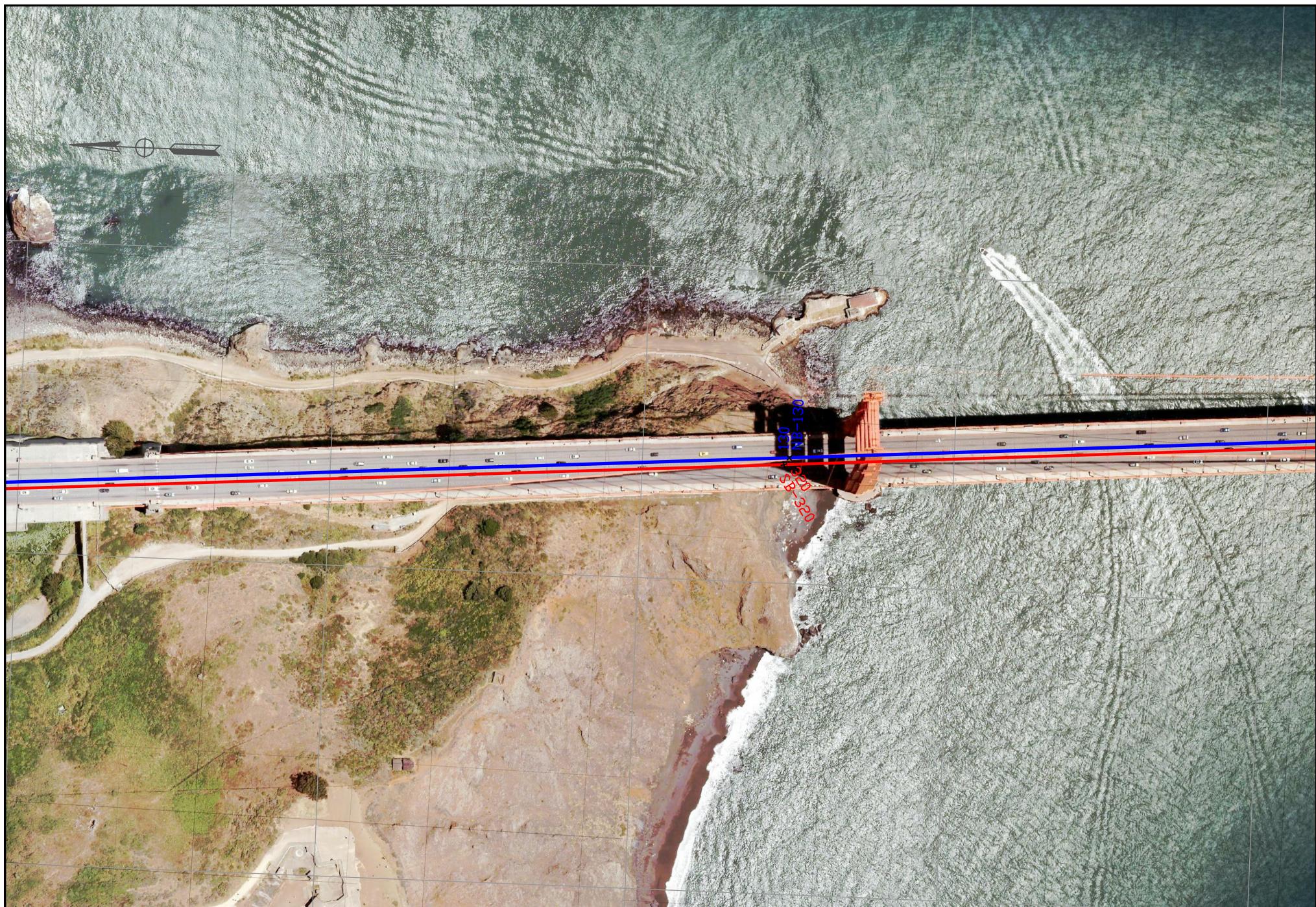
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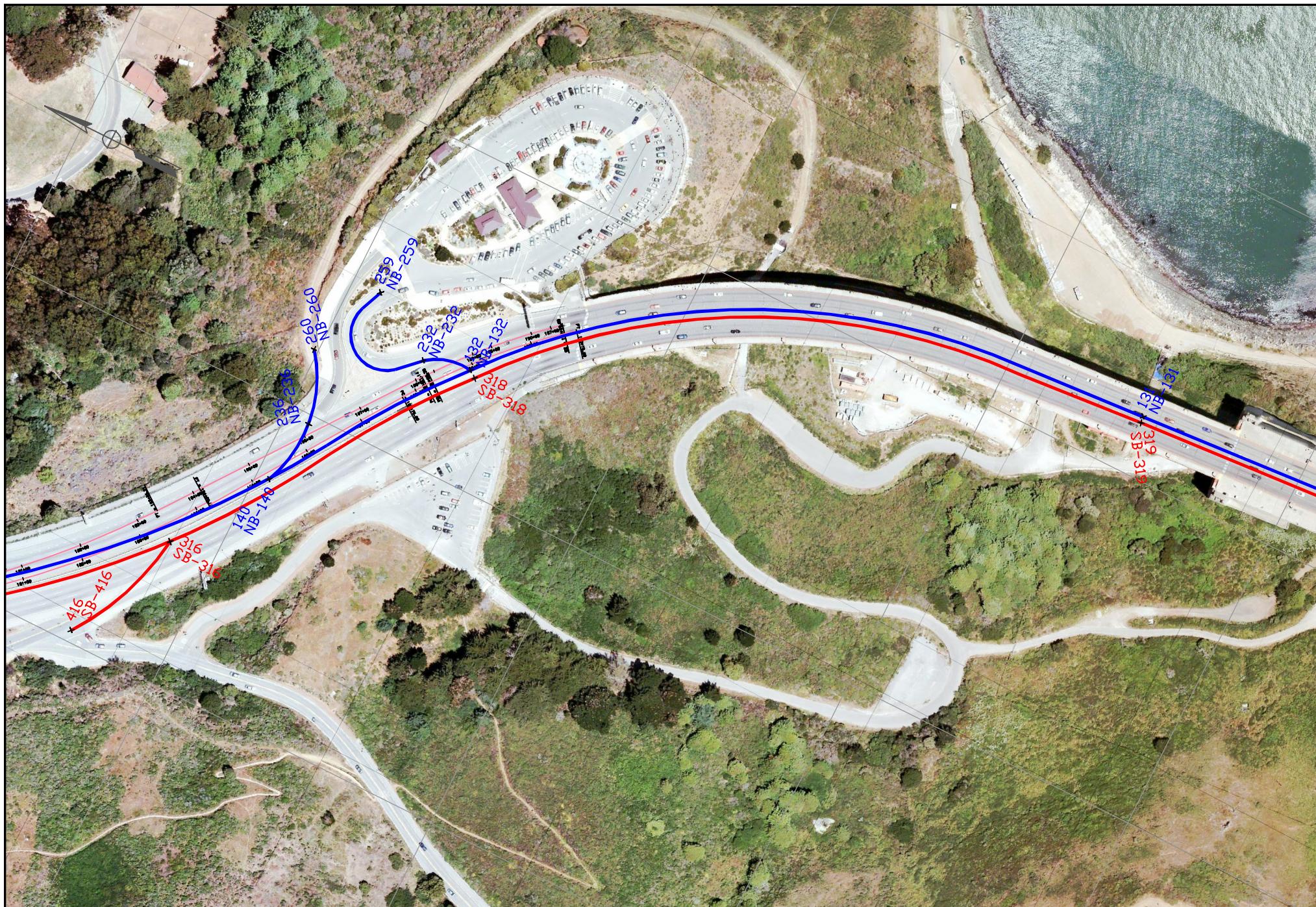
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AECOM
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OFFICE (510)763-2929 FAX (510) 834-5220

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HIGHWAY AND
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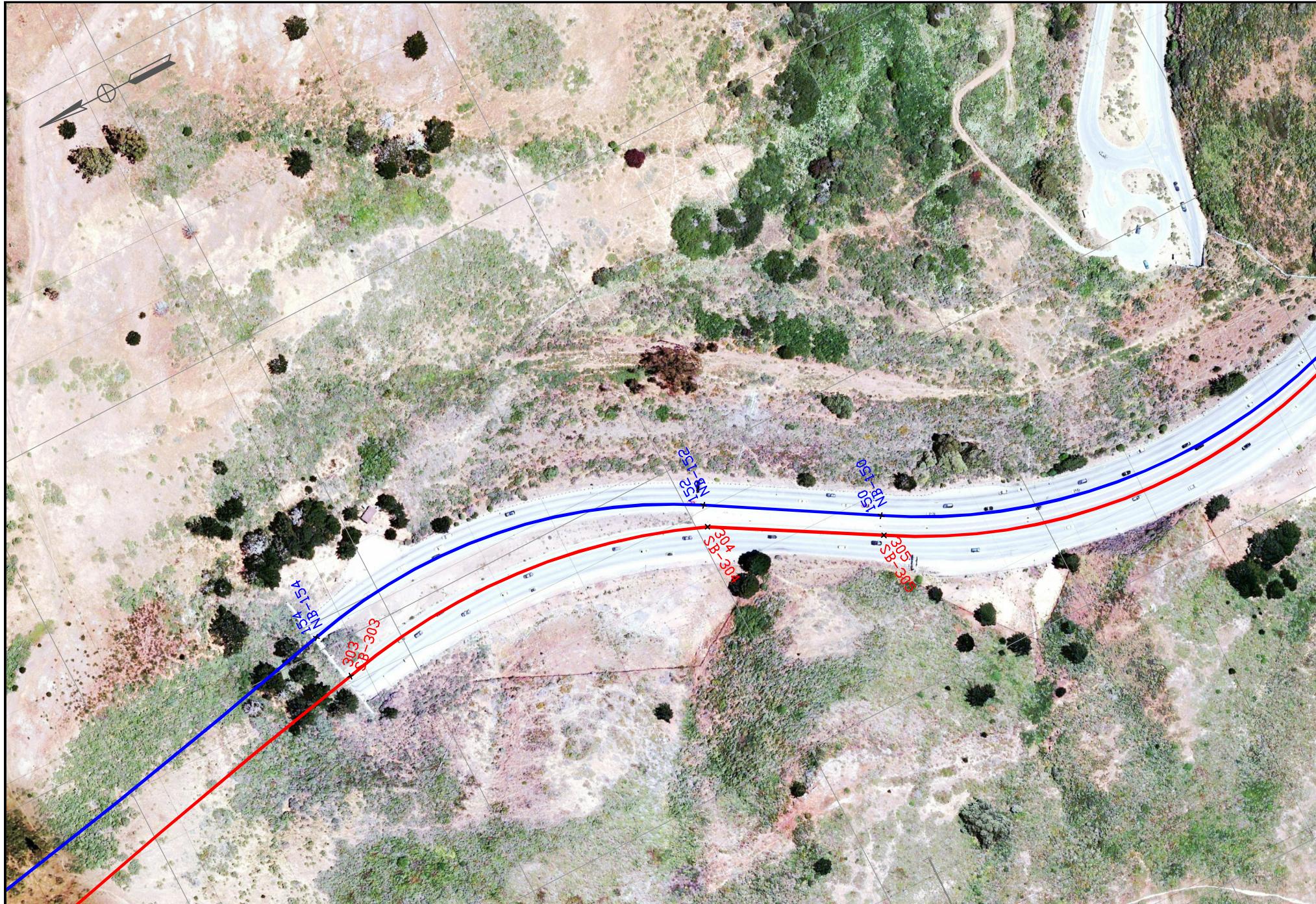
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CONSULTANT:
AECOM
2101 WEBSTER STREET, ST 1900, OAKLAND, CA. 94612
OFFICE (510)763-2929 FAX (510) 834-5220

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HIGHWAY AND
TRANSPORTATION DISTRICTP.O. BOX 9000, PRESIDIO STATION, SAN FRANCISCO, CA 94129
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Quality Assurance / Quality Control Database
Existing Conditions

Link Description		Link Geometrics										Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier	Node coordinates				
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Car Following Factor	Warning Sign Distance to Trigger	No.	Type	Length	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	Node	X	Y	
US 101 NB Mainline	US 101 NB Mainline	101	102	103	835	0	3	45	100													101	996,307	120,707	
		102	103	104	1041	0	3	45	100													102	995,516	120,439	
		103	104	108	1064	0	3	45	100													103	994,491	120,393	
		104	108	112	874	0	3	45	123	2500												104	993,473	120,702	
		108	112	116	1095	0	3	45	123													108	992,634	120,948	
		112	116	118	694	0	3	45	100		43	1500	9	3	694	10	3	694				112	991,724	121,522	
		116	118	120	142	0	4	45	153	800												116	991,293	122,066	
		118	120	122	86	0	4	45	153													118	991,214	122,184	
		120	122	124	285	0	4	45	153		43	1500	9	1	100							120	991,163	122,253	
		122	124	126	364	0	3	25	153													122	990,980	122,472	
		124	126	127	731	0	3	45	123													124	990,727	122,344	
		126	127	128	1432	0	3	45	100													126	990,475	123,410	
		127	128	129	1389	0	3	45	100													127	990,379	124,839	
		128	129	130	1488	0	3	45	100													128	990,281	126,225	
		129	130	131	1467	0	3	45	100													129	990,175	127,709	
		130	131	132	1509	0	3	45	100													130	990,069	129,172	
		131	132	136	1132	0	3	45	123	2500												131	989,961	130,677	
		132	136	140	260	0	4	55	123													132	989,546	131,676	
		136	140	144	588	0	4	55	123	2500	43	1500	9	3	588							136	989,336	131,828	
		140	144	148	572	0	4	55	123													140	988,879	132,196	
		144	148	150	984	0	4	55	123		43	1500	9	1	100							144	988,619	132,703	
		148	150	152	1048	0	4	55	110													148	988,191	133,589	
		150	152	154	285	0	4	55	110													150	988,146	134,636	
		152	154	158	656	0	4	55	110													152	988,292	134,881	
		154	158	160	1033	0	4	55	110													154	988,389	135,530	
		158	160	8960	804	0	4	55	110													158	988,192	136,544	
US 101 NB Ramps	US 101 NB Ramps	US 101 Northbound										25	100										108	992,634	120,948
		108	208	8208	139	1	1	25	100													212	991,949	121,471	
		212	112	116	231	1	2	45	100													118	991,214	122,184	
		118	218	224	129	1	1	20	100													218	991,296	122,284	
		220	120	122	133	1	1	20	100													220	991,280	122,295	
		132	232	259	78	1	1	25	100													222	991,406	122,361	
		232	259	8259	129	1	1	25	100													132	989,546	131,676	
		236	136	140	1841	1	1	25	100													232	989,526	131,751	
		260	236	136	120	1	1	25	100													260	989,627	131,893	
		140	240	8240	208	1	1	35	100													140	988,879	132,196	
US 101 SB Mainline	US 101 SB Mainline	301	302	303	768	0	4	55	123	2500												301	987,693	137,201	
		302	303	304	1055	0	4	55	100													302	988,088	136,542	
		303	304	305	621	0	4	55	100													303	988,309	135,510	
		304	305	306	283	0	4	55	100													304	988,259	134,891	
		305	306	307	1066	0	4	55	100													305	988,116	134,646	
		306	307	308	449	0	4	55	100													306	988,177	133,582	
		307	308	312	365	0	4	55	100													307	988,382	133,183	
		308	312	316	437	0	3	55	123	2500												308	988,533	132,851	
		312	316	318	567	0	3	55	123													312	988,712	132,409	
		316	318	319	596	0	3	45	123													316	989,052	132,011	
		318	319	320	1107	0	3	45	123													318	989,537	131,665	
		319	320	321	1499	0	3	45	100													319	989,951	130,676	
		320	321	322	1479	0	3	45	100													320	990,057	129,181	
		321	322	323	1486	0	3	45	100													321	990,164	127,706	
		322	323	324	1393	0	3	45	100													322	990,270	126,224	
		323	324	326	1428	0	3	45	100													323	990,368	124,834	
		324	326	328	739	0	3	45	100													324	990,469	123,436	
		326	328	329	370	0	4	13	73	1000												326	990,718	122,725	
		328	329	330	282	0	4	13	73	1000												328	990,049	122,436	
		329	330	332	87	0	4	45	73													329	991,139	122,224	
US 101 SB Ramps	US 101 SB Ramps	330	332	334	136	0	4	45	100													330	991,191	121,528	
		332	334	338	700	0	4	45	100													332	991,277	122,053	
		334	338	342	690	0	3	45	123	2000												334	991,711	121,504	
		338	342	344	866	0	3	45	123													338	992,243	121,075	
		342	344	348	1485	0	2	45	123													342	993,067	120,815	
		344	348	350	836	0	3	45	100													344	994,486	120,384	
		348	350	352	836	0	3	45	100													348	995,519	120,429	
		312	412	8412	283	1	1	20	100													312	988,712	132,452	
		416	316	318	138	1	1	35	100													416	988,914	132,003	
		329	429	432	138	1	1																		

Quality Assurance / Quality Control Database
Existing Plus Project Conditions

FRESIM QA/QC		Record & entry:																								
		Link Description																								
		Link Geometrics																								
		From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Car Following Factor	Warning Sign Distance	Anticipatory Chg.	1st Aux. Lane	2nd Aux. Lane	3rd Aux. Lane	Barrier	Node coordinates					
		US 101 Northbound	US 101 NB Mainline	101	102	103	835	0	2			45	100								101 996,307 120,707					
				102	103	104	1041	0	2			45	100								102 995,516 120,439					
				103	104	108	1064	0	2			45	100								103 994,491 120,393					
				104	108	112	874	0	2			45	100	2500		9	2	100				104 993,473 120,702				
				Park Presidio Bl Exi	Park Presidio Bl Ent	Park Presidio Bl Ent	108	112	116	1095	0	2		45	100							108 992,634 120,948				
				Park Presidio Bl Ent	Park Presidio Bl Ent	Park Presidio Bl Ent	112	116	118	694	0	2		45	100	43	1500	9	3	694	10	3	694	112 991,724 121,522		
				Merchant Rd Exi	Merchant Rd Ent	Merchant Rd Ent	116	118	120	142	0	4		45	100	800		9	2	100				116 991,293 122,066		
				Merchant Rd Exi	Merchant Rd Ent	Merchant Rd Ent	118	120	122	86	0	2		45	100								118 991,214 122,184			
				Merchant Rd Ent	Merchant Rd Ent	Merchant Rd Ent	120	122	124	285	0	2		45	100	43	1500	9	1	100				120 991,163 122,253		
				122	124	126	364	0	2			35	100										122 990,980 122,472			
				124	126	127	731	0	2			42	100										124 990,727 122,734			
				126	127	128	1432	0	2			42	100										126 990,475 123,410			
				127	128	129	1389	0	2			42	100										127 990,379 124,839			
				128	129	130	1498	0	2			42	100										128 990,281 126,225			
				129	130	131	1467	0	2			42	100										129 990,175 127,709			
				130	131	132	1509	0	2			42	100										130 990,069 129,172			
				Vista Point Exit	Vista Point Ent	Vista Point Ent	131	132	136	1132	0	2		42	100	2500		9	2	100				131 989,961 130,677		
				Vista Point Ent	Sausalito Exi	Sausalito Ent	132	136	140	368	0	2		55	100	2500		9	2	100				132 989,546 131,676		
				Sausalito Exi	Sausalito Ent	Sausalito Ent	136	140	144	473	0	2		55	100									136 989,335 131,828		
				Sausalito Ent	Sausalito Ent	Sausalito Ent	140	144	148	572	0	2		55	100	37	1500	9	1	100				140 988,879 132,196		
				144	148	150	984	0	2			55	100			43	1500	9	1	100				144 988,619 132,703		
				148	150	152	1048	0	4			55	100										148 988,191 133,589			
				150	152	154	285	0	4			55	100										150 988,346 134,636			
				152	154	158	656	0	4			55	100										152 988,292 134,881			
				154	158	160	1033	0	4			55	100										154 988,389 135,530			
				158	160	8960	804	0	4			55	100										158 988,192 136,544			
		US 101 Northbound	US 101 NB Ramps	108	208	8208	139	11	1			25	100										108 992,634 120,948			
				212	112	116	231	11	2			45	100										212 991,949 121,471			
				218	218	224	129	11	1			20	100										218 991,214 122,184			
				218	224	224	8224	133	11			20	100										220 991,289 122,295			
				220	120	122	133	11	1			20	100										222 991,405 122,351			
				222	220	120	133	11	1			20	100										222 991,526 131,676			
				224	232	259	78	11	1			25	100										224 991,296 122,284			
				232	259	8259	129	11	1			25	100										226 990,080 130,092			
				260	236	140	105	11	1			25	100										236 988,988 132,143			
				236	140	144	121	11	1			25	100										236 988,335 131,828			
				244	240	240	136	11	1			25	100										244 988,756 132,723			
				301	302	303	768	0	4			55	100										303 987,693 132,201			
				302	303	304	1055	0	4			55	100										302 988,088 136,542			
				303	304	305	621	0	4			55	100										303 988,309 135,510			
				304	305	306	283	0	4			55	100										304 988,258 134,891			
				305	306	307	1066	0	4			55	100										305 988,116 134,646			
				306	307	308	425	0	4			55	100										306 988,177 133,582			
				307	308	312	373	0	4			55	100										307 988,322 133,183			
				308	312	316	455	0	4			55	100										308 988,493 132,851			
				312	316	318	567	0	4			42	100			43	1500	9	1	100				312 988,712 132,452		
				316	318	319	596	0	4			42	100										316 989,052 132,011			
				318	319	320	1107	0	4			42	100										318 989,537 131,685			
				319	320	321	1499	0	4			42	100										319 989,951 130,678			
				320	321	322	1479	0	4			42	100										320 990,057 129,181			
				321	322	323	1486	0	4			42	100										321 990,164 127,706			
				322	323	324	1393	0	4			42	100										322 990,270 126,224			
				323	324	326	1428	0	4			42	100										323 990,368 126,834			
				324	326	328	739	0	4			42	100										324 990,466 129,409			
				326	328	329	370	0	5			13	100										326 990,718 129,725			
				328	329	330	282	0	5			13	100										328 990,549 129,436			
				329	330	332	87	0	5			45	100										329 991,135 122,224			
				330	332	334	136	0	5			45	100			43	1500	9	1	100				330 991,191 122,158		
				332	334	336	700	0	5			45	100										332			

FRESIM QA/QC																															
		Record & entry:		19-1	19-2	19-3	19-4	19-5	19-6	20-3	20-4	20-5	20-8	20-17	20-12	20-15	20-16	19-7	19-8	19-9	19-10	19-11	19-12	19-13	19-14	19-15	19-18	19-19	19-1	19-2	19-3
Link Description				Link Geometrics												Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier		Node coordinates					
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Car Following Factor	Warning Sign Distance to Trigger	Rt. Lane ID #1	Rt. Lane ID #2	No.	Type	Length	No.	Type	Length	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	Node X	Node Y			
US 101 NB Mainline	US 101 NB Mainline	101	102	103	835	0	3	45	100																		101	996,307	120,707		
		102	103	104	1041	0	3	45	100																		102	995,156	120,439		
		103	104	108	1064	0	3	45	100																		103	994,491	120,393		
		104	108	112	874	0	3	45	123	2500									9	2	100						104	993,473	120,702		
		108	112	116	1095	0	3	45	123																		108	992,634	120,948		
		112	116	118	694	0	3	45	100		43	1500	9	3	694	10	3	694									112	991,724	121,522		
		Merchant Rd Exit	Merchant Rd Ent	116	118	120	142	0	4	45	183	800							9	2	100						116	991,293	122,066		
		Merchant Rd Ent	Merchant Rd Ent	118	120	122	86	0	4	45	183																118	991,184	122,066		
		Merchant Rd Ent	Merchant Rd Ent	120	122	124	285	0	4	45	183		43	1500	9	1	100										120	991,163	122,253		
		122	124	126	364	0	3	36	183																		122	990,980	122,472		
US 101 NB Ramps	US 101 NB Ramps	124	126	127	731	0	3	44	123																		124	990,727	122,344		
		126	127	128	1432	0	3	44	100																		126	990,475	123,410		
		127	128	129	1389	0	3	44	100																		127	990,379	124,839		
		128	129	130	1488	0	3	44	100																		128	990,281	126,225		
		129	130	131	1467	0	3	44	100																		129	990,175	127,709		
		130	131	132	1509	0	3	44	100																		130	990,069	129,172		
		131	132	136	1132	0	3	44	123	2500								9	2	100						131	989,961	130,677			
		Vista Point Exit	Vista Point Ent	132	136	140	368	0	3	55	123	2500							9	2	100						132	989,546	131,676		
		Vista Point Ent	Sausalito Exit	136	140	144	473	0	3	55	123																136	989,335	131,828		
		Sausalito Exit	Sausalito Ent	140	144	148	572	0	3	55	123		37	1500	9	1	100										140	988,879	132,196		
		Sausalito Ent	Sausalito Ent	144	148	150	984	0	4	55	123		43	1500	9	1	100										144	988,619	132,703		
US 101 SB Mainline	US 101 SB Mainline	US 101 Northbound				152	154	158	656	0	4	55	110														150	988,146	134,636		
		154	158	160	1033	0	4	55	110																		152	988,292	134,881		
		158	160	160	8960	804	0	4	55	110																154	988,389	135,530			
		Park Presidio Bl Exit	Park Presidio Bl Ent	168	208	8208	139	1	1	25	100																168	992,634	120,948		
		Park Presidio Bl Ent	Merchant Rd Exit	212	112	116	231	1	2	45	100																212	991,949	121,471		
		Merchant Rd Exit	Merchant Rd Ent	118	218	224	129	1	1	20	100																118	991,214	122,184		
		Merchant Rd Ent	Merchant Rd Ent	220	120	122	133	1	1	20	100																220	991,280	122,295		
		Vista Point Exit	Vista Point Ent	132	232	259	78	1	1	25	100																222	991,405	122,361		
		Vista Point Ent	Sausalito Exit	232	259	8259	129	1	1	25	100																232	989,526	131,751		
		Sausalito Exit	Sausalito Ent	260	236	140	120	1	1	25	100																260	989,080	132,092		
US 101 SB Ramps	US 101 SB Ramps	Sausalito Exit	Sausalito Ent	301	302	303	768	0	4	55	110																301	987,693	137,201		
		Sausalito Ent	Sausalito Ent	302	303	304	1055	0	4	55	110																302	988,088	136,542		
		303	304	305	621	0	4	55	110																		303	988,309	135,510		
		304	305	306	283	0	4	55	110																		304	988,259	134,891		
		305	306	307	1066	0	4	55	110																		305	988,116	134,646		
		306	307	308	449	0	4	55	110																		306	988,177	133,582		
		307	308	312	365	0	4	55	110																		307	988,382	133,183		
		308	312	316	437	0	3	55	110	2500								9	2	100						308	988,533	132,851			
		Sausalito Ent	Sausalito Ent	312	316	318	567	0	3	55	110																312	988,712	132,456		
		Sausalito Ent	Sausalito Ent	316	318	319	596	0	3	42	110																316	989,052	132,011		
US 101 SB Ramps	US 101 SB Ramps	318	319	320	1107	0	3	42	110																	318	989,537	131,665			
		319	320	321	1499	0	3	42	100																		319	989,951	130,676		
		320	321	322	1479	0	3	42	100																		320	990,057	129,181		
		321	322	323	1486	0	3	42	100																		321	990,164	127,706		
		322	323	324	1393	0	3	42	100																		322	990,270	126,224		
		323	324	326	1428	0	3	42	100																		323	990,368	124,834		
		324	326	328	739	0	3	42	100																		324	990,469	123,409		
		326	328	329	370	0	4	13	78	1000									9	2	100						326	990,718	122,725		
		329	330	332	87	0	4	45	78																		329	991,139	122,224		
		330	332	334	136	0	4	45	100																		330	991,191	122,58		
		332	334	338	700	0	4	45	100																		332	991,277	122,053		
Entry Links	Entry Links	Park Presidio Bl Exit	Park Presidio Bl Ent	334	338	342	690	0	3	45	123	2000							9	3	690						334	992,430	121,504		
		Park Presidio Bl Exit	Park Presidio Bl Ent	338	342	344	866	0	3	45	123																338	992,243	121,075		
		342	344	348	1485	0	2	45	123																		342	993,067	120,815		
		344	348	350	836	836	0	3	45	100																344	994,486	120,384			
		Sausalito Ent	Sausalito Ent	312	412	8412	283	1	1	20	10																				

Quality Assurance / Quality Control Database
Design Year Conditions

Link Description		Link Geometrics										Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier	Node coordinates				
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Car Following Factor	Warning Sign Distance to Trigger	No.	Type	Length	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	Node	X	Y	
US 101 NB Mainline	US 101 NB Mainline	101	102	103	835	0	3	45	100													101	996,307	120,707	
		102	103	104	1041	0	3	45	100													102	995,156	120,439	
		103	104	108	1064	0	3	45	100													103	994,491	120,393	
		104	108	112	874	0	3	45	123	2500					9	2	100					104	993,473	120,702	
		108	112	116	1095	0	3	45	123													108	992,634	120,948	
		112	116	118	694	0	3	45	100		43	1500	9	3	694	10	1	100				112	991,724	121,522	
		116	118	120	142	0	4	45	150	800					9	2	100					116	991,293	122,066	
		118	120	122	86	0	2	45	150													118	991,124	122,184	
		120	122	124	285	0	2	45	174		43	1500	9	1	100							120	991,163	122,253	
		122	124	126	364	0	2	25	174													122	990,980	122,472	
		124	126	127	731	0	2	42	174													124	990,727	122,344	
		126	127	128	1432	0	2	42	174													126	990,475	123,410	
		127	128	129	1389	0	2	42	174													127	990,379	124,839	
		128	129	130	1488	0	2	42	174													128	990,281	126,225	
		129	130	131	1467	0	2	42	174													129	990,175	127,709	
		130	131	132	1509	0	2	42	174													130	990,069	129,172	
		131	132	136	1132	0	2	42	174	2500					9	2	100					131	989,961	130,677	
		132	136	140	260	0	4	55	123													132	989,546	131,676	
		136	140	144	588	0	4	55	123	2500	43	1500	9	3	588							136	989,336	131,828	
		140	144	148	572	0	4	55	123													140	988,879	132,196	
		144	148	150	984	0	4	55	123		43	1500	9	1	100							144	988,619	132,703	
		148	150	152	1048	0	4	55	110													148	988,191	133,589	
		150	152	154	285	0	4	55	110													150	988,146	134,636	
		152	154	158	656	0	4	55	110													152	988,292	134,881	
		154	158	160	1033	0	4	55	110													154	988,389	135,530	
		158	160	8960	804	0	4	55	110													158	988,192	136,544	
US 101 NB Ramps	US 101 NB Ramps	US 101 Northbound										108	208	8208	139	1	1	25	100				108	992,634	120,948
		212	112	116	231	1	2	45	100													212	991,949	121,471	
		118	218	224	129	1	1	20	100													118	991,214	122,184	
		220	120	122	133	1	1	20	100													218	991,296	122,284	
		132	232	259	78	1	1	25	100													220	991,280	122,295	
		232	259	8259	129	1	1	25	100													222	991,405	122,361	
		236	136	140	184	1	1	25	100													132	989,546	131,676	
		260	236	136	120	1	1	25	100													232	989,526	131,751	
		140	240	8240	208	1	1	25	100													236	989,507	131,894	
		244	144	148	138	1	1	20	100													260	989,627	131,893	
		301	303	303	768	0	4	55	110													301	988,693	137,201	
		302	303	304	1055	0	4	55	110													302	988,088	136,542	
		303	304	305	621	0	4	55	110													303	988,309	135,510	
		304	305	306	283	0	4	55	110													304	988,259	134,891	
		305	306	307	1066	0	4	55	110													305	988,116	134,646	
		306	307	308	449	0	4	55	110													306	988,177	133,582	
		307	308	312	365	0	4	55	110													307	988,382	133,183	
		308	312	316	437	0	4	55	110	2500			9	2	100							308	988,533	132,851	
		312	316	318	567	0	4	55	123													312	988,712	132,409	
		316	318	319	596	0	4	42	123													316	989,052	132,011	
		318	319	320	1107	0	4	42	123													316	989,537	131,665	
		319	320	321	1499	0	4	42	100													319	989,951	130,676	
		320	321	322	1479	0	4	42	100													320	990,057	129,181	
		321	322	323	1486	0	4	42	100													321	990,164	127,706	
		322	323	324	1393	0	4	42	100													322	990,270	126,224	
		323	324	326	1428	0	4	42	100													323	990,368	124,834	
		324	326	328	739	0	4	42	100													324	990,469	123,436	
		326	328	329	370	0	4	18	73	1000												326	990,718	122,725	
		328	329	330	282	0	4	18	73	1000												328	990,049	122,436	
		329	330	332	87	0	4	45	73													329	991,139	122,224	
		330	332	334	136	0	4	45	100													330	991,191	121,528	
		332	334	338	700	0	4	45	100													332	991,277	122,053	
		334	338	342	690	0	3	45	123	2000												334	991,711	121,504	
		338	342	344	866	0	3	45	123													338	992,243	121,075	
		342	344	348	1485	0	3	45	123													342	993,067	120,815	
		344	348	350	1048	0	4	45	100													344	994,486	120,384	
		348	350	8350	836	0	4	45	100													348	995,519	120,429	
Entry Links	Entry Links	312	412	8412	283	1	1	20	100													312	988,712	132,452	
		416	316	318	138	1	1	35	100													416	988,914	132,003	
		329	429	432	138	1	1	20																	

FRESIM QA/QC		Record & entry:																							
		19-1 19-2 19-3 19-4 19-5 19-6 20-3 20-4 20-5 20-8 20-17 20-12 20-15 20-16 19-7 19-8 19-9 19-10 19-11 19-12 19-13 19-14 19-15 19-18 19-19 19-1 19-2 19-3																							
Link Description		Link Geometrics										Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier		Node coordinates			
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Car Following Factor	Warning Sign Distance	Min. Speed to Trigger	Distance to Rx Pt.	No.	Type	Length h	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	X	Y
US 101 Northbound	US 101 NB Mainline	101	102	103	835	0	3			45	100										101	996.307	120.707		
		102	103	104	1041	0	3			45	100										102	995.516	120.438		
		103	104	108	1064	0	3			45	100										103	994.491	120.383		
		Park Presidio Bl Exi		104	108	112	874	0	3	45	100		2500			9	2	100			104	993.473	120.702		
		Park Presidio Bl Ent		108	112	116	1095	0	3	45	100										108	992.634	120.948		
		Merchant Rd Exi		112	116	118	694	0	3	45	100		43	1500	9	3	694	10	1	100		112	991.724	121.522	
		Merchant Rd Ent		116	118	120	142	0	4	45	100		800			9	2	100			116	991.293	120.066		
		Merchant Rd Ent		118	120	122	86	0	4	45	100										118	991.214	122.184		
		Merchant Rd Ent		120	122	124	285	0	4	45	100		43	1500	9	1	100			120	991.163	122.253			
		122	124	126	364	0	4			45	100										122	990.980	122.472		
Vista Point Exit	US 101 NB Mainline	124	126	127	731	0	3			42	100										124	990.727	122.734		
		126	127	128	1432	0	3			42	100										126	990.475	123.410		
		127	128	129	1389	0	3			42	100										127	990.379	124.839		
		128	129	130	1498	0	3			42	100										128	990.281	126.225		
		129	130	131	1467	0	3			42	100										129	990.175	127.709		
		130	131	132	1509	0	3			42	100										130	990.069	129.172		
		131	132	136	1132	0	3			42	100		2500		9	2	100				131	989.961	130.677		
		Vista Point Ent		132	136	140	260	0	4	55	100		2500	43	1500	9	3	588			132	989.546	131.167		
		Sausalito Exi		136	140	144	588	0	4	55	100										136	989.335	131.828		
		Sausalito Ent		140	144	148	572	0	4	55	100										140	988.879	132.196		
Sausalito Ent	US 101 NB Mainline	144	148	150	984	0	4			55	100		43	1500	9	1	100			144	988.619	132.703			
		148	150	152	1048	0	4			55	100									148	988.191	133.589			
		150	152	154	285	0	4			55	100									150	988.146	134.636			
		152	154	158	656	0	4			55	100									152	988.292	134.881			
		154	158	160	1033	0	4			55	100									154	988.389	135.530			
		158	160	8960	804	0	4			55	100									158	988.192	136.544			
		Park Presidio Bl Exi		108	208	8208	139	1	1	25	100										108	992.634	120.948		
		Park Presidio Bl Ent		212	112	116	231	1	2	45	100										212	991.949	121.471		
		Merchant Rd Exi		118	218	224	129	1	1	20	100										118	991.214	122.184		
		Merchant Rd Ent		220	120	122	133	1	1	20	100										220	991.289	122.295		
Vista Point Ent	US 101 NB Mainline	222	220	120	133	1	1			20	100										222	991.405	122.351		
		223	232	259	78	1	1			25	100										223	989.546	131.167		
		232	259	8259	129	1	1			25	100										232	989.526	131.751		
		Vista Point Ent		236	136	140	184	1	1	25	100										236	989.507	131.894		
		Sausalito Lateral Exi		260	236	136	120	1	1	25	100										260	989.627	131.893		
		Sausalito Lateral Ent		140	240	8240	208	1	1	25	100										140	988.879	132.196		
		Sausalito Exi		244	144	148	138	1	1	20	100										244	988.756	132.723		
		Sausalito Ent		301	302	303	768	0	4	55	100		2500		9	2	100				301	987.693	132.201		
		Sausalito Ent		302	303	304	1055	0	4	55	100										302	988.088	136.542		
		Sausalito Ent		303	304	305	621	0	4	55	100										303	988.309	135.510		
Sausalito Ent	US 101 SB Mainline	304	305	306	283	0	4			55	100										304	988.258	134.891		
		305	306	307	1066	0	4			55	100										305	988.116	134.646		
		306	307	308	449	0	4			55	100										306	988.177	133.582		
		307	308	312	365	0	4			55	100										307	988.382	133.183		
		308	312	316	437	0	3			55	100		2500		9	2	100				308	988.533	132.851		
		Sausalito Exi		312	316	318	567	0	3	40	100		43	1500	9	1	100				312	988.712	132.452		
		Sausalito Ent		316	318	319	596	0	3	40	100										316	989.052	132.011		
		318	319	320	1107	0	3			40	100										318	989.537	131.685		
		319	320	321	1499	0	3			40	100										319	989.951	130.678		
		320	321	322	1479	0	3			40	100										320	990.057	129.181		
Merchant Rd Ent	US 101 SB Mainline	321	322	323	1486	0	3			40	100										321	990.164	127.706		
		322	323	324	1393	0	3			40	100										322	990.270	126.224		
		323	324	326	1428	0	3			40	100										323	990.368	124.834		
		324	326	328	739	0	3			40	100										324	990.466	123.409		
		326	328	329	370	0	4			13	74										326	990.718	122.725		
		328	329	330	282	0	4			13	74		1000		9	2	100				328	990.549	123.436		
		329	330	332	87	0	4			45	100										329	991.135	122.224		
		330	332	334	136	0	4			45	100		43	1500	9	1	100				330	991.191	123.158		
		332	334	336	700	0	4			45	100										332	991.277	122.053		
		334	336	342	690	0	3			45	100		2000		9	3	690				334	991.711	121.504		
Park Presidio Bl Ent	US 101 SB Mainline	334	342	344	866	0																			

Quality Assurance / Quality Control Database
Design Year Plus Project Conditions

Link Description		Link Geometrics										Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier	Node coordinates			
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Car Following Factor	Warning Sign Distance to Trigger	No.	Type	Length	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	Node	X	Y
US 101 NB Mainline	US 101 Northbound	101	102	103	835	0	3	45	100													101	996,307	120,707
		102	103	104	1041	0	3	45	100													102	995,156	120,439
	Park Presidio Bl Exi	103	104	108	1064	0	3	45	100													103	994,491	120,393
		104	108	112	874	0	3	45	123	2500											104	993,473	120,702	
	Park Presidio Bl Ent	108	112	116	1095	0	3	45	123													108	992,634	120,948
	Park Presidio Bl Ent	112	116	118	694	0	3	45	100		43	1500	9	3	694	10	1	100				112	991,724	121,225
	Merchant Rd Exi	116	118	120	142	0	4	45	150	800												116	991,293	122,066
	Merchant Rd Ent	118	120	122	86	0	2	45	150													118	991,124	121,184
	Merchant Rd Ent	120	122	124	285	0	2	45	173		43	1500	9	1	100							120	991,163	122,253
		122	124	126	364	0	2	25	173													122	990,980	122,472
		124	126	127	731	0	2	42	173													124	990,727	122,344
		126	127	128	1432	0	2	42	173													126	990,475	123,410
		127	128	129	1389	0	2	42	173													127	990,379	124,839
		128	129	130	1488	0	2	42	173													128	990,281	126,225
		129	130	131	1467	0	2	42	173													129	990,175	127,709
		130	131	132	1509	0	2	42	173													130	990,069	129,172
	Vista Point Exit	131	132	136	1132	0	2	42	123	2500												131	989,961	130,677
	Vista Point Ent	132	136	140	368	0	2	55	123	2500												132	989,546	131,676
	Sausalito Exit	136	140	144	473	0	2	55	123													136	989,336	131,828
	Sausalito Ent	140	144	148	572	0	2	55	123		37	1500	9	1	100							140	988,879	132,196
	Sausalito Ent	144	148	150	984	0	2	55	123		43	1500	9	1	100							144	988,619	132,703
		148	150	152	1048	0	4	55	110													148	988,191	133,589
		150	152	154	285	0	4	55	110													150	988,146	134,636
		152	154	158	656	0	4	55	110													152	988,292	134,881
		154	158	160	1033	0	4	55	110													154	988,389	135,530
		158	160	8960	804	0	4	55	110													158	988,192	136,544
	US 101 Northbound																					108	992,634	120,948
US 101 NB Ramps	Park Presidio Bl Exi	108	208	8208	139	1	1	25	100													108	991,405	122,361
	Park Presidio Bl Ent	212	112	116	231	1	2	45	100													212	991,949	124,171
	Merchant Rd Exi	118	218	224	129	1	1	20	100													118	991,214	122,184
	Merchant Rd Ent	220	120	122	133	1	1	20	100													218	991,296	122,284
	Vista Point Exit	132	232	259	78	1	1	25	100													220	991,280	122,295
	Vista Point Ent	232	259	8259	129	1	1	25	100													222	991,406	122,361
	Sausalito Ent	260	236	140	105	1	1	25	100													132	989,546	131,676
	Sausalito Ent	236	140	144	121	1	1	25	100													232	989,526	131,751
	Sausalito Ent	136	240	8240	136	1	1	25	100													260	989,080	132,092
	Sausalito Ent	244	144	148	138	1	1	20	100													236	988,988	132,143
	US 101 Southbound																					301	988,759	132,723
US 101 SB Mainline	Sausalito Exi	301	303	303	768	0	4	55	100													301	987,693	137,201
	Sausalito Exi	302	303	304	1055	0	4	55	100													302	988,088	136,542
	Sausalito Exi	303	304	305	621	0	4	55	100													303	988,309	135,510
	Sausalito Exi	304	305	306	283	0	4	55	100													304	988,259	134,891
	Sausalito Exi	305	306	307	1066	0	4	55	100													305	988,116	134,646
	Sausalito Exi	306	307	308	425	0	4	55	100													306	988,177	133,582
	Sausalito Exi	307	308	312	373	0	4	55	100													307	988,322	133,183
	Sausalito Ent	308	312	316	455	0	4	55	123	2500												308	988,493	132,851
	Sausalito Ent	312	316	318	567	0	4	55	123		43	1500	9	1	100							312	988,712	132,499
	Sausalito Ent	316	318	319	596	0	4	42	123													316	989,052	132,011
	Sausalito Ent	318	319	320	1107	0	4	42	123													318	989,537	131,665
	Sausalito Ent	319	320	321	1499	0	4	42	123													319	989,951	130,676
	Sausalito Ent	320	321	322	1479	0	4	42	123													320	990,057	129,181
	Sausalito Ent	321	322	323	1486	0	4	42	123													321	990,164	127,706
	Sausalito Ent	322	323	324	1393	0	4	42	123													322	990,270	126,224
	Sausalito Ent	323	324	326	1428	0	4	42	123													323	990,368	124,834
	Sausalito Ent	324	326	328	739	0	4	42	100													324	990,469	123,409
	Sausalito Ent	326	328	329	370	0	5	13	73	1000												326	990,718	122,725
	Sausalito Ent	329	330	332	87	0	5	45	73		43	1500	9	2	100							329	991,139	122,224
	Sausalito Ent	330	332	334	136	0	5	45	100		43	1500	9	1	100							330	991,191	122,158
	Park Presidio Bl Exi	332	334	338	700	0	5	45	100													332	991,277	122,053
	Park Presidio Bl Exi	334	338	342	690	0	3	45	123	2000												334	991,243	121,705
	Park Presidio Bl Ent	338	342	344	866	0	3	45	123		43	1500	9	3	1485							338	992,243	121,075
	Park Presidio Bl Ent	342	344	348	1485	0	3	45	123													342	993,067	120,815
	Park Presidio Bl Ent	344	348	350	1048	0	4	45	100													344	994,486	120,384
	Sausalito Exi	348	350	8350	836	0	4	45	100													348	995,519	120,249
	Sausalito Exi	312	412	8412	283	1	1	20	100													312	988,712	132,452
	Sausalito Ent	416	316	318	138	1	1	35	100													416	988,914	132,003
	Merchant Rd Exi	329	429	432	138	1	1	20	100													329	991,139	122,224
	Merchant Rd Ent	429	432	8432	171	1	1	20	100													429	991,039	122,158
	Merchant Rd Ent	430	330	332	144	1	1	20	100													430	991,057	121,105
	Park Presidio Bl Exi	338	438	8438	229	1	2	35	100													434	990,920	121,995
	Park Presidio Bl Ent	442	342	344</																				

FRESIM QA/QC		Record & entry: 19-1 19-2 19-3 19-4 19-5 19-6 20-3 20-4 20-5 20-8 20-17 20-12 20-15 20-16 19-7 19-8 19-9 19-10 19-11 19-12 19-13 19-14 19-15 19-18 19-19 19-1 19-2 19-3																						
Link Description		Link Geometrics								Car Following Factor			Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier		Node coordinates	
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Warning Sign Distance	Min. Speed to Trigger	Distance to Rx Pt.	No.	Type	Length	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	X	Y
US 101 Northbound	US 101 NB Mainline	101	102	103	835	0	3			45	100											101	996.307	120.707
		102	103	104	1041	0	3			45	100											102	995.516	120.438
		103	104	108	1064	0	3			45	100											103	994.491	120.383
		Park Presidio Bl Exi		104	108	112	874	0	3	45	100											104	993.473	120.702
		Park Presidio Bl Ent		108	112	116	1095	0	3	45	100											108	992.634	120.948
		Park Presidio Bl Ent		112	116	118	694	0	3	45	100											112	991.724	121.522
		Merchant Rd Exi		116	118	120	142	0	4	45	100											116	991.293	120.066
		Merchant Rd Ent		118	120	122	86	0	4	45	100											118	991.214	122.184
		Merchant Rd Ent		120	122	124	285	0	4	45	100											120	991.163	122.253
		122	124	126	364	0	4			35	100											122	990.980	122.472
		124	126	127	731	0	3			42	100											124	990.727	122.734
		126	127	128	1432	0	3			42	100											126	990.475	123.410
		127	128	129	1389	0	3			42	100											127	990.379	124.839
		128	129	130	1498	0	3			42	100											128	990.281	126.225
		129	130	131	1467	0	3			42	100											129	990.175	127.709
		130	131	132	1509	0	3			42	100											130	990.069	129.172
		Vista Point Exit		131	132	136	1132	0	3	42	100											131	989.961	130.677
		Vista Point Ent		132	136	140	368	0	3	55	100											132	989.546	131.167
		Sausalito Exit		136	140	144	473	0	3	55	100											136	989.335	131.828
		Sausalito Ent		140	144	148	572	0	3	55	100											140	988.879	132.196
		Sausalito Ent		144	148	150	984	0	3	55	100											144	988.619	132.703
		148	150	152	1048	0	4			55	100											148	988.191	133.589
		150	152	154	285	0	4			55	100											150	988.146	134.636
		152	154	158	656	0	4			55	100											152	988.292	134.881
		154	158	160	1033	0	4			55	100											154	988.389	135.530
		158	160	8960	804	0	4			55	100											158	988.192	136.544
US 101 NB Ramps	US 101 NB Ramps	108	208	8208	139	11	1			25	100											108	992.634	120.948
		Park Presidio Bl Exi		212	112	116	231	11	2	45	100											212	991.949	121.471
		Park Presidio Bl Ent		118	218	224	129	11	1	20	100											118	991.214	122.184
		Merchant Rd Exi		218	224	8224	133	11	1	20	100											218	991.296	122.284
		Merchant Rd Ent		220	120	122	133	11	1	20	100											220	991.289	122.295
		Vista Point Exi		132	232	259	78	11	1	25	100											222	991.405	122.361
		Vista Point Ent		232	259	8259	129	11	1	25	100											132	989.546	131.167
		260	236	140	105	11	1			25	100										232	989.526	131.751	
		Sausalito Exi		136	240	8240	136	11	1	25	100											260	989.080	130.092
		Sausalito Ent		244	144	148	138	11	1	25	100											236	988.988	132.143
		301	302	303	768	0	4			55	100											136	989.335	131.828
		Sausalito Exi		302	303	304	1055	0	4	55	100											302	987.693	132.201
		Sausalito Ent		303	304	305	621	0	4	55	100											302	988.088	136.542
		304	305	306	283	0	4			55	100											303	988.309	135.510
		305	306	307	1066	0	4			55	100											304	988.258	134.891
		306	307	308	425	0	4			55	100											305	988.116	134.646
		307	308	312	373	0	4			55	100											306	988.177	133.582
		308	312	316	455	0	3			55	100											307	988.322	133.183
		312	316	318	567	0	3			55	100											308	988.439	132.851
		Sausalito Ent		316	318	319	596	0	3	40	100											312	988.712	132.452
		318	319	320	1107	0	3			40	100											316	989.052	132.011
		319	320	321	1499	0	3			40	100											318	989.537	131.685
		320	321	322	1479	0	3			40	100											319	989.951	130.676
		321	322	323	1486	0	3			40	100											320	990.057	129.181
		322	323	324	1393	0	3			40	100											321	990.164	127.706
		323	324	326	1428	0	3			40	100											322	990.270	126.224
		324	326	328	739	0	3			40	100											323	990.368	124.834
		326	328	329	370	0	4			13	100											324	990.466	123.409
		328	329	330	282	0	4			13	100											326	990.718	123.725
		329	330	332	87	0	4			45	100											328	990.549	123.436
		330	332	334	136	0	4			45	100											329	991.135	122.224
		332	334	336	700	0	4			45	100											330	991.191	122.158
		334	336	342	690	0	3			45	100											332	991.277	122.053
		336	342	344	866	0	3			45	100											334	991.711	121.504
		342	344	348	1485	0	3			45	100											336	992.243	121.075
		344	348	350	1048	0	4			45	100													

Quality Assurance / Quality Control Database
Existing Conditions

FRESIM QA/QC		Record & entry: 19-1 19-2 19-3 19-4 19-5 19-6 20-3 20-4 20-5 20-8 20-17 20-12 20-15 20-16 19-7 19-8 19-9 19-10 19-11 19-12 19-13 19-14 19-15 19-18 19-19 19-1 19-2 19-3																									
Link Description		Link Geometrics								Car Following Factor			Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier		Node coordinates				
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Warning Sign Distance	Min. Speed to Trigger	Distance to Rx Pt.	No.	Type	Length h	No.	Type	Length	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	X	Y
US 101 Northbound	US 101 NB Mainline	101	102	103	835	0	2			45	100												101	996.307	120.707		
		102	103	104	1041	0	2			45	100												102	995.516	120.438		
		103	104	108	1064	0	2			45	100												103	994.491	120.383		
		Park Presidio Bl Exi		104	108	112	874	0	2	45	100		2500			9	2	100						104	993.473	120.702	
		Park Presidio Bl Ent		108	112	116	1095	0	2	45	100												108	992.634	120.948		
		Park Presidio Bl Ent		112	116	118	694	0	2	45	100		43	1500	9	3	694	10	3	694				112	991.724	121.522	
		Merchant Rd Exi		116	118	120	142	0	4	45	100		800			9	2	100						116	991.293	120.066	
		Merchant Rd Ent		118	120	122	86	0	2	45	100												118	991.214	122.184		
		Merchant Rd Ent		120	122	124	285	0	2	45	100		43	1500	9	1	100							120	991.163	122.253	
		122	124	126	364	0	2			25	100												122	990.980	122.472		
		124	126	127	731	0	2			45	100												124	990.727	122.734		
		126	127	128	1432	0	2			45	100												126	990.475	123.410		
		127	128	129	1389	0	2			45	100												127	990.379	124.839		
		128	129	130	1498	0	2			45	100												128	990.281	126.225		
		129	130	131	1467	0	2			45	100												129	990.175	127.709		
		130	131	132	1509	0	2			45	100												130	990.069	129.172		
		Vista Point Exit		131	132	136	1132	0	2	45	100		2500			9	2	100						131	989.961	130.677	
		Vista Point Ent		132	136	140	260	0	4	55	100		2500	43	1500	9	3	588						132	989.546	131.676	
		Sausalito Exi		136	140	144	588	0	4	55	100												136	989.335	131.828		
		Sausalito Ent		140	144	148	572	0	4	55	100												140	988.879	132.196		
		Sausalito Ent		144	148	150	984	0	4	55	100		43	1500	9	1	100						144	988.619	132.703		
		148	150	152	1048	0	4			55	100												148	988.191	133.589		
		150	152	154	285	0	4			55	100												150	988.146	134.636		
		152	154	158	656	0	4			55	100												152	988.292	134.881		
		154	158	160	1033	0	4			55	100												154	988.389	135.530		
		158	160	8960	804	0	4			55	100												158	988.192	136.544		
		US 101 Northbound		108	208	8208	139	1	1	25	100												108	992.634	120.948		
		Park Presidio Bl Exi		212	112	116	231	1	2	45	100												212	991.949	121.471		
		Park Presidio Bl Ent		118	218	224	129	1	1	20	100												118	991.214	122.184		
		Merchant Rd Exi		218	224	8224	133	1	1	20	100												218	991.296	122.284		
		Merchant Rd Ent		220	120	122	133	1	1	20	100												220	991.289	122.295		
		222	220	120	133	1	1			20	100												222	991.405	122.351		
		Vista Point Exi		132	232	259	78	1	1	25	100												132	989.546	131.676		
		Vista Point Ent		232	259	8259	129	1	1	25	100												232	989.526	131.751		
		Sausalito Lateral Exi		236	136	140	184	1	1	25	100												236	989.507	131.894		
		Sausalito Lateral Ent		260	236	136	120	1	1	25	100												260	989.627	131.893		
		240	240	8240	208	1	1			35	100												140	988.879	132.196		
		244	144	148	138	1	1			20	100												244	988.756	132.723		
		US 101 Southbound		301	302	303	768	0	4	55	100		2500			9	2	100					301	987.693	132.201		
		Sausalito Exi		302	303	304	1055	0	4	55	100												302	988.088	136.542		
		Sausalito Ent		303	304	305	621	0	4	55	100												303	988.309	135.510		
		304	305	306	283	0	4			55	100												304	988.258	134.891		
		305	306	307	1066	0	4			55	100												305	988.116	134.646		
		306	307	308	449	0	4			55	100												306	988.177	133.582		
		307	308	312	365	0	4			55	100												307	988.382	133.183		
		308	312	316	437	0	4			55	100		2500			9	2	100					308	988.533	132.851		
		Sausalito Exi		312	316	318	567	0	4	55	100												312	988.712	132.452		
		Sausalito Ent		316	318	596	0	4			45	100											316	989.052	132.011		
		318	319	320	1107	0	4			45	100												318	989.537	131.685		
		319	320	321	1499	0	4			45	100												319	989.951	130.678		
		320	321	322	1479	0	4			45	100												320	990.057	129.181		
		321	322	323	1486	0	4			45	100												321	990.164	127.706		
		322	323	324	1393	0	4			45	100												322	990.270	126.224		
		323	324	326	1428	0	4			45	100												323	990.368	124.834		
		324	326	328	739	0	4			45	100												324	990.466	123.409		
		326	328	329	370	0	5			13	100		1000			9	2	100					326	990.718	123.725		
		328	329	330	282	0	5			13	100		1000			9	2	100					328	990.549	123.436		
		329	330	332	87	0	5			45	100		43	1500	9	1	100						329	991.135	122.224		
		330	332	334	136	0	5			45	100		43	1													

FRESIM QA/QC		Record & entry:																							
		19-1 19-2 19-3 19-4 19-5 19-6 20-3 20-4 20-5 20-8 20-17 20-12 20-15 20-16 19-7 19-8 19-9 19-10 19-11 19-12 19-13 19-14 19-15 19-18 19-19 19-1 19-2 19-3																							
Link Description		Link Geometrics										Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier		Node coordinates			
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Car Following Factor	Warning Sign Distance	Min. Speed to Trigger	Distance to Rx Pt.	No.	Type	Length	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	X	Y
US 101 Northbound	US 101 NB Mainline	101	102	103	835	0	3			45	100										101	996.307	120.707		
		102	103	104	1041	0	3			45	100										102	995.516	120.438		
		103	104	108	1064	0	3			45	100										103	994.491	120.383		
		Park Presidio Bl Exi		104	108	112	874	0	3	45	100		2500			9	2	100				104	993.473	120.702	
		Park Presidio Bl Ent		108	112	116	1095	0	3	45	100										108	992.634	120.948		
		Merchant Rd Exi		112	116	118	694	0	3	45	100		43	1500	9	3	694	10	3	694		112	991.724	121.522	
		Merchant Rd Ent		116	118	120	142	0	4	45	100		800			9	2	100				116	991.293	122.066	
		Merchant Rd Ent		118	120	122	86	0	4	45	100										118	991.214	122.184		
		Merchant Rd Ent		120	122	124	285	0	4	45	100		43	1500	9	1	100				120	991.163	122.253		
		122	124	126	364	0	3			45	100		25								122	990.980	122.472		
		124	126	127	731	0	3			45	100										124	990.727	122.734		
		126	127	128	1432	0	3			45	100										126	990.475	123.410		
		127	128	129	1389	0	3			45	100										127	990.379	124.839		
		128	129	130	1498	0	3			45	100										128	990.281	126.225		
		129	130	131	1467	0	3			45	100										129	990.175	127.709		
		130	131	132	1509	0	3			45	100										130	990.069	129.172		
		Vista Point Exit		131	132	136	1132	0	3	45	100		2500		9	2	100				131	989.961	130.677		
		Vista Point Ent		132	136	140	260	0	4	55	100		2500	43	1500	9	3	588				132	989.546	131.167	
		Sausalito Exi		136	140	144	588	0	4	55	100										136	989.335	131.828		
		Sausalito Ent		140	144	148	572	0	4	55	100										140	988.879	132.196		
		Sausalito Ent		144	148	150	984	0	4	55	100		43	1500	9	1	100				144	988.619	132.703		
		148	150	152	1048	0	4			55	100										148	988.191	133.589		
		150	152	154	285	0	4			55	100										150	988.146	134.636		
		152	154	158	656	0	4			55	100										152	988.292	134.881		
		154	158	160	1033	0	4			55	100										154	988.389	135.530		
		158	160	8960	804	0	4			55	100										158	988.192	136.544		
		US 101 Northbound		108	208	8208	139	1	1	25	100										108	992.634	120.948		
		Park Presidio Bl Exi		212	112	116	231	1	2	45	100										212	991.949	121.471		
		Park Presidio Bl Ent		118	218	224	129	1	1	20	100										118	991.214	122.184		
		Merchant Rd Exi		218	224	8224	133	1	1	20	100										218	991.296	122.284		
		Merchant Rd Ent		220	120	122	133	1	1	20	100										220	991.289	122.295		
		222	220	120	133	1	1			20	100										222	991.405	122.351		
		Vista Point Exi		132	232	259	78	1	1	25	100										132	989.546	131.167		
		Vista Point Ent		232	259	8259	129	1	1	25	100										232	989.526	131.751		
		Sausalito Lateral Exi		236	136	140	184	1	1	25	100										236	989.507	131.894		
		Sausalito Lateral Ent		260	236	136	120	1	1	25	100										260	989.627	131.893		
		240	240	8240	208	1	1			35	100										140	988.879	132.196		
		244	144	148	138	1	1			20	100										244	988.756	132.723		
		US 101 Southbound		301	302	303	768	0	4	55	100		2500		9	2	100				301	987.693	132.201		
		Sausalito Exi		302	303	304	1055	0	4	55	100										302	988.088	136.542		
		Sausalito Ent		303	304	305	621	0	4	55	100										303	988.309	135.510		
		304	305	306	283	0	4			55	100										304	988.258	134.891		
		305	306	307	1066	0	4			55	100										305	988.116	134.646		
		306	307	308	449	0	4			55	100										306	988.177	133.582		
		307	308	312	365	0	4			55	100										307	988.382	133.183		
		308	312	316	437	0	3			55	100		2500		9	2	100				308	988.533	132.851		
		Sausalito Exi		312	316	318	567	0	3	55	100										312	988.712	132.452		
		Sausalito Ent		316	318	319	596	0	3	45	100		43	1500	9	1	100				316	989.052	132.011		
		318	319	320	1107	0	3			45	100										318	989.537	131.685		
		319	320	321	1499	0	3			45	100										319	989.551	130.678		
		320	321	322	1479	0	3			45	100										320	990.057	129.181		
		321	322	323	1486	0	3			45	100										321	990.164	127.706		
		322	323	324	1393	0	3			45	100										322	990.270	126.224		
		323	324	326	1428	0	3			45	100										323	990.368	124.834		
		324	326	328	739	0	3			45	100										324	990.466	123.409		
		326	328	329	370	0	4			13	100										326	990.718	123.725		
		328	329	330	282	0	4			13	100		1000		9	2	100				328	990.549	123.436		
		329	330	332	87	0	4			45	100										329	991.135	122.224		
		330	332	334	136	0	4			45	100		43	1500	9	1	100				330	991.191	122.158		
		332	334	336	700	0	4			45	100										332	991.277	122.053		
		334	336	342	690	0	3			45	100			2000		9	3	690				334			

Quality Assurance / Quality Control Database
Existing Plus Project Conditions

FRESIM QA/QC		Record & entry:																					
		Link Description																					
		Link Geometrics																					
		From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Car Following Factor	Warning Sign Distance	Anticipatory Chg.	1st Aux. Lane	2nd Aux. Lane	3rd Aux. Lane	Barrier	Node coordinates		
																Min. Speed to Trigger	Distance to Rx Pt.	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	
US 101 Northbound	US 101 NB Mainline	101	102	103	835	0	2			45	100										101 996,307 120,707		
		102	103	104	1041	0	2			45	100										102 995,516 120,439		
		103	104	108	1064	0	2			45	100										103 994,491 120,393		
		Park Presidio Bl Exi	Park Presidio Bl Ent	104	108	112	874	0	2		45	100										104 993,473 120,702	
		Park Presidio Bl Ent	Park Presidio Bl Ent	108	112	116	1095	0	2		45	100										108 992,634 120,948	
		Merchant Rd Exi	Merchant Rd Ent	112	116	118	694	0	2		45	100										112 991,724 121,522	
		Merchant Rd Ent	Merchant Rd Ent	116	118	120	142	0	4		45	100										116 991,293 122,066	
		Merchant Rd Ent	Vista Point Exit	118	120	122	86	0	2		45	100										118 991,214 122,184	
		Vista Point Exit	Vista Point Ent	120	122	124	285	0	2		45	100										120 991,163 122,253	
		122	124	126	364	0	2			35	100											122 990,980 122,472	
US 101 Northbound	US 101 NB Mainline	124	126	127	731	0	2			42	100											124 990,727 122,734	
		126	127	128	1432	0	2			42	100											126 990,475 123,410	
		127	128	129	1389	0	2			42	100											127 990,379 124,839	
		128	129	130	1498	0	2			42	100											128 990,281 126,225	
		129	130	131	1467	0	2			42	100											129 990,175 127,709	
		130	131	132	1509	0	2			42	100											130 990,069 129,172	
		Vista Point Ent	Vista Point Ent	131	132	136	1132	0	2		42	100											131 989,961 130,677
		Vista Point Ent	Sausalito Exi	132	136	140	368	0	2		55	100											132 989,546 131,676
		Sausalito Exi	Sausalito Ent	136	140	144	473	0	2		55	100											136 989,335 131,828
		Sausalito Ent	Sausalito Ent	140	144	148	572	0	2		55	100											140 988,879 132,196
US 101 NB Ramps	US 101 NB Ramps	144	148	150	984	0	2			55	100											144 988,619 132,703	
		148	150	152	1048	0	4			55	100											148 988,191 133,589	
		150	152	154	285	0	4			55	100											150 988,146 134,636	
		152	154	158	656	0	4			55	100											152 988,292 134,881	
		154	158	160	1033	0	4			55	100											154 988,389 135,530	
		158	160	8960	804	0	4			55	100											158 988,192 136,544	
		Park Presidio Bl Exi	Park Presidio Bl Ent	108	208	8208	139	1	1		25	100											108 992,634 120,948
		Park Presidio Bl Ent	Merchant Rd Exi	212	112	116	231	1	2		45	100											212 991,949 121,471
		Merchant Rd Exi	Merchant Rd Ent	118	218	224	129	1	1		20	100											118 991,214 122,184
		Merchant Rd Ent	Vista Point Exi	218	224	8224	133	1	1		20	100											218 991,296 122,284
US 101 Southbound	US 101 SB Mainline	220	120	122	133	1	1			20	100											220 991,289 122,295	
		222	220	120	133	1	1			20	100											222 991,405 122,351	
		Vista Point Ent	Vista Point Ent	132	232	259	78	1	1		25	100											132 989,546 131,676
		232	259	8259	129	1	1			25	100											232 989,526 131,751	
		260	236	140	105	1	1			25	100											260 989,080 130,092	
		Sausalito Exi	Sausalito Ent	236	140	144	121	1	1		25	100											236 988,988 132,143
		Sausalito Ent	Sausalito Ent	136	240	8240	136	1	1		25	100											136 989,335 131,828
		244	144	148	138	1	1			20	100											244 988,756 132,723	
		Sausalito Exi	Sausalito Ent	301	302	303	768	0	4		55	100											301 987,693 132,201
		Sausalito Ent	Sausalito Ent	312	316	318	567	0	4		42	100											302 988,088 136,542
US 101 SB Ramps	US 101 SB Ramps	316	318	319	596	0	4			42	100											303 988,309 135,510	
		318	319	320	1107	0	4			55	100											304 988,258 134,891	
		319	320	321	1499	0	4			42	100											305 988,116 134,646	
		320	321	322	1479	0	4			42	100											306 988,177 133,582	
		321	322	323	1486	0	4			42	100											307 988,322 133,183	
		322	323	324	1393	0	4			42	100											308 988,493 132,851	
		323	324	326	1428	0	4			42	100											312 988,712 132,452	
		326	328	329	370	0	5			13	100											316 989,052 132,011	
		328	329	330	282	0	5			13	100											318 989,537 131,685	
		329	330	332	87	0	5			45	100											319 989,551 130,676	
US 101 SB Ramps	US 101 SB Ramps	330	332	334	136	0	5			45	100											320 990,057 129,181	
		332	334	336	700	0	5			45	100											321 990,164 127,706	
		Park Presidio Bl Exi	Park Presidio Bl Ent	334	338	342	690	0	4		45	100											322 990,270 126,224
		Park Presidio Bl Ent	Park Presidio Bl Ent	338	342	344	866	0	4		45	100											323 990,368 126,834
		342	344	348	1485	0	3			45	100											324 990,466 129,409	
		344	348	350	1048	0	4			45	100											326 990,718 129,725	
		348	350	8350	836	0	4			45	100											328 990,549 129,436	
		Sausalito Exi	Sausalito Ent	312	412	8412	283	1	1		20	100											329 991,135 122,224
		416	316	318	138	1	1			35	100											330 991,191 122,158	
		329	429	432	138	1	1			20	100											332 991,277 122,053	
Entry Links	Northbound	429	432	8432	171	1	1			20	100											334 991,711 121,504	
		430	330	332	144	1	1			20	100											336 992,243 121,075	
		434	436	330	176	1	1			20	100											342 993,067 120,815	
		338	438	8438	229	1	1			35	100											344 994,488 120,384	
		442																					

FRESIM QA/QC		Record & entry: 19-1 19-2 19-3 19-4 19-5 19-6 20-3 20-4 20-5 20-8 20-17 20-12 20-15 20-16 19-7 19-8 19-9 19-10 19-11 19-12 19-13 19-14 19-15 19-18 19-19 19-1 19-2 19-3																						
Link Description		Link Geometrics								Car Following Factor			Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier		Node coordinates	
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Warning Sign Distance	Min. Speed to Trigger	Distance to Rx Pt.	No.	Type	Length	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	X	Y
US 101 Northbound	US 101 NB Mainline	101	102	103	835	0	3			45	100										101	996.307	120.707	
		102	103	104	1041	0	3			45	100										102	995.516	120.438	
		103	104	108	1064	0	3			45	100										103	994.491	120.383	
		Park Presidio Bl Exi		104	108	112	874	0	3	45	100		2500			9	2	100				104	993.473	120.702
		Park Presidio Bl Ent		108	112	116	1095	0	3	45	100										108	992.634	120.948	
		Park Presidio Bl Ent		112	116	118	694	0	3	45	100		43	1500	9	3	694	10	3	694		112	991.724	121.522
		Merchant Rd Exi		116	118	120	142	0	4	45	100		800			9	2	100				116	991.293	120.066
		Merchant Rd Ent		118	120	122	86	0	4	45	100										118	991.214	122.184	
		Merchant Rd Ent		120	122	124	285	0	4	45	100		43	1500	9	1	100				120	991.163	122.253	
		122	124	126	364	0	3			36	100										122	990.980	122.472	
		124	126	127	731	0	3			44	100										124	990.727	122.734	
		126	127	128	1432	0	3			44	100										126	990.475	123.410	
		127	128	129	1389	0	3			44	100										127	990.379	124.839	
		128	129	130	1498	0	3			44	100										128	990.281	126.225	
		129	130	131	1467	0	3			44	100										129	990.175	127.709	
		130	131	132	1509	0	3			44	100										130	990.069	129.172	
		Vista Point Exit		131	132	136	1132	0	3	44	100		2500			9	2	100				131	989.961	130.677
		Vista Point Ent		132	136	140	368	0	3	55	100		2500			9	2	100				132	989.546	131.167
		Sausalito Exit		136	140	144	473	0	3	55	100										136	989.335	131.828	
		Sausalito Ent		140	144	148	572	0	3	55	100		37	1500	9	1	100				140	988.879	132.196	
		Sausalito Ent		144	148	150	984	0	4	55	100		43	1500	9	1	100				144	988.619	132.703	
		148	150	152	1048	0	4			55	100										148	988.191	133.589	
		150	152	154	285	0	4			55	100										150	988.146	134.636	
		152	154	158	656	0	4			55	100										152	988.292	134.881	
		154	158	160	1033	0	4			55	100										154	988.389	135.530	
		158	160	8960	804	0	4			55	100										158	988.192	136.544	
		US 101 Northbound		108	208	8208	139	1	1	25	100										108	982.634	120.948	
		Park Presidio Bl Exi		212	112	116	231	1	2	45	100										212	991.949	121.471	
		Park Presidio Bl Ent		118	218	224	129	1	1	20	100										118	991.214	122.184	
		Merchant Rd Exi		218	224	8224	133	1	1	20	100										218	991.296	122.284	
		Merchant Rd Ent		220	120	122	133	1	1	20	100										220	991.289	122.295	
		Vista Point Exi		132	232	259	78	1	1	25	100										222	991.405	122.351	
		Vista Point Ent		232	259	8259	129	1	1	25	100										132	989.546	131.167	
		Sausalito Exi		260	236	140	120	1	1	25	100										232	989.526	131.751	
		Sausalito Ent		236	140	144	697	1	1	25	100										260	989.080	132.092	
		Sausalito Ent		244	144	148	743	1	1	25	100										236	988.988	132.143	
		Sausalito Ent		301	302	303	768	0	4	55	100		2500			9	2	100				136	989.335	131.828
		Sausalito Exi		302	303	304	1055	0	4	55	100										302	987.693	132.201	
		Sausalito Ent		303	304	305	621	0	4	55	100										303	988.309	135.510	
		Sausalito Ent		304	305	306	283	0	4	55	100										304	988.258	134.891	
		Sausalito Ent		305	306	307	1066	0	4	55	100										305	988.116	134.646	
		Sausalito Ent		306	307	308	449	0	4	55	100										306	988.177	133.582	
		Sausalito Ent		307	308	312	365	0	4	55	100										307	988.382	133.183	
		Sausalito Ent		308	312	316	437	0	3	55	100		2500			9	2	100				308	988.533	132.851
		Sausalito Ent		312	316	318	567	0	3	42	100		43	1500	9	1	100				312	988.712	132.452	
		Sausalito Ent		316	318	319	596	0	3	42	100										316	989.052	132.011	
		Sausalito Ent		318	319	320	1107	0	3	42	100										318	989.537	131.685	
		Sausalito Ent		319	320	321	1499	0	3	42	100										319	989.951	130.678	
		Sausalito Ent		320	321	322	1479	0	3	42	100										320	990.057	129.181	
		Sausalito Ent		321	322	323	1486	0	3	42	100										321	990.164	127.706	
		Sausalito Ent		322	323	324	1393	0	3	42	100										322	990.270	126.224	
		Sausalito Ent		323	324	326	1428	0	3	42	100										323	990.368	124.834	
		Sausalito Ent		324	326	328	739	0	3	42	100										324	990.466	123.409	
		Sausalito Ent		326	328	329	370	0	4	13	100										326	990.718	122.725	
		Sausalito Ent		328	329	330	282	0	4	13	100										328	990.549	123.436	
		Sausalito Ent		329	330	332	87	0	4	45	100										329	991.135	122.224	
		Sausalito Ent		330	332	334	136	0	4	45	100										330	991.191	122.158	
		Sausalito Ent		332	334	336	700	0	4	45	100										332	991.277	122.053	
		Park Presidio Bl Exi		334	338	342	690	0	3	45	100			2000		9	3	690				334	991.711	121.504
		Park Presidio Bl Ent		338	342	344	866	0	3	45	100										336	992.243	121.075	
		Park Presidio Bl Ent		342	344	348	1485	0	2	45	100										342	993.067	120.815	
		Park Presidio Bl Ent		344	348	350</																		

Quality Assurance / Quality Control Database
Design Year Conditions

FRESIM QA/QC																															
		Record & entry:		19-1	19-2	19-3	19-4	19-5	19-6	20-3	20-4	20-5	20-8	20-17	20-12	20-15	20-16	19-7	19-8	19-9	19-10	19-11	19-12	19-13	19-14	19-15	19-18	19-19	19-1	19-2	19-3
Link Description				Link Geometrics												Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier		Node coordinates					
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Car Following Factor	Warning Sign Distance to Trigger	Rt. Lane ID #1	Rt. Lane ID #2	No.	Type	Length	No.	Type	Length	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	Node X	Node Y			
US 101 NB Mainline	US 101 NB Mainline	101	102	103	835	0	3	45	100																		101	996,307	120,707		
		102	103	104	1041	0	3	45	100																		102	995,156	120,439		
		103	104	108	1064	0	3	45	100																		103	994,491	120,393		
		104	108	112	874	0	3	45	123	2500									9	2	100						104	993,473	120,702		
		108	112	116	1095	0	3	45	123																		108	992,634	120,948		
		112	116	118	694	0	3	45	100					43	1500			9	3	694	10	1	100					112	991,724	121,522	
		Merchant Rd Exit	Merchant Rd Ent	116	118	120	142	0	4	45	150	800							9	2	100						116	991,293	122,066		
		Merchant Rd Ent	Merchant Rd Ent	118	120	122	86	0	2	45	150																118	991,124	122,184		
		Merchant Rd Ent	Merchant Rd Ent	120	122	124	285	0	2	45	174			43	1500			9	1	100						120	991,163	122,253			
		122	124	126	364	0	2	25	174																		122	990,980	122,472		
US 101 NB Ramps	US 101 NB Ramps	124	126	127	731	0	2	42	174																		124	990,727	122,344		
		126	127	128	1432	0	2	42	174																		126	990,475	123,410		
		127	128	129	1389	0	2	42	174																		127	990,379	124,839		
		128	129	130	1488	0	2	42	174																		128	990,281	126,225		
		129	130	131	1467	0	2	42	174																		129	990,175	127,709		
		130	131	132	1509	0	2	42	174																		130	990,069	129,172		
		131	132	136	1132	0	2	42	174	2500								9	2	100						131	989,961	130,677			
		Vista Point Exit	Vista Point Ent	132	136	140	260	0	4	55	123																132	989,546	131,676		
		Vista Point Ent	Sausalito Exit	136	140	144	588	0	4	55	123	2500	43	1500				9	3	588							136	989,336	131,828		
		Sausalito Exit	Sausalito Ent	140	144	148	572	0	4	55	123																140	988,879	132,196		
		Sausalito Ent	Sausalito Ent	144	148	150	984	0	4	55	123			43	1500			9	1	100							144	988,619	132,703		
US 101 SB Mainline	US 101 SB Mainline	US 101 Northbound				150	152	154	285	0	4	55	110														150	988,146	134,636		
		152	154	158	656	0	4	55	110																		152	988,292	134,881		
		154	158	160	1033	0	4	55	110																		154	988,389	135,530		
		158	160	8960	804	0	4	55	110																		158	988,192	136,544		
		US 101 Northbound				108	208	8208	139	1	1	25	100														108	992,634	120,948		
		Park Presidio Bl Exit	Park Presidio Bl Ent	212	112	116	231	1	2	45	100																212	991,949	121,471		
		Merchant Rd Exit	Merchant Rd Ent	118	218	224	129	1	1	20	100																118	991,214	122,184		
		Merchant Rd Ent	Merchant Rd Ent	220	120	122	133	1	1	20	100																220	991,280	122,295		
		Vista Point Exit	Vista Point Ent	132	232	259	78	1	1	25	100																222	991,405	122,361		
		Vista Point Ent	Sausalito Exit	232	232	8259	129	1	1	25	100																232	989,526	131,751		
US 101 SB Ramps	US 101 SB Ramps	Sausalito Exit	Sausalito Ent	301	303	303	768	0	4	55	123																301	987,693	137,201		
		302	303	304	1055	0	4	55	123																		302	988,088	136,542		
		303	304	305	621	0	4	55	123																		303	988,309	135,510		
		304	305	306	283	0	4	55	123																		304	988,259	134,891		
		305	306	307	1066	0	4	55	123																		305	988,116	134,646		
		306	307	308	449	0	4	55	123																		306	988,177	133,582		
		307	308	312	365	0	4	55	123																		307	988,382	133,183		
		308	312	316	437	0	4	55	123	2500								9	2	100						308	988,533	132,851			
		Sausalito Exi	Sausalito Ent	312	316	318	567	0	4	55	123																312	988,712	132,409		
		Sausalito Ent	Sausalito Ent	316	318	319	596	0	4	42	123			43	1500			9	1	100							316	989,052	132,011		
US 101 SB Ramps	US 101 SB Ramps	318	319	320	1107	0	4	42	123																	318	989,537	131,665			
		319	320	321	1499	0	4	42	123																		319	989,951	130,676		
		320	321	322	1479	0	4	42	123																		320	990,057	129,181		
		321	322	323	1486	0	4	42	123																		321	990,164	127,706		
		322	323	324	1393	0	4	42	123																		322	990,270	126,224		
		323	324	326	1428	0	4	42	123																		323	990,368	124,834		
		324	326	328	739	0	4	42	123																		324	990,469	123,436		
		326	328	329	370	0	4	18	73	1000									9	2	100						326	990,718	122,725		
		Merchant Rd Exit	Merchant Rd Ent	329	330	332	87	0	4	45	73																	329	991,139	122,224	
		Merchant Rd Ent	Park Presidio Bl Exit	330	332	334	136	0	4	45	100																	330	991,191	122,158	
		Park Presidio Bl Ent	Park Presidio Bl Ent	332	334	338	700	0	4	45	100																	332	991,277	122,053	
Entry Links	Entry Links	Park Presidio Bl Ent	Park Presidio Bl Ent	334	336	342	690	0	3	45	123	2000															334	992,243	121,075		
		Park Presidio Bl Ent	Park Presidio Bl Ent	338	342	344	866	0	3	45	123																338	992,430	121,075		
		342	344	348	1485	0	3	45	123																		342	993,067	120,815		
		344	346	350	1048	0	4	45	123																		344	994,486	120,384		
		Sausalito Exi	Sausalito Ent	31																											

FRESIM QA/QC		Record & entry: 19-1 19-2 19-3 19-4 19-5 19-6 20-3 20-4 20-5 20-8 20-17 20-12 20-15 20-16 19-7 19-8 19-9 19-10 19-11 19-12 19-13 19-14 19-15 19-18 19-19 19-1 19-2 19-3																								
Link Description		Link Geometrics								Car Following Factor			Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier		Node coordinates			
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Warning Sign Distance	Min. Speed to Trigger	Distance to Rx Pt.	No.	Type	Length h	No.	Type	Length	No.	Type	Rt. Lane ID #1	Rt. Lane ID #2	X	Y
US 101 Northbound	US 101 NB Mainline	101	102	103	835	0	3			45	100											101	996.307	120.707		
		102	103	104	1041	0	3			45	100											102	995.516	120.438		
		103	104	108	1064	0	3			45	100											103	994.491	120.383		
		Park Presidio Bl Exi		104	108	112	874	0	3	45	100	2500			9	2	100						104	993.473	120.702	
		Park Presidio Bl Ent		108	112	116	1095	0	3	45	100			43	1500	9	3	694	10	1	100		108	992.634	120.948	
		Park Presidio Bl Ent		112	116	118	694	0	3	45	100	800			9	2	100						112	991.724	121.522	
		Merchant Rd Exi		116	118	120	142	0	4	45	100											116	991.293	120.066		
		Merchant Rd Ent		118	120	122	86	0	4	45	100											118	991.214	122.184		
		Merchant Rd Ent		120	122	124	285	0	4	45	100			43	1500	9	1	100					120	991.163	122.253	
		122	124	126	364	0	4			25	100											122	990.980	122.472		
Vista Point Exit	US 101 NB Mainline	124	126	127	731	0	3			42	100											124	990.727	122.734		
		126	127	128	1432	0	3			42	100											126	990.475	123.410		
		127	128	129	1389	0	3			42	100											127	990.379	124.839		
		128	129	130	1498	0	3			42	100											128	990.281	126.225		
		129	130	131	1467	0	3			42	100											129	990.175	127.709		
		130	131	132	1509	0	3			42	100											130	990.069	129.172		
		131	132	136	1132	0	3			42	100	2500			9	2	100						131	989.961	130.677	
		Vista Point Ent		132	136	140	260	0	4	55	100	2500		43	1500	9	3	588					132	989.546	131.167	
		Vista Point Ent		136	140	144	588	0	4	55	100											136	989.335	131.828		
		Sausalito Exi		140	144	148	572	0	4	55	100											140	988.879	132.196		
Sausalito Ent	US 101 NB Mainline	144	148	150	984	0	4			55	100			43	1500	9	1	100					144	988.619	132.703	
		148	150	152	1048	0	4			55	100											148	988.191	133.589		
		150	152	154	285	0	4			55	100											150	988.146	134.636		
		152	154	158	656	0	4			55	100											152	988.292	134.881		
		154	158	160	1033	0	4			55	100											154	988.389	135.530		
		158	160	8960	804	0	4			55	100											158	988.192	136.544		
		US 101 Northbound		108	208	8208	139	1	1	25	100											108	992.634	120.948		
		Park Presidio Bl Exi		212	112	116	231	1	2	45	100											212	991.949	121.471		
		Park Presidio Bl Ent		118	218	224	129	1	1	20	100											118	991.214	122.184		
		Merchant Rd Exi		218	224	8224	133	1	1	20	100											218	991.296	122.284		
Merchant Rd Ent	US 101 NB Mainline	220	120	122	133	1	1			20	100											220	991.289	122.295		
		222	220	120	133	1	1			20	100											222	991.405	122.351		
		Vista Point Ent		132	232	259	78	1	1	25	100											132	989.546	131.167		
		Vista Point Ent		232	259	8259	129	1	1	25	100											232	989.526	131.751		
		Sausalito Lateral Exi		236	136	140	184	1	1	25	100											236	989.507	131.894		
		Sausalito Lateral Ent		260	236	136	120	1	1	25	100											260	989.627	131.893		
		240	240	8240	208	1	1			25	100											140	988.879	132.196		
		244	144	148	138	1	1			20	100											244	988.756	132.723		
		US 101 Southbound		301	302	303	768	0	4	55	100											301	987.693	132.201		
		Sausalito Exi		302	303	304	1055	0	4	55	100											302	988.088	136.542		
Sausalito Ent	US 101 SB Mainline	303	304	305	621	0	4			55	100											303	988.309	135.510		
		304	305	306	283	0	4			55	100											304	988.258	134.891		
		305	306	307	1066	0	4			55	100											305	988.116	134.646		
		306	307	308	449	0	4			55	100											306	988.177	133.582		
		307	308	312	365	0	4			55	100											307	988.382	133.183		
		308	312	316	437	0	3			55	100	2500			9	2	100					308	988.533	132.851		
		Sausalito Exi		312	316	318	567	0	3	40	100			43	1500	9	1	100					312	988.712	132.452	
		Sausalito Ent		316	318	319	596	0	3	40	100											316	989.052	132.011		
		318	319	320	1107	0	3			40	100											318	989.537	131.685		
Merchant Rd Ent	US 101 SB Mainline	319	320	321	1499	0	3			40	100											319	989.951	130.678		
		320	321	322	1479	0	3			40	100											320	990.057	129.181		
		321	322	323	1486	0	3			40	100											321	990.164	127.706		
		322	323	324	1393	0	3			40	100											322	990.270	126.224		
		323	324	326	1428	0	3			40	100											323	990.368	124.834		
		324	326	328	739	0	3			40	100											324	990.466	123.409		
		326	328	329	370	0	4			13	100											326	990.718	122.725		
		328	329	330	282	0	4			13	100	1000			9	2	100					328	990.549	123.436		
		329	330	332	87	0	4			45	100											329	991.135	122.224		
		330	332	334	136	0	4			45	100			43	1500	9	1	100					330	991.191	122.158	
Park Presidio Bl Ent	US 101 SB Mainline	332																								

Quality Assurance / Quality Control Database
Design Year Plus Project Conditions

Link Description		Link Geometrics										Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier	Node coordinates				
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Car Following Factor	Warning Sign Distance to Trigger	No.	Type	Length	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	Node	X	Y	
US 101 NB Mainline	US 101 Northbound	101	102	103	835	0	3	45	100													101	996,307	120,707	
		102	103	104	1041	0	3	45	100													102	995,156	120,439	
	Park Presidio Bl Exi	103	104	108	1064	0	3	45	100													103	994,491	120,393	
		104	108	112	874	0	3	45	123	2500											104	993,473	120,702		
	Park Presidio Bl Ent	108	112	116	1095	0	3	45	123													108	992,634	120,948	
	Park Presidio Bl Ent	112	116	118	694	0	3	45	100		43	1500	9	3	694	10	1	100				112	991,724	121,225	
	Merchant Rd Exi	116	118	120	142	0	4	45	150	800												116	991,293	122,066	
	Merchant Rd Ent	118	120	122	86	0	2	45	150													118	991,124	121,184	
	Merchant Rd Ent	120	122	124	285	0	2	45	173		43	1500	9	1	100							120	991,163	122,253	
		122	124	126	364	0	2	25	173													122	990,980	122,472	
		124	126	127	731	0	2	42	173													124	990,727	122,344	
		126	127	128	1432	0	2	42	173													126	990,475	123,410	
		127	128	129	1389	0	2	42	173													127	990,379	124,839	
		128	129	130	1488	0	2	42	173													128	990,281	126,225	
		129	130	131	1467	0	2	42	173													129	990,175	127,709	
		130	131	132	1509	0	2	42	173													130	990,069	129,172	
	Vista Point Exit	131	132	136	1132	0	2	42	123	2500												131	989,961	130,677	
	Vista Point Ent	132	136	140	368	0	2	55	123	2500												132	989,546	131,676	
	Sausalito Exit	136	140	144	473	0	2	55	123													136	989,336	131,828	
	Sausalito Ent	140	144	148	572	0	2	55	123		37	1500	9	1	100							140	988,879	132,196	
	Sausalito Ent	144	148	150	984	0	2	55	123		43	1500	9	1	100							144	988,619	132,703	
		148	150	152	1048	0	4	55	110													148	988,191	133,589	
		150	152	154	285	0	4	55	110													150	988,146	134,636	
		152	154	158	656	0	4	55	110													152	988,292	134,881	
		154	158	160	1033	0	4	55	110													154	988,389	135,530	
		158	160	8960	804	0	4	55	110													158	988,192	136,544	
	US 101 Northbound																								
US 101 SB Mainline	US 101 NB Ramps	Park Presidio Bl Exi	108	208	8208	139	1	1	25	100												108	992,634	120,948	
		Park Presidio Bl Ent	212	112	116	231	1	2	45	100												212	991,949	121,471	
		Merchant Rd Exi	118	218	224	129	1	1	20	100												118	991,214	122,184	
		Merchant Rd Ent	220	120	122	133	1	1	20	100												220	991,280	122,295	
		Vista Point Exit	132	232	259	78	1	1	25	100												222	991,405	122,361	
		Vista Point Ent	232	259	8259	129	1	1	25	100												132	989,546	131,676	
		Sausalito Ent	260	236	140	105	1	1	25	100												232	989,526	131,751	
		Sausalito Ent	236	140	144	121	1	1	25	100												260	989,080	132,092	
		Sausalito Ent	240	240	8240	136	1	1	25	100												236	988,988	132,143	
		Sausalito Ent	244	144	148	138	1	1	20	100												136	989,335	131,828	
		US 101 Southbound																				301	987,693	137,201	
		Sausalito Exit	301	303	303	768	0	4	55	100												302	988,088	136,542	
		Sausalito Ent	302	303	304	1055	0	4	55	100												303	988,309	135,510	
		Sausalito Ent	303	304	305	621	0	4	55	100												304	988,259	134,891	
		Sausalito Ent	304	305	306	283	0	4	55	100												305	988,116	134,646	
		Sausalito Ent	305	306	307	1066	0	4	55	100												306	988,177	133,582	
		Sausalito Ent	306	307	308	425	0	4	55	100												307	988,322	133,183	
		Sausalito Ent	307	308	312	373	0	4	55	100												308	988,493	132,851	
		Sausalito Ent	312	316	316	567	0	4	55	123	2500											312	988,712	132,409	
		Sausalito Ent	316	318	319	596	0	4	42	123		43	1500	9	1	100							316	989,052	132,011
		Sausalito Ent	318	319	320	1107	0	4	42	123												318	989,537	131,665	
		Sausalito Ent	319	320	321	1499	0	4	42	123												319	989,951	130,676	
		Sausalito Ent	320	321	322	1479	0	4	42	123												320	990,057	129,181	
		Sausalito Ent	321	322	323	1486	0	4	42	123												321	990,164	127,706	
		Sausalito Ent	322	323	323	1393	0	4	42	123												322	990,270	126,224	
		Sausalito Ent	323	324	326	1428	0	4	42	123												323	990,368	124,834	
		Sausalito Ent	324	326	328	739	0	4	42	100												324	990,469	123,409	
		Sausalito Ent	326	328	329	370	0	5	13	73	1000											326	990,718	122,725	
		Sausalito Ent	328	329	330	282	0	5	45	73		43	1500	9	2	100						328	990,949	122,436	
		Sausalito Ent	329	330	332	87	0	5	45	73												329	991,139	122,224	
		Sausalito Ent	330	332	334	136	0	5	45	100												330	991,191	121,528	
		Sausalito Ent	332	334	338	700	0	5	45	100												332	991,277	121,053	
		Park Presidio Bl Exi	334	338	342	690	0	3	45	123	2000											334	991,711	121,504	
		Park Presidio Bl Ent	338	342	344	866	0	3	45	123												338	992,243	121,075	
		Park Presidio Bl Ent	342	344	348	1485	0	3	45	123												342	993,067	120,815	
		Park Presidio Bl Ent	344	348	350	1048	0	4	45	100												344	994,486	120,384	
		Sausalito Ent	348	350	8350	836	0	4	45	100												348	995,519	120,429	
		Sausalito Ent	312	412	8412	283	1	1	20	100												312	988,712	124,452	
		Sausalito Ent	416	316	318	138	1	1	35	100												416	988,914	132,003	
		Merchant Rd Ent	329	429	432	138	1	1	20	100												329	991,139	122,224	
		Merchant Rd Ent	429	432	8432	171	1	1	20	100												429	991,039	122,125	
		Merchant Rd Ent	430	330	332	144	1	1	20	100												430	991,057	121,105	
		Park Presidio Bl Exi	338	438	8438	229	1	2	35	100															

FRESIM QA/QC		Record & entry: 19-1 19-2 19-3 19-4 19-5 19-6 20-3 20-4 20-5 20-8 20-17 20-12 20-15 20-16 19-7 19-8 19-9 19-10 19-11 19-12 19-13 19-14 19-15 19-18 19-19 19-1 19-2 19-3																						
Link Description		Link Geometrics								Car Following Factor			Anticipatory Chg.		1st Aux. Lane		2nd Aux. Lane		3rd Aux. Lane		Barrier		Node coordinates	
From	To	Node From	Node To	Receiving Node	Length	Type	No. of lanes	Grade	Super-Elev.	Radius	Speed	Warning Sign Distance	Min. Speed to Trigger	Distance to Rx Pt.	No.	Type	Length	No.	Type	Length	Rt. Lane ID #1	Rt. Lane ID #2	X	Y
US 101 Northbound	US 101 NB Mainline	101	102	103	835	0	3			45	100										101	996.307	120.707	
		102	103	104	1041	0	3			45	100										102	995.516	120.438	
		103	104	108	1064	0	3			45	100										103	994.491	120.383	
		Park Presidio Bl Exi		104	108	112	874	0	3	45	100										104	993.473	120.702	
		Park Presidio Bl Ent		108	112	116	1095	0	3	45	100										108	992.634	120.948	
		Merchant Rd Exi		112	116	118	694	0	3	45	100										112	991.724	121.522	
		Merchant Rd Ent		116	118	120	142	0	4	45	100										116	991.293	120.066	
		Merchant Rd Ent		118	120	122	86	0	4	45	100										118	991.214	122.184	
		Merchant Rd Ent		120	122	124	285	0	4	45	100										120	991.163	122.253	
		122	124	126	364	0	4			35	100										122	990.980	122.472	
		124	126	127	731	0	3			42	100										124	990.727	122.734	
		126	127	128	1432	0	3			42	100										126	990.475	123.410	
		127	128	129	1389	0	3			42	100										127	990.379	124.839	
		128	129	130	1498	0	3			42	100										128	990.281	126.225	
		129	130	131	1467	0	3			42	100										129	990.175	127.709	
		130	131	132	1509	0	3			42	100										130	990.069	129.172	
		Vista Point Exit		131	132	136	1132	0	3	42	100										131	989.961	130.677	
		Vista Point Ent		132	136	140	368	0	3	55	100										132	989.546	131.167	
		Sausalito Exit		136	140	144	473	0	3	55	100										136	989.335	131.828	
		Sausalito Ent		140	144	148	572	0	3	55	100										140	988.879	132.196	
		Sausalito Ent		144	148	150	984	0	3	55	100										144	988.619	132.703	
		148	150	152	1048	0	4			55	100										148	988.191	133.589	
		150	152	154	285	0	4			55	100										150	988.146	134.636	
		152	154	158	656	0	4			55	100										152	988.292	134.881	
		154	158	160	1033	0	4			55	100										154	988.389	135.530	
		158	160	8960	804	0	4			55	100										158	988.192	136.544	
US 101 NB Ramps	US 101 NB Ramps	108	208	8208	139	11	1			25	100										108	992.634	120.948	
		Park Presidio Bl Exi		212	112	116	231	11	2	45	100										212	991.949	121.471	
		Park Presidio Bl Ent		118	218	224	129	11	1	20	100										118	991.214	122.184	
		Merchant Rd Exi		218	224	8224	133	11	1	20	100										218	991.296	122.284	
		Merchant Rd Ent		220	120	122	133	11	1	20	100										220	991.289	122.295	
		Vista Point Exi		132	232	259	78	11	1	25	100										222	991.405	122.361	
		Vista Point Ent		232	259	8259	129	11	1	25	100										132	989.546	131.167	
		260	236	140	105	11	1			25	100									232	989.526	131.751		
		Sausalito Exi		236	140	144	121	11	1	25	100									260	989.080	130.092		
		Sausalito Ent		136	240	8240	136	11	1	25	100									236	988.988	132.143		
		244	144	148	138	11	1			25	100									136	989.335	131.828		
		US 101 Southbound		301	302	303	768	0	4	55	100										301	987.693	132.201	
		Sausalito Exi		302	303	304	1055	0	4	55	100										302	988.088	136.542	
		Sausalito Ent		303	304	305	621	0	4	55	100										303	988.309	135.510	
		304	305	306	283	0	4			55	100									304	988.258	134.891		
		305	306	307	1066	0	4			55	100									305	988.116	134.646		
		306	307	308	425	0	4			55	100									306	988.177	133.582		
		307	308	312	373	0	4			55	100									307	988.322	133.183		
		308	312	316	455	0	3			55	100									308	988.493	132.851		
		Sausalito Exi		312	316	318	567	0	3	55	100									312	988.712	132.452		
		Sausalito Ent		316	318	319	596	0	3	40	100										316	989.052	132.011	
		318	319	320	1107	0	3			40	100									318	989.537	131.685		
		319	320	321	1499	0	3			40	100									319	989.951	130.678		
		320	321	322	1479	0	3			40	100									320	990.057	129.181		
		321	322	323	1486	0	3			40	100									321	990.164	127.706		
		322	323	324	1393	0	3			40	100									322	990.270	126.224		
		323	324	326	1428	0	3			40	100									323	990.368	124.834		
		324	326	328	739	0	3			40	100									324	990.466	123.409		
		326	328	329	370	0	4			13	100									326	990.718	122.725		
		328	329	330	282	0	4			13	100									328	990.549	123.436		
		329	330	332	87	0	4			45	100									329	991.135	122.224		
		330	332	334	136	0	4			45	100									330	991.191	122.158		
		332	334	336	700	0	4			45	100									332	991.277	122.053		
		334	336	342	690	0	3			45	100									334	991.711	121.504		
		336	342	344	866	0	3			45	100									336	992.243	121.075		
		342	344	348	1485	0	3			45	100									342	993.067	120.815		
		344	348	350	1048	0	4			45	100									344	994.488	120.384		
		348	350	8350	836	0	4			45	100									348	9			

Traffic Volumes Database
Existing Conditions

Existing Conditions - Weekday AM Peak Period

Description	Type	Start Time Station	1	2	3	4	5	6	7	8
			7:00	7:15	7:30	7:45	8:00	8:15	8:30	8:45
Begin US-101 NB	m	1000	322	410	456	480	435	340	324	340
Park Presidio Blvd	exit	200	69	72	75	77	80	89	89	80
US-101 NB		1004	253	338	381	403	355	251	235	260
Park Presidio Blvd	ent	205	317	329	341	353	399	444	444	399
US-101 NB		1005	570	667	722	756	754	695	679	659
Merchant Road	exit	210	32	33	34	35	35	39	39	35
US-101 NB		1010	538	634	688	721	719	656	640	624
Merchant Road	ent	215	54	56	58	60	91	101	101	91
US-101 NB		1015	592	690	746	781	810	757	741	715
Vista Point	exit	220	5	5	5	5	9	9	9	10
US-101 NB		1020	587	685	741	776	801	748	732	705
Vista Point	ent	225	11	11	11	12	11	12	12	13
US-101 NB		1025	598	696	752	788	812	760	744	718
Sausalito Lateral	exit	230	29	31	32	33	56	62	62	56
US-101 NB		1030	569	665	720	755	756	698	682	662
Sausalito Lateral	ent	235	15	16	17	17	23	24	25	26
END US-101 NB		1035	584	681	737	772	779	722	707	688
Begin US-101 SB		3000	1302	1344	1368	1324	1339	1306	1235	1202
Sausalito Lateral	exit	400	32	33	34	36	43	45	46	48
US-101 SB		3005	1270	1311	1334	1288	1296	1261	1189	1154
Sausalito Lateral	ent	405	53	55	56	58	67	74	74	67
US-101 SB		3010	1323	1366	1390	1346	1363	1335	1263	1221
Merchant Drive	exit	410	80	83	86	89	92	103	103	92
US-101 SB		3015	1243	1283	1304	1257	1271	1232	1160	1129
Merchant Drive	ent	415	44	49	49	44	41	39	38	36
US-101 SB		3020	1287	1332	1353	1301	1312	1271	1198	1165
Park Presidio Blvd	exit	420	478	496	514	532	497	552	552	497
US-101 SB		3025	809	836	839	769	815	719	646	668
Park Presidio Blvd	ent	425	192	213	213	192	202	196	189	182
US-101 SB		3030	1001	1049	1052	961	1017	915	835	850

Existing Conditions - Weekday PM Peak Hour

Description	Type	Start Time Station	1	2	3	4	5	6	7	8
			16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45
Begin US-101 NB	m	1000	692	802	881	927	893	872	881	918
Park Presidio Blvd	exit	200	180	200	200	180	153	148	143	137
US-101 NB		1004	512	602	681	747	740	724	738	781
Park Presidio Blvd	ent	205	479	463	447	431	472	456	440	425
US-101 NB		1005	991	1065	1128	1178	1212	1180	1178	1206
Merchant Road	exit	210	59	57	55	53	45	43	42	41
US-101 NB		1010	932	1008	1073	1125	1167	1137	1136	1165
Merchant Road	ent	215	139	125	125	139	134	149	149	134
US-101 NB		1015	1071	1133	1198	1264	1301	1286	1285	1299
Vista Point	exit	220	45	43	42	40	27	25	25	27
US-101 NB		1020	1026	1090	1156	1224	1274	1261	1260	1272
Vista Point	ent	225	37	41	41	37	32	30	29	28
US-101 NB		1025	1063	1131	1197	1261	1306	1291	1289	1300
Sausalito Lateral	exit	230	67	61	61	67	76	85	85	76
US-101 NB		1030	996	1070	1136	1194	1230	1206	1204	1224
Sausalito Lateral	ent	235	54	52	51	49	47	46	44	43
END US-101 NB		1035	1050	1122	1187	1243	1277	1252	1248	1267
Begin US-101 SB		3000	735	756	777	825	857	851	822	754
Sausalito Lateral	exit	400	33	30	30	33	32	35	35	32
US-101 SB		3005	702	726	747	792	825	816	787	722
Sausalito Lateral	ent	405	72	75	78	80	89	98	98	89
US-101 SB		3010	774	801	825	872	914	914	885	811
Merchant Drive	exit	410	73	76	79	81	85	95	95	85
US-101 SB		3015	701	725	746	791	829	819	790	726
Merchant Drive	ent	415	52	47	47	52	58	64	64	58
US-101 SB		3020	753	772	793	843	887	883	854	784
Park Presidio Blvd	exit	420	418	433	448	464	499	555	555	499
US-101 SB		3025	335	339	345	379	388	328	299	285
Park Presidio Blvd	ent	425	130	135	140	145	157	175	175	157
US-101 SB		3030	465	474	485	524	545	503	474	442

Traffic Volumes Database
Existing Plus Project Conditions

Existing plus Project Conditions - Weekday AM Peak Hour

Description	Type	Start Time Station	1	2	3	4	5	6	7	8
			7:00	7:15	7:30	7:45	8:00	8:15	8:30	8:45
Begin US-101 NB	m	1000	322	410	456	480	435	340	324	340
Park Presidio Blvd	exit	200	69	72	75	77	80	89	89	80
US-101 NB		1004	253	338	381	403	355	251	235	260
Park Presidio Blvd	ent	205	317	329	341	353	399	444	444	399
US-101 NB		1005	570	667	722	756	754	695	679	659
Merchant Road	exit	210	32	33	34	35	35	39	39	35
US-101 NB		1010	538	634	688	721	719	656	640	624
Merchant Road	ent	215	54	56	58	60	91	101	101	91
US-101 NB		1015	592	690	746	781	810	757	741	715
Vista Point	exit	220	5	5	5	5	9	9	9	10
US-101 NB		1020	587	685	741	776	801	748	732	705
Vista Point	ent	225	11	11	11	12	11	12	12	13
US-101 NB		1025	598	696	752	788	812	760	744	718
Sausalito Lateral	exit	230	29	31	32	33	56	62	62	56
US-101 NB		1030	569	665	720	755	756	698	682	662
Sausalito Lateral	ent	235	15	16	17	17	23	24	25	26
END US-101 NB		1035	584	681	737	772	779	722	707	688
Begin US-101 SB		3000	1302	1344	1368	1324	1339	1306	1235	1202
Sausalito Lateral	exit	400	32	33	34	36	43	45	46	48
US-101 SB		3005	1270	1311	1334	1288	1296	1261	1189	1154
Sausalito Lateral	ent	405	53	55	56	58	67	74	74	67
US-101 SB		3010	1323	1366	1390	1346	1363	1335	1263	1221
Merchant Drive	exit	410	80	83	86	89	92	103	103	92
US-101 SB		3015	1243	1283	1304	1257	1271	1232	1160	1129
Merchant Drive	ent	415	44	49	49	44	41	39	38	36
US-101 SB		3020	1287	1332	1353	1301	1312	1271	1198	1165
Park Presidio Blvd	exit	420	478	496	514	532	497	552	552	497
US-101 SB		3025	809	836	839	769	815	719	646	668
Park Presidio Blvd	ent	425	192	213	213	192	202	196	189	182
US-101 SB		3030	1001	1049	1052	961	1017	915	835	850

Existing plus Project Conditions - Weekday PM Peak Hour

Description	Type	Start Time Station	1	2	3	4	5	6	7	8
			16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45
Begin US-101 NB	m	1000	692	802	881	927	893	872	881	918
Park Presidio Blvd	exit	200	180	200	200	180	153	148	143	137
US-101 NB		1004	512	602	681	747	740	724	738	781
Park Presidio Blvd	ent	205	479	463	447	431	472	456	440	425
US-101 NB		1005	991	1065	1128	1178	1212	1180	1178	1206
Merchant Road	exit	210	59	57	55	53	45	43	42	41
US-101 NB		1010	932	1008	1073	1125	1167	1137	1136	1165
Merchant Road	ent	215	139	125	125	139	134	149	149	134
US-101 NB		1015	1071	1133	1198	1264	1301	1286	1285	1299
Vista Point	exit	220	45	43	42	40	27	25	25	27
US-101 NB		1020	1026	1090	1156	1224	1274	1261	1260	1272
Vista Point	ent	225	37	41	41	37	32	30	29	28
US-101 NB		1025	1063	1131	1197	1261	1306	1291	1289	1300
Sausalito Lateral	exit	230	67	61	61	67	76	85	85	76
US-101 NB		1030	996	1070	1136	1194	1230	1206	1204	1224
Sausalito Lateral	ent	235	54	52	51	49	47	46	44	43
END US-101 NB		1035	1050	1122	1187	1243	1277	1252	1248	1267
Begin US-101 SB		3000	735	756	777	825	857	851	822	754
Sausalito Lateral	exit	400	33	30	30	33	32	35	35	32
US-101 SB		3005	702	726	747	792	825	816	787	722
Sausalito Lateral	ent	405	72	75	78	80	89	98	98	89
US-101 SB		3010	774	801	825	872	914	914	885	811
Merchant Drive	exit	410	73	76	79	81	85	95	95	85
US-101 SB		3015	701	725	746	791	829	819	790	726
Merchant Drive	ent	415	52	47	47	52	58	64	64	58
US-101 SB		3020	753	772	793	843	887	883	854	784
Park Presidio Blvd	exit	420	418	433	448	464	499	555	555	499
US-101 SB		3025	335	339	345	379	388	328	299	285
Park Presidio Blvd	ent	425	130	135	140	145	157	175	175	157
US-101 SB		3030	465	474	485	524	545	503	474	442

Traffic Volumes Database
Design Year Conditions

Mainline Volume Data

Design Year Conditions - Weekday AM Peak Hour

Description	Type	Start Time Station	1	2	3	4	5	6	7	8
			7:00	7:15	7:30	7:45	8:00	8:15	8:30	8:45
Begin US-101 NB	m	1000	555	700	776	819	768	621	595	614
Park Presidio Blvd	exit	200	79	82	85	88	91	101	101	91
US-101 NB		1004	476	618	691	731	677	520	494	523
Park Presidio Blvd	ent	205	462	479	496	513	581	646	646	581
US-101 NB		1005	938	1097	1187	1244	1258	1166	1140	1104
Merchant Road	exit	210	33	34	35	37	37	41	41	37
US-101 NB		1010	905	1063	1152	1207	1221	1125	1099	1067
Merchant Road	ent	215	57	59	61	63	95	106	106	95
US-101 NB		1015	962	1122	1213	1270	1316	1231	1205	1162
Vista Point	exit	220	5	5	5	5	9	10	10	10
US-101 NB		1020	957	1117	1208	1265	1307	1221	1195	1152
Vista Point	ent	225	11	12	12	12	12	12	13	13
US-101 NB		1025	968	1129	1220	1277	1319	1233	1208	1165
Sausalito Lateral	exit	230	35	37	38	39	67	74	74	67
US-101 NB		1030	933	1092	1182	1238	1252	1159	1134	1098
Sausalito Lateral	ent	235	18	19	20	20	28	29	30	31
END US-101 NB		1035	951	1111	1202	1258	1280	1188	1164	1129
Begin US-101 SB		3000	1545	1610	1650	1610	1644	1638	1587	1580
Sausalito Lateral	exit	400	38	40	41	43	52	54	56	58
US-101 SB		3005	1507	1570	1609	1567	1592	1584	1531	1522
Sausalito Lateral	ent	405	63	65	67	70	80	89	89	80
US-101 SB		3010	1570	1635	1676	1637	1672	1673	1620	1602
Merchant Drive	exit	410	84	87	90	93	97	108	108	97
US-101 SB		3015	1486	1548	1586	1544	1575	1565	1512	1505
Merchant Drive	ent	415	46	52	52	46	43	41	40	38
US-101 SB		3020	1532	1600	1638	1590	1618	1606	1552	1543
Park Presidio Blvd	exit	420	478	496	514	532	497	552	552	497
US-101 SB		3025	1054	1104	1124	1058	1121	1054	1000	1046
Park Presidio Blvd	ent	425	159	176	176	159	168	162	156	151
US-101 SB		3030	1213	1280	1300	1217	1289	1216	1156	1197

Mainline Volume Data

Design Year Conditions - Weekday PM Peak Hour

Description	Type	Start Time Station	1	2	3	4	5	6	7	8
			16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45
Begin US-101 NB	m	1000	938	1077	1178	1237	1193	1171	1179	1223
Park Presidio Blvd	exit	200	245	272	272	245	208	201	194	187
US-101 NB		1004	693	805	906	992	985	970	985	1036
Park Presidio Blvd	ent	205	588	569	549	530	580	560	541	522
US-101 NB		1005	1281	1374	1455	1522	1565	1530	1526	1558
Merchant Road	exit	210	62	60	58	56	47	46	44	43
US-101 NB		1010	1219	1314	1397	1466	1518	1484	1482	1515
Merchant Road	ent	215	146	131	131	146	141	156	156	141
US-101 NB		1015	1365	1445	1528	1612	1659	1640	1638	1656
Vista Point	exit	220	47	45	44	42	29	26	26	29
US-101 NB		1020	1318	1400	1484	1570	1630	1614	1612	1627
Vista Point	ent	225	39	43	43	39	33	32	31	30
US-101 NB		1025	1357	1443	1527	1609	1663	1646	1643	1657
Sausalito Lateral	exit	230	81	72	72	81	91	101	101	91
US-101 NB		1030	1276	1371	1455	1528	1572	1545	1542	1566
Sausalito Lateral	ent	235	65	63	60	58	57	55	53	51
END US-101 NB		1035	1341	1434	1515	1586	1629	1600	1595	1617
Begin US-101 SB		3000	989	1034	1082	1166	1231	1238	1212	1128
Sausalito Lateral	exit	400	40	36	36	40	38	42	42	38
US-101 SB		3005	949	998	1046	1126	1193	1196	1170	1090
Sausalito Lateral	ent	405	86	90	93	96	106	118	118	106
US-101 SB		3010	1035	1088	1139	1222	1299	1314	1288	1196
Merchant Drive	exit	410	77	80	83	85	90	100	100	90
US-101 SB		3015	958	1008	1056	1137	1209	1214	1188	1106
Merchant Drive	ent	415	55	49	49	55	61	68	68	61
US-101 SB		3020	1013	1057	1105	1192	1270	1282	1256	1167
Park Presidio Blvd	exit	420	425	441	456	472	508	565	565	508
US-101 SB		3025	588	616	649	720	762	717	691	659
Park Presidio Blvd	ent	425	130	135	139	144	157	174	174	157
US-101 SB		3030	718	751	788	864	919	891	865	816

Traffic Volumes Database
Design Year Plus Project Conditions

Mainline Volume Data

Design Year plus Project Conditions - Weekday AM Peak Hour

Description	Type	Start Time Station	1	2	3	4	5	6	7	8
			7:00	7:15	7:30	7:45	8:00	8:15	8:30	8:45
Begin US-101 NB	m	1000	555	700	776	819	768	621	595	614
Park Presidio Blvd	exit	200	79	82	85	88	91	101	101	91
US-101 NB		1004	476	618	691	731	677	520	494	523
Park Presidio Blvd	ent	205	462	479	496	513	581	646	646	581
US-101 NB		1005	938	1097	1187	1244	1258	1166	1140	1104
Merchant Road	exit	210	33	34	35	37	37	41	41	37
US-101 NB		1010	905	1063	1152	1207	1221	1125	1099	1067
Merchant Road	ent	215	57	59	61	63	95	106	106	95
US-101 NB		1015	962	1122	1213	1270	1316	1231	1205	1162
Vista Point	exit	220	5	5	5	5	9	10	10	10
US-101 NB		1020	957	1117	1208	1265	1307	1221	1195	1152
Sausalito Lateral	exit	225	11	12	12	12	12	12	13	13
US-101 NB		1025	968	1129	1220	1277	1319	1233	1208	1165
Vista Point	ent	230	35	37	38	39	67	74	74	67
US-101 NB		1030	933	1092	1182	1238	1252	1159	1134	1098
Sausalito Lateral	ent	235	18	19	20	20	28	29	30	31
END US-101 NB		1035	951	1111	1202	1258	1280	1188	1164	1129
Begin US-101 SB		3000	1545	1610	1650	1610	1644	1638	1587	1580
Sausalito Lateral	exit	400	38	40	41	43	52	54	56	58
US-101 SB		3005	1507	1570	1609	1567	1592	1584	1531	1522
Sausalito Lateral	ent	405	63	65	67	70	80	89	89	80
US-101 SB		3010	1570	1635	1676	1637	1672	1673	1620	1602
Merchant Drive	exit	410	84	87	90	93	97	108	108	97
US-101 SB		3015	1486	1548	1586	1544	1575	1565	1512	1505
Merchant Drive	ent	415	46	52	52	46	43	41	40	38
US-101 SB		3020	1532	1600	1638	1590	1618	1606	1552	1543
Park Presidio Blvd	exit	420	478	496	514	532	497	552	552	497
US-101 SB		3025	1054	1104	1124	1058	1121	1054	1000	1046
Park Presidio Blvd	ent	425	159	176	176	159	168	162	156	151
US-101 SB		3030	1213	1280	1300	1217	1289	1216	1156	1197

Mainline Volume Data

Design Year plus Project Conditions - Weekday PM Peak Hour

Description	Type	Start Time Station	1	2	3	4	5	6	7	8
			16:00	16:15	16:30	16:45	17:00	17:15	17:30	17:45
Begin US-101 NB	m	1000	938	1077	1178	1237	1193	1171	1179	1223
Park Presidio Blvd	exit	200	245	272	272	245	208	201	194	187
US-101 NB		1004	693	805	906	992	985	970	985	1036
Park Presidio Blvd	ent	205	588	569	549	530	580	560	541	522
US-101 NB		1005	1281	1374	1455	1522	1565	1530	1526	1558
Merchant Road	exit	210	62	60	58	56	47	46	44	43
US-101 NB		1010	1219	1314	1397	1466	1518	1484	1482	1515
Merchant Road	ent	215	146	131	131	146	141	156	156	141
US-101 NB		1015	1365	1445	1528	1612	1659	1640	1638	1656
Vista Point	exit	220	47	45	44	42	29	26	26	29
US-101 NB		1020	1318	1400	1484	1570	1630	1614	1612	1627
Vista Point	ent	225	39	43	43	39	33	32	31	30
US-101 NB		1025	1357	1443	1527	1609	1663	1646	1643	1657
Sausalito Lateral	exit	230	81	72	72	81	91	101	101	91
US-101 NB		1030	1276	1371	1455	1528	1572	1545	1542	1566
Sausalito Lateral	ent	235	65	63	60	58	57	55	53	51
END US-101 NB		1035	1341	1434	1515	1586	1629	1600	1595	1617
Begin US-101 SB		3000	989	1034	1082	1166	1231	1238	1212	1128
Sausalito Lateral	exit	400	40	36	36	40	38	42	42	38
US-101 SB		3005	949	998	1046	1126	1193	1196	1170	1090
Sausalito Lateral	ent	405	86	90	93	96	106	118	118	106
US-101 SB		3010	1035	1088	1139	1222	1299	1314	1288	1196
Merchant Drive	exit	410	77	80	83	85	90	100	100	90
US-101 SB		3015	958	1008	1056	1137	1209	1214	1188	1106
Merchant Drive	ent	415	55	49	49	55	61	68	68	61
US-101 SB		3020	1013	1057	1105	1192	1270	1282	1256	1167
Park Presidio Blvd	exit	420	425	441	456	472	508	565	565	508
US-101 SB		3025	588	616	649	720	762	717	691	659
Park Presidio Blvd	ent	425	130	135	139	144	157	174	174	157
US-101 SB		3030	718	751	788	864	919	891	865	816

Appendix F
Freeway Simulation Output

Freeway Network Output
Existing Conditions

Existing Conditions - Weekday AM Peak Period
 Freeway Measures of Effectiveness
 Golden Gate Bridge - Moveable Median Barrier

Select Hour Interval:
 8:00 AM-9:00 AM

LOS A <10 vph
 LOS B 10-20 vph
 LOS C 20-28 vph
 LOS D 28-35 vph
 LOS E 35-43 vph
 LOS F >43 vph

Location		Node		Length (ft)	Hourly Volumes			Link Statistics			Aggregate Statistics			Total Thruput				Peak % Vol diff		
From	To	From	To		Actual	Simulated	Difference	Speed (mph)	Density (vplpm)	LOS	Speed (mph)	Density (vplpm)	LOS	Actual	Simulated	Difference	% Vol diff			
US 101 Northbound	US 101 NB Mainline	101	102	835	1,439	1,443	4	45	17	B	43	17	B	3,107	3,107	0	0.00	0.28		
		102	103	1,041	1,439	1,444	5	44	17	B				3,107	3,105	-2	-0.06	0.35		
		103	104	1,064	1,439	1,446	7	44	17	B				3,107	3,104	-3	-0.10	0.49		
		Park Presidio Bl Exit	Park Presidio Bl Ent	108	112	1,095	1,101	1,110	9	45	12	B	45	12	B	2,476	2,468	-8	-0.32	0.82
		Park Presidio Bl Ent	Merchant Rd Exit	112	116	694	2,787	2,798	11	41	17	B	41	17	B	5,502	5,492	-10	-0.18	0.39
		Merchant Rd Exit	Merchant Rd Ent	116	118	142	2,787	2,797	10	41	17	B	41	17	B	5,502	5,490	-12	-0.22	0.36
		Merchant Rd Ent	Vista Point Exit	118	120	86	2,639	2,548	-91	38	34	D	38	34	D	5,220	5,028	-192	-3.68	-3.45
		Vista Point Exit	Vista Point Ent	120	122	285	3,023	2,935	-88	38	34	D	40	35	E	5,832	5,639	-193	-3.31	-2.91
		122	124	364	3,023	2,937	-86	34	36	E	40	35	E	5,832	5,637	-195	-3.34	-2.84		
		124	126	731	3,023	2,939	-84	39	37	E	40	35	E	5,832	5,635	-197	-3.38	-2.78		
US 101 Northbound	US 101 NB Mainline	126	127	1,432	3,023	2,942	-81	43	35	E	40	35	E	5,832	5,632	-200	-3.43	-2.68		
		127	128	1,389	3,023	2,947	-76	41	35	E	40	35	E	5,832	5,631	-201	-3.45	-2.51		
		128	129	1,488	3,023	2,949	-74	39	38	E	40	35	E	5,832	5,628	-204	-3.50	-2.45		
		129	130	1,467	3,023	2,953	-70	40	37	E	40	35	E	5,832	5,624	-208	-3.57	-2.32		
		130	131	1,509	3,023	2,953	-70	42	34	D	40	35	D	5,832	5,624	-208	-3.57	-2.32		
		131	132	1,132	3,023	2,951	-72	41	31	D	40	35	D	5,832	5,619	-213	-3.65	-2.38		
		Vista Point Exit	Vista Point Ent	132	136	260	2,986	2,914	-72	45	15	B	45	15	B	5,775	5,558	-217	-3.76	-2.41
		Vista Point Ent	Sausalito Exit	136	140	588	3,034	2,964	-70	50	12	B	50	12	B	5,868	5,649	-219	-3.73	-2.31
		Sausalito Exit	Sausalito Ent	140	144	572	2,798	2,728	-70	53	12	B	53	12	B	5,507	5,284	-223	-4.05	-2.50
		Sausalito Ent	144	148	984	2,896	2,825	-71	52	14	B	53	14	B	5,670	5,444	-226	-3.99	-2.45	
US 101 NB Ramps	US 101 NB Mainline	148	150	1,048	2,896	2,829	-67	53	14	B	53	14	B	5,670	5,446	-224	-3.95	-2.31		
		150	152	285	2,896	2,830	-66	53	14	B	53	14	B	5,670	5,447	-223	-3.93	-2.28		
		152	154	656	2,896	2,833	-63	53	14	B	53	14	B	5,670	5,449	-221	-3.90	-2.18		
		154	158	1,033	2,896	2,831	-65	53	14	B	53	14	B	5,670	5,446	-224	-3.95	-2.24		
		158	160	804	2,896	2,833	-63	53	14	B	53	14	B	5,670	5,441	-229	-4.04	-2.18		
		Park Presidio Bl Exit	Park Presidio Bl Ent	108	208	139	338	341	3	24	14	B	24	14	B	631	637	6	0.95	0.89
		Park Presidio Bl Ent	Merchant Rd Exit	212	211	231	1,686	1,686	0	44	20	C	44	20	C	3,026	3,025	-1	-0.03	0.00
		Merchant Rd Exit	Merchant Rd Ent	118	218	129	148	249	101	36	6	A	33	8	A	282	462	180	63.83	68.24
		Merchant Rd Ent	220	220	133	384	385	1	20	17	B	20	19	B	612	611	-1	-0.16	0.26	
		Vista Point Exit	Vista Point Ent	222	220	133	384	385	1	20	20	C	20	19	C	57	59	2	3.51	2.70
US 101 SB Mainline	US 101 SB Mainline	232	259	129	37	38	1	25	1	A	25	1	A	57	59	2	3.51	2.70		
		236	136	184	48	48	0	25	2	A	25	2	A	93	92	-1	-1.08	0.00		
		260	236	120	48	48	0	25	2	A	25	2	A	93	92	-1	-1.08	0.00		
		Sausalito Lateral Exit	Sausalito Lateral Ent	140	240	208	236	238	2	35	6	A	35	6	A	361	363	2	0.55	0.85
		Sausalito Lateral Ent	Sausalito Exit	244	144	138	98	98	0	20	5	A	20	5	A	163	162	-1	-0.61	0.00
		Sausalito Exit	Sausalito Ent	301	302	768	5,082	5,085	3	54	25	C	53	24	C	10,420	10,418	-2	-0.02	0.06
		Sausalito Ent	316	318	596	5,182	5,189	7	44	29	D	10,607			10,604	-3	-0.03	0.14		
		318	319	1,107	5,182	5,190	8	43	30	D	10,607	10,603		-4	-0.04	0.15				
		319	320	1,499	5,182	5,198	16	43	30	D	10,607	10,607		0	0.00	0.31				
		320	321	1,479	5,182	5,197	15	43	30	D	10,607	10,606		-1	-0.01	0.29				
		321	322	1,486	5,182	5,204	22	43	30	D	10,607	10,612		5	0.05	0.42				
		322	323	1,393	5,182	5,210	28	44	30	D	10,607	10,618		11	0.10	0.54				
		323	324	1,428	5,182	5,215	33	44	30	D	10,607	10,616		9	0.08	0.64				
		324	326	739	5,182	5,220	38	41	26	C	10,607	10,624		17	0.16	0.73				
		326	328	370	5,182	5,224	42	19	56	F	10,607	10,627		20	0.19	0.81				
US 101 SB Ramps	US 101 SB Mainline	328	329	282	5,182	5,223	41	12	79	F	10,607	10,621		14	0.13	0.79				
		329	330	87	4,792	4,852	60	18	52	F	18	52	F	9,879	9,926	47	0.48	1.25		
		330	332	136	4,946	5,005	59	29	28	D	35	29	D	10,219	10,265	46	0.45	1.19		
		332	334	700	4,946	5,009	63	36	28	D	35	29	D	10,219	10,269	50	0.49	1.27		
		Park Presidio Bl Exit	Park Presidio Bl Ent	334	338	690	4,946	5,014	68	35	30	D	35	29	D	10,219	10,271	52	0.51	1.37
		Park Presidio Bl Ent	338	342	866	2,848	2,890	42	43	21	C	43	21	C	6,101	6,155	54	0.89	1.47	
		342	344	1,485	3,617	3,660	43	43	21	C	43	21	C	7,680	7,734	54	0.70	1.19		
		344	348	1,048	3,617	3,665	48	44	21	C	43	21	C	7,680	7,739	59	0.77	1.33		
		348	350	836	3,617	3,667	50	43	21	C	43	21	C	7,680	7,739	59	0.77	1.38		
		Sausalito Exit	Sausalito Ent	312	412	283	182	186	4	29	7	A	29	7	A	317	328	11	3.47	2.20
US 101 SB Ramps	US 101 SB Mainline	416	316	138	282	281	-1	32	10	B	32	10	B	504	502	-2	-0.40	-0.35		
		Merchant Rd Exit	329	429	138	390	372	-18	18	20	C	19	20	C	728	694	-34	-4.67	-4.62	
		429	432	171	390	373	-17	20	20	C	19	20	C	728	695	-33	-4.53	-4.36		
		432	430	176	154	154	0	20	8	A	20	8	A	340	340	0	0.00	0.00		
		Park Presidio Bl Exit	338	438	229	2,098	2,127	29	33	64	F	33	64	F	4,118	4,118	0	0.00	1.38	
		Park Presidio Bl Ent	442	342	212	769	768	-1	35	23	C	35	23	C	1,579	1,577	-2	-0.13	-0.13	

Existing Conditions - Weekday PM Peak Period
 Freeway Measures of Effectiveness
 Golden Gate Bridge - Moveable Median Barrier

Select Hour Interval:
 5:00 PM-6:00 PM

LOS A <10 vpjh
 LOS B 10-20 vpjh
 LOS C 20-28 vpjh
 LOS D 28-35 vpjh
 LOS E 35-43 vpjh
 LOS F >43 vpjh

Location		Node		Length (ft)	Hourly Volumes			Link Statistics			Aggregate Statistics			Total Thruput				Peak % Vol diff			
From	To	From	To		Actual	Simulated	Difference	Speed (mph)	Density (vp/lpm)	LOS	Speed (mph)	Density (vp/lpm)	LOS	Actual	Simulated	Difference	% Vol diff				
US 101 Northbound	US 101 NB Mainline	101	102	835	3,564	3,564	0	44.0	27.0	C	43	27	C	6,866	6,863	-3	-0.04	0.00			
		102	103	1,041	3,564	3,566	2	44.0	27.0	C				6,866	6,858	-8	-0.12	0.06			
		103	104	1,064	3,564	3,564	0	43.0	27.0	C				6,866	6,850	-16	-0.23	0.00			
		Park Presidio Bl Exit	Park Presidio Bl Ent	108	112	1,095	2,983	2,984	1	43.0	22.0	C		22	C	5,525	5,528	3	0.05	0.03	
		Park Presidio Bl Ent	Merchant Rd Exit	112	116	694	4,776	4,767	-9	34.0	32.0	D		34	32	D	9,138	9,126	-12	-0.13	-0.19
		Merchant Rd Exit	Merchant Rd Ent	116	118	142	4,776	4,761	-15	34.0	32.0	D		34	32	D	9,138	9,120	-18	-0.20	-0.31
		Merchant Rd Ent	Vista Point Exit	118	120	86	4,605	4,517	-88	10.0	69.0	F		10	69	F	8,743	8,543	-200	-2.29	-1.91
		Vista Point Exit	Vista Point Ent	120	122	285	5,171	5,082	-89	16.0	70.0	F		40	42	E	9,837	9,625	-212	-2.16	-1.72
		122	124	364	5,171	5,079	-92	22.0	75.0	F	9,837	9,617		-220	-2.24	-1.78					
		124	126	731	5,171	5,079	-92	39.0	43.0	F	9,837	9,612		-225	-2.29	-1.78					
		126	127	1,432	5,171	5,076	-95	43.0	39.0	E	9,837	9,604		-233	-2.37	-1.84					
		127	128	1,389	5,171	5,076	-95	42.0	40.0	E	9,837	9,596		-241	-2.45	-1.84					
		128	129	1,488	5,171	5,076	-95	42.0	40.0	E	9,837	9,589		-248	-2.52	-1.84					
		129	130	1,467	5,171	5,074	-97	42.0	40.0	E	9,837	9,583		-254	-2.58	-1.88					
		130	131	1,509	5,171	5,074	-97	42.0	40.0	E	9,837	9,578		-259	-2.63	-1.88					
		131	132	1,132	5,171	5,071	-100	40.0	38.0	E	9,837	9,571		-266	-2.70	-1.93					
		Vista Point Exit	Vista Point Ent	132	136	260	5,067	4,965	-102	45.0	28.0	D		45	28	D	9,563	9,295	-268	-2.80	-2.01
		Vista Point Ent	Sausalito Exit	136	140	588	5,186	5,086	-100	51.0	20.0	C		51	20	C	9,838	9,567	-271	-2.75	-1.93
		Sausalito Exit	Sausalito Ent	140	144	572	4,864	4,766	-98	51.0	22.0	C		51	22	C	9,260	8,970	-290	-3.13	-2.01
		Sausalito Ent	US 101 Northbound	144	148	984	5,044	4,947	-97	51.0	23.0	C	52	23	C	9,646	9,357	-289	-3.00	-1.92	
		148	150	1,048	5,044	4,945	-99	53.0	23.0	C	9,646	9,351		-295	-3.06	-1.96					
		150	152	285	5,044	4,945	-99	51.0	23.0	C	9,646	9,351		-295	-3.06	-1.96					
		152	154	656	5,044	4,946	-98	53.0	23.0	C	9,646	9,352		-294	-3.05	-1.94					
		154	158	1,033	5,044	4,946	-98	53.0	23.0	C	9,646	9,347		-299	-3.10	-1.94					
		158	160	804	5,044	4,944	-100	53.0	23.0	C	9,646	9,346		-300	-3.11	-1.98					
	US 101 NB Ramps	Park Presidio Bl Exit	Park Presidio Bl Ent	108	208	139	581	584	3	24.0	23.0	C	24	23	C	1,341	1,314	-27	-2.01	0.52	
		Park Presidio Bl Ent	Merchant Rd Exit	212	112	231	1,793	1,794	1	44.0	22.0	C				3,613	3,612	-1	-0.03	0.06	
		Merchant Rd Exit	Merchant Rd Ent	118	218	129	171	243	72	34.0	7.0	A		30	7	A	395	573	178	45.06	42.11
		Merchant Rd Ent	Vista Point Exit	220	120	133	566	565	-1	20.0	28.0	D		20	30	D	1,094	1,093	-1	-0.09	-0.18
		Vista Point Exit	Vista Point Ent	222	220	133	566	566	0	20.0	31.0	D		20	11	B	1,094	1,093	-1	-0.09	0.00
		Vista Point Ent	Sausalito Lateral Exit	232	259	129	104	105	1	25.0	2.0	A		25	3	A	274	274	0	0.00	0.96
		Sausalito Lateral Exit	Sausalito Lateral Ent	236	136	184	119	119	0	25.0	6.0	A		25	6	A	275	274	-1	-0.36	0.00
		Sausalito Lateral Ent	Sausalito Exit	260	236	120	119	119	0	25.0	5.0	A		25	10	B	578	594	16	2.77	-0.31
		Sausalito Exit	Sausalito Ent	308	312	437	3,284	3,288	4	53.0	19.0	B		20	11	B	386	385	-1	-0.26	0.00
		Sausalito Ent	US 101 Southbound	301	302	768	3,284	3,286	2	54.0	15.0	B	54	16	B	6,377	6,375	-2	-0.03	0.06	
		302	303	1,055	3,284	3,286	2	54.0	16.0	B	6,377	6,373		-4	-0.06	0.06					
		303	304	621	3,284	3,285	1	54.0	16.0	B	6,377	6,373		-4	-0.06	0.03					
		304	305	283	3,284	3,284	0	54.0	16.0	B	6,377	6,374		-3	-0.05	0.00					
		305	306	1,066	3,284	3,286	2	54.0	16.0	B	6,377	6,374		-3	-0.05	0.06					
		306	307	449	3,284	3,289	5	53.0	15.0	B	6,377	6,375		-2	-0.03	0.15					
		307	308	365	3,284	3,288	4	53.0	17.0	B	6,377	6,374		-3	-0.05	0.12					
		Sausalito Exit	Sausalito Ent	312	316	567	3,150	3,155	5	53.0	20.0	C		53	20	C	6,117	5,746	-371	-6.07	0.16
		Sausalito Ent	Merchant Rd Exit	316	318	596	3,524	3,530	6	44.0	25.0	C		42	28	D	6,796	6,425	-371	-5.46	0.17
		318	319	1,107	3,524	3,533	9	43.0	27.0	C	6,796	6,424		-372	-5.47	0.26					
		319	320	1,499	3,524	3,535	11	42.0	27.0	C	6,796	6,424		-372	-5.47	0.31					
		320	321	1,479	3,524	3,534	15	43.0	27.0	C	6,796	6,423		-373	-5.49	0.43					
		321	322	1,486	3,524	3,542	18	43.0	27.0	C	6,796	6,424		-372	-5.47	0.51					
		322	323	1,393	3,524	3,540	16	43.0	27.0	C	6,796	6,420		-376	-5.53	0.45					
		323	324	1,428	3,524	3,541	17	43.0	27.0	C	6,796	6,423		-373	-5.49	0.48					
		324	326	739	3,524	3,541	17	43.0	27.0	C	6,796	6,420		-376	-5.53	0.48					
		326	328	370	3,524	3,541	17	27.0	32.0	D	6,796	6,421		-375	-5.52	0.48					
		328	329	282	3,524	3,543	19	12.0	60.0	F	6,796	6,419		-377	-5.55	0.54					
	US 101 SB Ramps	Merchant Rd Exit	Merchant Rd Ent	329	330	87	3,164	3,186	22	18.0	43.0	F	18	43	F	6,127	5,810	-317	-5.17	0.70	
		330	332	136	3,408	3,432	24	29.0	26.0	C	6,569	6,251		-318	-4.84	0.70					
		332	334	700	3,408	3,431	23	29.0	26.0	C	6,569	6,247		-322	-4.90	0.67					
		Park Presidio Bl Exit	Park Presidio Bl Ent	334	338	690	3,408	3,433	25	29.0	26.0	C		29	26	C	6,569	6,249	-320	-4.87	0.73
		Park Presidio Bl Ent	Merchant Rd Exit	338	342	866	1,300	1,292	-8	44.0	14.0	B		44	14	B	2,698	2,512	-186	-6.89	-0.62
		342	344	1,485	1,964	1,956	-8	44.0	15.0	B	44	15		B	3,912	3,723	-189	-4.83	-0.41		
		344	348	1,048	1,964	1,956	-8	44.0	15.0	B	44	14		B	3,912	3,720	-192	-4.91	-0.41		

Freeway Network Output
Existing Plus Project Conditions

Existing plus Project Conditions - Weekday AM Peak Period
 Freeway Measures of Effectiveness
 Golden Gate Bridge - Moveable Median Barrier

Select Hour Interval:
 8:00 AM-9:00 AM

LOS A <10 vplph
 LOS B 10-20 vplph
 LOS C 20-28 vplph
 LOS D 28-35 vplph
 LOS E 35-43 vplph
 LOS F >43 vplph

Location		Node		Length (ft)	Hourly Volumes			Link Statistics			Aggregate Statistics			Total Thruput				Peak % Vol diff			
From	To	From	To		Actual	Simulated	Difference	Speed (mph)	Density (vplpm)	LOS	Speed (mph)	Density (vplpm)	LOS	Actual	Simulated	Difference	% Vol diff				
US 101 Northbound	US 101 NB Mainline	101	102	835	1,439	1,441	2	45.0	17.0	B	43	17	B	3,107	3,105	-2	-0.06	0.14			
		102	103	1,041	1,439	1,444	5	44.0	17.0	B				3,107	3,105	-2	-0.06	0.35			
		103	104	1,064	1,439	1,445	6	44.0	17.0	B				3,107	3,104	-3	-0.10	0.42			
		Park Presidio Bl Exit			104	108	874	1,439	1,447	8	39.0	17.0	B	3,107	3,104	-3	-0.10	0.56			
		Park Presidio Bl Exit	Park Presidio Bl Ent	108	112	1,095	1,101	1,104	3	45.0	12.0	B	2,476	2,460	-16	-0.65	0.27				
		Park Presidio Bl Ent	Merchant Rd Exit		112	116	694	2,787	2,789	2	40.0	17.0	B	5,502	5,480	-22	-0.40	0.07			
		Merchant Rd Exit			116	118	142	2,787	2,789	2	40.0	17.0	B	5,502	5,479	-23	-0.42	0.07			
		Merchant Rd Ent	Merchant Rd En'	118	120	86	2,639	2,546	-93	40.0	32.0	D	5,220	5,025	-195	-3.74	-3.52				
		Merchant Rd Ent			120	122	285	3,023	2,931	-92	37.0	32.0	D	5,832	5,636	-196	-3.36	-3.04			
		122	124	364	3,023	2,931	-92	37.0	32.0	D	5,832	5,634	-198	-3.40	-3.04						
		124	126	731	3,023	2,934	-89	39.0	38.0	E	5,832	5,635	-197	-3.38	-2.94						
		126	127	1,432	3,023	2,937	-86	40.0	36.0	E	5,832	5,632	-200	-3.43	-2.84						
		127	128	1,389	3,023	2,937	-86	38.0	38.0	E	5,832	5,624	-208	-3.57	-2.84						
		128	129	1,488	3,023	2,947	-76	39.0	38.0	E	5,832	5,625	-207	-3.55	-2.51						
		129	130	1,467	3,023	2,943	-80	39.0	38.0	E	5,832	5,620	-212	-3.64	-2.65						
		130	131	1,509	3,023	2,948	-75	39.0	38.0	E	5,832	5,621	-211	-3.62	-2.48						
		131	132	1,132	3,023	2,952	-71	43.0	33.0	D	5,832	5,616	-216	-3.70	-2.35						
		Vista Point Exit	Vista Point Ent	132	136	368	2,986	2,918	-68	43.0	33.0	D	43	33	D	5,775	5,562	-213	-3.69	-2.28	
		Vista Point Ent	Sausalito Exit	136	140	473	3,034	2,967	-67	51.0	20.0	C	51	20	C	5,868	5,654	-214	-3.65	-2.21	
		Sausalito Exit	Sausalito Ent	140	144	572	2,798	2,726	-72	52.0	20.0	C	52	20	C	5,507	5,280	-227	-4.12	-2.57	
		Sausalito Ent	US 101 Northbound		144	148	984	2,896	2,797	-99	52.0	14.0	B	5,670	5,407	-263	-4.64	-3.42			
		148	150	1,048	2,896	2,798	-98	53.0	14.0	B	5,670	5,404	-266	-4.69	-3.38						
		150	152	285	2,896	2,799	-97	53.0	14.0	B	5,670	5,402	-268	-4.73	-3.35						
		152	154	656	2,896	2,801	-95	53.0	14.0	B	5,670	5,402	-268	-4.73	-3.28						
		154	158	1,033	2,896	2,808	-88	53.0	14.0	B	5,670	5,404	-266	-4.69	-3.04						
		158	160	804	2,896	2,812	-84	53.0	14.0	B	5,670	5,404	-266	-4.69	-2.90						
US 101 NB Ramps	US 101 NB Mainline	Park Presidio Bl Exit	Park Presidio Bl Ent	108	208	139	338	347	9	24.0	14.0	B	24	14	B	631	644	13	2.06	2.66	
		Park Presidio Bl Ent	Merchant Rd Exit		212	112	231	1,686	1,684	-2	44.0	20.0	C	44	20	C	3,026	3,023	-3	-0.10	-0.12
		Merchant Rd Exit			118	218	129	148	244	96	37.0	6.0	A	282	454	172	60.99	64.86			
		Merchant Rd Ent	Merchant Rd Ent		218	224	133	148	244	96	30.0	9.0	A	33	8	A	282	454	172	60.99	64.86
		220	220	133	384	384	0	20.0	17.0	B	20	19	B	612	611	-1	-0.16	0.00			
		222	220	133	384	384	0	20.0	20.0	C	612	611	-1	-0.16	0.00						
		Vista Point Exit	Vista Point Ent		132	232	78	37	36	-1	25.0	1.0	A	25	1	A	57	56	-1	-1.75	-2.70
		232	259	129	37	37	0	25.0	1.0	A	57	56	-1	-1.75	0.00						
		Vista Point Ent	Sausalito Lateral Exit		260	236	105	236	240	4	64.0	1.0	A	64	1	A	361	373	12	3.32	1.69
		236	140	121	236	240	4	64.0	1.0	A	361	373	12	3.32	1.69						
US 101 SB Mainline	US 101 SB Ramps	Sausalito Lateral Exit	Sausalito Lateral Ent	136	240	136	48	49	1	55.0	4.0	A	55	4	A	93	98	5	5.38	2.08	
		Sausalito Lateral Ent	Sausalito Exit		244	144	138	98	76	-22	20.0	5.0	A	20	5	A	163	133	-30	-18.40	-22.45
		US 101 Southbound			301	302	768	5,082	5,086	4	54.0	25.0	C	10,420	10,419	-1	-0.01	0.08			
		302	303	1,055	5,082	5,089	7	53.0	25.0	C	10,420	10,420	0	0.00	0.14						
		303	304	621	5,082	5,090	8	53.0	25.0	C	10,420	10,420	0	0.00	0.16						
		304	305	283	5,082	5,089	7	53.0	25.0	C	10,420	10,420	0	0.00	0.14						
		305	306	1,066	5,082	5,092	10	53.0	25.0	C	10,420	10,424	4	0.04	0.20						
		306	307	425	5,082	5,091	9	53.0	25.0	C	10,420	10,425	5	0.05	0.18						
		307	308	373	5,082	5,094	12	53.0	25.0	C	10,420	10,426	6	0.06	0.24						
		Sausalito Exit	Sausalito Ent	308	312	455	5,082	5,094	12	50.0	24.0	C	10,420	10,424	4	0.04	0.24				
		Sausalito Ent	Merchant Rd Exit		312	316	567	4,900	4,913	13	43.0	23.0	C	43	23	C	10,103	10,111	8	0.08	0.27
		316	318	596	5,182	5,196	14	34.0	31.0	D	10,607	10,616	9	0.08	0.27						
		318	319	1,107	5,182	5,197	15	39.0	33.0	D	10,607	10,615	8	0.08	0.29						
		319	320	1,499	5,182	5,201	19	40.0	32.0	D	10,607	10,616	9	0.08	0.37						
		320	321	1,479	5,182	5,207	25	40.0	32.0	D	10,607	10,621	14	0.13	0.48						
		321	322	1,486	5,182	5,209	27	40.0	32.0	D	10,607	10,624	17	0.16	0.52						
		322	323	1,393	5,182	5,206	24	40.0	32.0	D	10,607	10,622	15	0.14	0.46						
		323	324	1,428	5,182	5,209	27	40.0	32.0	D	10,607	10,630	23	0.22	0.52						
		324	326	739	5,182	5,212	30	40.0	28.0	D	10,607	10,629	22	0.21	0.58						
		326	328	370	5,182	5,224	42	17.0	59.0	F	10,607	10,635	28	0.26	0.81						
US 101 SB Ramps	US 101 SB Mainline	Merchant Rd Exit	Merchant Rd Ent'	328	329	282	5,182	5,224	42	12.0	78.0	F	10,607	10,636	29	0.27	0.81				
		329	330	87	4,792	4,830	38	18.0	52.0	F	18	52	F	9,879	9,909	30	0.30	0.79			
		330	332	136	4,946	4,984	38	31.0	28.0	D	10,219	10,248	29	0.28	0.77						
		332	334	700	4,946	4,988	42	33.0	29.0	D	34	29	D	10,219	10,249	30	0.29	0.85			

Existing plus Project Conditions - Weekday PM Peak Period
 Freeway Measures of Effectiveness
 Golden Gate Bridge - Moveable Median Barrier

Select Hour Interval:
 5:00 PM-6:00 PM

LOS A <10 vplph
 LOS B 10-20 vplph
 LOS C 20-28 vplph
 LOS D 28-35 vplph
 LOS E 35-43 vplph
 LOS F >43 vplph

Location		Node		Length (ft)	Hourly Volumes			Link Statistics			Aggregate Statistics			Total Thruput				Peak % Vol diff
From	To	From	To		Actual	Simulated	Difference	Speed (mph)	Density (vplpm)	LOS	Speed (mph)	Density (vplpm)	LOS	Actual	Simulated	Difference	% Vol diff	
US 101 Northbound		101	102	835	3,564	3,566	2	44.0	27.0	C	43	27	C	6,866	6,862	-4	-0.06	0.06
		102	103	1,041	3,564	3,564	0	44.0	27.0	C				6,866	6,859	-7	-0.10	0.00
		103	104	1,064	3,564	3,564	0	43.0	27.0	C				6,866	6,854	-12	-0.17	0.00
		Park Presidio Bl Exit		104	108	874	3,564	3,567	3	41.0	29.0	D		6,866	6,852	-14	-0.20	0.08
		Park Presidio Bl Exit	Park Presidio Bl Ent	108	112	1,095	2,983	2,981	-2	43.0	23.0	C		5,525	5,497	-28	-0.51	-0.07
		Park Presidio Bl Ent	Merchant Rd Exit	112	116	694	4,776	4,771	-5	14.0	57.0	F		9,138	9,099	-39	-0.43	-0.10
		116		118	142	4,776	4,769	-7	15.0	61.0	F	9,138		9,094	-44	-0.48	-0.15	
		Merchant Rd Exit	Merchant Rd En'	118	120	86	4,605	4,516	-89	15.0	61.0	F		8,743	8,500	-243	-2.78	-1.93
		Merchant Rd En'	Vista Point Exit	120	122	285	5,171	5,082	-89	22.0	59.0	F		9,837	9,586	-251	-2.55	-1.72
		122		124	364	5,171	5,082	-89	31.0	54.0	F	9,837		9,582	-255	-2.59	-1.72	
		124		126	731	5,171	5,083	-88	41.0	42.0	E	9,837		9,580	-257	-2.61	-1.70	
		126		127	1,432	5,171	5,080	-91	42.0	40.0	E	9,837		9,575	-262	-2.66	-1.76	
		127		128	1,389	5,171	5,081	-90	41.0	42.0	E	9,837		9,572	-265	-2.69	-1.74	
		128		129	1,488	5,171	5,078	-93	41.0	42.0	E	9,837		9,563	-274	-2.79	-1.80	
		129		130	1,467	5,171	5,077	-94	41.0	42.0	E	9,837		9,559	-278	-2.83	-1.82	
		130		131	1,509	5,171	5,079	-92	41.0	42.0	E	9,837		9,551	-286	-2.91	-1.78	
		131		132	1,132	5,171	5,082	-89	39.0	41.0	E	9,837		9,544	-293	-2.98	-1.72	
		Vista Point Exit	Vista Point Ent	132	136	260	5,067	4,972	-95	43.0	38.0	E		9,563	9,262	-301	-3.15	-1.87
		Vista Point Ent	Sausalito Exit	136	140	588	5,186	5,088	-98	50.0	24.0	C		9,838	9,531	-307	-3.12	-1.89
		Sausalito Exit	Sausalito Ent	140	144	572	4,864	4,767	-97	50.0	28.0	D		9,260	8,938	-322	-3.49	-1.99
		Sausalito Ent	US 101 Northbound	144	148	984	5,044	4,948	-96	51.0	23.0	C		9,646	9,325	-321	-3.33	-1.90
		148		150	1,048	5,044	4,946	-98	53.0	23.0	C	9,646		9,319	-327	-3.39	-1.94	
		150		152	285	5,044	4,947	-97	52.0	23.0	C	9,646		9,317	-329	-3.41	-1.92	
		152		154	656	5,044	4,943	-101	53.0	23.0	C	9,646		9,312	-334	-3.46	-2.00	
		154		158	1,033	5,044	4,942	-102	53.0	23.0	C	9,646		9,312	-334	-3.46	-2.02	
		158		160	804	5,044	4,937	-107	53.0	23.0	C	9,646		9,309	-337	-3.49	-2.12	
		Park Presidio Bl Exit	Park Presidio Bl Ent	108	208	139	581	583	2	24.0	24.0	C		1,341	1,348	7	0.52	0.34
		Park Presidio Bl Ent	Merchant Rd Exit	212	112	231	1,793	1,793	0	44.0	22.0	C		3,613	3,611	-2	-0.06	0.00
		Merchant Rd Exit		118	218	129	171	252	81	33.0	8.0	A		395	591	196	49.62	47.37
		Merchant Rd Ent	Merchant Rd Ent	218	224	133	171	252	81	26.0	10.0	B		395	591	196	49.62	47.37
		Vista Point Exit		220	120	133	566	566	0	20.0	29.0	D		1,094	1,093	-1	-0.09	0.00
		Vista Point Ent	Sausalito Exit	222	220	133	566	566	0	20.0	31.0	D		1,094	1,093	-1	-0.09	0.00
		Sausalito Exit		232	259	129	104	107	3	25.0	4.0	A		274	278	4	1.46	2.88
		Vista Point Ent	Sausalito Ent	260	236	120	322	320	-2	65.0	3.0	A		578	588	10	1.73	-0.62
		Sausalito Ent		236	140	697	322	320	-2	64.0	2.0	A		578	588	10	1.73	-0.62
		Sausalito Ent	Sausalito Lateral Ent	136	240	743	119	120	1	55.0	5.0	A		275	274	-1	-0.36	0.84
		Sausalito Lateral Ent		244	144	138	180	181	1	20.0	9.0	A		386	385	-1	-0.26	0.56
US 101 Southbound		Sausalito Exit	US 101 Southbound	301	302	768	3,284	3,287	3	54.0	15.0	B		6,377	6,375	-2	-0.03	0.09
				302	303	1,055	3,284	3,286	2	54.0	16.0	B		6,377	6,373	-4	-0.06	0.06
				303	304	621	3,284	3,287	3	54.0	16.0	B		6,377	6,374	-3	-0.05	0.09
				304	305	283	3,284	3,286	2	54.0	16.0	B		6,377	6,375	-2	-0.03	0.06
				305	306	1,066	3,284	3,286	2	54.0	16.0	B		6,377	6,374	-3	-0.05	0.06
				306	307	449	3,284	3,287	3	54.0	16.0	B		6,377	6,373	-4	-0.06	0.09
				307	308	365	3,284	3,288	4	54.0	16.0	B		6,377	6,375	-2	-0.03	0.12
				308	312	437	3,284	3,290	6	51.0	16.0	B		6,377	6,374	-3	-0.05	0.18
				312	316	567	3,150	3,157	7	51.0	15.0	B		6,117	6,117	0	0.00	0.22
				316	318	596	3,524	3,531	7	38.0	22.0	C		6,796	6,794	-2	-0.03	0.20
				318	319	1,107	3,524	3,535	11	40.0	29.0	D		6,796	6,797	1	0.01	0.31
				319	320	1,499	3,524	3,534	10	39.0	29.0	D		6,796	6,793	-3	-0.04	0.28
			Merchant Rd Exit	320	321	1,479	3,524	3,535	11	39.0	29.0	D		6,796	6,791	-5	-0.07	0.31
				321	322	1,486	3,524	3,540	16	39.0	29.0	D		6,796	6,791	-5	-0.07	0.45
			Merchant Rd Ent	322	323	1,393	3,524	3,540	16	40.0	29.0	D		6,796	6,789	-7	-0.10	0.45
				323	324	1,428	3,524	3,537	13	40.0	29.0	D		6,796	6,792	-4	-0.06	0.37
			Merchant Rd Exit	324	326	739	3,524	3,540	16	29.0	29.0	D		6,796	6,789	-7	-0.10	0.45
				326	328	370	3,524	3,544	20	21.0	39.0	E		6,796	6,788	-8	-0.12	0.57
			Merchant Rd Ent	328	329	282	3,524	3,544	20	13.0	66.0	F		6,796	6,786	-10	-0.15	0.57
				329	330	87	3,164	3,168	4	16.0	48.0	F		6,127	6,095	-32	-0.	

Freeway Network Output
Design Year Conditions

Design Year Conditions - Weekday AM Peak Period
 Freeway Measures of Effectiveness
 Golden Gate Bridge - Moveable Median Barrier

Select Hour Interval:
 8:00 AM-9:00 AM

LOS A <10 vplph
 LOS B 10<20 vplph
 LOS C 20<28 vplph
 LOS D 28<35 vplph
 LOS E 35<43 vplph
 LOS F >43 vplph

Location		Node		Length (ft)	Hourly Volumes			Link Statistics			Aggregate Statistics			Total Thruput			
From	To	From	To		Actual	Simulated	Difference	Speed (mph)	Density (vplpm)	LOS	Speed (mph)	Density (vplpm)	LOS	Actual	Simulated	Difference	% Vol diff
US 101 NB Mainline	US 101 Northbound	101	102	835	2,598	1,892	-706	1	150	F	1	150	F	5,448	4,323	-1,125	-20.65
		102	103	1,041	2,598	1,891	-707	1	150	F				5,448	4,202	-1,246	-22.87
	Park Presidio Bl Exit	103	104	1,064	2,598	1,895	-703	1	150	F	2	150	F	5,448	4,083	-1,365	-25.06
	Park Presidio Bl Ent	104	108	874	2,598	1,901	-697	3	150	F				5,448	3,984	-1,464	-26.87
	Merchant Rd Exit	112	116	694	4,668	2,979	-1,689	4	150	F	4	150	F	4,730	3,339	-1,391	-29.41
	Merchant Rd Ent	116	118	142	4,668	2,977	-1,691	4	150	F				9,134	6,153	-2,981	-32.64
	Merchant Rd Ent	118	120	86	4,512	2,824	-1,688	11	150	F	11	150	F	8,839	5,837	-3,002	-33.96
	Merchant Rd Ent	120	122	285	4,914	3,226	-1,688	12	107	F				9,481	6,477	-3,004	-31.68
		122	124	364	4,914	3,224	-1,690	12	107	F	36	46	F	9,481	6,475	-3,006	-31.71
		124	126	731	4,914	3,225	-1,689	36	45	F				9,481	6,476	-3,005	-31.69
		126	127	1,432	4,914	3,222	-1,692	37	43	F				9,481	6,472	-3,009	-31.74
		127	128	1,389	4,914	3,221	-1,693	38	43	F				9,481	6,472	-3,009	-31.74
		128	129	1,488	4,914	3,222	-1,692	38	43	F				9,481	6,474	-3,007	-31.72
		129	130	1,467	4,914	3,221	-1,693	38	43	F				9,481	6,474	-3,007	-31.72
		130	131	1,509	4,914	3,216	-1,698	38	43	F				9,481	6,471	-3,010	-31.75
	Vista Point Exit	131	132	1,132	4,914	3,217	-1,697	40	35	E				9,481	6,474	-3,007	-31.72
	Vista Point Ent	132	136	260	4,875	3,197	-1,678	43	19	B	52	19	B	9,422	6,437	-2,985	-31.68
	Vista Point Ent	136	140	588	4,925	3,246	-1,679	51	13	B				9,519	6,531	-2,988	-31.39
	Sausalito Exit	140	144	572	4,643	3,077	-1,566	53	15	B	53	15	B	9,088	6,241	-2,847	-31.33
	Sausalito Ent	144	148	984	4,761	3,196	-1,565	51	15	B				9,283	6,438	-2,845	-30.65
		148	150	1,048	4,761	3,196	-1,565	52	15	B				9,283	6,436	-2,847	-30.67
		150	152	285	4,761	3,197	-1,564	53	15	B				9,283	6,436	-2,847	-30.67
		152	154	656	4,761	3,196	-1,565	53	15	B				9,283	6,436	-2,847	-30.67
		154	158	1,033	4,761	3,194	-1,567	53	15	B				9,283	6,436	-2,847	-30.67
	US 101 Northbound	158	160	804	4,761	3,194	-1,567	52	15	B				9,283	6,436	-2,847	-30.67
US 101 NB Ramps	Park Presidio Bl Exit	108	208	139	384	271	-113	25	11	B	25	11	B	718	509	-209	-29.11
	Park Presidio Bl Ent	212	112	231	2,454	1,351	-1,103	2	150	F				4,404	2,869	-1,535	-34.85
	Merchant Rd Exit	118	218	129	156	152	-4	21	8	A	20	8	A	295	314	19	6.44
	Merchant Rd Ent	220	120	133	402	402	0	20	18	B				642	641	-1	-0.16
		222	220	133	402	402	0	20	21	C	20	20	C	642	641	-1	-0.16
	Vista Point Exit	132	232	78	39	23	-16	25	1	A				59	38	-21	-35.59
	Vista Point Ent	232	259	129	39	23	-16	25	1	A				59	38	-21	-35.59
		236	136	184	50	169	119	25	7	A	25	7	A	97	289	192	197.94
	Sausalito Lateral Exit	260	236	120	50	169	119	25	7	A				97	289	192	197.94
	Sausalito Lateral Ent	140	240	208	282	50	-232	25	2	A	25	2	A	431	96	-335	-77.73
	Sausalito Exit	244	144	138	118	119	1	20	6	A				195	194	-1	-0.51
US 101 SB Mainline	US 101 Southbound	301	302	768	6,449	6,447	-2	54	31	D	52	31	D	12,864	12,859	-5	-0.04
		302	303	1,055	6,449	6,447	-2	53	30	D				12,864	12,859	-5	-0.04
		303	304	621	6,449	6,447	-2	52	31	D				12,864	12,857	-7	-0.05
		304	305	283	6,449	6,448	-1	52	31	D				12,864	12,859	-5	-0.04
		305	306	1,066	6,449	6,451	2	52	31	D				12,864	12,859	-5	-0.04
		306	307	449	6,449	6,450	1	52	31	D				12,864	12,860	-4	-0.03
		307	308	365	6,449	6,449	0	52	31	D				12,864	12,859	-5	-0.04
		308	312	437	6,449	6,450	1	50	30	D				12,864	12,857	-7	-0.05
		312	316	567	6,229	6,237	8	50	31	D	50	31	D	12,482	12,475	-7	-0.06
		316	318	596	6,567	6,579	12	41	38	E				13,085	13,080	-5	-0.04
US 101 SB Ramps	Sausalito Ent	318	319	1,107	6,567	6,572	5	39	42	E				13,085	13,071	-14	-0.11
		319	320	1,499	6,567	6,579	12	40	41	E				13,085	13,071	-14	-0.11
		320	321	1,479	6,567	6,555	-12	35	47	F				13,085	13,045	-40	-0.31
		321	322	1,486	6,567	6,458	-109	15	85	F				13,085	12,949	-136	-1.04
		322	323	1,393	6,567	6,334	-233	1	141	F				13,085	12,810	-275	-2.10
		323	324	1,428	6,567	6,319	-248	4	150	F				13,085	12,676	-409	-3.13
		324	326	739	6,567	6,317	-250	10	150	F				13,085	12,612	-473	-3.61
		326	328	370	6,567	6,316	-251	10	150	F				13,085	12,607	-478	-3.65
		328	329	282	6,567	6,316	-251	11	131	F				13,085	12,604	-481	-3.68
		329	330	87	6,157	5,934	-223	18	82	F	40	38	E	12,321	11,874	-447	-3.63
Park Presidio Bl Ent	Park Presidio Bl Ent	330	332	136	6,319	6,096	-223	30	43	F				12,679	12,232	-447	-3.53
		332	334	700	6,319	6,094	-225	41	36	E				12,679	12,229	-450	-3.55
		334	338	690	6,319	6,097	-222	40	38	E				12,679	12,229	-450	-3.55
		338	342	866	4,221	4,042	-179	43	32	D				8,561	8,201	-360	-4.21
		342	344	1,485	4,858	4,674	-184	32	28	D				9,868	9,503	-365	-3.70
		344	348	1,048	4,858	4,676	-182	43	26	C				9,868	9,502	-366	-3.71
		348	350	836	4,858	4,677	-181	43	28	D				9,868	9,501	-367	-3.72
		312	412	283	220	216	-4	27	8	A				382	383	1	0.26
		416	316	138	338	337	-1	29	13	B				603	602</td		

Design Year Conditions - Weekday PM Peak Period
 Freeway Measures of Effectiveness
 Golden Gate Bridge - Moveable Median Barrier

Select Hour Interval:
 5:00 PM-6:00 PM

LOS A <10 vph
 LOS B 10-20 vph
 LOS C 20-28 vph
 LOS D 28-35 vph
 LOS E 35-43 vph
 LOS F >43 vph

Location		Node		Length (ft)	Hourly Volumes			Link Statistics			Aggregate Statistics			Total Thruput				Peak % Vol diff		
From	To	From	To		Actual	Simulated	Difference	Speed (mph)	Density (vplpm)	LOS	Speed (mph)	Density (vplpm)	LOS	Actual	Simulated	Difference	% Vol diff			
US 101 Northbound	US 101 NB Mainline	101	102	835	4,766	4,199	-567	1	150	F	3	150	F	9,196	8,545	-651	-7.08	-11.90		
		102	103	1,041	4,766	4,198	-568	1	150	F				9,196	8,457	-739	-8.04	-11.92		
		103	104	1,064	4,766	4,199	-567	4	150	F				9,196	8,370	-826	-8.98	-11.90		
		Park Presidio Bl Exit	Park Presidio Bl Ent	108	112	1,095	3,976	3,483	-493	7	150	F	7	150	F	7,372	6,525	-847	-11.49	-12.40
		Park Presidio Bl Ent	Merchant Rd Exit	112	116	694	6,179	4,769	-1,410	5	150	F	5	150	F	11,811	9,710	-2,101	-17.79	-22.82
		Merchant Rd Exit	Merchant Rd Ent	116	118	142	6,179	4,770	-1,409	5	150	F	6	150	F	11,811	9,696	-2,115	-17.91	-22.80
		Merchant Rd Ent	Vista Point Exit	118	120	86	5,999	4,582	-1,417	6	150	F	11,395	9,200	-2,195	-19.26	-23.62			
		Vista Point Exit	Vista Point Ent	120	122	285	6,593	5,173	-1,420	8	150	F	12,543	10,337	-2,206	-17.59	-21.54			
		122	124	364	6,593	5,173	-1,420	11	115	F	12,543	10,337	-2,206	-17.59	-21.54					
		124	126	731	6,593	5,172	-1,421	36	48	F	12,543	10,336	-2,207	-17.60	-21.55					
		126	127	1,432	6,593	5,173	-1,420	38	45	F	12,543	10,335	-2,208	-17.60	-21.54					
		127	128	1,389	6,593	5,172	-1,421	38	45	F	12,543	10,332	-2,211	-17.63	-21.55					
		128	129	1,488	6,593	5,173	-1,420	38	45	F	12,543	10,333	-2,210	-17.62	-21.54					
		129	130	1,467	6,593	5,175	-1,418	38	45	F	12,543	10,333	-2,210	-17.62	-21.51					
		130	131	1,509	6,593	5,171	-1,422	38	46	F	12,543	10,335	-2,208	-17.60	-21.57					
		131	132	1,132	6,593	5,176	-1,417	39	40	E	12,543	10,335	-2,208	-17.60	-21.49					
		Vista Point Exit	Vista Point Ent	132	136	260	6,483	5,081	-1,402	43	29	D	43	29	D	12,255	10,070	-2,185	-17.83	-21.63
		Vista Point Ent	Sausalito Exit	136	140	588	6,609	5,209	-1,400	50	21	C	50	21	C	12,545	10,357	-2,188	-17.44	-21.18
		Sausalito Exit	Sausalito Ent	140	144	572	6,225	4,887	-1,338	52	23	C	52	23	C	11,855	9,753	-2,102	-17.73	-21.49
		Sausalito Ent	US 101 Northbound	144	148	984	6,441	5,103	-1,338	51	24	C	53	24	C	12,317	10,215	-2,102	-17.07	-20.77
		148	150	1,048	6,441	5,102	-1,339	53	24	C	12,317	10,214				-2,103	-17.07	-20.79		
		150	152	285	6,441	5,103	-1,338	52	24	C	12,317	10,214				-2,103	-17.07	-20.77		
		152	154	656	6,441	5,103	-1,338	53	24	C	12,317	10,214				-2,103	-17.07	-20.77		
		154	158	1,033	6,441	5,104	-1,337	53	24	C	12,317	10,213				-2,104	-17.08	-20.76		
		158	160	804	6,441	5,102	-1,339	53	24	C	12,317	10,210	-2,107	-17.11	-20.79					
	US 101 NB Ramps	Park Presidio Bl Exit	Park Presidio Bl Ent	108	208	139	790	699	-91	25	25	C	25	25	C	1,824	1,693	-131	-7.18	-11.52
		Park Presidio Bl Ent	Merchant Rd Exit	212	112	231	2,203	1,284	-919	1	150	F	1	150	F	4,439	3,267	-1,172	-26.40	-41.72
		Merchant Rd Exit	Merchant Rd Ent	118	218	129	180	189	9	20	A	19	7	A	416	491	75	18.03	5.00	
		Merchant Rd Ent	Vista Point Exit	220	120	133	594	594	0	19	31	D	20	33	D	1,148	1,148	0	0.00	0.00
		Vista Point Exit	Vista Point Ent	222	220	133	594	594	0	20	34	D	20	12	B	1,148	1,148	0	0.00	0.00
		Vista Point Ent	Sausalito Lateral Exit	232	259	129	110	95	-15	25	1	A	25	1	A	288	265	-23	-7.99	-13.64
		Sausalito Lateral Exit	Sausalito Lateral Ent	236	136	184	126	126	0	25	13	B	25	13	B	290	289	-1	-0.34	0.00
		Sausalito Lateral Ent	Sausalito Exit	240	240	208	384	321	-63	25	7	A	25	7	A	690	602	-88	-12.75	-16.41
		Sausalito Exit	Sausalito Ent	244	144	138	216	216	0	20	12	B	20	12	B	462	461	-1	-0.22	0.00
		Sausalito Ent	US 101 Southbound	301	302	768	4,809	4,812	3	54	22	C	52	23	C	9,080	9,077	-3	-0.03	0.06
		302	303	1,055	4,809	4,810	1	54	22	C	9,080	9,075				-5	-0.06	0.02		
		303	304	621	4,809	4,812	3	52	22	C	9,080	9,075				-5	-0.06	0.06		
		304	305	283	4,809	4,810	1	53	22	C	9,080	9,074				-6	-0.07	0.02		
		305	306	1,066	4,809	4,813	4	53	22	C	9,080	9,074				-6	-0.07	0.08		
		306	307	449	4,809	4,814	5	50	23	C	34	51	F	9,080	9,074	-6	-0.07	0.10		
		307	308	365	4,809	4,815	6	50	27	C	34	51	F	9,080	9,072	-8	-0.09	0.12		
		308	312	437	4,809	4,811	2	49	30	D	34	31	D	9,080	9,070	-10	-0.11	0.04		
		Sausalito Exit	Sausalito Ent	312	316	567	4,649	4,658	9	49	31	D	49	31	D	8,768	8,764	-4	-0.05	0.19
		Sausalito Ent	Merchant Rd Exit	316	318	596	5,097	5,105	8	40	41	E	34	51	F	9,581	9,572	-9	-0.09	0.16
		318	319	1,107	5,097	5,107	10	36	46	F	34	51	F	9,581	9,569	-12	-0.13	0.20		
		319	320	1,499	5,097	5,105	8	38	45	F	34	51	F	9,581	9,566	-15	-0.16	0.16		
		320	321	1,479	5,097	5,111	14	36	46	F	34	51	F	9,581	9,564	-17	-0.18	0.27		
		321	322	1,486	5,097	5,114	17	37	46	F	34	51	F	9,581	9,560	-21	-0.22	0.33		
		322	323	1,393	5,097	5,108	11	37	46	F	34	51	F	9,581	9,550	-31	-0.32	0.22		
		323	324	1,428	5,097	5,111	14	37	46	F	34	51	F	9,581	9,545	-36	-0.38	0.27		
		324	326	739	5,097	5,112	15	17	67	F	34	51	F	9,581	9,538	-43	-0.45	0.29		
		326	328	370	5,097	5,117	20	11	117	F	34	51	F	9,581	9,528	-53	-0.55	0.39		
		328	329	282	5,097	5,120	23	10	104	F	34	51	F	9,581	9,523	-58	-0.61	0.45		
	US 101 SB Ramps	Merchant Rd Exit	Merchant Rd Ent	329	330	87	4,717	4,749	32	18	65	F	18	65	F	8,876	8,836	-40	-0.45	0.68
		330	332	136	4,975	5,005	30	30	36	E	40	31	D	9,342	9,299	-43	-0.46	0.60		
		332	334	700	4,975	5,005	30	42	30	D	40	31	D	9,342	9,295	-47	-0.50	0.60		
		Park Presidio Bl Exit	Park Presidio Bl Ent	334	338	690	4,975	5,004	29	41	32	D	40	31	D	9,342	9,294	-48	-0.51	0.58
		Park Presidio Bl Ent	Merchant Rd Exit	338	342	866	2,829	2,803	-26	44	21	C	44	21	C	5,402	5,293	-109	-2.02	-0.92
		342	344	1,485	3,491	3,466	-25	44	21	C	44	21	C	6,612	6,501	-111	-1.68	-0.72		
		344	348	1,048	3,491	3,467	-24	44	21	C	44	21	C	6,612	6,500	-112	-1.69	-0.69		
		348	350	836	3,491	3,470	-21	44	21	C	44	21	C	6,612	6,501	-111	-1.68	-0.60		
		Sausalito Exit	Sausalito Ent	312	412	283	160	154	-6	28	5	A	28	5	A	312	303	-9	-2.88	-3.75

Freeway Network Output
Design Year Plus Project Conditions

Design Year plus Project Conditions - Weekday AM Peak Period
 Freeway Measures of Effectiveness
 Golden Gate Bridge - Moveable Median Barrier

Select Hour Interval:
 8:00 AM-9:00 AM

LOS A <10 vph
 LOS B 10-20 vph
 LOS C 20-28 vph
 LOS D 28-35 vph
 LOS E 35-43 vph
 LOS F >43 vph

Location		Node		Length (ft)	Hourly Volumes			Link Statistics		Aggregate Statistics			Total Thruput				Peak % Vol diff			
From	To	From	To		Actual	Simulated	Difference	Speed (mph)	Density (vplpm)	LOS	Speed (mph)	Density (vplpm)	LOS	Actual	Simulated	Difference				
US 101 Northbound	US 101 NB Mainline	101	102	835	2,598	1,795	-803	1	150	F	1	150	F	5,448	4,113	-1,335	-24.50	-30.91		
		102	103	1,041	2,598	1,795	-803	1	150	F				5,448	3,986	-1,462	-26.84	-30.91		
		103	104	1,064	2,598	1,796	-802	2	150	F				5,448	3,853	-1,595	-29.28	-30.87		
		104	108	874	2,598	1,794	-804	1	150	F				5,448	3,748	-1,700	-31.20	-30.95		
		Park Presidio BI Exit	Park Presidio BI Ent	108	112	1,095	2,214	1,531	-683	4	150	F	4	150	F	4,730	3,148	-1,582	-33.45	-30.85
		Park Presidio BI Ent	Merchant Rd Exit	112	116	694	4,668	3,181	-1,487	5	150	F	5	150	F	9,134	6,545	-2,589	-28.34	-31.86
		Merchant Rd Exit	Merchant Rd Ent	116	118	142	4,668	3,180	-1,488	5	150	F	6	150	F	9,134	6,536	-2,598	-28.44	-31.88
		Merchant Rd Ent	Vista Point Exit	118	120	86	4,512	3,018	-1,494	6	150	F	6	150	F	8,839	6,201	-2,638	-29.85	-33.11
		Vista Point Exit	Sausalito Exit	120	122	285	4,914	3,418	-1,496	7	150	F	36	50	F	9,481	6,839	-2,642	-27.87	-30.44
		Sausalito Exit	Vista Point Ent	122	124	364	4,914	3,418	-1,496	8	109	F	36	50	F	9,481	6,840	-2,641	-27.86	-30.44
		Park Presidio BI Exit	Merchant Rd Exit	124	126	731	4,914	3,417	-1,497	36	48	F	36	50	F	9,481	6,840	-2,641	-27.86	-30.46
		Merchant Rd Exit	Vista Point Ent	126	127	1,432	4,914	3,415	-1,499	38	45	F	36	50	F	9,481	6,839	-2,642	-27.87	-30.50
		Vista Point Ent	Sausalito Exit	127	128	1,389	4,914	3,415	-1,499	38	45	F	36	50	F	9,481	6,838	-2,643	-27.88	-30.50
		Sausalito Exit	Vista Point Ent	128	129	1,488	4,914	3,416	-1,498	38	45	F	36	50	F	9,481	6,840	-2,641	-27.86	-30.48
		Vista Point Ent	Sausalito Exit	129	130	1,467	4,914	3,413	-1,501	38	44	F	36	50	F	9,481	6,841	-2,640	-27.85	-30.55
		Sausalito Exit	Vista Point Ent	130	131	1,509	4,914	3,413	-1,501	38	46	F	36	50	F	9,481	6,839	-2,642	-27.87	-30.55
		Vista Point Ent	Sausalito Ent	131	132	1,132	4,914	3,415	-1,499	40	41	E	36	50	E	9,481	6,840	-2,641	-27.86	-30.50
		Sausalito Ent	Vista Point Ent	132	136	260	4,875	3,391	-1,484	43	39	E	43	39	E	9,422	6,801	-2,621	-27.82	-30.44
		Sausalito Ent	Park Presidio BI Exit	136	140	588	4,925	3,429	-1,496	51	22	C	51	22	C	9,519	6,860	-2,659	-27.93	-30.38
		Park Presidio BI Exit	Merchant Rd Exit	140	144	572	4,643	3,393	-1,250	51	26	C	51	26	C	9,088	6,792	-2,296	-25.26	-26.92
		Merchant Rd Exit	Vista Point Exit	144	148	984	4,761	3,674	-1,087	49	19	B	52	17	B	9,283	7,223	-2,060	-22.19	-22.83
		Vista Point Exit	Sausalito Exit	148	150	1,048	4,761	3,671	-1,090	53	17	B				9,283	7,222	-2,061	-22.20	-22.89
		Sausalito Exit	Vista Point Ent	150	152	285	4,761	3,670	-1,091	53	17	B				9,283	7,221	-2,062	-22.21	-22.92
		Vista Point Ent	Sausalito Ent	152	154	656	4,761	3,671	-1,090	53	17	B				9,283	7,220	-2,063	-22.22	-22.89
		Sausalito Ent	Park Presidio BI Exit	154	158	1,033	4,761	3,670	-1,091	53	17	B				9,283	7,216	-2,067	-22.27	-22.92
		Park Presidio BI Exit	Merchant Rd Exit	158	160	804	4,761	3,669	-1,092	53	17	B				9,283	7,213	-2,070	-22.30	-22.94
US 101 NB Ramps	US 101 NB	Park Presidio BI Exit	108	208	139	384	259	-125	25	10	B	25	10	B	718	497	-221	-30.78	-32.55	
		Park Presidio BI Ent	112	212	231	2,454	1,649	-805	3	150	F	3	150	F	4,404	3,460	-944	-21.44	-32.80	
		Merchant Rd Exit	218	218	129	156	164	8	21	8	A	20	8	A	295	333	38	12.88	5.13	
		Merchant Rd Ent	220	220	133	133	164	8	20	8	A	19	21	C	642	641	-1	-0.16	0.00	
		Vista Point Exit	222	220	133	402	402	0	20	21	C	19	21	C	642	641	-1	-0.16	0.00	
		Sausalito Exit	232	259	129	39	39	0	25	1	A	25	1	A	59	58	-1	-1.69	0.00	
		Vista Point Ent	260	236	105	282	280	-2	65	0	A	65	1	A	97	68	-29	29.90	-32.00	
		Sausalito Lateral Ent	236	140	121	282	280	-2	55	1	A	55	1	A	431	429	-2	-0.46	-0.71	
		Sausalito Exit	244	144	138	118	112	-6	20	14	B	20	14	B	195	189	-6	-3.08	-5.08	
		US 101 Southbound	301	302	768	6,449	6,452	3	53	31	D	51	32	D	12,864	12,858	-6	-0.05	0.05	
		Sausalito Exit	302	303	1,055	6,449	6,453	4	52	31	D				12,864	12,858	-6	-0.05	0.06	
		Sausalito Ent	303	304	621	6,449	6,454	5	52	31	D				12,864	12,859	-5	-0.04	0.08	
		Sausalito Ent	304	305	283	6,449	6,454	5	52	31	D				12,864	12,860	-4	-0.03	0.08	
		Sausalito Ent	305	306	1,066	6,449	6,456	7	52	31	D				12,864	12,858	-6	-0.05	0.11	
		Sausalito Ent	306	307	425	6,449	6,457	8	52	31	D				12,864	12,858	-6	-0.05	0.12	
		Sausalito Ent	307	308	373	6,449	6,456	7	52	31	D				12,864	12,858	-6	-0.05	0.11	
		Sausalito Ent	308	312	455	6,449	6,458	9	36	42	E				12,864	12,859	-5	-0.04	0.14	
		Sausalito Ent	312	316	567	6,229	6,240	11	32	42	E				12,482	12,484	2	0.02	0.18	
		Sausalito Ent	316	318	596	6,567	6,576	9	33	40	E				13,085	13,082	-3	-0.02	0.14	
US 101 SB Ramps	US 101 SB Mainline	Sausalito Ent	318	319	1,107	6,567	6,576	9	39	42	E	34	55	F	13,085	13,080	-5	-0.04	0.14	
		Sausalito Ent	319	320	1,499	6,567	6,575	8	40	41	E				13,085	13,080	-5	-0.04	0.12	
		Sausalito Ent	320	321	1,479	6,567	6,575	8	40	41	E				13,085	13,079	-6	-0.05	0.12	
		Sausalito Ent	321	322	1,486	6,567	6,582	15	40	41	E				13,085	13,078	-7	-0.05	0.23	
		Sausalito Ent	322	323	1,393	6,567	6,588	21	39	41	E				13,085	13,084	-1	-0.01	0.32	
		Sausalito Ent	323	324	1,428	6,567	6,597	30	27	59	F				13,085	13,066	-19	-0.15	0.46	
		Sausalito Ent	324	326	739	6,567	6,602	35	12	123	F				13,085	13,011	-74	-0.57	0.53	
		Sausalito Ent	326	328	370	6,567	6,612	45	8	150	F				13,085	12,992	-93	-0.71	0.69	
		Sausalito Ent	328	329	282	6,567	6,613	46	10	120	F				13,085	12,983	-102	-0.78	0.70	
		Sausalito Ent	329	330	87	6,157	6,205	48	18	69	F				12,321	12,218	-103	-0.84	0.78	
US 101 SB	US 101 SB	Sausalito Ent	330	332	136	6,319	6,366	47	30	36	E	40	38	E	12,679	12,573	-106	-0.84	0.74	
		Sausalito Ent	332	334	700	6,319	6,367	48	41	37	E				12,679	12,569	-110	-0.87	0.76	
		Park Presidio BI Exit	334	338	690	6,319	6,372	53	40	40	E				12,679	12,570	-109	-0.86	0.84	
		Park Presidio BI Ent	338	342	866	4,221	4,225	4	43	33	D				8,561	8,428	-133	-1.55	0.09	
		Park Presidio BI Ent																		

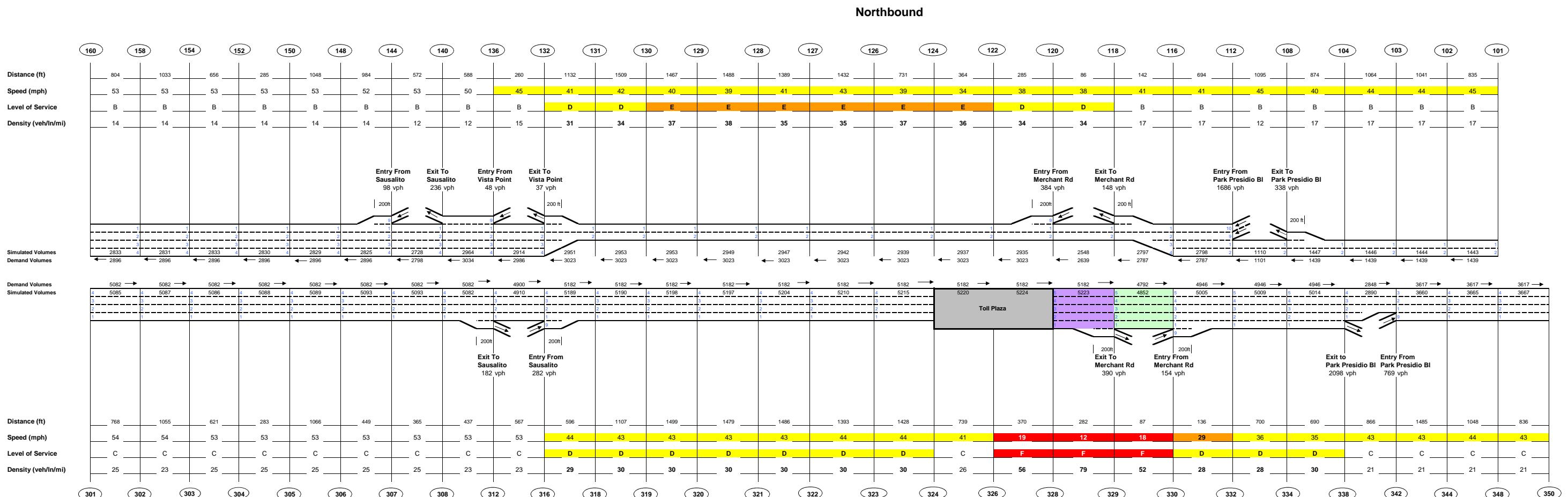
Design Year plus Project Conditions - Weekday PM Peak Period
 Freeway Measures of Effectiveness
 Golden Gate Bridge - Moveable Median Barrier

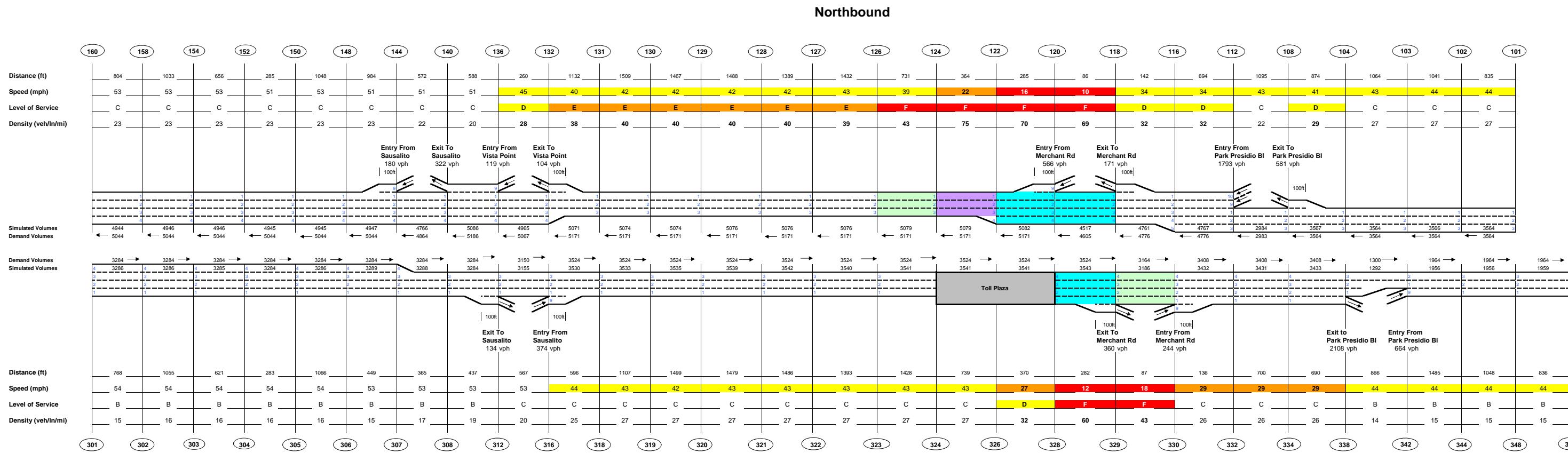
Select Hour Interval:
 5:00 PM-6:00 PM

LOS A <10 vplph
 LOS B 10<20 vplph
 LOS C 20<28 vplph
 LOS D 28<35 vplph
 LOS E 35<43 vplph
 LOS F >43 vplph

Location		Node		Length (ft)	Hourly Volumes			Link Statistics			Aggregate Statistics			Total Thruput				Peak % Vol diff		
From	To	From	To		Actual	Simulated	Difference	Speed (mph)	Density (vplpm)	LOS	Speed (mph)	Density (vplpm)	LOS	Actual	Simulated	Difference	% Vol diff			
US 101 Northbound	US 101 NB Mainline	101	102	835	4,766	3,840	-926	1	150	F	1	150	F	9,196	8,234	-962	-10.46	-19.43		
		102	103	1,041	4,766	3,836	-930	1	150	F				9,196	8,143	-1,053	-11.45	-19.51		
		103	104	1,064	4,766	3,836	-930	1	150	F				9,196	8,052	-1,144	-12.44	-19.51		
		Park Presidio Bl Exit		104	108	874	4,766	3,836	-930	2	150	F			9,196	7,985	-1,211	-13.17	-19.51	
		Park Presidio Bl Exit	Park Presidio Bl Ent	108	112	1,095	3,976	3,190	-786	5	148	F	5	148	F	7,372	6,281	-1,091	-14.80	-19.77
		Park Presidio Bl Ent	Merchant Rd Exit	112	116	694	6,179	4,803	-1,376	7	150	F	7	150	F	11,811	9,786	-2,025	-17.15	-22.27
		Merchant Rd Exit	Merchant Rd En'	116	118	142	6,179	4,800	-1,379	7	150	F				11,811	9,769	-2,042	-17.29	-22.32
		Merchant Rd En'	118	120	86	5,999	4,595	-1,404	6	150	F	6	150	F	11,395	9,249	-2,146	-18.83	-23.40	
		Merchant Rd En'		120	122	285	6,593	5,189	-1,404	12	104	F				12,543	10,389	-2,154	-17.17	-21.30
		122	124	364	6,593	5,189	-1,404	12	104	F				12,543	10,390	-2,153	-17.16	-21.30		
		124	126	731	6,593	5,189	-1,404	23	71	F				12,543	10,388	-2,155	-17.18	-21.30		
		126	127	1,432	6,593	5,188	-1,405	36	48	F				12,543	10,388	-2,155	-17.18	-21.31		
		127	128	1,389	6,593	5,189	-1,404	36	48	F	34	53	F	12,543	10,384	-2,159	-17.21	-21.30		
		128	129	1,488	6,593	5,189	-1,404	36	48	F				12,543	10,384	-2,159	-17.21	-21.30		
		129	130	1,467	6,593	5,191	-1,402	36	48	F				12,543	10,382	-2,161	-17.23	-21.26		
		130	131	1,509	6,593	5,193	-1,400	37	47	F				12,543	10,382	-2,161	-17.23	-21.23		
		131	132	1,132	6,593	5,192	-1,401	39	42	E				12,543	10,382	-2,161	-17.23	-21.25		
		Vista Point Exit	Vista Point Ent	132	136	260	6,483	5,099	-1,384	44	38	E	44	38	E	12,255	10,117	-2,138	-17.45	-21.35
		Vista Point Ent	Sausalito Exit	136	140	588	6,609	5,223	-1,386	52	25	C	52	25	C	12,545	10,404	-2,141	-17.07	-20.97
		Sausalito Exit	Sausalito Ent	140	144	572	6,225	4,903	-1,322	53	27	C	53	27	C	11,855	9,791	-2,064	-17.41	-21.24
		Sausalito Ent	US 101 Northbound	144	148	984	6,441	5,118	-1,323	52	25	C				12,317	10,251	-2,066	-16.77	-20.54
		148	150	1,048	6,441	5,118	-1,323	53	24	C				12,317	10,253	-2,064	-16.76	-20.54		
		150	152	285	6,441	5,115	-1,326	52	23	C				12,317	10,249	-2,068	-16.79	-20.59		
		152	154	656	6,441	5,116	-1,325	53	24	C				12,317	10,247	-2,070	-16.81	-20.57		
		154	158	1,033	6,441	5,115	-1,326	53	24	C				12,317	10,243	-2,074	-16.84	-20.59		
		158	160	804	6,441	5,116	-1,325	53	24	C				12,317	10,246	-2,071	-16.81	-20.57		
US 101 NB Ramps	US 101 NB Mainline	Park Presidio Bl Exit	Park Presidio Bl Ent	108	208	139	790	645	-145	25	22	C	25	22	C	1,824	1,629	-195	-10.69	-18.35
		Park Presidio Bl Ent	Merchant Rd Exit	212	112	231	2,203	1,616	-567	1	150	F	1	150	F	4,439	3,586	-853	-19.22	-26.65
		Merchant Rd Exit		118	218	129	180	204	-24	21	7	A	20	9	A	416	515	99	23.80	13.33
		Merchant Rd Ent	Vista Point Exit	220	120	133	594	594	0	15	39	E	18	36	E	1,148	1,148	0	0.00	0.00
		222	220	133	594	594	0	20	33	D				1,148	1,148	0	0.00	0.00		
		Vista Point Exit	132	232	78	110	94	-16	25	1	A	25	1	A	288	266	-22	-7.64	-14.55	
		Vista Point Ent	Sausalito Lateral Exit	260	236	105	384	321	-63	62	3	A	63	2	A	690	612	-78	-11.30	-16.41
		236	140	121	384	321	-63	64	1	A				690	612	-78	-11.30	-16.41		
		Sausalito Lateral Exit	Sausalito Ent	136	240	136	126	126	0	55	7	A	133	12	B	290	290	0	0.00	0.00
		Sausalito Ent	US 101 Southbound	244	144	138	216	216	0	20	13	B	20	13	B	462	461	-1	-0.22	0.00
		Sausalito Exit		301	302	768	4,809	4,812	3	54	24	C				9,080	9,079	-1	-0.01	0.06
		Sausalito Ent	Merchant Rd Exit	302	303	1,055	4,809	4,810	1	52	22	C				9,080	9,075	-5	-0.06	0.02
		303	304	621	4,809	4,812	3	53	22	C				9,080	9,075	-5	-0.06	0.06		
		304	305	283	4,809	4,811	2	53	22	C				9,080	9,075	-5	-0.06	0.04		
		305	306	1,066	4,809	4,810	1	53	22	C				9,080	9,074	-6	-0.07	0.02		
		306	307	425	4,809	4,811	2	53	22	C				9,080	9,074	-6	-0.07	0.04		
		307	308	373	4,809	4,812	3	53	22	C				9,080	9,073	-7	-0.08	0.06		
		Sausalito Exit	Sausalito Ent	308	312	455	4,809	4,811	2	51	24	C				9,080	9,071	-9	-0.10	0.04
		Sausalito Ent	Merchant Rd Exit	312	316	567	4,649	4,653	4	42	26	C	42	26	C	8,768	8,757	-11	-0.13	0.09
		Sausalito Ent		316	318	596	5,097	5,102	5	30	39	E				9,581	9,566	-15	-0.16	0.10
		318	319	1,107	5,097	5,104	7	37	46	F				9,581	9,565	-16	-0.17	0.14		
		319	320	1,499	5,097	5,105	8	38	45	F				9,581	9,561	-20	-0.21	0.16		
		320	321	1,479	5,097	5,104	7	38	45	F				9,581	9,555	-26	-0.27	0.14		
		321	322	1,486	5,097	5,104	7	38	45	F				9,581	9,547	-34	-0.35	0.14		
		322	323	1,393	5,097	5,104	7	38	45	F				9,581	9,547	-34	-0.35	0.14		
		323	324	1,428	5,097	5,106	9	36	45	F				9,581	9,542	-39	-0.41	0.18		
		324	326	739	5,097	5,105	8	19	59	F				9,581	9,534	-47	-0.49	0.16		
		326	328	370	5,097	5,107	10	10	108	F				9,581	9,523	-58	-0.61	0.20		
		328	329	282	5,097	5,106	9	12	99	F				9,581	9,517	-64	-0.67	0.18		
		Merchant Rd Exit	Merchant Rd Ent'	329	330	87	4,717	4,723	6	18	65	F	18	65	F	8,876	8,806	-70	-0.79	0.13
		330	332	136	4,975	4,981	6	30	34	D				9,342	9,271	-71	-0.76	0.12		
		332	334	700	4,975	4,978	3	42	30	D				9,342	9,267	-75	-0.80	0.06		
		Park Presidio Bl Exit	Park Presidio Bl Ent	334	338	690	4,975	4,980	5	41	30	D			9,342	9,264	-78	-0.83	0.10	
		Park Presidio Bl Exit	Park Presidio Bl Ent	338	342	866	2,829	2,805	-24	44	21	C	44	21	C	5,402	5,295	-107	-1.98	-0.85
		342	344	1,485	3,491	3,468	-23	44	21	C				6,612	6,499	-113	-1.71	-0.66		
		344	348	1,048	3,491	3,469	-22	44	21	C	44	21	C	6,612	6,494	-118	-1.78	-0.63		
		348	350	836	3,491	3,471	-20	44	21	C				6,612	6,494	-118	-1.78	-0.57		
US 101 SB Ramps	US 101 SB Mainline	Sausalito Exit	Sausalito Ent	312	412	283	160	159	-1	21	7	A	21	7	A	312</td				

Lane Schematic
Existing Conditions

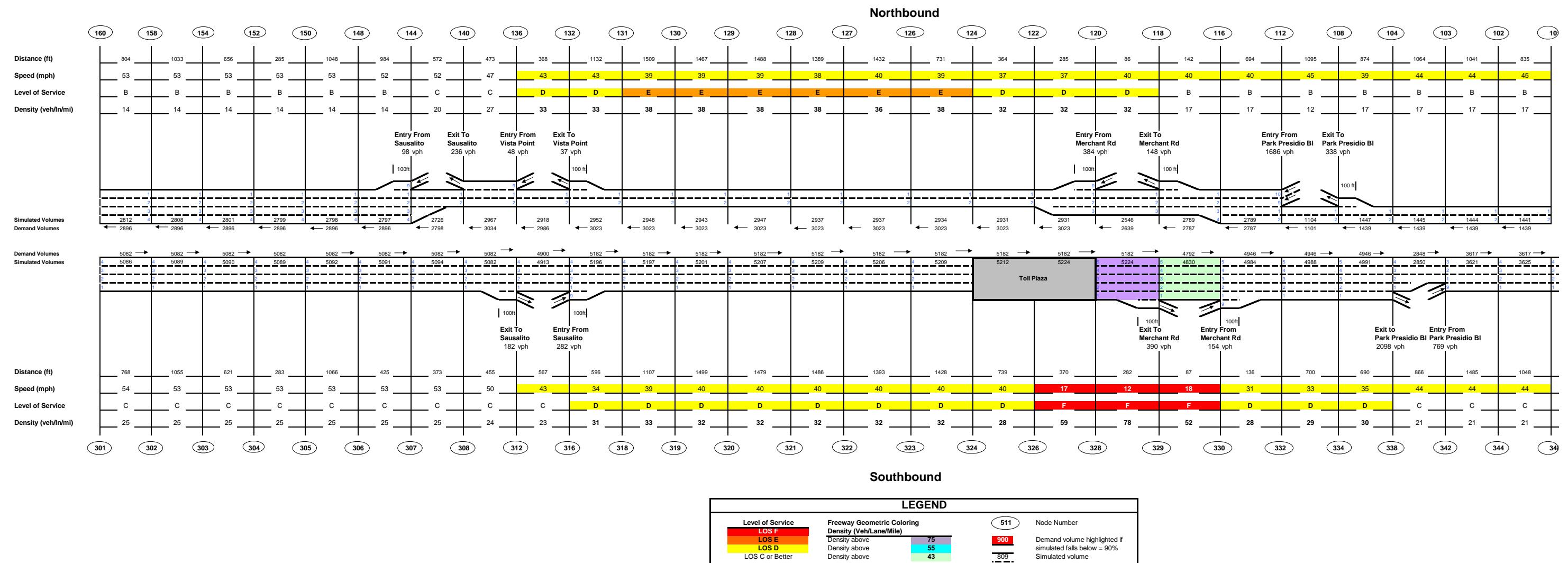


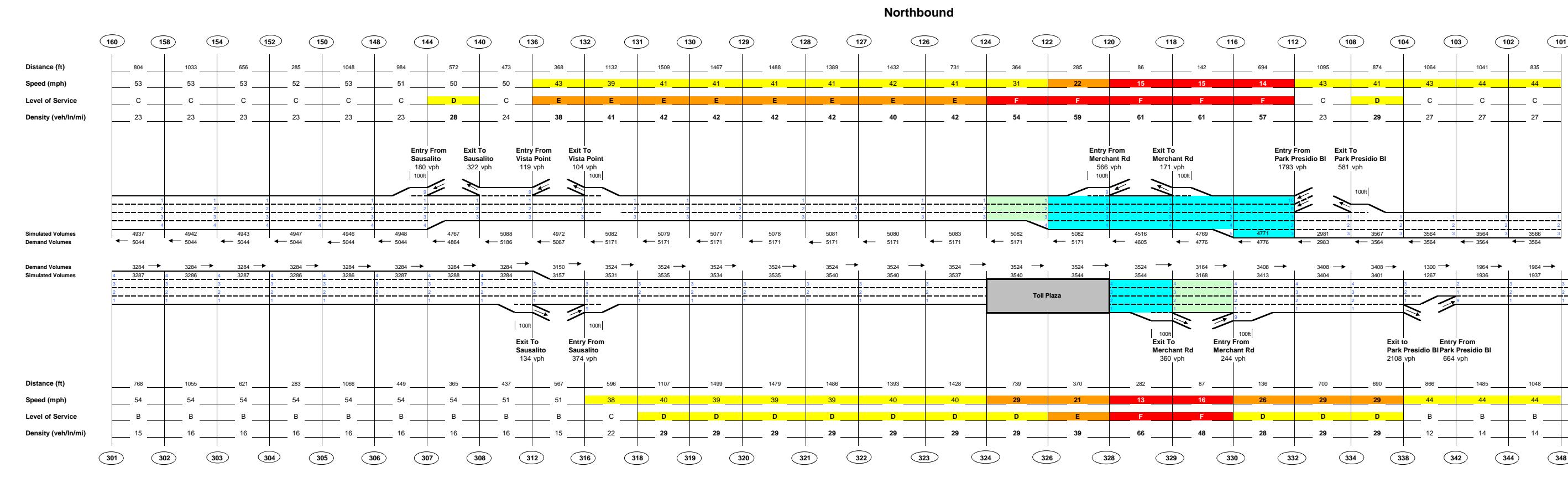


Southbound

LEGEND			
Level of Service	Freeway Geometric Coloring	511	Node Number
LOS F	Density (Veh/Lane/Mile)	900	Demand volume highlighted if simulated falls below = 90%
LOS E	Density above	75	Simulated volume
LOS D	Density above	55	
LOS C or Better	Density above	43	
		809	

Lane Schematic
Existing Plus Project Conditions

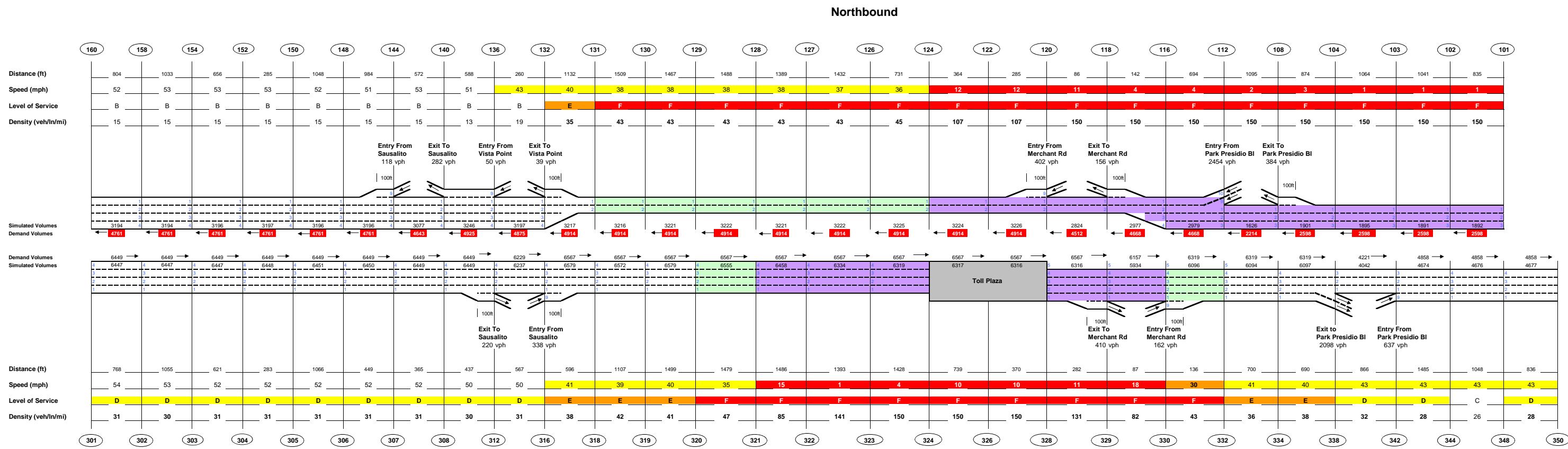


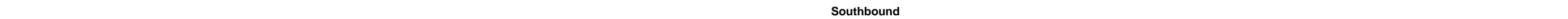
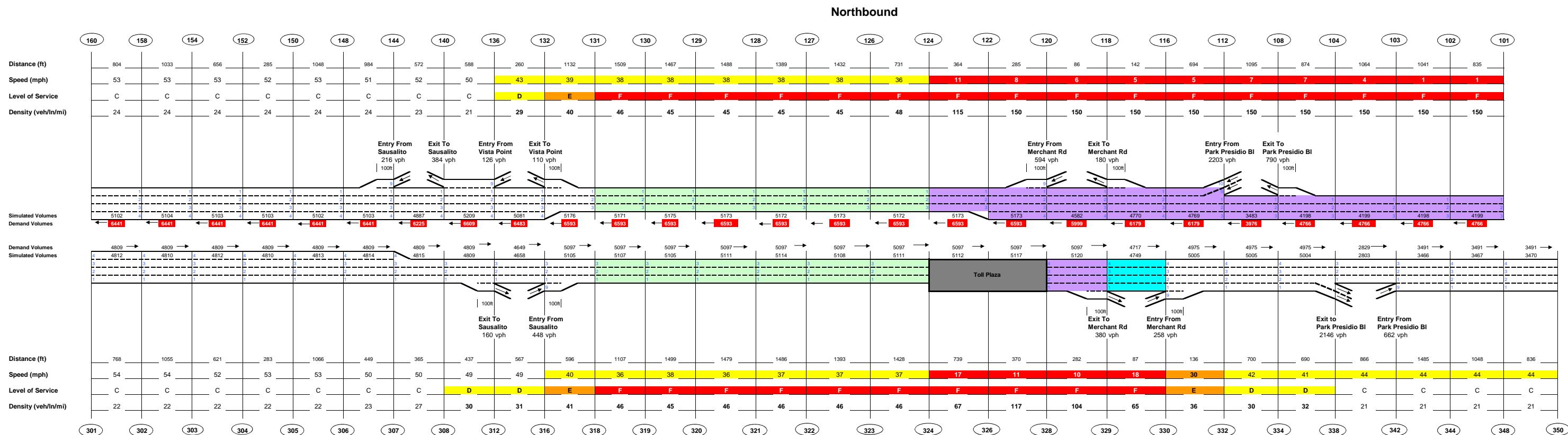


Southbound

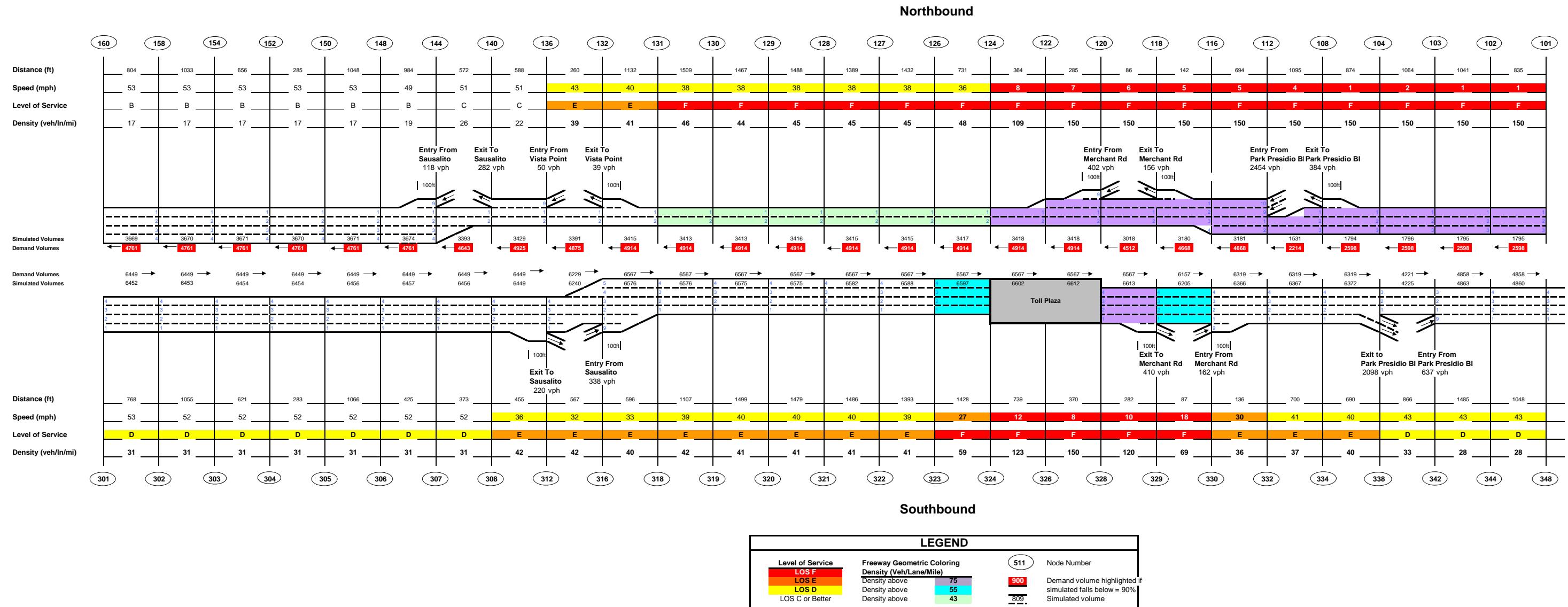
LEGEND	
Level of Service	Freeway Geometric Coloring
LOS F	Density (Veh/Lane/Mile)
LOS E	Density above 75
LOS D	Density above 900
LOS C or Better	Density above 55
LOS C or Better	Density above 809
511	Node Number
	Demand volume highlighted if simulated falls below = 90%
	Simulated volume

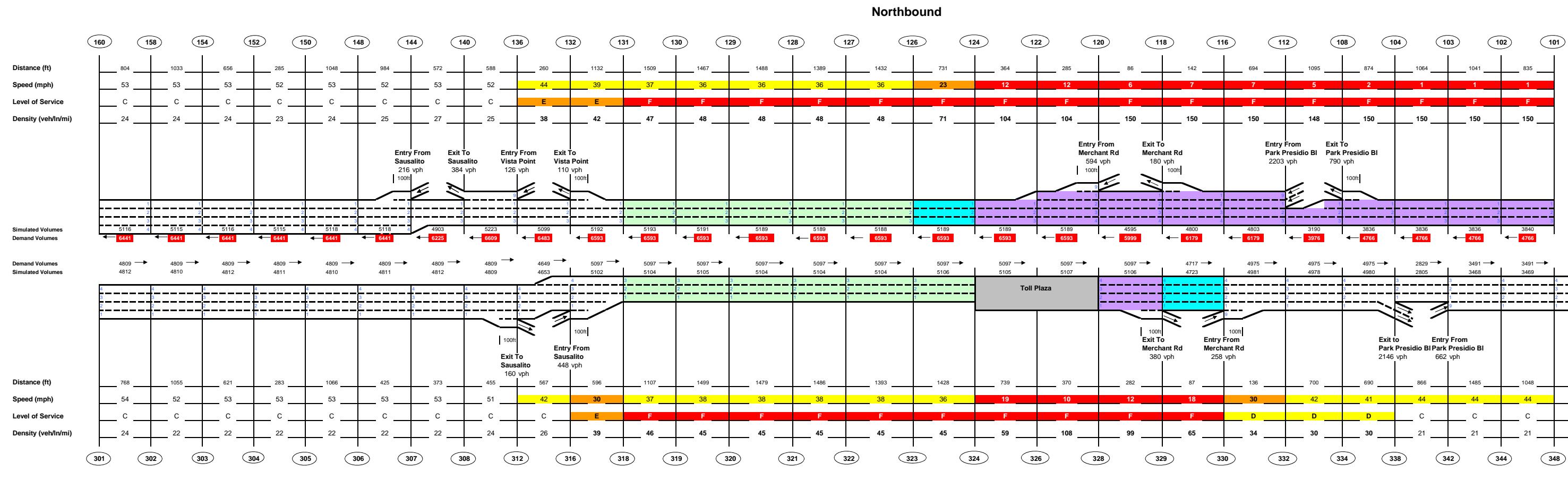
Lane Schematic
Design Year Conditions





Lane Schematic
Design Year Plus Project Conditions





Southbound

LEGEND			
Level of Service	Freeway Geometric Coloring		(511) Node Number
LOS F	Density (Vehln/Mile)	75	900 Demand volume highlighted if simulated falls below = 90%
LOS E	Density above	55	809 Simulated volume
LOS D	Density above	43	
LOS C or Better	Density above		