Volume 2: Appendices

General Plan Update Draft EIR

for the City of Capitola

State Clearinghouse No. 2013072002

December 19, 2013

The Planning Center | DC&E

in collaboration with:

RBF Consulting

APPENDIX A

NOTICE OF PREPARATION

Appendix A1:
Notice of Preparation

Notice of Preparation (NOP)

Date: July 1, 2013

To: Responsible Agencies and Other Interested Parties

State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812-3044

From: City of Capitola
Community Development Department
420 Capitola Avenue
Capitola, California 95010

The City of Capitola will be the Lead Agency and will prepare a programmatic Environmental Impact Report (EIR) for the Capitola General Plan Update project (the Project). The Project, its location, and potential environmental effects are described below. Pursuant to the California Environmental Quality Act (CEQA) Section 15063, the City has determined that an EIR is required for the Project.

A General Plan is a "project" as defined by the California Environmental Quality Act (CEQA) and, therefore, subject to an assessment of potential environmental impacts. The General Plan itself is what is reviewed and not any specific development or capital projects that may come about as a result of the General Plan. As such, CEQA defines the level of environmental review differently than it does for a specific development project. At the "program" level of review, which is what the General Plan falls under, the potential environmental impacts are assessed according to what the General Plan may call for through its various policy and program recommendations.

Members of the public and public agencies are invited to provide comments in writing as to the scope and content of the EIR. The City needs to know the views of Responsible and Trustee Agencies as to the scope and content of the environmental information that is germane to each agency's statutory responsibilities in connection with the proposed Project. Responsible Agencies will need to use the EIR prepared by the City when considering their permit or other approval for the Project.

Due to the time limits mandated by State law, responses must be sent at the earliest possible date, but no later than the close of the NOP review period, which runs from July 1, 2013 through August 1, 2013. Please send written responses to Richard Grunow, Community Development Director at the address shown below. Public agencies providing comments are requested to include a contact person for the agency.

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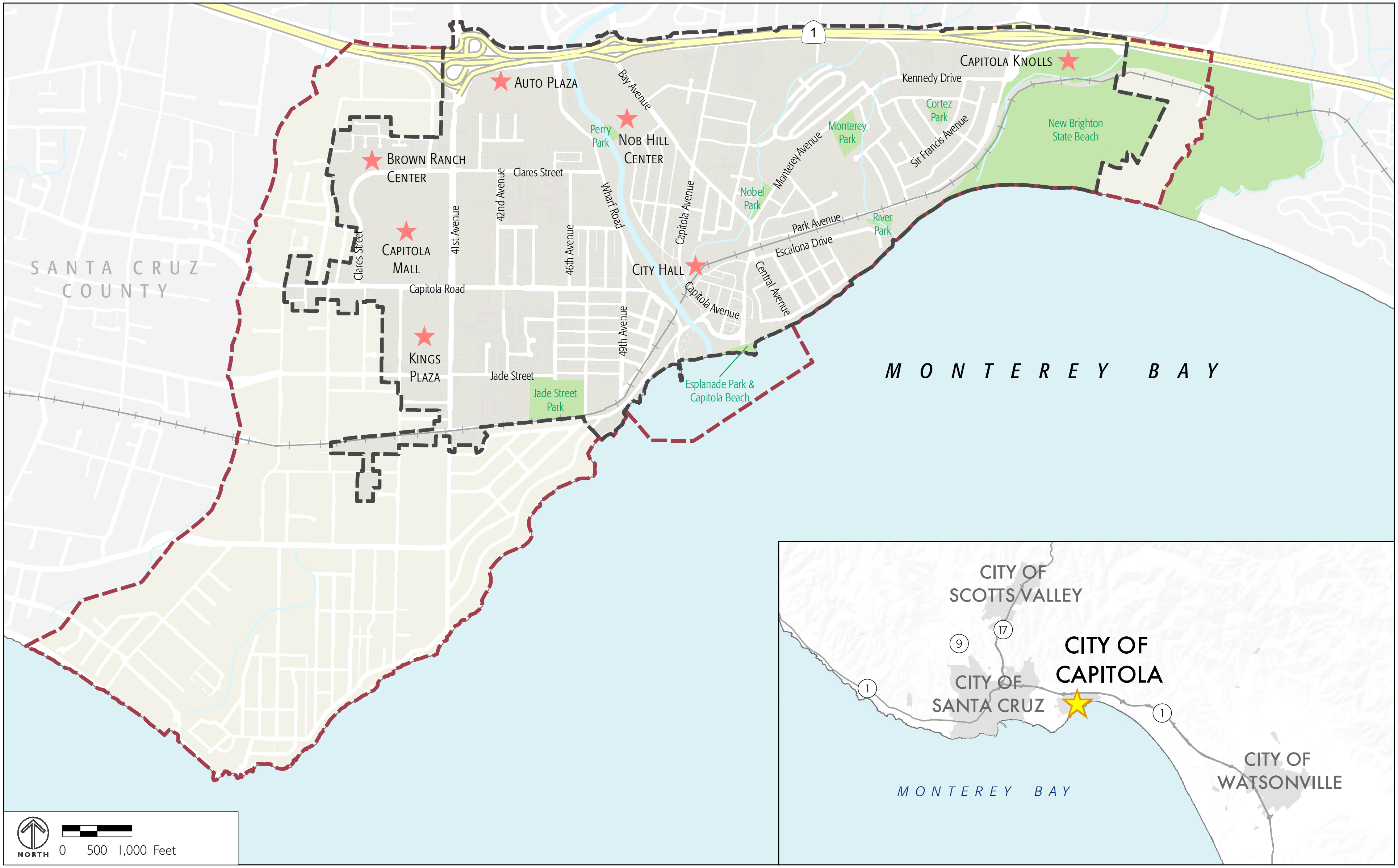
1. **Project Name:** **Capitola General Plan Update**

2. **Project Location, Existing Land Uses, and Surrounding Uses:**
   Capitola is a coastal community located along the Monterey Bay. As shown in Figure 1, the City of Capitola is located in Santa Cruz County, several miles south of the City of Santa Cruz. With a land area of 1.7 square miles, Capitola is home to a population of around 10,000 residents.

   Existing land use in Capitola include residential, commercial, industrial, and mixed-use districts as described below:



Source: City of Capitola, 2010; The Planning Center | DC&E, 2013.

City Limit
Sphere of Influence
Landmark
Parks
Railroad

FIGURE 1

PROJECT AREA

- ♦ Residential neighborhoods include Depot Hill, Riverview Terrace, Cliffwood Heights, Jewel Box, and Upper Village. These neighborhoods contain a mixture of single-family homes, multi-family dwellings, and mobile home parks.
- ♦ Commercial and industrial districts include 41st Avenue/Capitola Mall, Bay Avenue, and Kennedy Drive. 41st Avenue and Capitola Mall constitute the primary regional retail destination in Santa Cruz County.
- ♦ Mixed-use districts include Capitola Village and Capitola Avenue. Capitola Village is the "heart" of Capitola with a mixture of visitor-serving commercial establishments, public amenities, and residential uses, including transient residential uses such as vacation rentals and hotels and motels.

Capitola is surrounded by a variety of land uses, including residential uses in unincorporated Santa Cruz County to the south and west, commercial and residential uses in to the north, and park and open space uses in the New Brighton State Park to the east.

3. Lead Agency Contact:
Richard Grunow
Community Development Director
City of Capitola
420 Capitola Avenue
Capitola, CA 95010
Tel. (831) 475-7300
Email: rgrunow@ci.capitola.ca.us

4. Project Sponsor:
City of Capitola
420 Capitola Avenue
Capitola, CA 95010

5. Project Description:
The General Plan Update for the City of Capitola includes both an update of the 1989 General Plan and the preparation of a Climate Action Plan. The General Plan and the Climate Action Plan seek to advance the following key objectives:

- ♦ Preserving and enhancing Capitola's unique community identity.
- ♦ Enhancing opportunities for residents to meet and gather and engage in civic life.
- ♦ Protecting and enhancing residential neighborhoods.
- ♦ Protecting natural resources and promoting environmental sustainability.
- ♦ Strengthening the local economy.
- ♦ Promoting fiscally-responding municipal decision making.
- ♦ Providing a balanced transportation system for all modes of travel.
- ♦ Protecting the health and safety of the community.

.

The General Plan Update will include updates to the following State-mandated elements: Land Use, Open Space, Conservation, Safety, Noise, and Mobility. The State-mandated Housing Element will remain a separate, standalone document. An Economic Development Element will also be included as an optional element.

The General Plan Update will result in an updated policy framework and consolidated land use designations intended to guide future growth in Capitola.

6. Probable Environmental Effects of the Project:

The EIR will evaluate potentially significant environmental impacts associated with the adoption and implementation of the General Plan Update and Climate Action Plan. Consistent with the State CEQA Guidelines (Appendix G), the following environmental resource categories will be analyzed in relation to the Project:

- Aesthetics
- Agriculture and Forestry Resources
- Air Quality and GHG Emissions
- Biological Resources
- Cultural Resources
- Geology / Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use / Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services and Recreation
- Transportation and Traffic
- Utilities and Service Systems

All of the resource categories listed above will be considered in the EIR; however, given the location of Capitola in an urbanized part of Santa Cruz County, it is anticipated that resource categories, such as Agriculture and Forestry Resources and Mineral Resources, for which it can be clearly demonstrated that no significant impacts would result from Project implementation will be addressed briefly and "scoped out."

7. Scoping Meeting

The City of Capitola will conduct one joint public and agency scoping meeting on the Project in accordance with CEQA Section 21083.9. The scoping meeting is an opportunity for public agencies and interested members of the general public to learn more about the EIR for the General Plan and comment on the scope of the proposed EIR. The scoping meeting is not a public hearing on the Draft General Plan. The public hearing schedule for the Draft General Plan is anticipated to occur later this year.

Members of the public and public agencies are invited to provide comments to the City at the scoping meeting, which will take place as follows:

Date: Tuesday July 23, 2013
Time: 6:00 – 8:00 PM
Place: City Council Chambers
Capitola City Hall
420 Capitola Avenue
Capitola, CA 95010

Date 6-27-13

Signature

Title Community Development Director

Appendix A2:
Comment Letters Received on the Notice of Preparation

APPENDIX A

NOP COMMENT LETTERS

Federal Agencies

1. Federal Emergency Management Administration – 07/03/2013

State Agencies

2. California Department of Transportation, Caltrans – 07/29/2013
3. California Department of Fish and Wildlife – 07/24/2013

Local Agencies

4. City of Santa Cruz – 07/25/2013

General Public

5. Nickell III, Jesse L. – 07/02/2013

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CITY OF CAPITOLA

U.S. Department of Homeland Security
FEMA Region IX
1111 Broadway, Suite 1200
Oakland, CA. 94607-4052

FEMA

July 3, 2013

Richard Grunow, Community Development Director
City of Capitola
420 Capitola Avenue
Capitola, California 95010

Dear Mr. Grunow:

This is in response to your request for comments on the Notice of Preparation (NOP), City of Capitola General Plan Update project.

Please review the current effective countywide Flood Insurance Rate Maps (FIRMs) for the County of Santa Cruz (Community Number 060353) and City of Capitola (Community Number 060354), Maps revised May 16, 2012. Please note that the City of Capitola, Santa Cruz County, California is a participant in the National Flood Insurance Program (NFIP). The minimum, basic NFIP floodplain management building requirements are described in Vol. 44 Code of Federal Regulations (44 CFR), Sections 59 through 65.

A summary of these NFIP floodplain management building requirements are as follows:

- All buildings constructed within a riverine floodplain, (i.e., Flood Zones A, AO, AH, AE, and A1 through A30 as delineated on the FIRM), must be elevated so that the lowest floor is at or above the Base Flood Elevation level in accordance with the effective Flood Insurance Rate Map.

- If the area of construction is located within a Regulatory Floodway as delineated on the FIRM, any ***development*** must not increase base flood elevation levels. **The term *development* means any man-made change to improved or unimproved real estate, including but not limited to buildings, other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, and storage of equipment or materials.** A hydrologic and hydraulic analysis must be performed *prior* to the start of development, and must demonstrate that the development would not cause any rise in base flood levels. No rise is permitted within regulatory floodways.

- All buildings constructed within a coastal high hazard area, (any of the "V" Flood Zones as delineated on the FIRM), must be elevated on pilings and columns, so that the lowest horizontal structural member, (excluding the pilings and columns), is elevated to or above the base flood elevation level. In addition, the posts and pilings foundation and the structure attached thereto, is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components.

- Upon completion of any development that changes existing Special Flood Hazard Areas, the NFIP directs all participating communities to submit the appropriate hydrologic and hydraulic data to FEMA for a FIRM revision. In accordance with 44 CFR, Section 65.3, as soon as practicable, but not later than six months after such data becomes available, a community shall notify FEMA of the changes by submitting technical data for a flood map revision. To obtain copies of FEMA's Flood Map Revision Application Packages, please refer to the FEMA website at http://www.fema.gov/business/nfip/forms.shtm.

Please Note:

Many NFIP participating communities have adopted floodplain management building requirements which are more restrictive than the minimum federal standards described in 44 CFR. Please contact the local community's floodplain manager for more information on local floodplain management building requirements. The Capitola floodplain manager can be reached by calling Mark Wheeler, Building Official, at (831) 475-7300. The Santa Cruz County floodplain manager can be reached by calling Antonella Gentile, Planner, at (831) 454-3164.

If you have any questions or concerns, please do not hesitate to call Michael Hornick of the Mitigation staff at (510) 627-7260.

Sincerely,

for Ray Lenaburg

Gregor Blackburn, CFM, Branch Chief
Floodplain Management and Insurance Branch

cc:
Mark Wheeler, Building Official, City of Capitola
Antonella Gentile, Planner, Santa Cruz County
Ed Perez/Amanda Peisch, State of California, Department of Water Resources, South Central Region Office
Michael Hornick, NFIP Planner, DHS/FEMA Region IX
Alessandro Amaglio, Environmental Officer, DHS/FEMA Region IX

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3329
TTY 711
http://www.dot.ca.gov/dist05/

Flex your power!
Be energy efficient!

July 29, 2013

Mr. Richard Grunow
Community Development Director
City of Capitola
420 Capitola Avenue
Capitola, CA 95010

SCH#: 2013072002
PM: 1-12.93

Dear Mr. Grunow:

COMMENTS ON THE NOTICE OF PREPARATION (NOP) FOR THE CITY OF CAPITOLA GENERAL PLAN UPDATE

The California Department of Transportation (Department), District 5, Development Review, has reviewed the above referenced project and offers the following comments:

1. The Department supports local development that is consistent with State planning priorities intended to promote equity, strengthen the economy, protect the environment, and promote public health and safety. We accomplish this by working with local jurisdictions to achieve a shared vision of how the transportation system should and can accommodate interregional and local travel and development.

2. We anticipate the conditions of approval for a General Plan Update to include requiring a comprehensive regional traffic study that includes State Route 1 mainline operations, and look forward to reviewing it. Please visit the Department's Internet site for a copy of our *Guidelines for the Preparation of Traffic Impact Studies* at: http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/reports/tisguide.pdf. An alternative method that produces technically comparable results can also be use.

3. The Department is responsible for the safety, operations, and maintenance of the State transportation system; therefore, our Level of Service (LOS) standards should be used to determine the significance of a project's impact. We endeavor to maintain a target LOS at the transition between LOS C and LOS D on all State transportation facilities. In cases where a State facility is already operating at an unacceptable LOS, *any* additional trips should be considered a significant cumulative traffic impact, and should be mitigated accordingly.

Thank you for the opportunity to comment on the NOP for the City of Capitola General Plan Update, and for your consideration and action upon these issues. If you have any questions or concerns, or need further clarification on the items discussed above, please do not hesitate to call me at (805) 549-3099 or e-mail jennifer.calate@dot.ca.gov.

Sincerely,

JENNIFER CALATÉ
Associate Transportation Planner
District 5 Development Review Coordinator

From: Farinha, Melissa@Wildlife [mailto:Melissa.Farinha@wildlife.ca.gov]
Sent: Wednesday, July 24, 2013 12:49 PM
To: Grunow, Rich
Cc: Patin, Reanna@Wildlife
Subject: Capitola General Plan Update NOP - SCH# 2013072002

Dear Mr. Richard Grunow,

The Department of Fish and Wildlife has the following comments regarding the Capitola General Plan Update.

Please incorporate, where suitable, into the Capitola General Plan Update the following coho recovery actions for the Aptos-Soquel Hydrologic Subunit Area from the Department of Fish and Wildlife's 2004 Recovery Strategy for California Coho Salmon:

1. Implement elements of the Soquel Creek Watershed Assessment and Enhancement Project Plan (available at: http://www.rcdsantacruz.org/pages/resources/local-watershed-plans.php) that are consistent with the coho salmon recovery strategy. Specifically, focusing on preservation of base flow, restoration of flood plains, improvements to coho salmon passage and best management practices to reduce sedimentation of in-stream habitat.

2. Maintain year round in-stream flows for coho salmon by amendments to the adjudication, water conservation, shallow recharge opportunities, shallow-well gauging, deep-well gauging, stream-gauging, self-monitoring of diversions, and conjunctive water management for recovery of groundwater levels.

Thank You,

Melissa A. Farinha
California Department of Fish and Wildlife
Environmental Scientist - Santa Cruz County
7329 Silverado Trail
Napa, CA 94558

CITY OF
SANTA CRUZ

WATER DEPARTMENT

212 Locust Street, Suite C, Santa Cruz, CA 95060 • (831) 420-5200 • Fax (831) 420-5201

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JUL 31 2013
CITY OF CAPITOLA

July 25, 2013

Richard Grunow
Community Development Director
City of Capitola
420 Capitola Avenue
Capitola, CA 95010

RE: Notice of Preparation of a Programmatic EIR for the Capitola General Plan Update

Dear Mr. Grunow:

The City of Santa Cruz Water Department has reviewed the Notice of Preparation for a Programmatic EIR for the City of Capitola General Plan Update. As you know, our department supplies water to the westernmost portion of the City of Capitola. It is our understanding that there are land use changes proposed in the General Plan Update that could potentially change water demands in our service area. The EIR should, therefore, provide the following information:

- A detailed description of land use changes and associated build out projections within the City of Santa Cruz Water Service Area;
- Changes in projected water demand associated with any proposed land use changes;
- An analysis of the ability of the City's water system to meet any new demands.

The City's Water System relies entirely on rainfall, runoff, and groundwater within watersheds located in the County. As a result, the City's system is vulnerable to shortages in dry years. Compounding the problem are new requirements to provide more water for steelhead and coho salmon in the surface waters that our system relies on to supply water. The City has, therefore, been pursuing a three tiered approach for water planning that includes conservation, curtailment during droughts, and development of a new water supply.

We encourage you to utilize in your analysis the vast amount of information already contained in our 2010 Urban Water Management Plan (2011); Integrated Water Plan (2005); General Plan 2030 Final Environmental impact Report (2012); and our recently released Draft Environmental Impact Report for the Proposed scwd^2 Regional Seawater Desalination Project (May 2013).

Thank you for giving us the opportunity to comment on the notice of preparation. We would be interested in meeting as the details of the proposed land use changes emerge. If you have any questions please contact Melissa Hetrick our Environmental Projects Analyst (831-420-5322; mhetrick@cityofsantacruz.com) or Toby Goddard our Water Conservation Manager (831-420-5232; tgoddard@cityofsantacruz.com).

Sincerely,

Bill Kocher
Director
City of Santa Cruz Water Department

Cc: Linette Almond, Deputy Director, City of Santa Cruz Water Department
Toby Goddard, Water Conservation Manager, City of Santa Cruz Water Department
Melissa Hetrick, Environmental Projects Analyst, City of Santa Cruz Water Department
Juliana Rebagliati, Director, Planning and Community Development, City of Santa Cruz

How does the new hotel in village read in the first draft?

Jesse L. Nickell III

____

Sr. Vice President of Construction - BARRY SWENSON BUILDER

5200 Soquel Avenue, Suite 202, Santa Cruz, CA 95062

Direct: 831.475.7100 x 113 | Fax: 831.475.4544

jnickell@barryswensonbuilder.com

www.BarrySwensonBuilder.com

From: Capitola General Plan Update EIR [mailto:ahill=planningcenter.com@mail182.wdc02.mcdlv.net] **On Behalf Of** Capitola General Plan Update EIR
Sent: Monday, July 01, 2013 4:28 PM
To: jnickell@barryswensonbuilder.com
Subject: Capitola General Plan Update EIR Scoping Period Has Begun

City of Capitola

I. Public Scoping Period Begins

The City of Capitola is preparing an Environmental Impact Report (EIR) for its General Plan Update. On July 1, 2013, the City issued a Notice of Preparation, announcing the beginning of the public scoping period for the EIR, which runs until August 1, 2013.

The public scoping period is an opportunity for members of the public to provide comments in writing on the scope and content of the EIR, including issues to be considered and alternatives to be analyzed.Comments should focus on the potential environmental impacts of the General Plan Update, rather than on the content of the Plan. A separate comment period focused on the General Plan itself will take place later this year.

Please send written comments on the scope and contents of the EIR to Richard Grunow, Community Development Director, 420 Capitola Avenue, Capitola, CA 95010, by August 1, 2013. Alternately, you may reply to this email.

Members of the public are also invited to provide comments to the City on the scope and contents of the EIR at the scoping meeting, which will take place as follows:

Date: Tuesday July 23, 2013
Time: 6:00 8:00 PM
Place: City Council Chambers
Capitola City Hall
420 Capitola Avenue
Capitola, CA 95010

To download the Notice of Preparation (NOP), please clickhere.

APPENDIX B

AIR QUALITY

Parenthetical CALEEMOD Assumptions
For: City of Capitola Existing and Year 2035 Conditions
Date: October 2013

EXISTING LAND USES

Existing	Land Use Type	Unit Type
1,935	Single-Family Residential	Dwelling Units
2,857	Multi-Family Residential	Dwelling Units
743	Mobile Home Park	Dwelling Units
1,012,547	General Office	1,000 square feet
2,528,552	Retail	1,000 square feet
488,165	Industrial	1,000 square feet

AREA AND MOBILE SOURCES

CalEEMod area source and operational defaults rates have been utilized. Default rates have not been modified.

YEAR 2035 LAND USES

Year 2035	Land Use Type	Unit Type
1,944	Single-Family Residential	Dwelling Units
2,911	Multi-Family Residential	Dwelling Units
743	Mobile Home Park	Dwelling Units
1,154,327	General Office	1,000 square feet
2,882,572	Retail	1,000 square feet
556,459	Industrial	1,000 square feet

AREA AND MOBILE SOURCES

CalEEMod area source and operational defaults rates have been utilized. Default rates have not been modified.

Capitola General Plan Update EIR

North Central Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,935.00	Dwelling Unit	628.25	3,483,000.00	5534
Apartments Low Rise	2,857.00	Dwelling Unit	178.56	2,857,000.00	8171
Mobile Home Park	743.00	Dwelling Unit	93.60	891,600.00	2125
General Office Building	1,012.55	1000sqft	23.24	1,012,547.00	0
Strip Mall	2,528.55	1000sqft	58.05	2,528,552.00	0
General Light Industry	488.17	1000sqft	11.21	488,165.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.8	**Precipitation Freq (Days)**	53
Climate Zone	4			**Operational Year**	2014
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Baseline

Construction Phase - Operations Run Only

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	1.00
tblLandUse	LandUseSquareFeet	1,012,550.00	1,012,547.00
tblLandUse	LandUseSquareFeet	2,528,550.00	2,528,552.00
tblLandUse	LandUseSquareFeet	488,170.00	488,165.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	408.6378	5.2114	469.9772	0.1693		60.3321	60.3321		60.3304	60.3304	5,717.4209	2,465.0078	8,182.4287	5.3480	0.4497	8,434.1499
Energy	0.8016	6.9594	3.7155	0.0437		0.5539	0.5539		0.5539	0.5539	0.0000	31,720.7817	31,720.7817	1.2277	0.3680	31,860.6368
Mobile	324.4087	338.9156	1,552.7187	1.7697	113.5270	4.3370	117.8640	30.4141	3.9792	34.3933	0.0000	148,152.6153	148,152.6153	9.6236	0.0000	148,354.7098
Waste						0.0000	0.0000		0.0000	0.0000	1,683.3919	0.0000	1,683.3919	99.4856	0.0000	3,772.5897
Water						0.0000	0.0000		0.0000	0.0000	266.7398	1,784.1632	2,050.9030	27.4774	0.6636	2,833.6408
Total	**733.8481**	**351.0863**	**2,026.4113**	**1.9827**	**113.5270**	**65.2230**	**178.7500**	**30.4141**	**64.8634**	**95.2775**	**7,667.5526**	**184,122.5679**	**191,790.1205**	**143.1623**	**1.4813**	**195,255.7270**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	408.6378	5.2114	469.9772	0.1693		60.3321	60.3321		60.3304	60.3304	5,717.4209	2,465.0078	8,182.4287	5.3480	0.4497	8,434.1499
Energy	0.8016	6.9594	3.7155	0.0437		0.5539	0.5539		0.5539	0.5539	0.0000	31,720.7817	31,720.7817	1.2277	0.3680	31,860.6368
Mobile	324.4087	338.9156	1,552.7187	1.7697	113.5270	4.3370	117.8640	30.4141	3.9792	34.3933	0.0000	148,152.6153	148,152.6153	9.6236	0.0000	148,354.7098
Waste						0.0000	0.0000		0.0000	0.0000	1,683.3919	0.0000	1,683.3919	99.4856	0.0000	3,772.5897
Water						0.0000	0.0000		0.0000	0.0000	266.7398	1,784.1632	2,050.9030	27.4724	0.6626	2,833.2153
Total	**733.8481**	**351.0863**	**2,026.4113**	**1.9827**	**113.5270**	**65.2230**	**178.7500**	**30.4141**	**64.8634**	**95.2775**	**7,667.5526**	**184,122.5679**	**191,790.1205**	**143.1573**	**1.4803**	**195,255.3015**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.4925e-003**	**0.0702**	**2.1794e-004**

3.0 Construction Detail

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	324.4087	338.9156	1,552.7187	1.7697	113.5270	4.3370	117.8640	30.4141	3.9792	34.3933	0.0000	148,152.6153	148,152.6153	9.6236	0.0000	148,354.7098
Unmitigated	324.4087	338.9156	1,552.7187	1.7697	113.5270	4.3370	117.8640	30.4141	3.9792	34.3933	0.0000	148,152.6153	148,152.6153	9.6236	0.0000	148,354.7098

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	18,827.63	20,456.12	17341.99	54,299,101	54,299,101
Mobile Home Park	3,707.57	3,715.00	3239.48	10,491,510	10,491,510
General Light Industry	3,402.54	644.38	331.96	7,502,753	7,502,753
Single Family Housing	18,517.95	19,504.80	16969.95	53,117,213	53,117,213
Strip Mall	112,065.34	106,300.24	51658.28	158,026,134	158,026,134
General Office Building	11,148.18	2,399.74	992.30	20,187,580	20,187,580
Total	167,669.21	153,020.29	90,533.95	303,624,292	303,624,292

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
Mobile Home Park	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Single Family Housing	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.464735	0.039298	0.210653	0.166464	0.052304	0.007425	0.015372	0.026867	0.002938	0.002238	0.008122	0.000854	0.002730

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23,787.5109	23,787.5109	1.0756	0.2225	23,879.0855
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	23,787.5109	23,787.5109	1.0756	0.2225	23,879.0855
NaturalGas Mitigated	0.8016	6.9594	3.7155	0.0437		0.5539	0.5539		0.5539	0.5539	0.0000	7,933.2708	7,933.2708	0.1521	0.1454	7,981.5513
NaturalGas Unmitigated	0.8016	6.9594	3.7155	0.0437		0.5539	0.5539		0.5539	0.5539	0.0000	7,933.2708	7,933.2708	0.1521	0.1454	7,981.5513

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.33806e+007	0.0722	0.6559	0.5510	3.9400e-003		0.0499	0.0499		0.0499	0.0499	0.0000	714.0399	714.0399	0.0137	0.0131	718.3854
General Office Building	1.74361e+007	0.0940	0.8547	0.7180	5.1300e-003		0.0650	0.0650		0.0650	0.0650	0.0000	930.4545	930.4545	0.0178	0.0171	936.1171
Mobile Home Park	1.24759e+007	0.0673	0.5749	0.2446	3.6700e-003		0.0465	0.0465		0.0465	0.0465	0.0000	665.7635	665.7635	0.0128	0.0122	669.8152
Single Family Housing	6.82725e+007	0.3681	3.1459	1.3387	0.0201		0.2544	0.2544		0.2544	0.2544	0.0000	3,643.2821	3,643.2821	0.0698	0.0668	3,665.4545
Strip Mall	6.29609e+006	0.0340	0.3086	0.2593	1.8500e-003		0.0235	0.0235		0.0235	0.0235	0.0000	335.9836	335.9836	6.4400e-003	6.1600e-003	338.0283
Apartments Low Rise	3.08027e+007	0.1661	1.4193	0.6040	9.0600e-003		0.1148	0.1148		0.1148	0.1148	0.0000	1,643.7472	1,643.7472	0.0315	0.0301	1,653.7508
Total		**0.8016**	**6.9594**	**3.7155**	**0.0437**		**0.5539**	**0.5539**		**0.5539**	**0.5539**	**0.0000**	**7,933.2708**	**7,933.2708**	**0.1521**	**0.1455**	**7,981.5513**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.33806e+007	0.0722	0.6559	0.5510	3.9400e-003		0.0499	0.0499		0.0499	0.0499	0.0000	714.0399	714.0399	0.0137	0.0131	718.3854
General Office Building	1.74361e+007	0.0940	0.8547	0.7180	5.1300e-003		0.0650	0.0650		0.0650	0.0650	0.0000	930.4545	930.4545	0.0178	0.0171	936.1171
Mobile Home Park	1.24759e+007	0.0673	0.5749	0.2446	3.6700e-003		0.0465	0.0465		0.0465	0.0465	0.0000	665.7635	665.7635	0.0128	0.0122	669.8152
Single Family Housing	6.82725e+007	0.3681	3.1459	1.3387	0.0201		0.2544	0.2544		0.2544	0.2544	0.0000	3,643.2821	3,643.2821	0.0698	0.0668	3,665.4545
Strip Mall	6.29609e+006	0.0340	0.3086	0.2593	1.8500e-003		0.0235	0.0235		0.0235	0.0235	0.0000	335.9836	335.9836	6.4400e-003	6.1600e-003	338.0283
Apartments Low Rise	3.08027e+007	0.1661	1.4193	0.6040	9.0600e-003		0.1148	0.1148		0.1148	0.1148	0.0000	1,643.7472	1,643.7472	0.0315	0.0301	1,653.7508
Total		**0.8016**	**6.9594**	**3.7155**	**0.0437**		**0.5539**	**0.5539**		**0.5539**	**0.5539**	**0.0000**	**7,933.2708**	**7,933.2708**	**0.1521**	**0.1455**	**7,981.5513**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.05186e+007	3,059.9946	0.1384	0.0286	3,071.7746
General Light Industry	4.40813e+006	1,282.3756	0.0580	0.0120	1,287.3123
General Office Building	1.99573e+007	5,805.8078	0.2625	0.0543	5,828.1584
Mobile Home Park	3.63991e+006	1,058.8923	0.0479	9.9100e-003	1,062.9687
Single Family Housing	1.36861e+007	3,981.4547	0.1800	0.0373	3,996.7821
Strip Mall	2.95588e+007	8,598.9860	0.3888	0.0805	8,632.0894
Total		**23,787.5109**	**1.0756**	**0.2226**	**23,879.0855**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.05186e+007	3,059.9946	0.1384	0.0286	3,071.7746
General Light Industry	4.40813e+006	1,282.3756	0.0580	0.0120	1,287.3123
General Office Building	1.99573e+007	5,805.8078	0.2625	0.0543	5,828.1584
Mobile Home Park	3.63991e+006	1,058.8923	0.0479	9.9100e-003	1,062.9687
Single Family Housing	1.36861e+007	3,981.4547	0.1800	0.0373	3,996.7821
Strip Mall	2.95588e+007	8,598.9860	0.3888	0.0805	8,632.0894
Total		**23,787.5109**	**1.0756**	**0.2226**	**23,879.0855**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	408.6378	5.2114	469.9772	0.1693		60.3321	60.3321		60.3304	60.3304	5,717.4209	2,465.0078	8,182.4287	5.3480	0.4497	8,434.1499
Unmitigated	408.6378	5.2114	469.9772	0.1693		60.3321	60.3321		60.3304	60.3304	5,717.4209	2,465.0078	8,182.4287	5.3480	0.4497	8,434.1499

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	15.9814					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	43.9793					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	347.3002	4.7119	427.8365	0.1671		60.1084	60.1084		60.1067	60.1067	5,717.4209	2,397.8029	8,115.2238	5.2762	0.4497	8,365.4373
Landscaping	1.3769	0.4994	42.1406	2.1700e-003		0.2237	0.2237		0.2237	0.2237	0.0000	67.2049	67.2049	0.0718	0.0000	68.7125
Total	**408.6378**	**5.2114**	**469.9771**	**0.1693**		**60.3321**	**60.3321**		**60.3304**	**60.3304**	**5,717.4209**	**2,465.0078**	**8,182.4287**	**5.3480**	**0.4497**	**8,434.1499**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	15.9814					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	43.9793					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	347.3002	4.7119	427.8365	0.1671		60.1084	60.1084		60.1067	60.1067	5,717.4209	2,397.8029	8,115.2238	5.2762	0.4497	8,365.4373
Landscaping	1.3769	0.4994	42.1406	2.1700e-003		0.2237	0.2237		0.2237	0.2237	0.0000	67.2049	67.2049	0.0718	0.0000	68.7125
Total	**408.6378**	**5.2114**	**469.9771**	**0.1693**		**60.3321**	**60.3321**		**60.3304**	**60.3304**	**5,717.4209**	**2,465.0078**	**8,182.4287**	**5.3480**	**0.4497**	**8,434.1499**

7.0 Water Detail

7.1 Mitigation Measures Water

Category	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	2,050.9030	27.4724	0.6626	2,833.2153
Unmitigated	2,050.9030	27.4774	0.6636	2,833.6408

7.2 Water by Land Use

Unmitigated

Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
Apartments Low Rise	186.145 / 117.352	471.5572	6.0842	0.1471	644.9199
General Light Industry	112.889 / 0	213.5161	3.6865	0.0885	318.3745
General Office Building	179.964 / 110.301	452.6872	5.8820	0.1422	620.2812
Mobile Home Park	48.4094 / 30.519	122.6346	1.5823	0.0383	167.7198
Single Family Housing	126.073 / 79.4808	319.3781	4.1207	0.0996	436.7939
Strip Mall	187.296 / 114.794	471.1298	6.1217	0.1480	645.5516
Total		**2,050.9030**	**27.4774**	**0.6636**	**2,833.6409**

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	186.145 / 117.352	471.5572	6.0831	0.1469	644.8257
General Light Industry	112.889 / 0	213.5161	3.6859	0.0884	318.3174
General Office Building	179.964 / 110.301	452.6872	5.8810	0.1419	620.1901
Mobile Home Park	48.4094 / 30.519	122.6346	1.5820	0.0382	167.6953
Single Family Housing	126.073 / 79.4808	319.3781	4.1200	0.0995	436.7300
Strip Mall	187.296 / 114.794	471.1298	6.1206	0.1477	645.4568
Total		**2,050.9030**	**27.4724**	**0.6626**	**2,833.2153**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	1,683.3919	99.4856	0.0000	3,772.5897
Mitigated	1,683.3919	99.4856	0.0000	3,772.5897

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1314.22	266.7748	15.7659	0.0000	597.8595
General Light Industry	605.33	122.8765	7.2618	0.0000	275.3742
General Office Building	941.67	191.1505	11.2967	0.0000	428.3806
Mobile Home Park	341.78	69.3783	4.1001	0.0000	155.4811
Single Family Housing	2434.96	494.2749	29.2108	0.0000	1,107.7019
Strip Mall	2654.98	538.9370	31.8503	0.0000	1,207.7924
Total		**1,683.3919**	**99.4856**	**0.0000**	**3,772.5897**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1314.22	266.7748	15.7659	0.0000	597.8595
General Light Industry	605.33	122.8765	7.2618	0.0000	275.3742
General Office Building	941.67	191.1505	11.2967	0.0000	428.3806
Mobile Home Park	341.78	69.3783	4.1001	0.0000	155.4811
Single Family Housing	2434.96	494.2749	29.2108	0.0000	1,107.7019
Strip Mall	2654.98	538.9370	31.8503	0.0000	1,207.7924
Total		**1,683.3919**	**99.4856**	**0.0000**	**3,772.5897**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Capitola General Plan Update EIR

North Central Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,935.00	Dwelling Unit	628.25	3,483,000.00	5534
Apartments Low Rise	2,857.00	Dwelling Unit	178.56	2,857,000.00	8171
Mobile Home Park	743.00	Dwelling Unit	93.60	891,600.00	2125
General Office Building	1,012.55	1000sqft	23.24	1,012,547.00	0
Strip Mall	2,528.55	1000sqft	58.05	2,528,552.00	0
General Light Industry	488.17	1000sqft	11.21	488,165.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.8 **Precipitation Freq (Days)** 53

Climate Zone 4 **Operational Year** 2014

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Baseline

Construction Phase - Operations Run Only

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	1.00
tblLandUse	LandUseSquareFeet	1,012,550.00	1,012,547.00
tblLandUse	LandUseSquareFeet	2,528,550.00	2,528,552.00
tblLandUse	LandUseSquareFeet	488,170.00	488,165.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8,814.5867	120.4743	10,903.2663	4.1001		1,468.5450	1,468.5450		1,468.5020	1,468.5020	153,716.5296	65,289.5894	219,006.1190	142.7342	12.0910	225,751.7358
Energy	4.3924	38.1334	20.3586	0.2396		3.0348	3.0348		3.0348	3.0348		47,917.4471	47,917.4471	0.9184	0.8785	48,209.0647
Mobile	1,849.2657	1,907.0653	8,706.6818	11.1936	710.2872	26.1936	736.4808	189.7915	24.0324	213.8239		1,033,349.5460	1,033,349.5460	64.3490		1,034,700.8751
Total	**10,668.2448**	**2,065.6730**	**19,630.3067**	**15.5332**	**710.2872**	**1,497.7734**	**2,208.0606**	**189.7915**	**1,495.5691**	**1,685.3606**	**153,716.5296**	**1,146,556.5826**	**1,300,273.1122**	**208.0016**	**12.9695**	**1,308,661.6757**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8,814.5867	120.4743	10,903.2663	4.1001		1,468.5450	1,468.5450		1,468.5020	1,468.5020	153,716.5296	65,289.5894	219,006.1190	142.7342	12.0910	225,751.7358
Energy	4.3924	38.1334	20.3586	0.2396		3.0348	3.0348		3.0348	3.0348		47,917.4471	47,917.4471	0.9184	0.8785	48,209.0647
Mobile	1,849.2657	1,907.0653	8,706.6818	11.1936	710.2872	26.1936	736.4808	189.7915	24.0324	213.8239		1,033,349.5460	1,033,349.5460	64.3490		1,034,700.8751
Total	**10,668.2448**	**2,065.6730**	**19,630.3067**	**15.5332**	**710.2872**	**1,497.7734**	**2,208.0606**	**189.7915**	**1,495.5691**	**1,685.3606**	**153,716.5296**	**1,146,556.5826**	**1,300,273.1122**	**208.0016**	**12.9695**	**1,308,661.6757**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.0 Construction Detail

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1,849.2657	1,907.0653	8,706.6818	11.1936	710.2872	26.1936	736.4808	189.7915	24.0324	213.8239		1,033,349.5460	1,033,349.5460	64.3490		1,034,700.8751
Unmitigated	1,849.2657	1,907.0653	8,706.6818	11.1936	710.2872	26.1936	736.4808	189.7915	24.0324	213.8239		1,033,349.5460	1,033,349.5460	64.3490		1,034,700.8751

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	18,827.63	20,456.12	17341.99	54,299,101	54,299,101
Mobile Home Park	3,707.57	3,715.00	3239.48	10,491,510	10,491,510
General Light Industry	3,402.54	644.38	331.96	7,502,753	7,502,753
Single Family Housing	18,517.95	19,504.80	16969.95	53,117,213	53,117,213
Strip Mall	112,065.34	106,300.24	51658.28	158,026,134	158,026,134
General Office Building	11,148.18	2,399.74	992.30	20,187,580	20,187,580
Total	167,669.21	153,020.29	90,533.95	303,624,292	303,624,292

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
Mobile Home Park	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Single Family Housing	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.464735	0.039298	0.210653	0.166464	0.052304	0.007425	0.015372	0.026867	0.002938	0.002238	0.008122	0.000854	0.002730

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.3924	38.1334	20.3586	0.2396		3.0348	3.0348		3.0348	3.0348		47,917.4471	47,917.4471	0.9184	0.8785	48,209.0647
NaturalGas Unmitigated	4.3924	38.1334	20.3586	0.2396		3.0348	3.0348		3.0348	3.0348		47,917.4471	47,917.4471	0.9184	0.8785	48,209.0647

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	36659.2	0.3953	3.5940	3.0190	0.0216		0.2732	0.2732		0.2732	0.2732		4,312.8453	4,312.8453	0.0827	0.0791	4,339.0926
General Office Building	47770	0.5152	4.6833	3.9340	0.0281		0.3559	0.3559		0.3559	0.3559		5,620.0030	5,620.0030	0.1077	0.1030	5,654.2054
Mobile Home Park	34180.6	0.3686	3.1500	1.3404	0.0201		0.2547	0.2547		0.2547	0.2547		4,021.2525	4,021.2525	0.0771	0.0737	4,045.7252
Single Family Housing	187048	2.0172	17.2378	7.3352	0.1100		1.3937	1.3937		1.3937	1.3937		22,005.6495	22,005.6495	0.4218	0.4034	22,139.5722
Strip Mall	17249.6	0.1860	1.6911	1.4206	0.0102		0.1285	0.1285		0.1285	0.1285		2,029.3616	2,029.3616	0.0389	0.0372	2,041.7120
Apartments Low Rise	84390.8	0.9101	7.7772	3.3095	0.0496		0.6288	0.6288		0.6288	0.6288		9,928.3352	9,928.3352	0.1903	0.1820	9,988.7573
Total		**4.3924**	**38.1335**	**20.3586**	**0.2396**		**3.0348**	**3.0348**		**3.0348**	**3.0348**		**47,917.4472**	**47,917.4472**	**0.9184**	**0.8785**	**48,209.0647**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	36.6592	0.3953	3.5940	3.0190	0.0216		0.2732	0.2732		0.2732	0.2732		4,312.8453	4,312.8453	0.0827	0.0791	4,339.0926
General Office Building	47.77	0.5152	4.6833	3.9340	0.0281		0.3559	0.3559		0.3559	0.3559		5,620.0030	5,620.0030	0.1077	0.1030	5,654.2054
Mobile Home Park	34.1806	0.3686	3.1500	1.3404	0.0201		0.2547	0.2547		0.2547	0.2547		4,021.2525	4,021.2525	0.0771	0.0737	4,045.7252
Single Family Housing	187.048	2.0172	17.2378	7.3352	0.1100		1.3937	1.3937		1.3937	1.3937		22,005.6495	22,005.6495	0.4218	0.4034	22,139.5722
Strip Mall	17.2496	0.1860	1.6911	1.4206	0.0102		0.1285	0.1285		0.1285	0.1285		2,029.3616	2,029.3616	0.0389	0.0372	2,041.7120
Apartments Low Rise	84.3908	0.9101	7.7772	3.3095	0.0496		0.6288	0.6288		0.6288	0.6288		9,928.3352	9,928.3352	0.1903	0.1820	9,988.7573
Total		**4.3924**	**38.1335**	**20.3586**	**0.2396**		**3.0348**	**3.0348**		**3.0348**	**3.0348**		**47,917.4472**	**47,917.4472**	**0.9184**	**0.8785**	**48,209.0647**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8,814.5867	120.4743	10,903.2663	4.1001		1,468.5450	1,468.5450		1,468.5020	1,468.5020	153,716.5296	65,289.5894	219,006.1190	142.7342	12.0910	225,751.7358
Unmitigated	8,814.5867	120.4743	10,903.2663	4.1001		1,468.5450	1,468.5450		1,468.5020	1,468.5020	153,716.5296	65,289.5894	219,006.1190	142.7342	12.0910	225,751.7358

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	87.5693					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	240.9825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	8,470.7361	114.9252	10,435.0372	4.0759		1,466.0594	1,466.0594		1,466.0165	1,466.0165	153,716.5296	64,466.4706	218,183.0002	141.8549	12.0910	224,910.1512
Landscaping	15.2988	5.5491	468.2291	0.0241		2.4855	2.4855		2.4855	2.4855		823.1188	823.1188	0.8793		841.5846
Total	**8,814.5867**	**120.4743**	**10,903.2663**	**4.1001**		**1,468.5450**	**1,468.5450**		**1,468.5020**	**1,468.5020**	**153,716.5296**	**65,289.5894**	**219,006.1190**	**142.7342**	**12.0910**	**225,751.7358**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	87.5693					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	240.9825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	8,470.7361	114.9252	10,435.0372	4.0759		1,466.0594	1,466.0594		1,466.0165	1,466.0165	153,716.5296	64,466.4706	218,183.0002	141.8549	12.0910	224,910.1512
Landscaping	15.2988	5.5491	468.2291	0.0241		2.4855	2.4855		2.4855	2.4855		823.1188	823.1188	0.8793		841.5846
Total	**8,814.5867**	**120.4743**	**10,903.2663**	**4.1001**		**1,468.5450**	**1,468.5450**		**1,468.5020**	**1,468.5020**	**153,716.5296**	**65,289.5894**	**219,006.1190**	**142.7342**	**12.0910**	**225,751.7358**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Capitola General Plan Update EIR

North Central Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,935.00	Dwelling Unit	628.25	3,483,000.00	5534
Apartments Low Rise	2,857.00	Dwelling Unit	178.56	2,857,000.00	8171
Mobile Home Park	743.00	Dwelling Unit	93.60	891,600.00	2125
General Office Building	1,012.55	1000sqft	23.24	1,012,547.00	0
Strip Mall	2,528.55	1000sqft	58.05	2,528,552.00	0
General Light Industry	488.17	1000sqft	11.21	488,165.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.8	**Precipitation Freq (Days)**	53
Climate Zone	4			**Operational Year**	2014
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Baseline

Construction Phase - Operations Run Only

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	600.00	1.00
tblLandUse	LandUseSquareFeet	1,012,550.00	1,012,547.00
tblLandUse	LandUseSquareFeet	2,528,550.00	2,528,552.00
tblLandUse	LandUseSquareFeet	488,170.00	488,165.00
tblTripsAndVMT	WorkerTripNumber	18.00	10.00

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8,814.5867	120.4743	10,903.2663	4.1001		1,468.5450	1,468.5450		1,468.5020	1,468.5020	153,716.5296	65,289.5894	219,006.1190	142.7342	12.0910	225,751.7358
Energy	4.3924	38.1334	20.3586	0.2396		3.0348	3.0348		3.0348	3.0348		47,917.4471	47,917.4471	0.9184	0.8785	48,209.0647
Mobile	2,245.2868	2,152.5090	10,564.0334	10.7181	710.2872	26.4929	736.7801	189.7915	24.3077	214.0992		987,178.5089	987,178.5089	64.3970		988,530.8449
Total	**11,064.2660**	**2,311.1168**	**21,487.6584**	**15.0578**	**710.2872**	**1,498.0726**	**2,208.3599**	**189.7915**	**1,495.8445**	**1,685.6360**	**153,716.5296**	**1,100,385.5454**	**1,254,102.0750**	**208.0495**	**12.9695**	**1,262,491.6454**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8,814.5867	120.4743	10,903.2663	4.1001		1,468.5450	1,468.5450		1,468.5020	1,468.5020	153,716.5296	65,289.5894	219,006.1190	142.7342	12.0910	225,751.7358
Energy	4.3924	38.1334	20.3586	0.2396		3.0348	3.0348		3.0348	3.0348		47,917.4471	47,917.4471	0.9184	0.8785	48,209.0647
Mobile	2,245.2868	2,152.5090	10,564.0334	10.7181	710.2872	26.4929	736.7801	189.7915	24.3077	214.0992		987,178.5089	987,178.5089	64.3970		988,530.8449
Total	**11,064.2660**	**2,311.1168**	**21,487.6584**	**15.0578**	**710.2872**	**1,498.0726**	**2,208.3599**	**189.7915**	**1,495.8445**	**1,685.6360**	**153,716.5296**	**1,100,385.5454**	**1,254,102.0750**	**208.0495**	**12.9695**	**1,262,491.6454**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.0 Construction Detail

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	2,245.2868	2,152.5090	10,564.0334	10.7181	710.2872	26.4929	736.7801	189.7915	24.3077	214.0992		987,178.5089	987,178.5089	64.3970		988,530.8449
Unmitigated	2,245.2868	2,152.5090	10,564.0334	10.7181	710.2872	26.4929	736.7801	189.7915	24.3077	214.0992		987,178.5089	987,178.5089	64.3970		988,530.8449

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	18,827.63	20,456.12	17341.99	54,299,101	54,299,101
Mobile Home Park	3,707.57	3,715.00	3239.48	10,491,510	10,491,510
General Light Industry	3,402.54	644.38	331.96	7,502,753	7,502,753
Single Family Housing	18,517.95	19,504.80	16969.95	53,117,213	53,117,213
Strip Mall	112,065.34	106,300.24	51658.28	158,026,134	158,026,134
General Office Building	11,148.18	2,399.74	992.30	20,187,580	20,187,580
Total	167,669.21	153,020.29	90,533.95	303,624,292	303,624,292

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
Mobile Home Park	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Single Family Housing	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.464735	0.039298	0.210653	0.166464	0.052304	0.007425	0.015372	0.026867	0.002938	0.002238	0.008122	0.000854	0.002730

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.3924	38.1334	20.3586	0.2396		3.0348	3.0348		3.0348	3.0348		47,917.4471	47,917.4471	0.9184	0.8785	48,209.0647
NaturalGas Unmitigated	4.3924	38.1334	20.3586	0.2396		3.0348	3.0348		3.0348	3.0348		47,917.4471	47,917.4471	0.9184	0.8785	48,209.0647

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	36659.2	0.3953	3.5940	3.0190	0.0216		0.2732	0.2732		0.2732	0.2732		4,312.8453	4,312.8453	0.0827	0.0791	4,339.0926
General Office Building	47770	0.5152	4.6833	3.9340	0.0281		0.3559	0.3559		0.3559	0.3559		5,620.0030	5,620.0030	0.1077	0.1030	5,654.2054
Mobile Home Park	34180.6	0.3686	3.1500	1.3404	0.0201		0.2547	0.2547		0.2547	0.2547		4,021.2525	4,021.2525	0.0771	0.0737	4,045.7252
Single Family Housing	187048	2.0172	17.2378	7.3352	0.1100		1.3937	1.3937		1.3937	1.3937		22,005.6495	22,005.6495	0.4218	0.4034	22,139.5722
Strip Mall	17249.6	0.1860	1.6911	1.4206	0.0102		0.1285	0.1285		0.1285	0.1285		2,029.3616	2,029.3616	0.0389	0.0372	2,041.7120
Apartments Low Rise	84390.8	0.9101	7.7772	3.3095	0.0496		0.6288	0.6288		0.6288	0.6288		9,928.3352	9,928.3352	0.1903	0.1820	9,988.7573
Total		**4.3924**	**38.1335**	**20.3586**	**0.2396**		**3.0348**	**3.0348**		**3.0348**	**3.0348**		**47,917.4472**	**47,917.4472**	**0.9184**	**0.8785**	**48,209.0647**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	36.6592	0.3953	3.5940	3.0190	0.0216		0.2732	0.2732		0.2732	0.2732		4,312.8453	4,312.8453	0.0827	0.0791	4,339.0926
General Office Building	47.77	0.5152	4.6833	3.9340	0.0281		0.3559	0.3559		0.3559	0.3559		5,620.0030	5,620.0030	0.1077	0.1030	5,654.2054
Mobile Home Park	34.1806	0.3686	3.1500	1.3404	0.0201		0.2547	0.2547		0.2547	0.2547		4,021.2525	4,021.2525	0.0771	0.0737	4,045.7252
Single Family Housing	187.048	2.0172	17.2378	7.3352	0.1100		1.3937	1.3937		1.3937	1.3937		22,005.6495	22,005.6495	0.4218	0.4034	22,139.5722
Strip Mall	17.2496	0.1860	1.6911	1.4206	0.0102		0.1285	0.1285		0.1285	0.1285		2,029.3616	2,029.3616	0.0389	0.0372	2,041.7120
Apartments Low Rise	84.3908	0.9101	7.7772	3.3095	0.0496		0.6288	0.6288		0.6288	0.6288		9,928.3352	9,928.3352	0.1903	0.1820	9,988.7573
Total		**4.3924**	**38.1335**	**20.3586**	**0.2396**		**3.0348**	**3.0348**		**3.0348**	**3.0348**		**47,917.4472**	**47,917.4472**	**0.9184**	**0.8785**	**48,209.0647**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8,814.5867	120.4743	10,903.2663	4.1001		1,468.5450	1,468.5450		1,468.5020	1,468.5020	153,716.5296	65,289.5894	219,006.1190	142.7342	12.0910	225,751.7358
Unmitigated	8,814.5867	120.4743	10,903.2663	4.1001		1,468.5450	1,468.5450		1,468.5020	1,468.5020	153,716.5296	65,289.5894	219,006.1190	142.7342	12.0910	225,751.7358

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	87.5693					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	240.9825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	8,470.7361	114.9252	10,435.0372	4.0759		1,466.0594	1,466.0594		1,466.0165	1,466.0165	153,716.5296	64,466.4706	218,183.0002	141.8549	12.0910	224,910.1512
Landscaping	15.2988	5.5491	468.2291	0.0241		2.4855	2.4855		2.4855	2.4855		823.1188	823.1188	0.8793		841.5846
Total	**8,814.5867**	**120.4743**	**10,903.2663**	**4.1001**		**1,468.5450**	**1,468.5450**		**1,468.5020**	**1,468.5020**	**153,716.5296**	**65,289.5894**	**219,006.1190**	**142.7342**	**12.0910**	**225,751.7358**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	87.5693					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	240.9825					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	8,470.7361	114.9252	10,435.0372	4.0759		1,466.0594	1,466.0594		1,466.0165	1,466.0165	153,716.5296	64,466.4706	218,183.0002	141.8549	12.0910	224,910.1512
Landscaping	15.2988	5.5491	468.2291	0.0241		2.4855	2.4855		2.4855	2.4855		823.1188	823.1188	0.8793		841.5846
Total	**8,814.5867**	**120.4743**	**10,903.2663**	**4.1001**		**1,468.5450**	**1,468.5450**		**1,468.5020**	**1,468.5020**	**153,716.5296**	**65,289.5894**	**219,006.1190**	**142.7342**	**12.0910**	**225,751.7358**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Capitola General Plan Update EIR

North Central Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,944.00	Dwelling Unit	631.17	3,499,200.00	5560
Apartments Low Rise	2,911.00	Dwelling Unit	181.94	2,911,000.00	8325
Mobile Home Park	743.00	Dwelling Unit	93.60	891,600.00	2125
General Office Building	1,154.33	1000sqft	26.50	1,154,327.00	0
Strip Mall	2,882.57	1000sqft	66.17	2,882,572.00	0
General Light Industry	556.46	1000sqft	12.77	556,459.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.8 **Precipitation Freq (Days)** 53

Climate Zone 4 **Operational Year** 2035

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2035 Year

Construction Phase - Operations Run Only

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	6,000.00	1.00
tblLandUse	LandUseSquareFeet	1,154,330.00	1,154,327.00
tblLandUse	LandUseSquareFeet	2,882,570.00	2,882,572.00
tblProjectCharacteristics	OperationalYear	2014	2035

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	415.6969	5.2438	474.1679	0.1712		61.0233	61.0233		61.0215	61.0215	5,782.4972	2,493.0741	8,275.5713	5.4011	0.4548	8,529.9945
Energy	0.8345	7.2555	3.9470	0.0455		0.5766	0.5766		0.5766	0.5766	0.0000	34,318.6567	34,318.6567	1.3367	0.3952	34,469.2401
Mobile	151.6039	118.7378	643.6447	1.9571	123.8884	2.5493	126.4377	33.1989	2.3536	35.5526	0.0000	127,792.6775	127,792.6775	3.9360	0.0000	127,875.3332
Waste						0.0000	0.0000		0.0000	0.0000	1,810.1679	0.0000	1,810.1679	106.9779	0.0000	4,056.7028
Water						0.0000	0.0000		0.0000	0.0000	289.3661	1,931.1530	2,220.5190	29.8080	0.7198	3,069.6359
Total	**568.1352**	**131.2371**	**1,121.7596**	**2.1738**	**123.8884**	**64.1491**	**188.0375**	**33.1989**	**63.9517**	**97.1506**	**7,882.0311**	**166,535.5612**	**174,417.5923**	**147.4596**	**1.5699**	**178,000.9065**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	415.6969	5.2438	474.1679	0.1712		61.0233	61.0233		61.0215	61.0215	5,782.4972	2,493.0741	8,275.5713	5.4011	0.4548	8,529.9945
Energy	0.8345	7.2555	3.9470	0.0455		0.5766	0.5766		0.5766	0.5766	0.0000	34,318.6567	34,318.6567	1.3367	0.3952	34,469.2401
Mobile	151.6039	118.7378	643.6447	1.9571	123.8884	2.5493	126.4377	33.1989	2.3536	35.5526	0.0000	127,792.6775	127,792.6775	3.9360	0.0000	127,875.3332
Waste						0.0000	0.0000		0.0000	0.0000	1,810.1679	0.0000	1,810.1679	106.9779	0.0000	4,056.7028
Water						0.0000	0.0000		0.0000	0.0000	289.3661	1,931.1530	2,220.5190	29.8026	0.7187	3,069.1743
Total	**568.1352**	**131.2371**	**1,121.7596**	**2.1738**	**123.8884**	**64.1491**	**188.0375**	**33.1989**	**63.9517**	**97.1506**	**7,882.0311**	**166,535.5612**	**174,417.5923**	**147.4542**	**1.5688**	**178,000.4449**

	ROG	**NOx**	**CO**	**SO2**	**Fugitive PM10**	**Exhaust PM10**	**PM10 Total**	**Fugitive PM2.5**	**Exhaust PM2.5**	**PM2.5 Total**	**Bio- CO2**	**NBio-CO2**	**Total CO2**	**CH4**	**N20**	**CO2e**
Percent Reduction	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**3.6756e-003**	**0.0720**	**2.5935e-004**

3.0 Construction Detail

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	151.6039	118.7378	643.6447	1.9571	123.8884	2.5493	126.4377	33.1989	2.3536	35.5526	0.0000	127,792.6775	127,792.6775	3.9360	0.0000	127,875.3332
Unmitigated	151.6039	118.7378	643.6447	1.9571	123.8884	2.5493	126.4377	33.1989	2.3536	35.5526	0.0000	127,792.6775	127,792.6775	3.9360	0.0000	127,875.3332

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	19,183.49	20,842.76	17669.77	55,325,406	55,325,406
Mobile Home Park	3,707.57	3,715.00	3239.48	10,491,510	10,491,510
General Light Industry	3,878.52	734.53	378.39	8,552,297	8,552,297
Single Family Housing	18,604.08	19,595.52	17048.88	53,364,269	53,364,269
Strip Mall	127,755.59	121,183.33	58890.95	180,151,355	180,151,355
General Office Building	12,709.14	2,735.75	1131.24	23,014,240	23,014,240
Total	185,838.39	168,806.89	98,358.71	330,899,077	330,899,077

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
Mobile Home Park	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Single Family Housing	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.463801	0.038716	0.206906	0.161453	0.051141	0.007200	0.017453	0.036189	0.003411	0.002060	0.008397	0.000655	0.002618

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	26,060.1524	26,060.1524	1.1784	0.2438	26,160.4759
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	26,060.1524	26,060.1524	1.1784	0.2438	26,160.4759
NaturalGas Mitigated	0.8345	7.2555	3.9470	0.0455		0.5766	0.5766		0.5766	0.5766	0.0000	8,258.5043	8,258.5043	0.1583	0.1514	8,308.7642
NaturalGas Unmitigated	0.8345	7.2555	3.9470	0.0455		0.5766	0.5766		0.5766	0.5766	0.0000	8,258.5043	8,258.5043	0.1583	0.1514	8,308.7642

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.52525e+007	0.0822	0.7477	0.6281	4.4900e-003		0.0568	0.0568		0.0568	0.0568	0.0000	813.9337	813.9337	0.0156	0.0149	818.8872
General Office Building	1.98775e+007	0.1072	0.9744	0.8185	5.8500e-003		0.0741	0.0741		0.0741	0.0741	0.0000	1,060.7397	1,060.7397	0.0203	0.0195	1,067.1952
Mobile Home Park	1.24759e+007	0.0673	0.5749	0.2446	3.6700e-003		0.0465	0.0465		0.0465	0.0465	0.0000	665.7635	665.7635	0.0128	0.0122	669.8152
Single Family Housing	6.85901e+007	0.3699	3.1605	1.3449	0.0202		0.2555	0.2555		0.2555	0.2555	0.0000	3,660.2276	3,660.2276	0.0702	0.0671	3,682.5031
Strip Mall	7.1776e+006	0.0387	0.3518	0.2956	2.1100e-003		0.0267	0.0267		0.0267	0.0267	0.0000	383.0243	383.0243	7.3400e-003	7.0200e-003	385.3553
Apartments Low Rise	3.13849e+007	0.1692	1.4462	0.6154	9.2300e-003		0.1169	0.1169		0.1169	0.1169	0.0000	1,674.8156	1,674.8156	0.0321	0.0307	1,685.0083
Total		**0.8345**	**7.2555**	**3.9470**	**0.0455**		**0.5765**	**0.5765**		**0.5765**	**0.5765**	**0.0000**	**8,258.5043**	**8,258.5043**	**0.1583**	**0.1514**	**8,308.7642**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Light Industry	1.52525e+007	0.0822	0.7477	0.6281	4.4900e-003		0.0568	0.0568		0.0568	0.0568	0.0000	813.9337	813.9337	0.0156	0.0149	818.8872
General Office Building	1.98775e+007	0.1072	0.9744	0.8185	5.8500e-003		0.0741	0.0741		0.0741	0.0741	0.0000	1,060.7397	1,060.7397	0.0203	0.0195	1,067.1952
Mobile Home Park	1.24759e+007	0.0673	0.5749	0.2446	3.6700e-003		0.0465	0.0465		0.0465	0.0465	0.0000	665.7635	665.7635	0.0128	0.0122	669.8152
Single Family Housing	6.85901e+007	0.3699	3.1605	1.3449	0.0202		0.2555	0.2555		0.2555	0.2555	0.0000	3,660.2276	3,660.2276	0.0702	0.0671	3,682.5031
Strip Mall	7.1776e+006	0.0387	0.3518	0.2956	2.1100e-003		0.0267	0.0267		0.0267	0.0267	0.0000	383.0243	383.0243	7.3400e-003	7.0200e-003	385.3553
Apartments Low Rise	3.13849e+007	0.1692	1.4462	0.6154	9.2300e-003		0.1169	0.1169		0.1169	0.1169	0.0000	1,674.8156	1,674.8156	0.0321	0.0307	1,685.0083
Total		**0.8345**	**7.2555**	**3.9470**	**0.0455**		**0.5765**	**0.5765**		**0.5765**	**0.5765**	**0.0000**	**8,258.5043**	**8,258.5043**	**0.1583**	**0.1514**	**8,308.7642**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.07175e+007	3,117.8314	0.1410	0.0292	3,129.8341
General Light Industry	5.02482e+006	1,461.7791	0.0661	0.0137	1,467.4065
General Office Building	2.27518e+007	6,618.7552	0.2993	0.0619	6,644.2354
Mobile Home Park	3.63991e+006	1,058.8923	0.0479	9.9100e-003	1,062.9687
Single Family Housing	1.37498e+007	3,999.9731	0.1809	0.0374	4,015.3718
Strip Mall	3.36973e+007	9,802.9213	0.4433	0.0917	9,840.6595
Total		**26,060.1524**	**1.1784**	**0.2438**	**26,160.4759**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Apartments Low Rise	1.07175e+007	3,117.8314	0.1410	0.0292	3,129.8341
General Light Industry	5.02482e+006	1,461.7791	0.0661	0.0137	1,467.4065
General Office Building	2.27518e+007	6,618.7552	0.2993	0.0619	6,644.2354
Mobile Home Park	3.63991e+006	1,058.8923	0.0479	9.9100e-003	1,062.9687
Single Family Housing	1.37498e+007	3,999.9731	0.1809	0.0374	4,015.3718
Strip Mall	3.36973e+007	9,802.9213	0.4433	0.0917	9,840.6595
Total		**26,060.1524**	**1.1784**	**0.2438**	**26,160.4759**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	415.6969	5.2438	474.1679	0.1712		61.0233	61.0233		61.0215	61.0215	5,782.4972	2,493.0741	8,275.5713	5.4011	0.4548	8,529.9945
Unmitigated	415.6969	5.2438	474.1679	0.1712		61.0233	61.0233		61.0215	61.0215	5,782.4972	2,493.0741	8,275.5713	5.4011	0.4548	8,529.9945

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	16.7449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	46.4565					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	351.2532	4.7656	432.7062	0.1690		60.7926	60.7926		60.7908	60.7908	5,782.4972	2,425.0950	8,207.5922	5.3363	0.4548	8,460.6537
Landscaping	1.2423	0.4782	41.4617	2.2000e-003		0.2307	0.2307		0.2307	0.2307	0.0000	67.9791	67.9791	0.0649	0.0000	69.3408
Total	**415.6969**	**5.2438**	**474.1679**	**0.1712**		**61.0233**	**61.0233**		**61.0215**	**61.0215**	**5,782.4972**	**2,493.0741**	**8,275.5713**	**5.4011**	**0.4548**	**8,529.9945**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	16.7449					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	46.4565					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hearth	351.2532	4.7656	432.7062	0.1690		60.7926	60.7926		60.7908	60.7908	5,782.4972	2,425.0950	8,207.5922	5.3363	0.4548	8,460.6537
Landscaping	1.2423	0.4782	41.4617	2.2000e-003		0.2307	0.2307		0.2307	0.2307	0.0000	67.9791	67.9791	0.0649	0.0000	69.3408
Total	**415.6969**	**5.2438**	**474.1679**	**0.1712**		**61.0233**	**61.0233**		**61.0215**	**61.0215**	**5,782.4972**	**2,493.0741**	**8,275.5713**	**5.4011**	**0.4548**	**8,529.9945**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	2,220.5190	29.8026	0.7187	3,069.1743
Unmitigated	2,220.5190	29.8080	0.7198	3,069.6359

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	189.663 / 119.57	480.4701	6.1992	0.1499	657.1095
General Light Industry	128.681 / 0	243.3848	4.2022	0.1009	362.9118
General Office Building	205.163 / 125.745	516.0737	6.7056	0.1621	707.1347
Mobile Home Park	48.4094 / 30.519	122.6346	1.5823	0.0383	167.7198
Single Family Housing	126.659 / 79.8505	320.8636	4.1399	0.1001	438.8255
Strip Mall	213.519 / 130.867	537.0922	6.9788	0.1687	735.9347
Total		**2,220.5190**	**29.8080**	**0.7198**	**3,069.6359**

Mitigated

Land Use	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
	Mgal	MT/yr			
Apartments Low Rise	189.663 / 119.57	480.4701	6.1981	0.1496	657.0135
General Light Industry	128.681 / 0	243.3848	4.2015	0.1007	362.8467
General Office Building	205.163 / 125.745	516.0737	6.7044	0.1618	707.0309
Mobile Home Park	48.4094 / 30.519	122.6346	1.5820	0.0382	167.6953
Single Family Housing	126.659 / 79.8505	320.8636	4.1391	0.0999	438.7613
Strip Mall	213.519 / 130.867	537.0922	6.9775	0.1684	735.8266
Total		**2,220.5190**	**29.8026**	**0.7187**	**3,069.1743**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Unmitigated	1,810.1679	106.9779	0.0000	4,056.7028
Mitigated	1,810.1679	106.9779	0.0000	4,056.7028

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1339.06	271.8171	16.0639	0.0000	609.1596
General Light Industry	690.01	140.0658	8.2777	0.0000	313.8965
General Office Building	1073.53	217.9169	12.8785	0.0000	488.3658
Mobile Home Park	341.78	69.3783	4.1001	0.0000	155.4811
Single Family Housing	2446.4	496.5971	29.3481	0.0000	1,112.9061
Strip Mall	3026.7	614.3928	36.3096	0.0000	1,376.8937
Total		**1,810.1679**	**106.9779**	**0.0000**	**4,056.7028**

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	1339.06	271.8171	16.0639	0.0000	609.1596
General Light Industry	690.01	140.0658	8.2777	0.0000	313.8965
General Office Building	1073.53	217.9169	12.8785	0.0000	488.3658
Mobile Home Park	341.78	69.3783	4.1001	0.0000	155.4811
Single Family Housing	2446.4	496.5971	29.3481	0.0000	1,112.9061
Strip Mall	3026.7	614.3928	36.3096	0.0000	1,376.8937
Total		**1,810.1679**	**106.9779**	**0.0000**	**4,056.7028**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Capitola General Plan Update EIR

North Central Coast Air Basin, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,944.00	Dwelling Unit	631.17	3,499,200.00	5560
Apartments Low Rise	2,911.00	Dwelling Unit	181.94	2,911,000.00	8325
Mobile Home Park	743.00	Dwelling Unit	93.60	891,600.00	2125
General Office Building	1,154.33	1000sqft	26.50	1,154,327.00	0
Strip Mall	2,882.57	1000sqft	66.17	2,882,572.00	0
General Light Industry	556.46	1000sqft	12.77	556,459.00	0

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.8	**Precipitation Freq (Days)**	53
Climate Zone	4			**Operational Year**	2035
Utility Company	Pacific Gas & Electric Company				
CO2 Intensity (lb/MWhr)	641.35	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2035 Year

Construction Phase - Operations Run Only

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	6,000.00	1.00
tblLandUse	LandUseSquareFeet	1,154,330.00	1,154,327.00
tblLandUse	LandUseSquareFeet	2,882,570.00	2,882,572.00
tblProjectCharacteristics	OperationalYear	2014	2035

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8,927.2630	121.5471	11,014.4950	4.1467		1,485.3091	1,485.3091		1,485.2656	1,485.2656	155,466.1486	66,032.8363	221,498.9850	144.2637	12.2286	228,319.3839
Energy	4.5725	39.7560	21.6274	0.2494		3.1592	3.1592		3.1592	3.1592		49,881.8778	49,881.8778	0.9561	0.9145	50,185.4505
Mobile	867.4173	675.0694	3,518.5738	12.4027	776.2857	15.4602	791.7459	207.4819	14.2737	221.7557		889,740.0767	889,740.0767	26.3378		890,293.1705
Total	**9,799.2529**	**836.3725**	**14,554.6962**	**16.7989**	**776.2857**	**1,503.9285**	**2,280.2141**	**207.4819**	**1,502.6986**	**1,710.1805**	**155,466.1486**	**1,005,654.7908**	**1,161,120.9395**	**171.5576**	**13.1431**	**1,168,798.0049**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8,927.2630	121.5471	11,014.4950	4.1467		1,485.3091	1,485.3091		1,485.2656	1,485.2656	155,466.1486	66,032.8363	221,498.9850	144.2637	12.2286	228,319.3839
Energy	4.5725	39.7560	21.6274	0.2494		3.1592	3.1592		3.1592	3.1592		49,881.8778	49,881.8778	0.9561	0.9145	50,185.4505
Mobile	867.4173	675.0694	3,518.5738	12.4027	776.2857	15.4602	791.7459	207.4819	14.2737	221.7557		889,740.0767	889,740.0767	26.3378		890,293.1705
Total	**9,799.2529**	**836.3725**	**14,554.6962**	**16.7989**	**776.2857**	**1,503.9285**	**2,280.2141**	**207.4819**	**1,502.6986**	**1,710.1805**	**155,466.1486**	**1,005,654.7908**	**1,161,120.9395**	**171.5576**	**13.1431**	**1,168,798.0049**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.0 Construction Detail

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	867.4173	675.0694	3,518.5738	12.4027	776.2857	15.4602	791.7459	207.4819	14.2737	221.7557		889,740.0767	889,740.0767	26.3378		890,293.1705
Unmitigated	867.4173	675.0694	3,518.5738	12.4027	776.2857	15.4602	791.7459	207.4819	14.2737	221.7557		889,740.0767	889,740.0767	26.3378		890,293.1705

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	19,183.49	20,842.76	17669.77	55,325,406	55,325,406
Mobile Home Park	3,707.57	3,715.00	3239.48	10,491,510	10,491,510
General Light Industry	3,878.52	734.53	378.39	8,552,297	8,552,297
Single Family Housing	18,604.08	19,595.52	17048.88	53,364,269	53,364,269
Strip Mall	127,755.59	121,183.33	58890.95	180,151,355	180,151,355
General Office Building	12,709.14	2,735.75	1131.24	23,014,240	23,014,240
Total	185,838.39	168,806.89	98,358.71	330,899,077	330,899,077

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
Mobile Home Park	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Single Family Housing	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.463801	0.038716	0.206906	0.161453	0.051141	0.007200	0.017453	0.036189	0.003411	0.002060	0.008397	0.000655	0.002618

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.5725	39.7560	21.6274	0.2494		3.1592	3.1592		3.1592	3.1592		49,881.8778	49,881.8778	0.9561	0.9145	50,185.4505
NaturalGas Unmitigated	4.5725	39.7560	21.6274	0.2494		3.1592	3.1592		3.1592	3.1592		49,881.8778	49,881.8778	0.9561	0.9145	50,185.4505

5.2 Energy by Land Use - NaturalGas

Unmitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBTU/yr	lb/day										lb/day					
General Light Industry	41787.8	0.4507	4.0968	3.4414	0.0246		0.3114	0.3114		0.3114	0.3114		4,916.2099	4,916.2099	0.0942	0.0901	4,946.1291
General Office Building	54458.9	0.5873	5.3391	4.4849	0.0320		0.4058	0.4058		0.4058	0.4058		6,406.9334	6,406.9334	0.1228	0.1175	6,445.9250
Mobile Home Park	34180.6	0.3686	3.1500	1.3404	0.0201		0.2547	0.2547		0.2547	0.2547		4,021.2525	4,021.2525	0.0771	0.0737	4,045.7252
Single Family Housing	187918	2.0266	17.3179	7.3693	0.1105		1.4002	1.4002		1.4002	1.4002		22,108.0014	22,108.0014	0.4237	0.4053	22,242.5470
Strip Mall	19664.7	0.2121	1.9279	1.6194	0.0116		0.1465	0.1465		0.1465	0.1465		2,313.4905	2,313.4905	0.0443	0.0424	2,327.5700
Apartments Low Rise	85985.9	0.9273	7.9242	3.3720	0.0506		0.6407	0.6407		0.6407	0.6407		10,115.9901	10,115.9901	0.1939	0.1855	10,177.5543
Total		**4.5725**	**39.7560**	**21.6274**	**0.2494**		**3.1592**	**3.1592**		**3.1592**	**3.1592**		**49,881.8778**	**49,881.8778**	**0.9561**	**0.9145**	**50,185.4506**

Mitigated

Land Use	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
	kBTU/yr	lb/day										lb/day					
General Light Industry	41.7878	0.4507	4.0968	3.4414	0.0246		0.3114	0.3114		0.3114	0.3114		4,916.2099	4,916.2099	0.0942	0.0901	4,946.1291
General Office Building	54.4589	0.5873	5.3391	4.4849	0.0320		0.4058	0.4058		0.4058	0.4058		6,406.9334	6,406.9334	0.1228	0.1175	6,445.9250
Mobile Home Park	34.1806	0.3686	3.1500	1.3404	0.0201		0.2547	0.2547		0.2547	0.2547		4,021.2525	4,021.2525	0.0771	0.0737	4,045.7252
Single Family Housing	187.918	2.0266	17.3179	7.3693	0.1105		1.4002	1.4002		1.4002	1.4002		22,108.0014	22,108.0014	0.4237	0.4053	22,242.5470
Strip Mall	19.6647	0.2121	1.9279	1.6194	0.0116		0.1465	0.1465		0.1465	0.1465		2,313.4905	2,313.4905	0.0443	0.0424	2,327.5700
Apartments Low Rise	85.9859	0.9273	7.9242	3.3720	0.0506		0.6407	0.6407		0.6407	0.6407		10,115.9901	10,115.9901	0.1939	0.1855	10,177.5543
Total		**4.5725**	**39.7560**	**21.6274**	**0.2494**		**3.1592**	**3.1592**		**3.1592**	**3.1592**		**49,881.8778**	**49,881.8778**	**0.9561**	**0.9145**	**50,185.4506**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8,927.2630	121.5471	11,014.4950	4.1467		1,485.3091	1,485.3091		1,485.2656	1,485.2656	155,466.1486	66,032.8363	221,498.9850	144.2637	12.2286	228,319.3839
Unmitigated	8,927.2630	121.5471	11,014.4950	4.1467		1,485.3091	1,485.3091		1,485.2656	1,485.2656	155,466.1486	66,032.8363	221,498.9850	144.2637	12.2286	228,319.3839

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	91.7526					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	254.5564					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	8,567.1510	116.2333	10,553.8100	4.1223		1,482.7463	1,482.7463		1,482.7028	1,482.7028	155,466.1486	65,200.2353	220,666.3839	143.4695	12.2286	227,470.1042
Landscaping	13.8030	5.3138	460.6851	0.0244		2.5628	2.5628		2.5628	2.5628		832.6010	832.6010	0.7942		849.2797
Total	**8,927.2630**	**121.5471**	**11,014.4950**	**4.1467**		**1,485.3091**	**1,485.3091**		**1,485.2656**	**1,485.2656**	**155,466.1486**	**66,032.8363**	**221,498.9850**	**144.2637**	**12.2286**	**228,319.3839**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	91.7526					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	254.5564					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	8,567.1510	116.2333	10,553.8100	4.1223		1,482.7463	1,482.7463		1,482.7028	1,482.7028	155,466.1486	65,200.2353	220,666.3839	143.4695	12.2286	227,470.1042
Landscaping	13.8030	5.3138	460.6851	0.0244		2.5628	2.5628		2.5628	2.5628		832.6010	832.6010	0.7942		849.2797
Total	**8,927.2630**	**121.5471**	**11,014.4950**	**4.1467**		**1,485.3091**	**1,485.3091**		**1,485.2656**	**1,485.2656**	**155,466.1486**	**66,032.8363**	**221,498.9850**	**144.2637**	**12.2286**	**228,319.3839**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

Capitola General Plan Update EIR

North Central Coast Air Basin, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Single Family Housing	1,944.00	Dwelling Unit	631.17	3,499,200.00	5560
Apartments Low Rise	2,911.00	Dwelling Unit	181.94	2,911,000.00	8325
Mobile Home Park	743.00	Dwelling Unit	93.60	891,600.00	2125
General Office Building	1,154.33	1000sqft	26.50	1,154,327.00	0
Strip Mall	2,882.57	1000sqft	66.17	2,882,572.00	0
General Light Industry	556.46	1000sqft	12.77	556,459.00	0

1.2 Other Project Characteristics

Urbanization Urban **Wind Speed (m/s)** 2.8 **Precipitation Freq (Days)** 53

Climate Zone 4 **Operational Year** 2035

Utility Company Pacific Gas & Electric Company

CO2 Intensity (lb/MWhr) 641.35 **CH4 Intensity (lb/MWhr)** 0.029 **N2O Intensity (lb/MWhr)** 0.006

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - 2035 Year

Construction Phase - Operations Run Only

Off-road Equipment -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	6,000.00	1.00
tblLandUse	LandUseSquareFeet	1,154,330.00	1,154,327.00
tblLandUse	LandUseSquareFeet	2,882,570.00	2,882,572.00
tblProjectCharacteristics	OperationalYear	2014	2035

2.0 Emissions Summary

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8,927.2630	121.5471	11,014.4950	4.1467		1,485.3091	1,485.3091		1,485.2656	1,485.2656	155,466.1486	66,032.8363	221,498.9850	144.2637	12.2286	228,319.3839
Energy	4.5725	39.7560	21.6274	0.2494		3.1592	3.1592		3.1592	3.1592		49,881.8778	49,881.8778	0.9561	0.9145	50,185.4505
Mobile	1,053.4655	751.0107	4,464.1021	11.8547	776.2857	15.5366	791.8223	207.4819	14.3441	221.8260		852,669.5225	852,669.5225	26.4103		853,224.1394
Total	**9,985.3011**	**912.3138**	**15,500.2245**	**16.2508**	**776.2857**	**1,504.0049**	**2,280.2906**	**207.4819**	**1,502.7689**	**1,710.2508**	**155,466.1486**	**968,584.2366**	**1,124,050.3853**	**171.6301**	**13.1431**	**1,131,728.9738**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	8,927.2630	121.5471	11,014.4950	4.1467		1,485.3091	1,485.3091		1,485.2656	1,485.2656	155,466.1486	66,032.8363	221,498.9850	144.2637	12.2286	228,319.3839
Energy	4.5725	39.7560	21.6274	0.2494		3.1592	3.1592		3.1592	3.1592		49,881.8778	49,881.8778	0.9561	0.9145	50,185.4505
Mobile	1,053.4655	751.0107	4,464.1021	11.8547	776.2857	15.5366	791.8223	207.4819	14.3441	221.8260		852,669.5225	852,669.5225	26.4103		853,224.1394
Total	**9,985.3011**	**912.3138**	**15,500.2245**	**16.2508**	**776.2857**	**1,504.0049**	**2,280.2906**	**207.4819**	**1,502.7689**	**1,710.2508**	**155,466.1486**	**968,584.2366**	**1,124,050.3853**	**171.6301**	**13.1431**	**1,131,728.9738**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

3.0 Construction Detail

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	1,053.4655	751.0107	4,464.1021	11.8547	776.2857	15.5366	791.8223	207.4819	14.3441	221.8260		852,669.5225	852,669.5225	26.4103		853,224.1394
Unmitigated	1,053.4655	751.0107	4,464.1021	11.8547	776.2857	15.5366	791.8223	207.4819	14.3441	221.8260		852,669.5225	852,669.5225	26.4103		853,224.1394

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Apartments Low Rise	19,183.49	20,842.76	17669.77	55,325,406	55,325,406
Mobile Home Park	3,707.57	3,715.00	3239.48	10,491,510	10,491,510
General Light Industry	3,878.52	734.53	378.39	8,552,297	8,552,297
Single Family Housing	18,604.08	19,595.52	17048.88	53,364,269	53,364,269
Strip Mall	127,755.59	121,183.33	58890.95	180,151,355	180,151,355
General Office Building	12,709.14	2,735.75	1131.24	23,014,240	23,014,240
Total	185,838.39	168,806.89	98,358.71	330,899,077	330,899,077

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
Apartments Low Rise	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
Mobile Home Park	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
General Light Industry	9.50	7.30	7.30	59.00	28.00	13.00	92	5	3
Single Family Housing	10.80	7.30	7.50	44.00	18.80	37.20	86	11	3
Strip Mall	9.50	7.30	7.30	16.60	64.40	19.00	45	40	15
General Office Building	9.50	7.30	7.30	33.00	48.00	19.00	77	19	4

4.4 Fleet Mix

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.463801	0.038716	0.206906	0.161453	0.051141	0.007200	0.017453	0.036189	0.003411	0.002060	0.008397	0.000655	0.002618

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	4.5725	39.7560	21.6274	0.2494		3.1592	3.1592		3.1592	3.1592		49,881.8778	49,881.8778	0.9561	0.9145	50,185.4505
NaturalGas Unmitigated	4.5725	39.7560	21.6274	0.2494		3.1592	3.1592		3.1592	3.1592		49,881.8778	49,881.8778	0.9561	0.9145	50,185.4505

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	41787.8	0.4507	4.0968	3.4414	0.0246		0.3114	0.3114		0.3114	0.3114		4,916.2099	4,916.2099	0.0942	0.0901	4,946.1291
General Office Building	54458.9	0.5873	5.3391	4.4849	0.0320		0.4058	0.4058		0.4058	0.4058		6,406.9334	6,406.9334	0.1228	0.1175	6,445.9250
Mobile Home Park	34180.6	0.3686	3.1500	1.3404	0.0201		0.2547	0.2547		0.2547	0.2547		4,021.2525	4,021.2525	0.0771	0.0737	4,045.7252
Single Family Housing	187918	2.0266	17.3179	7.3693	0.1105		1.4002	1.4002		1.4002	1.4002		22,108.0014	22,108.0014	0.4237	0.4053	22,242.5470
Strip Mall	19664.7	0.2121	1.9279	1.6194	0.0116		0.1465	0.1465		0.1465	0.1465		2,313.4905	2,313.4905	0.0443	0.0424	2,327.5700
Apartments Low Rise	85985.9	0.9273	7.9242	3.3720	0.0506		0.6407	0.6407		0.6407	0.6407		10,115.9901	10,115.9901	0.1939	0.1855	10,177.5543
Total		**4.5725**	**39.7560**	**21.6274**	**0.2494**		**3.1592**	**3.1592**		**3.1592**	**3.1592**		**49,881.8778**	**49,881.8778**	**0.9561**	**0.9145**	**50,185.4506**

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Light Industry	41.7878	0.4507	4.0968	3.4414	0.0246		0.3114	0.3114		0.3114	0.3114		4,916.2099	4,916.2099	0.0942	0.0901	4,946.1291
General Office Building	54.4589	0.5873	5.3391	4.4849	0.0320		0.4058	0.4058		0.4058	0.4058		6,406.9334	6,406.9334	0.1228	0.1175	6,445.9250
Mobile Home Park	34.1806	0.3686	3.1500	1.3404	0.0201		0.2547	0.2547		0.2547	0.2547		4,021.2525	4,021.2525	0.0771	0.0737	4,045.7252
Single Family Housing	187.918	2.0266	17.3179	7.3693	0.1105		1.4002	1.4002		1.4002	1.4002		22,108.0014	22,108.0014	0.4237	0.4053	22,242.5470
Strip Mall	19.6647	0.2121	1.9279	1.6194	0.0116		0.1465	0.1465		0.1465	0.1465		2,313.4905	2,313.4905	0.0443	0.0424	2,327.5700
Apartments Low Rise	85.9859	0.9273	7.9242	3.3720	0.0506		0.6407	0.6407		0.6407	0.6407		10,115.9901	10,115.9901	0.1939	0.1855	10,177.5543
Total		**4.5725**	**39.7560**	**21.6274**	**0.2494**		**3.1592**	**3.1592**		**3.1592**	**3.1592**		**49,881.8778**	**49,881.8778**	**0.9561**	**0.9145**	**50,185.4506**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	8,927.2630	121.5471	11,014.4950	4.1467		1,485.3091	1,485.3091		1,485.2656	1,485.2656	155,466.1486	66,032.8363	221,498.9850	144.2637	12.2286	228,319.3839
Unmitigated	8,927.2630	121.5471	11,014.4950	4.1467		1,485.3091	1,485.3091		1,485.2656	1,485.2656	155,466.1486	66,032.8363	221,498.9850	144.2637	12.2286	228,319.3839

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	91.7526					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	254.5564					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	8,567.1510	116.2333	10,553.8100	4.1223		1,482.7463	1,482.7463		1,482.7028	1,482.7028	155,466.1486	65,200.2353	220,666.3839	143.4695	12.2286	227,470.1042
Landscaping	13.8030	5.3138	460.6851	0.0244		2.5628	2.5628		2.5628	2.5628		832.6010	832.6010	0.7942		849.2797
Total	**8,927.2630**	**121.5471**	**11,014.4950**	**4.1467**		**1,485.3091**	**1,485.3091**		**1,485.2656**	**1,485.2656**	**155,466.1486**	**66,032.8363**	**221,498.9850**	**144.2637**	**12.2286**	**228,319.3839**

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	91.7526					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	254.5564					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Hearth	8,567.1510	116.2333	10,553.8100	4.1223		1,482.7463	1,482.7463		1,482.7028	1,482.7028	155,466.1486	65,200.2353	220,666.3839	143.4695	12.2286	227,470.1042
Landscaping	13.8030	5.3138	460.6851	0.0244		2.5628	2.5628		2.5628	2.5628		832.6010	832.6010	0.7942		849.2797
Total	**8,927.2630**	**121.5471**	**11,014.4950**	**4.1467**		**1,485.3091**	**1,485.3091**		**1,485.2656**	**1,485.2656**	**155,466.1486**	**66,032.8363**	**221,498.9850**	**144.2637**	**12.2286**	**228,319.3839**

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

APPENDIX C

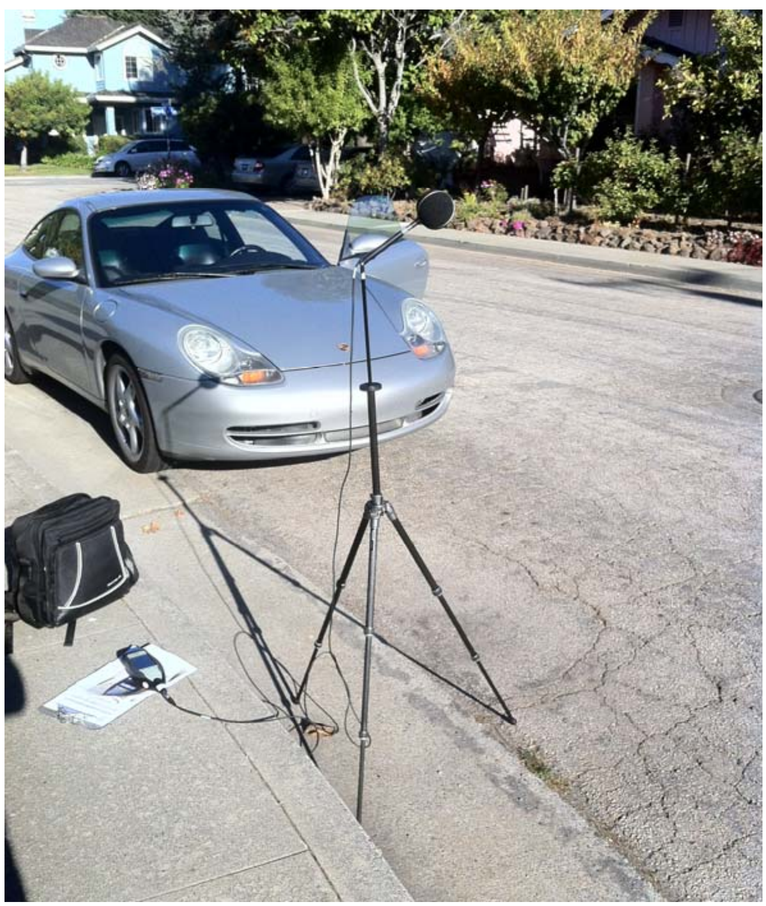
NOISE MONITORING AND MODELING DATA

Site Number: NM-1			
Recorded By: Bill Wiseman			
Job Number: 131347			
Date: 10/3/13			
Time: 8:56 AM			
Location: Alma Lane cul-de-sac, off of Rosedale Avenue			
Source of Peak Noise: Traffic on Rosedale Avenue and birds chirping			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
46.2	36.6	67.4	97.1

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	2548189	7/12/2013	
	Microphone	Brüel & Kjær	4189	2543364	7/12/2013	
	Preamp	Brüel & Kjær	ZC 0032	4265	7/12/2013	
	Calibrator	Brüel & Kjær	4231	2545667	7/12/2013	

Weather Data			
Est.	Duration: 10minutes		Sky: Sunny
	Note: dBA Offset = 0.02		Sensor Height (ft): 5 ft
	Wind Ave Speed (mph / m/s)	Temperature (degrees Fahrenheit)	Barometer Pressure (inches)
	1.0	53	30.06

Photo of Measurement Location



2250

Instrument:		2250
Application:		BZ7225 Version 2.0.2
Start Time:		10/03/2013 08:56:36
End Time:		10/03/2013 09:08:21
Elapsed Time:		00:10:05
Bandwidth:		1/3-octave
Max Input Level:		138.83

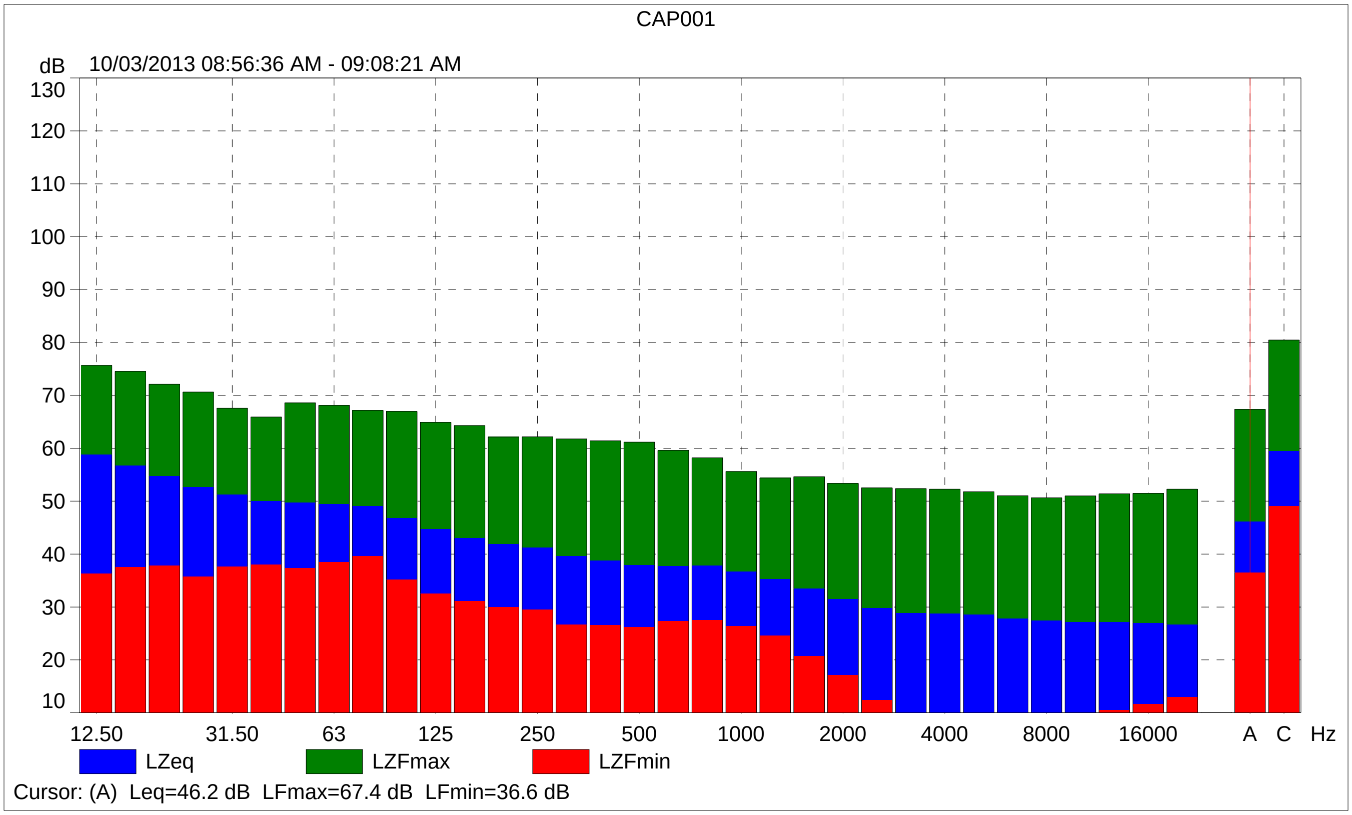
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

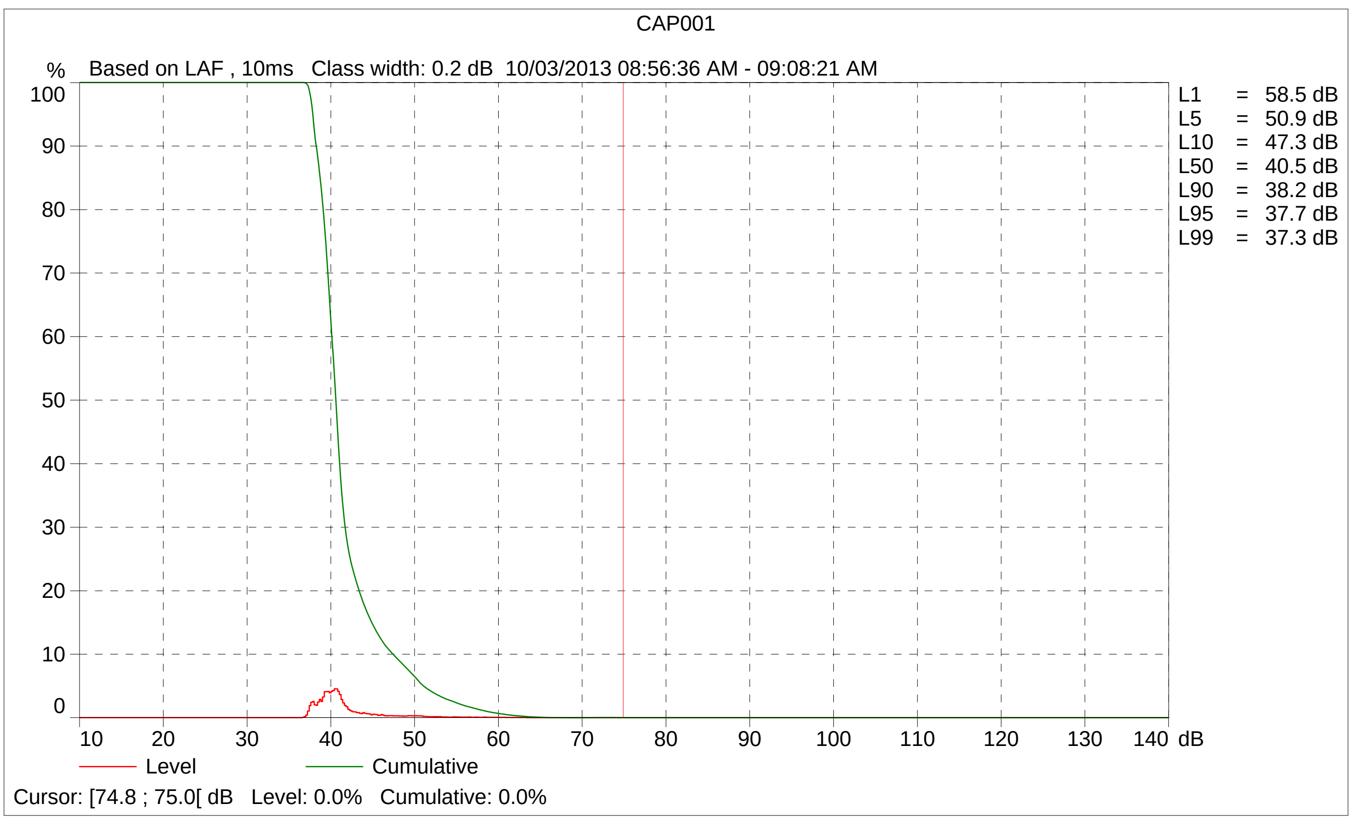
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Diffuse-field

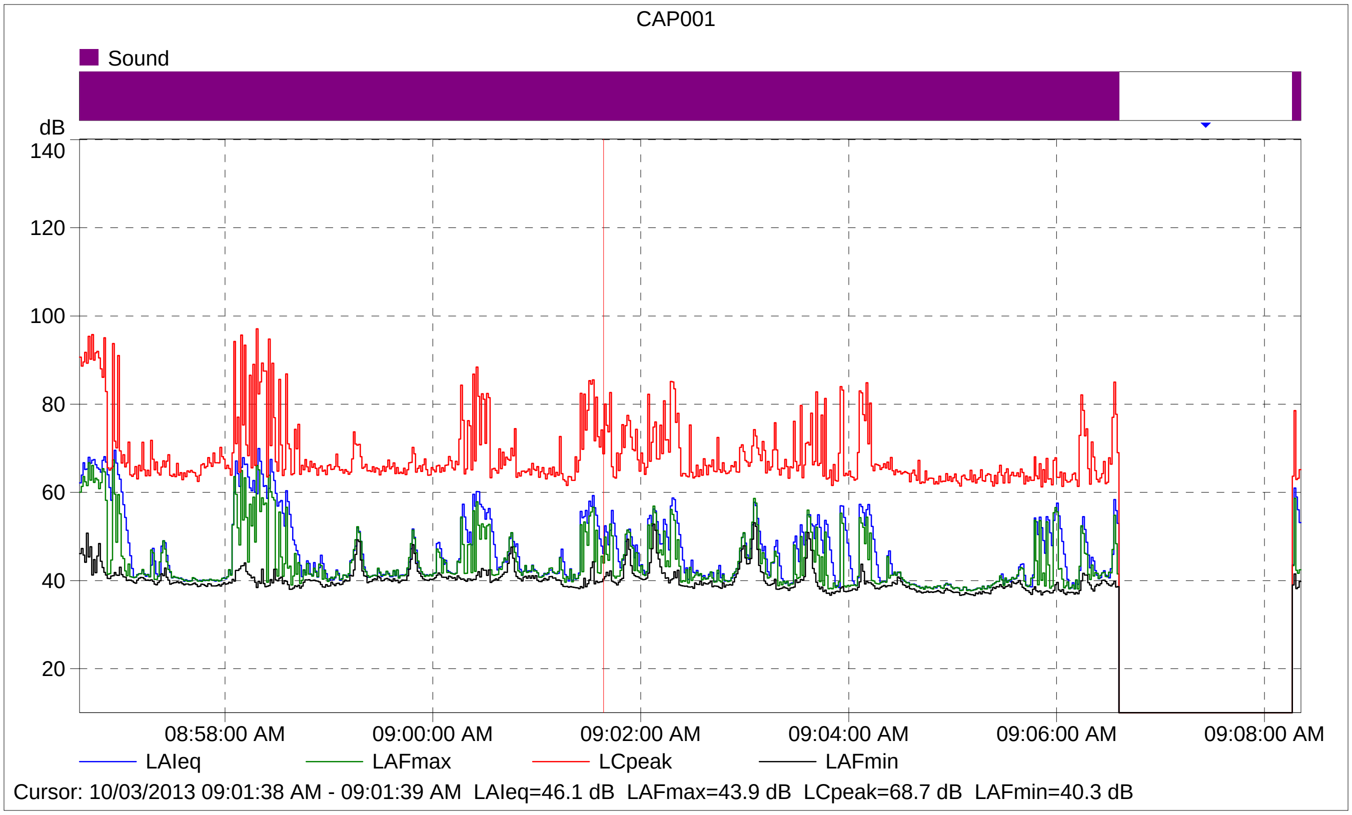
Calibration Time:		10/01/2013 11:27:28
Calibration Type:		External reference
Sensitivity:		63.74 mV/Pa

CAP001

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	46.2	67.4	36.6
Time	08:56:36 AM	09:08:21 AM	0:10:05				
Date	10/03/2013	10/03/2013					


CAP001
dB 10/03/2013 08:56:36 AM - 09:08:21 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=46.2 dB LFmax=67.4 dB LFmin=36.6 dB

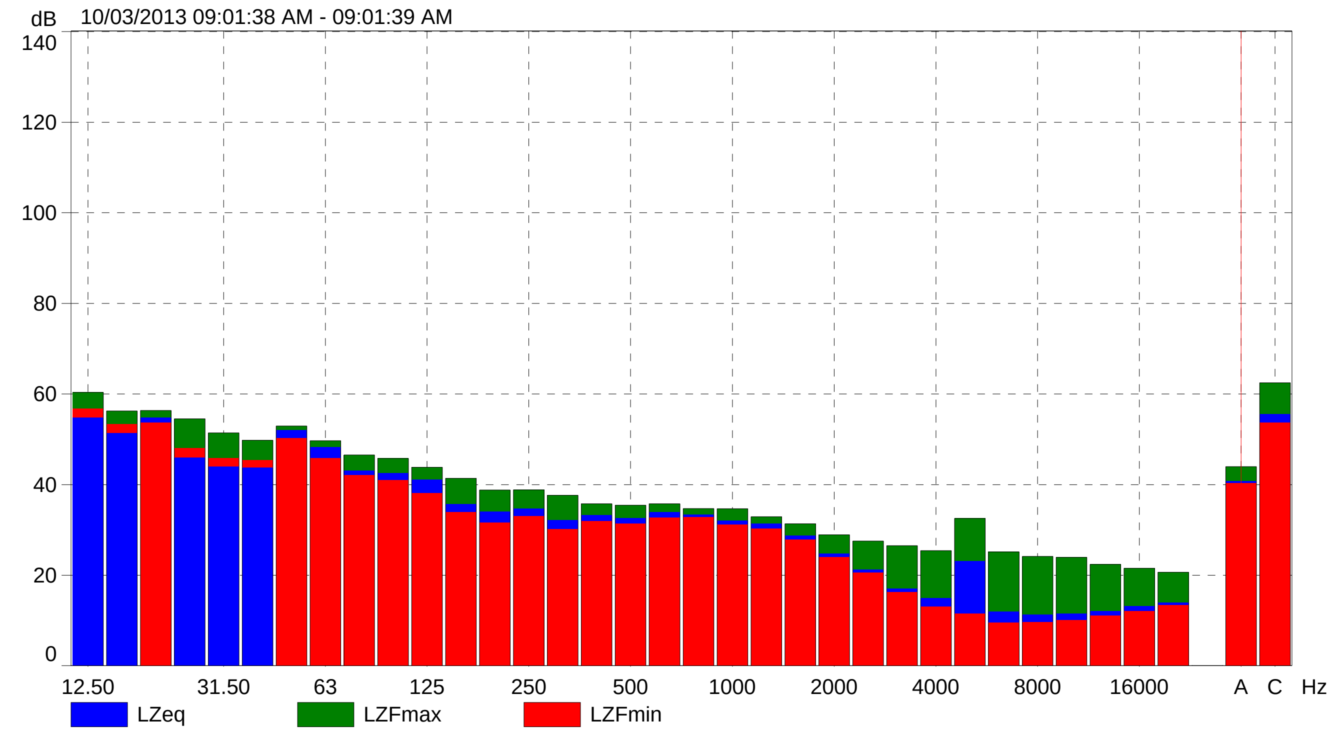

CAP001
% Based on LAF , 10ms Class width: 0.2 dB 10/03/2013 08:56:36 AM - 09:08:21 AM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140 dB
L1 = 58.5 dB
L5 = 50.9 dB
L10 = 47.3 dB
L50 = 40.5 dB
L90 = 38.2 dB
L95 = 37.7 dB
L99 = 37.3 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%



CAP001

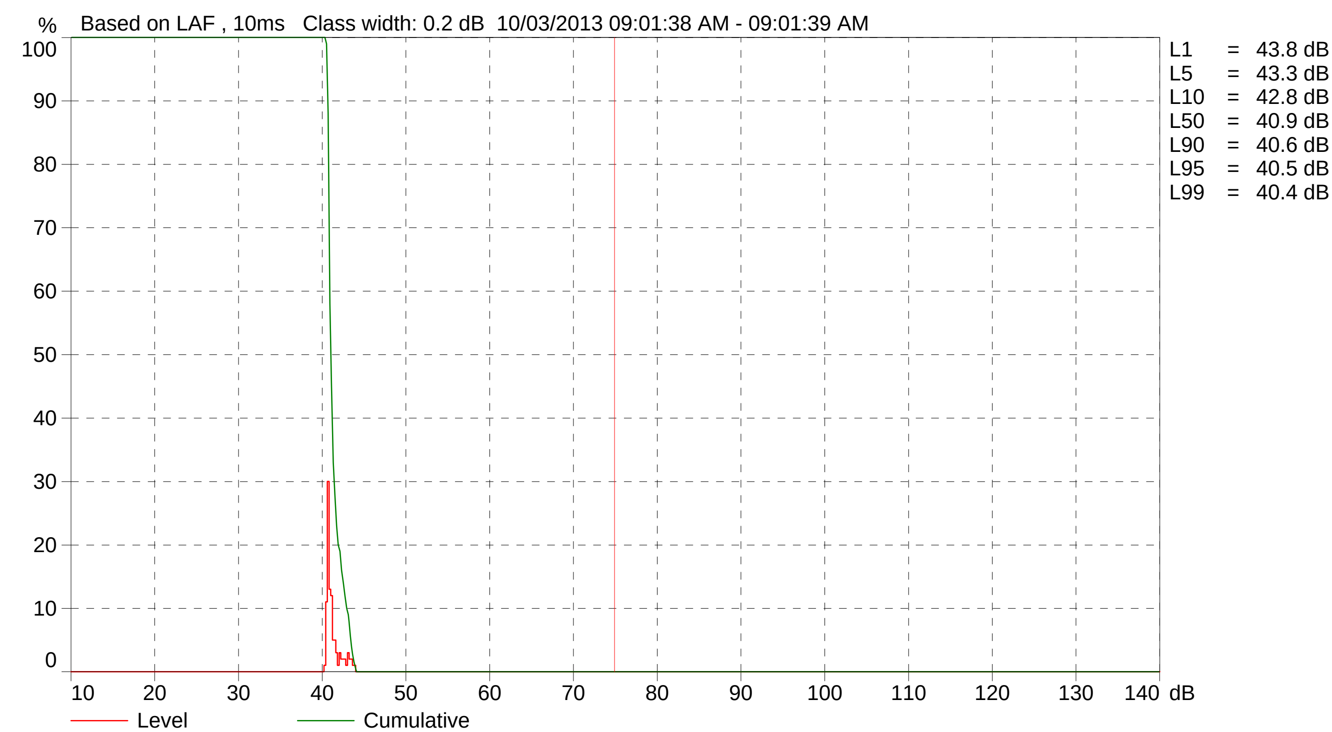
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			46.1	43.9	40.3
Time	09:01:38 AM	0:00:01			
Date	10/03/2013				

CAP001

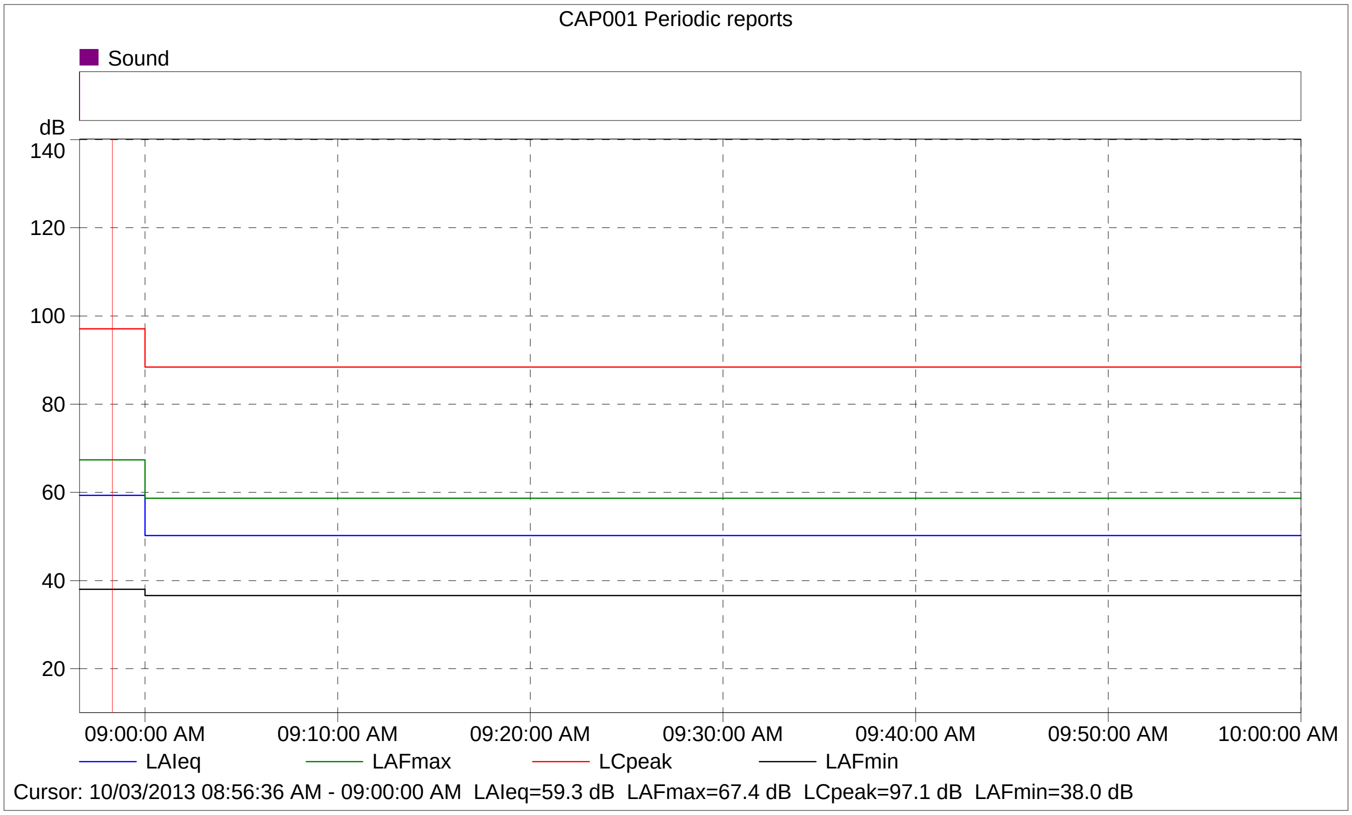


Cursor: (A) Leq=40.8 dB LFmax=43.9 dB LFmin=40.3 dB

CAP001

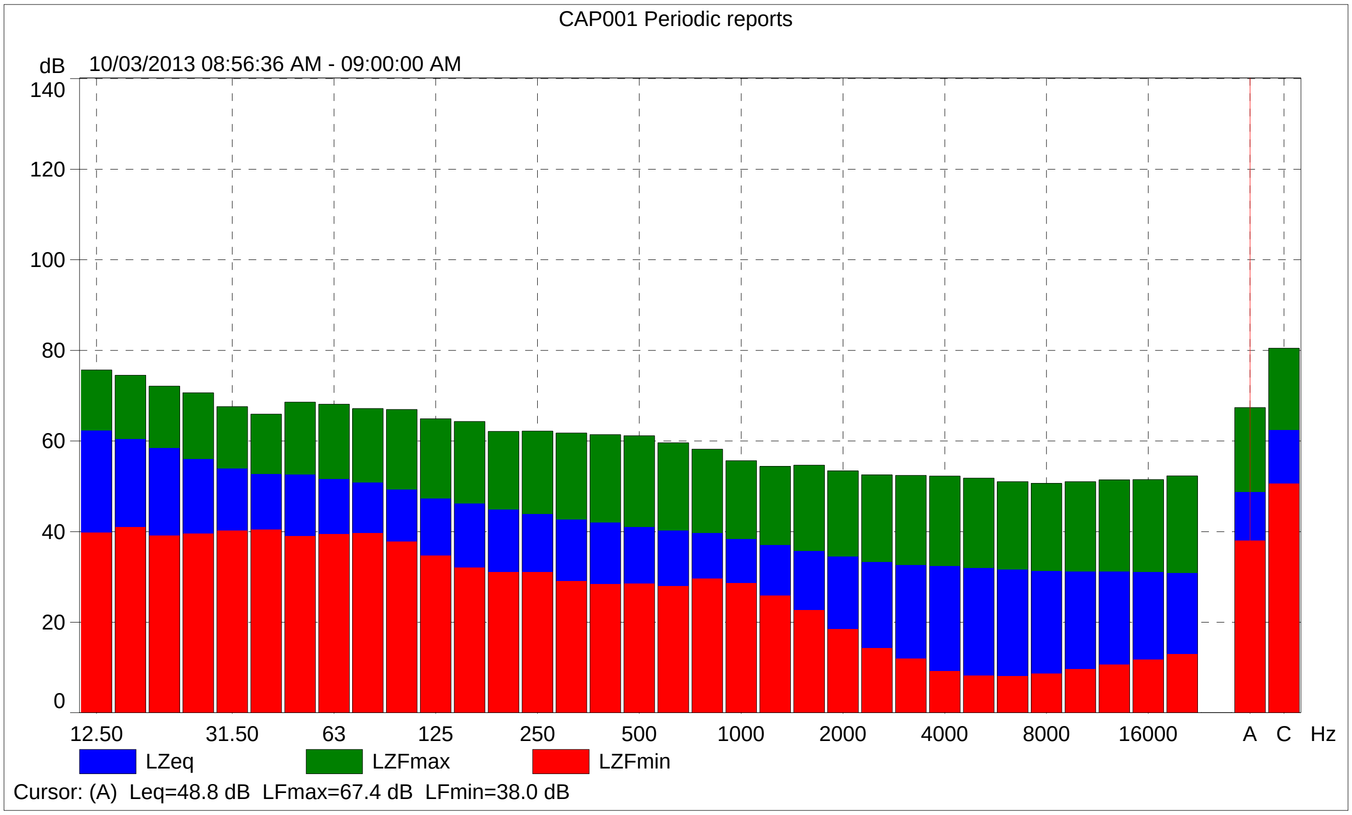


Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%

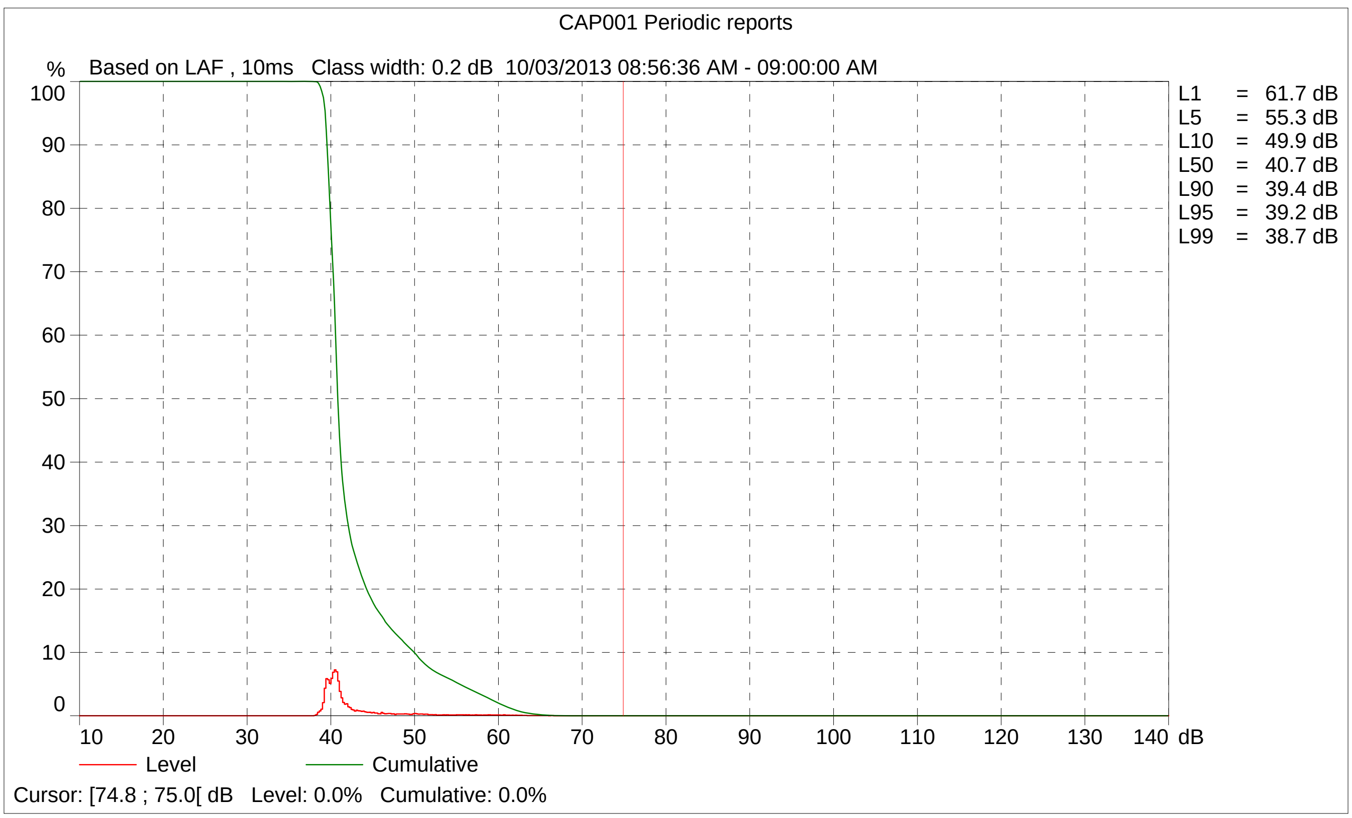


CAP001 Periodic reports

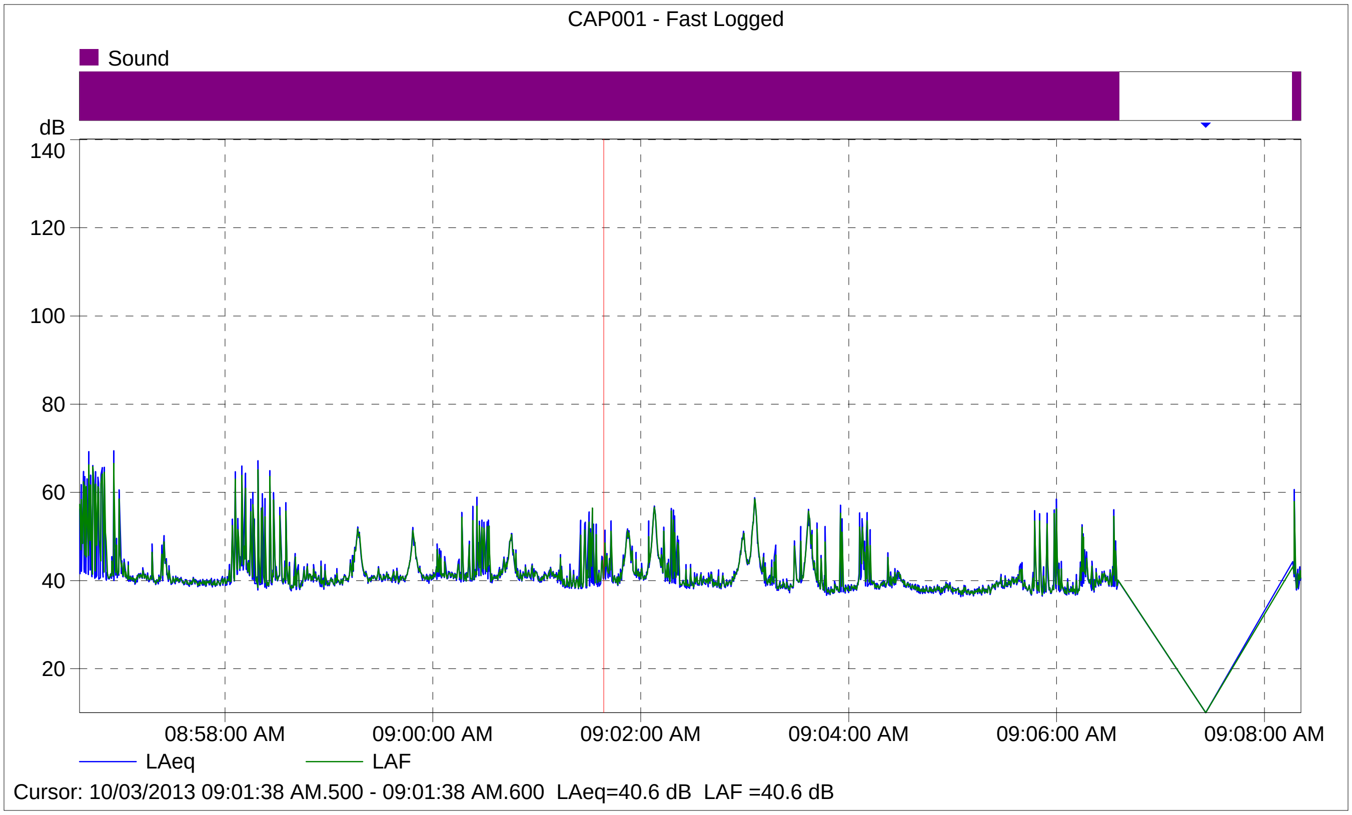
	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	59.3	67.4	38.0
Time	08:56:36 AM	0:03:24				
Date	10/03/2013					



CAP001 Periodic reports
dB 10/03/2013 08:56:36 AM - 09:00:00 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=48.8 dB LFmax=67.4 dB LFmin=38.0 dB



CAP001 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 10/03/2013 08:56:36 AM - 09:00:00 AM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140 dB
L1 = 61.7 dB
L5 = 55.3 dB
L10 = 49.9 dB
L50 = 40.7 dB
L90 = 39.4 dB
L95 = 39.2 dB
L99 = 38.7 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%



CAP001 - Fast Logged

	Start time	Elapsed time	LAeq [dB]
Value			40.6
Time	09:01:38 AM.500	0:00:00.100	
Date	10/03/2013		

Site Number: NM-2
Recorded By: Bill Wiseman
Job Number: 131347
Date: 10/3/13
Time: 9:52 AM
Location: Derby Avenue cul-de-sac, off of Clares Street
Source of Peak Noise: Traffic on Derby Street

Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
47.9	41.3	71.5	91.7

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	2548189	7/12/2013	
	Microphone	Brüel & Kjær	4189	2543364	7/12/2013	
	Preamp	Brüel & Kjær	ZC 0032	4265	7/12/2013	
	Calibrator	Brüel & Kjær	4231	2545667	7/12/2013	

Weather Data			
Est.	**Duration:** 10minutes		**Sky:** Sunny
	Note: dBA Offset = 0.02		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	Temperature (degrees Fahrenheit)	Barometer Pressure (inches)
	1.0	59	30.06

<u>Photo of Measurement Location</u>

2250

Instrument:		2250
Application:		BZ7225 Version 2.0.2
Start Time:		10/03/2013 09:52:34
End Time:		10/03/2013 10:02:34
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.83

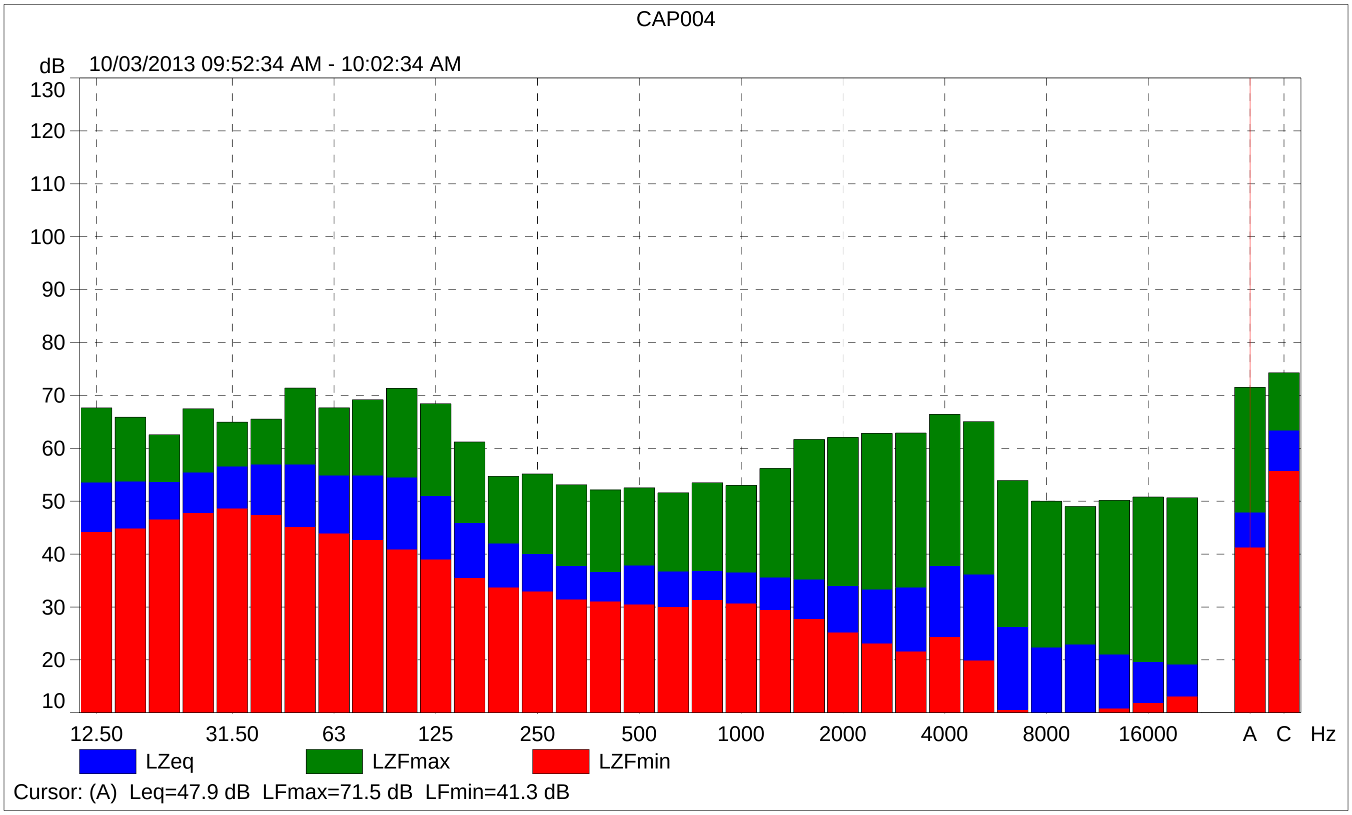
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Diffuse-field

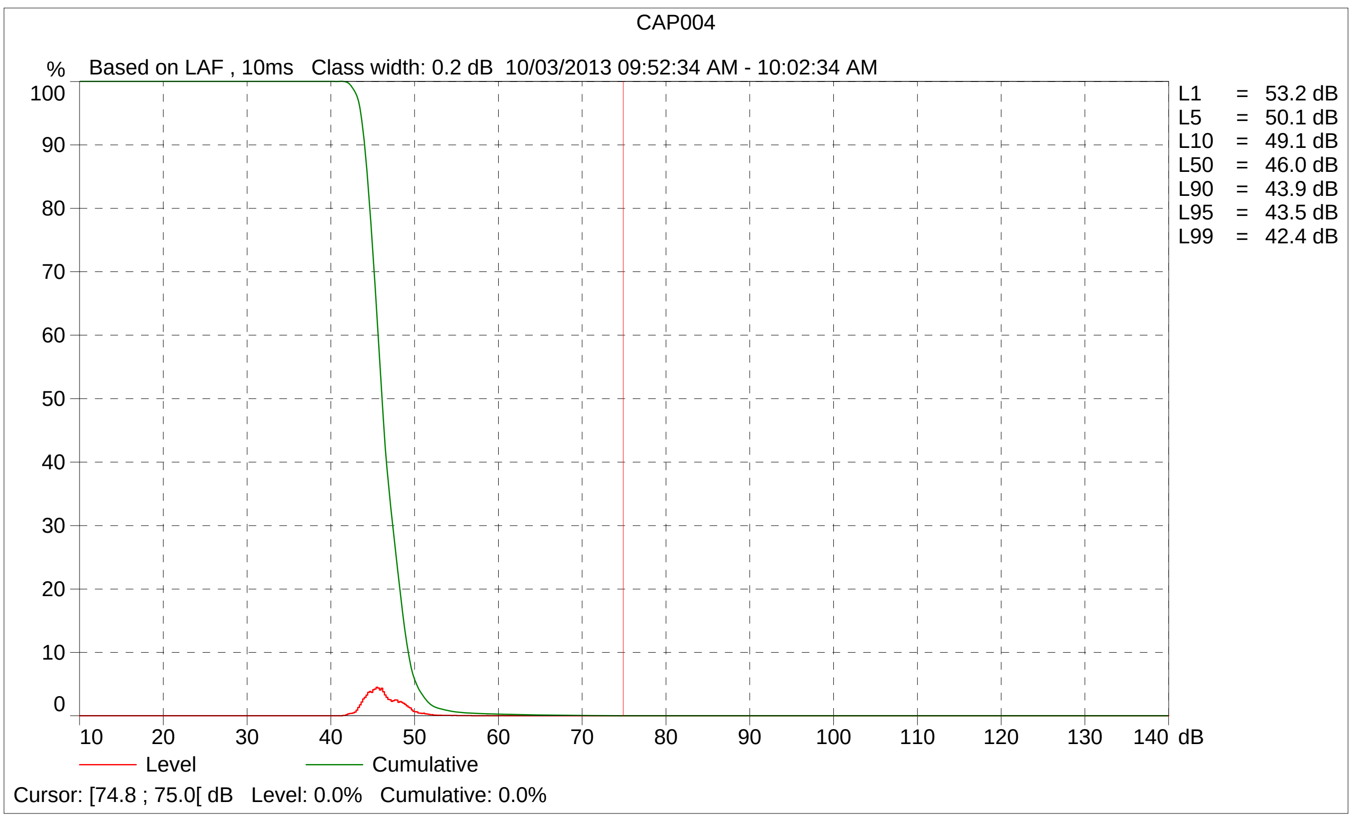
Calibration Time:		10/01/2013 11:27:28
Calibration Type:		External reference
Sensitivity:		63.74 mV/Pa

CAP004

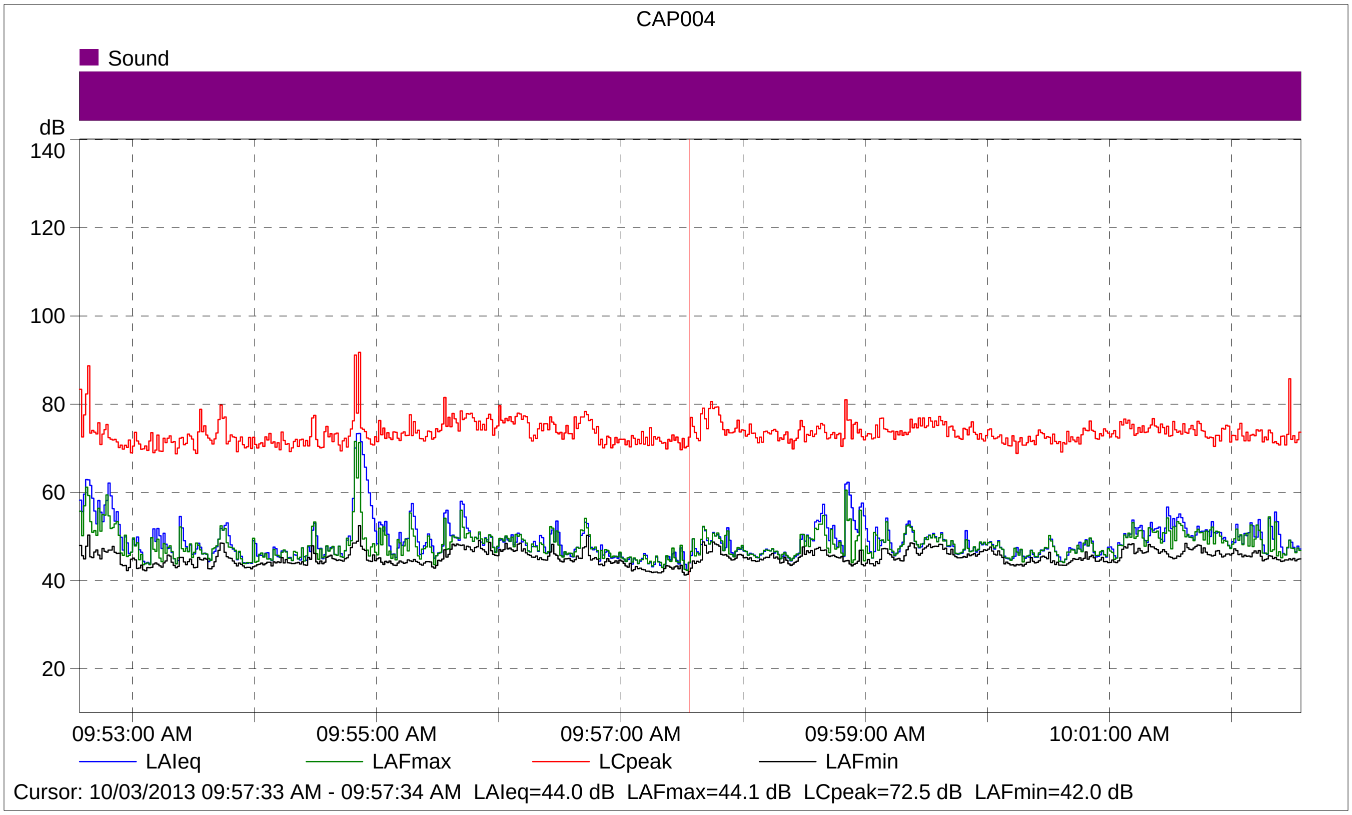
	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	47.9	71.5	41.3
Time	09:52:34 AM	10:02:34 AM	0:10:00				
Date	10/03/2013	10/03/2013					



CAP004
dB 10/03/2013 09:52:34 AM - 10:02:34 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=47.9 dB LFmax=71.5 dB LFmin=41.3 dB



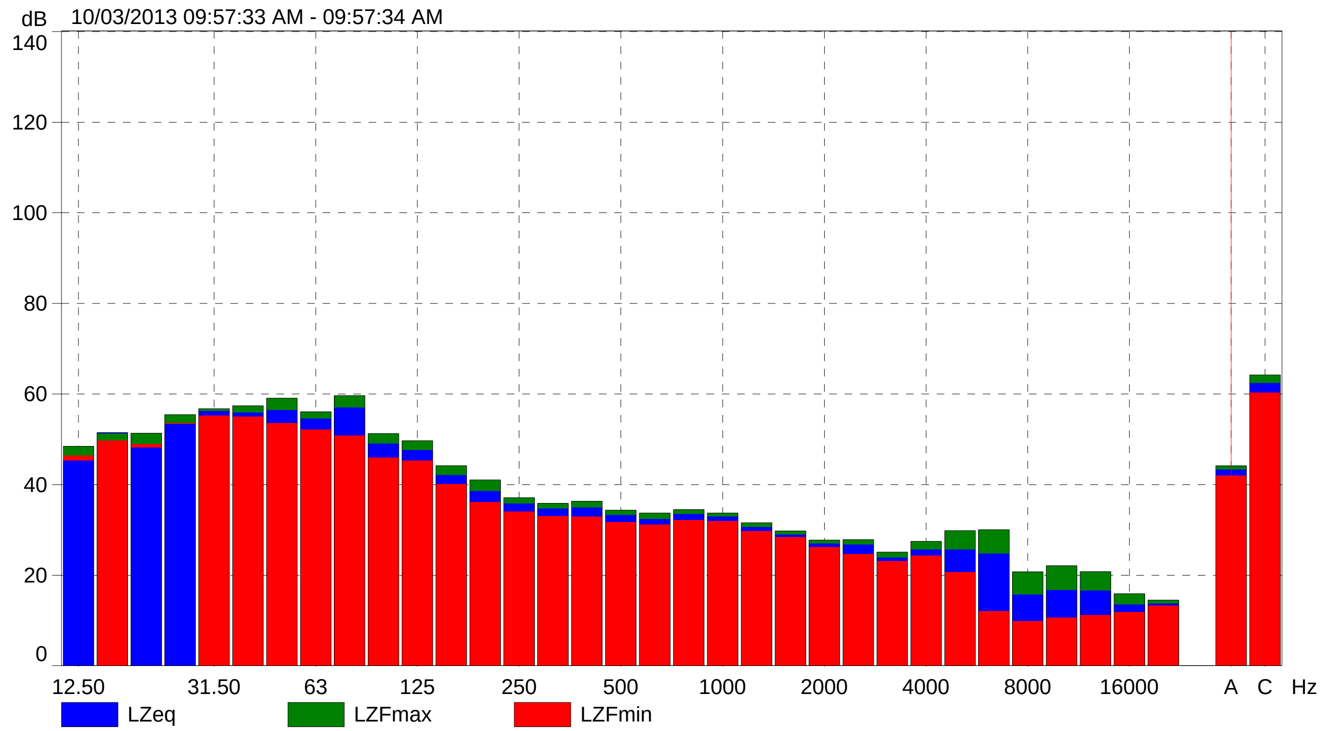
CAP004
% Based on LAF , 10ms Class width: 0.2 dB 10/03/2013 09:52:34 AM - 10:02:34 AM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140 dB
L1 = 53.2 dB
L5 = 50.1 dB
L10 = 49.1 dB
L50 = 46.0 dB
L90 = 43.9 dB
L95 = 43.5 dB
L99 = 42.4 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%



CAP004

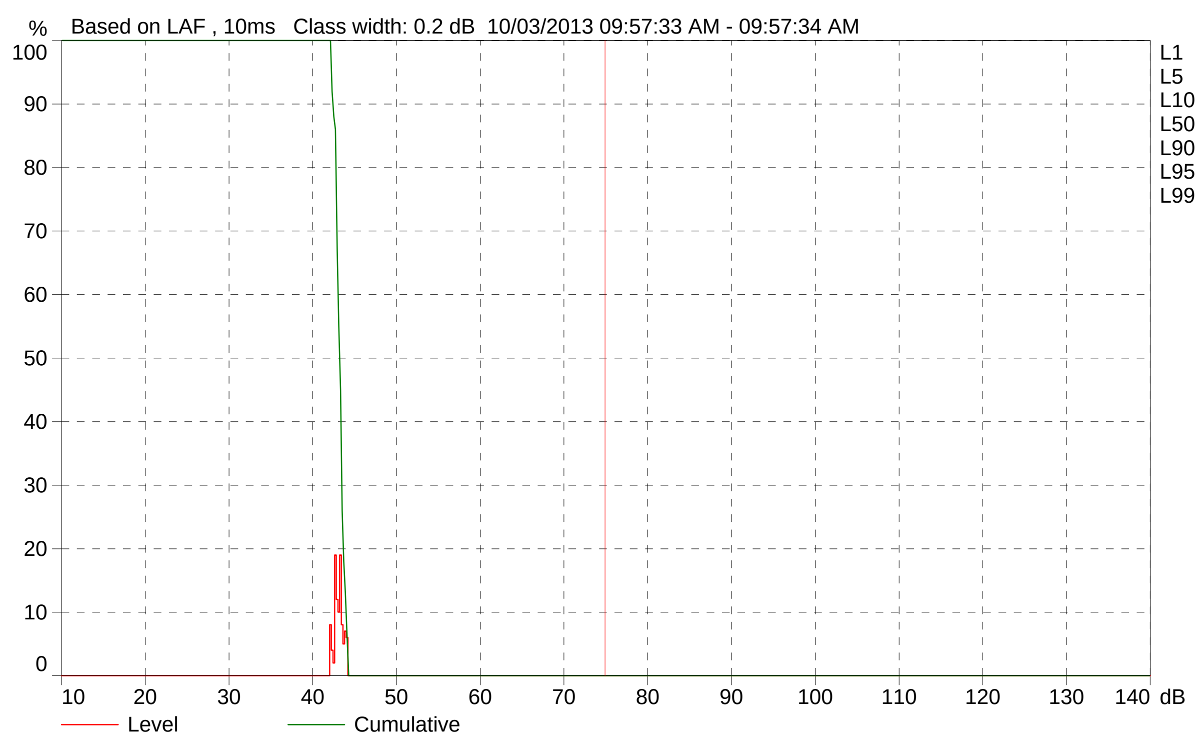
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			44.0	44.1	42.0
Time	09:57:33 AM	0:00:01			
Date	10/03/2013				

CAP004



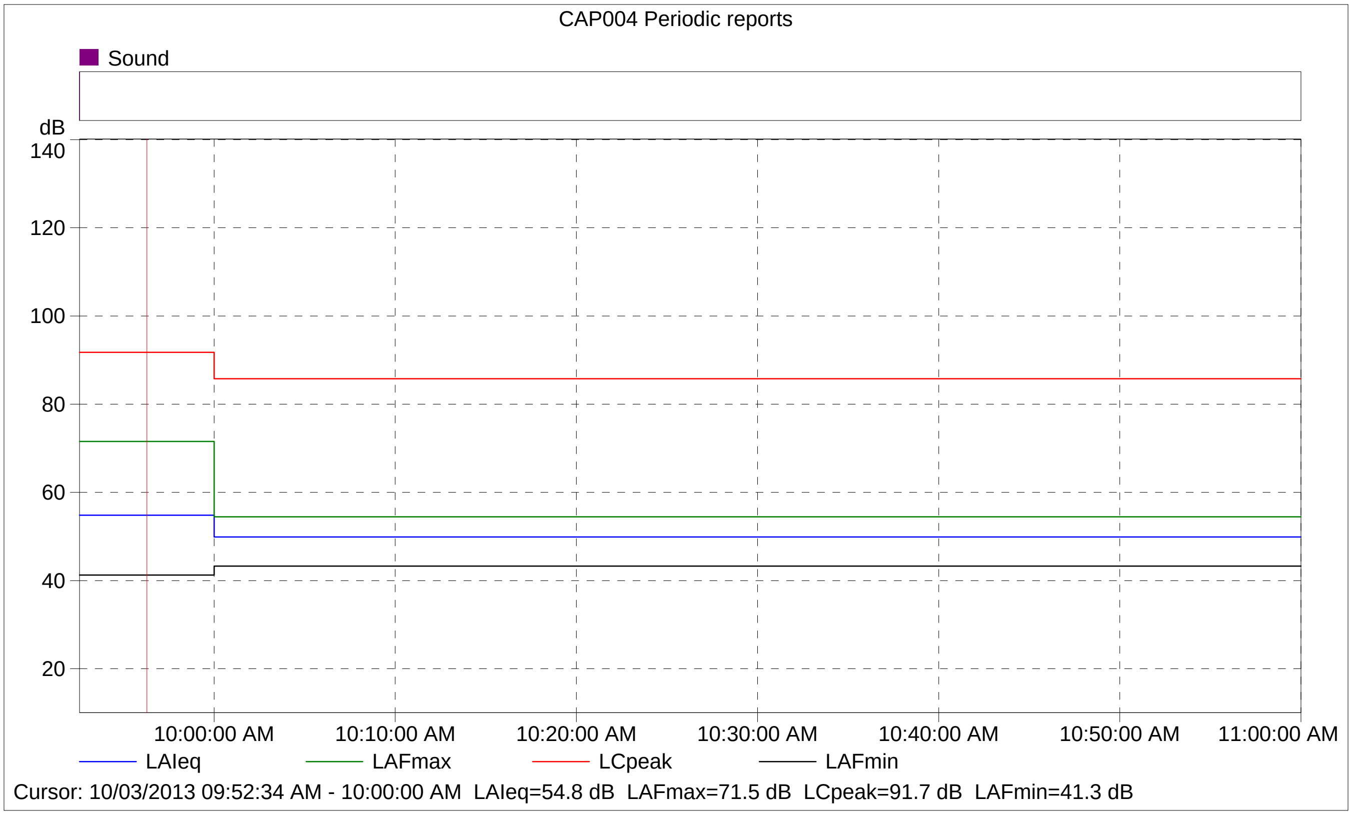
Cursor: (A) Leq=43.3 dB LFmax=44.1 dB LFmin=42.0 dB

CAP004



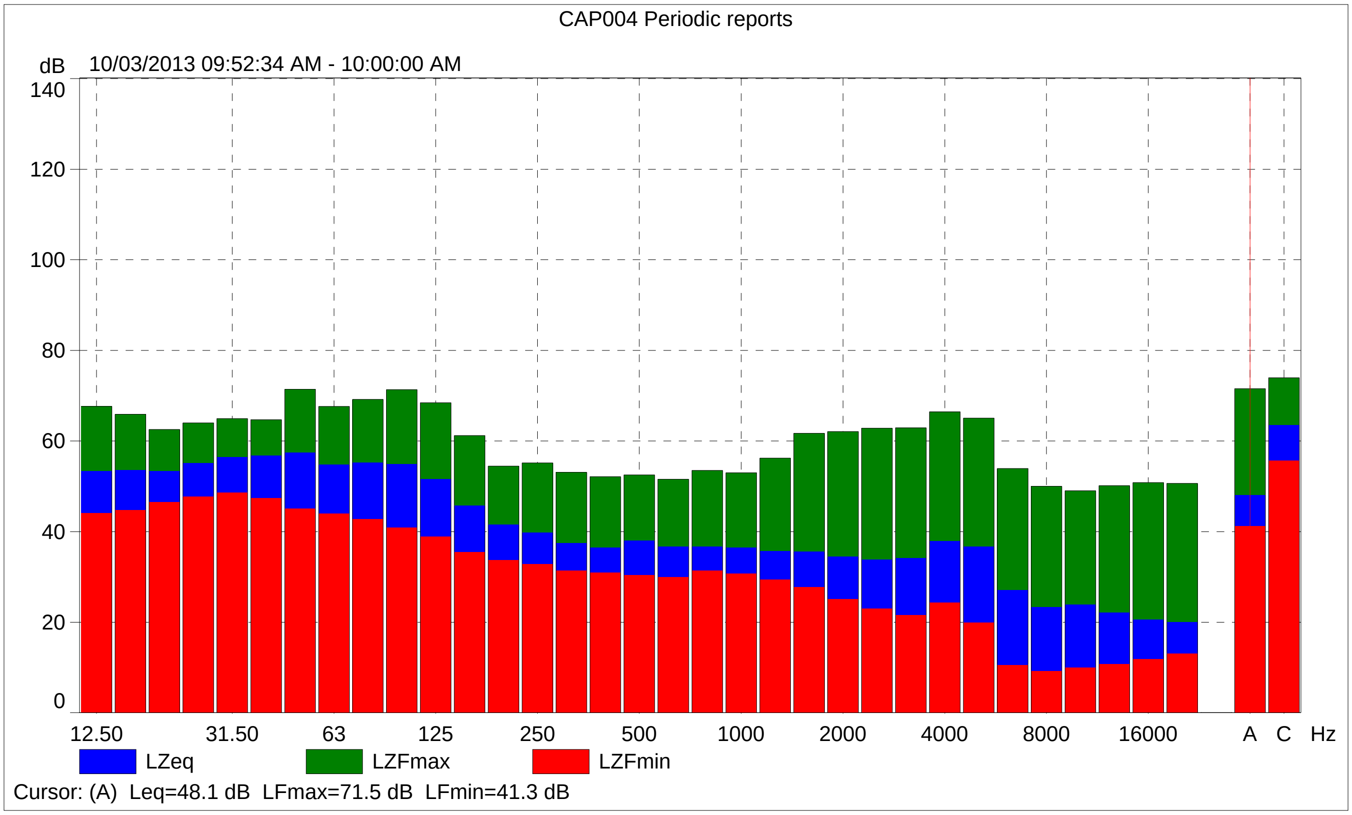
L1	=	44.2 dB
L5	=	44.0 dB
L10	=	43.9 dB
L50	=	43.1 dB
L90	=	42.3 dB
L95	=	42.1 dB
L99	=	42.0 dB

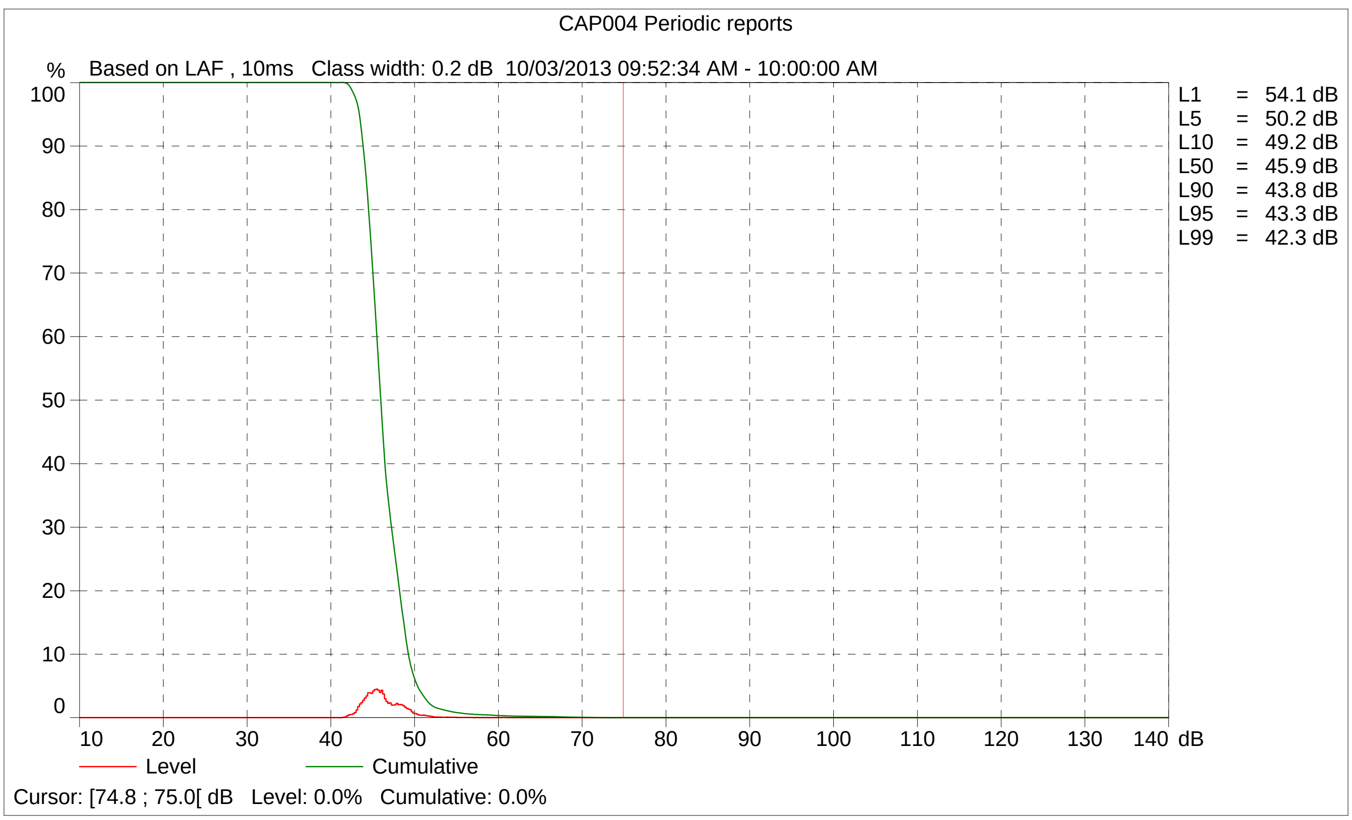
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%

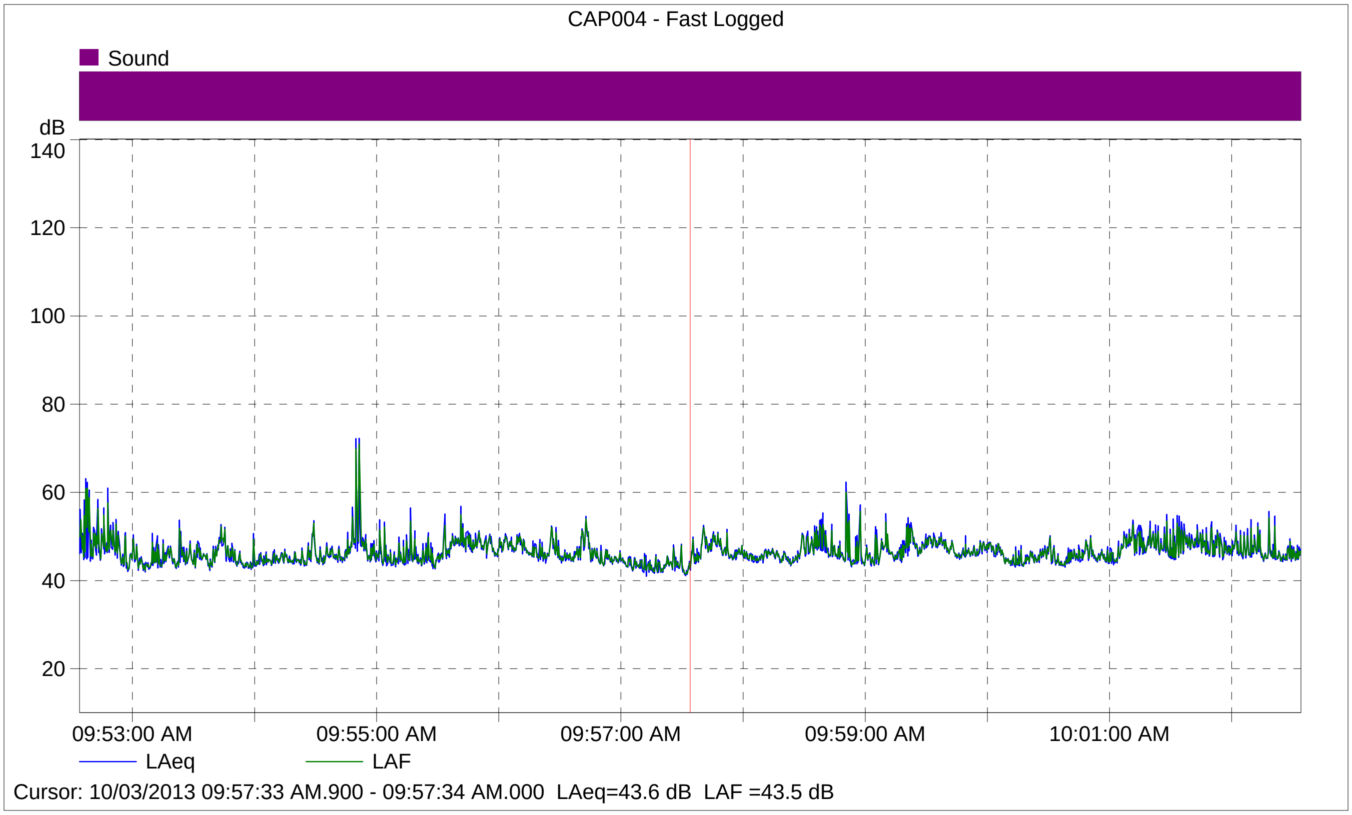


CAP004 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	54.8	71.5	41.3
Time	09:52:34 AM	0:07:26				
Date	10/03/2013					


CAP004 Periodic reports
dB 10/03/2013 09:52:34 AM - 10:00:00 AM
140
120
100
80
60
40
20
0
12.50 31.50 63 125 250 500 1000 2000 4000 8000 16000 A C Hz
LZeq LZFmax LZFmin
Cursor: (A) Leq=48.1 dB LFmax=71.5 dB LFmin=41.3 dB


CAP004 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 10/03/2013 09:52:34 AM - 10:00:00 AM
100
90
80
70
60
50
40
30
20
10
0
10 20 30 40 50 60 70 80 90 100 110 120 130 140 dB
L1 = 54.1 dB
L5 = 50.2 dB
L10 = 49.2 dB
L50 = 45.9 dB
L90 = 43.8 dB
L95 = 43.3 dB
L99 = 42.3 dB
Level Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%



CAP004 - Fast Logged

	Start time	Elapsed time	LAeq [dB]
Value			43.6
Time	09:57:33 AM.900	0:00:00.100	
Date	10/03/2013		

Site Number: NM-3			
Recorded By: Bill Wiseman			
Job Number: 131347			
Date: 10/3/13			
Time: 9:37 AM			
Location: Capitola Mall parking lot, off of 41st Avenue			
Source of Peak Noise: Traffic along 41st Avenue, and cars and pedestrians in the parking lot			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
58.7	51.7	71.3	95.7

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	2548189	7/12/2013	
	Microphone	Brüel & Kjær	4189	2543364	7/12/2013	
	Preamp	Brüel & Kjær	ZC 0032	4265	7/12/2013	
	Calibrator	Brüel & Kjær	4231	2545667	7/12/2013	

Weather Data			
Est.	Duration: 10minutes		Sky: Sunny
	Note: dBA Offset = 0.02		Sensor Height (ft): 5 ft
	Wind Ave Speed (mph / m/s)	Temperature (degrees Fahrenheit)	Barometer Pressure (inches)
	2.5	57	30.06

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 2.0.2
Start Time:		10/03/2013 09:37:57
End Time:		10/03/2013 09:47:57
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.83

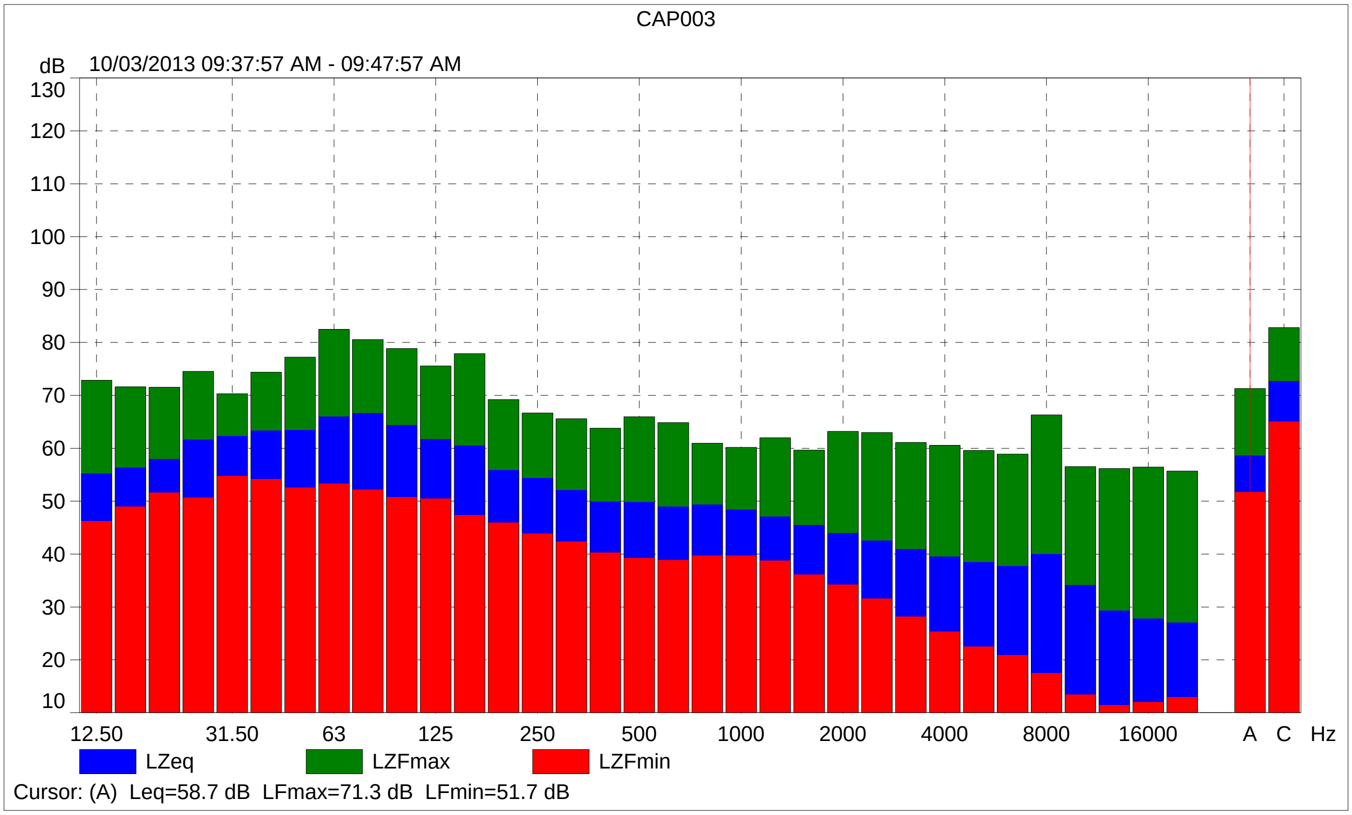
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

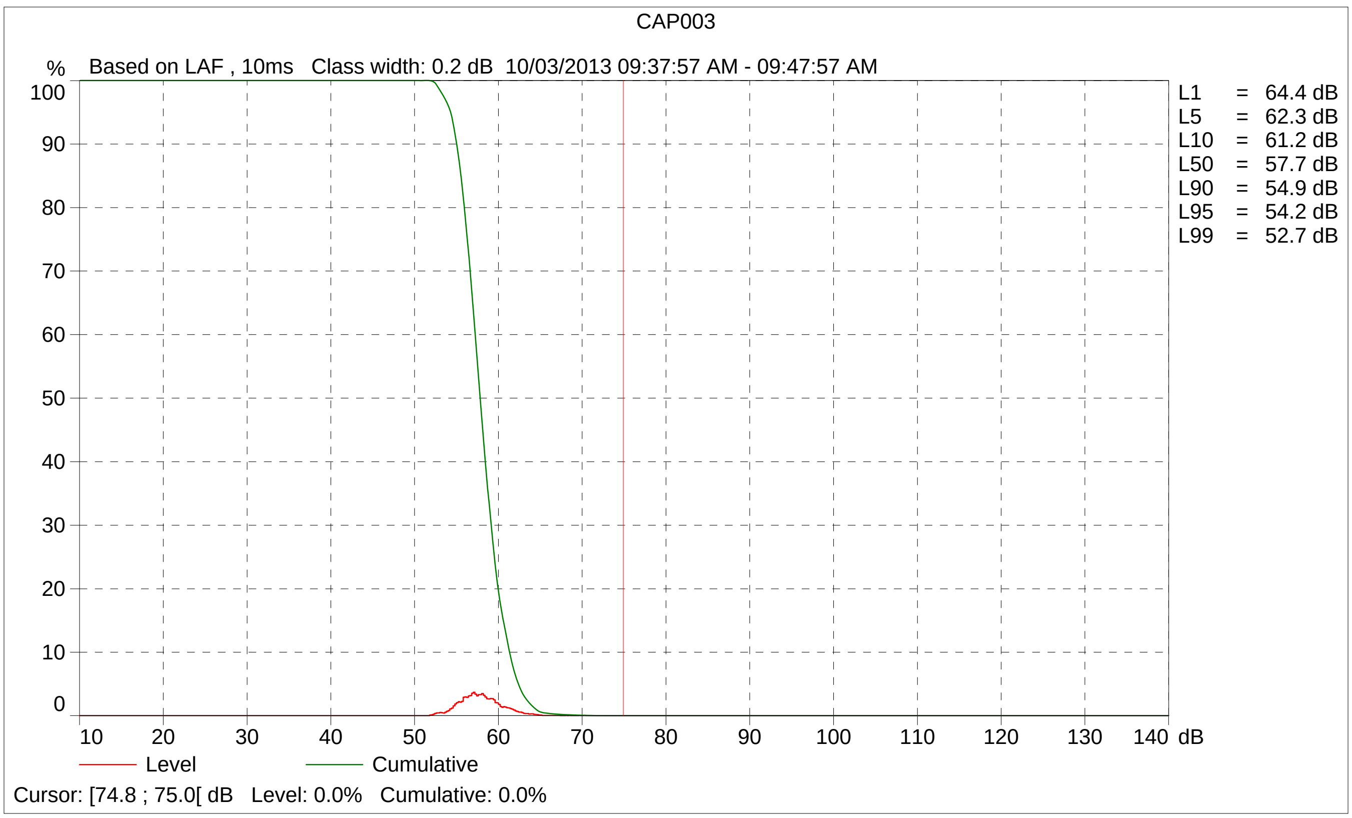
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Diffuse-field

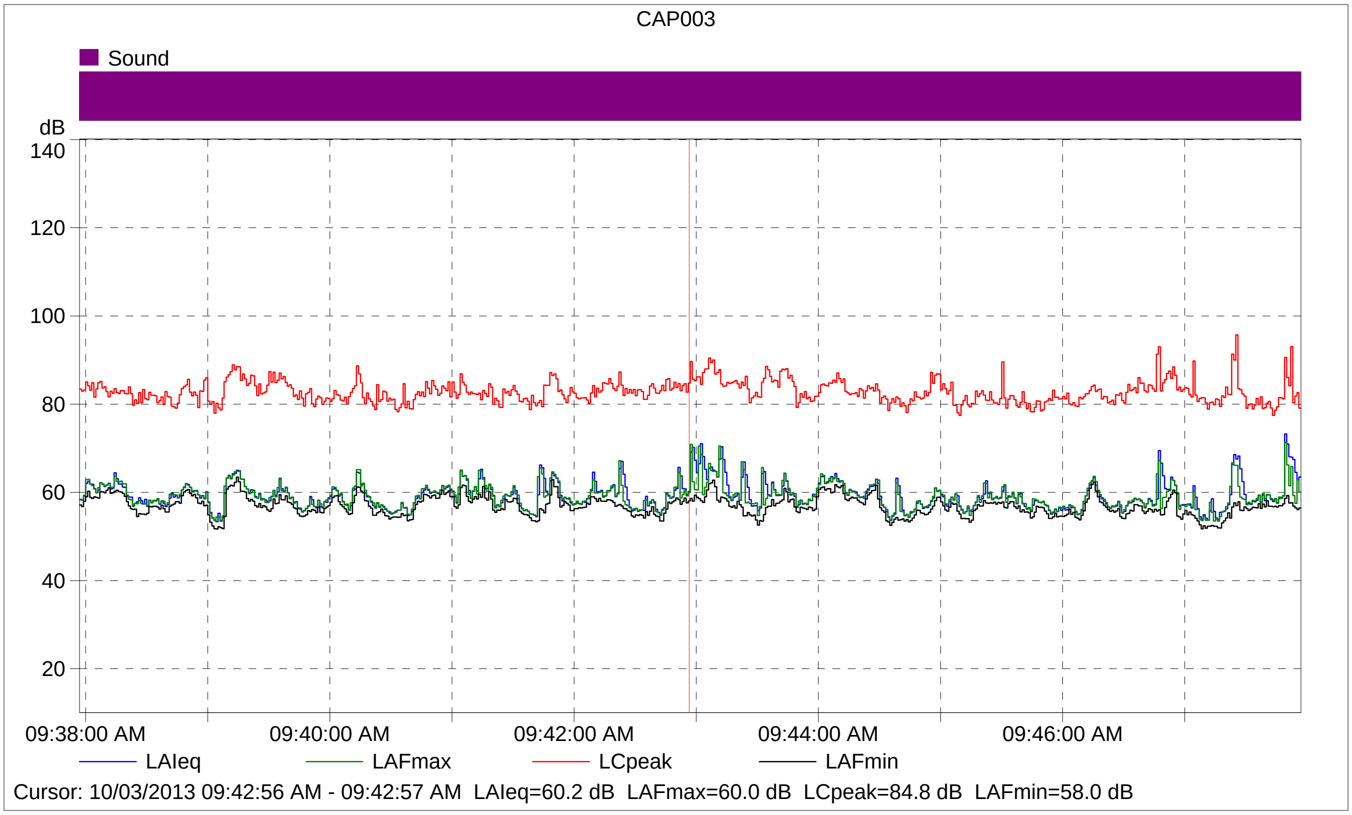
Calibration Time:		10/01/2013 11:27:28
Calibration Type:		External reference
Sensitivity:		63.74 mV/Pa

CAP003

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	58.7	71.3	51.7
Time	09:37:57 AM	09:47:57 AM	0:10:00				
Date	10/03/2013	10/03/2013					

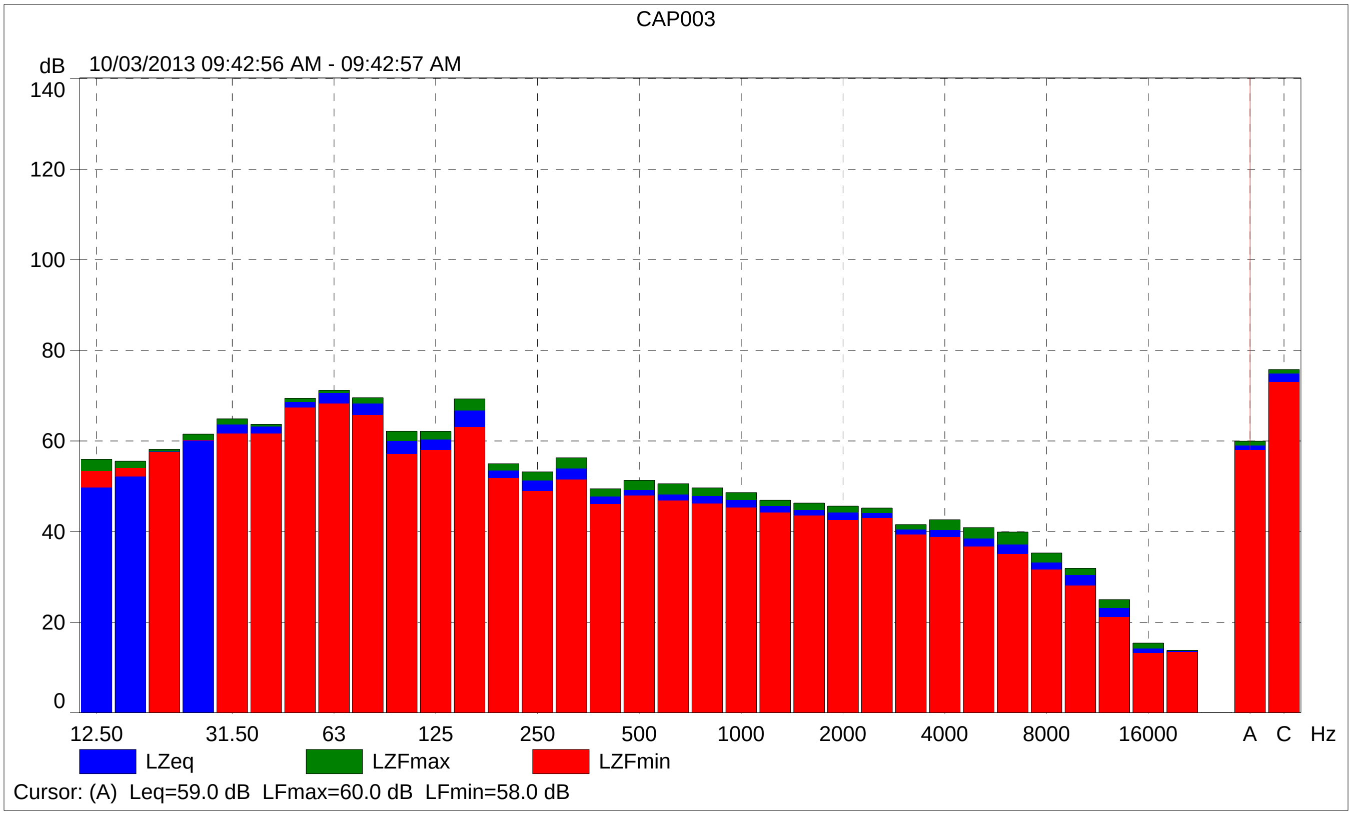

CAP003
dB 10/03/2013 09:37:57 AM - 09:47:57 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=58.7 dB LFmax=71.3 dB LFmin=51.7 dB

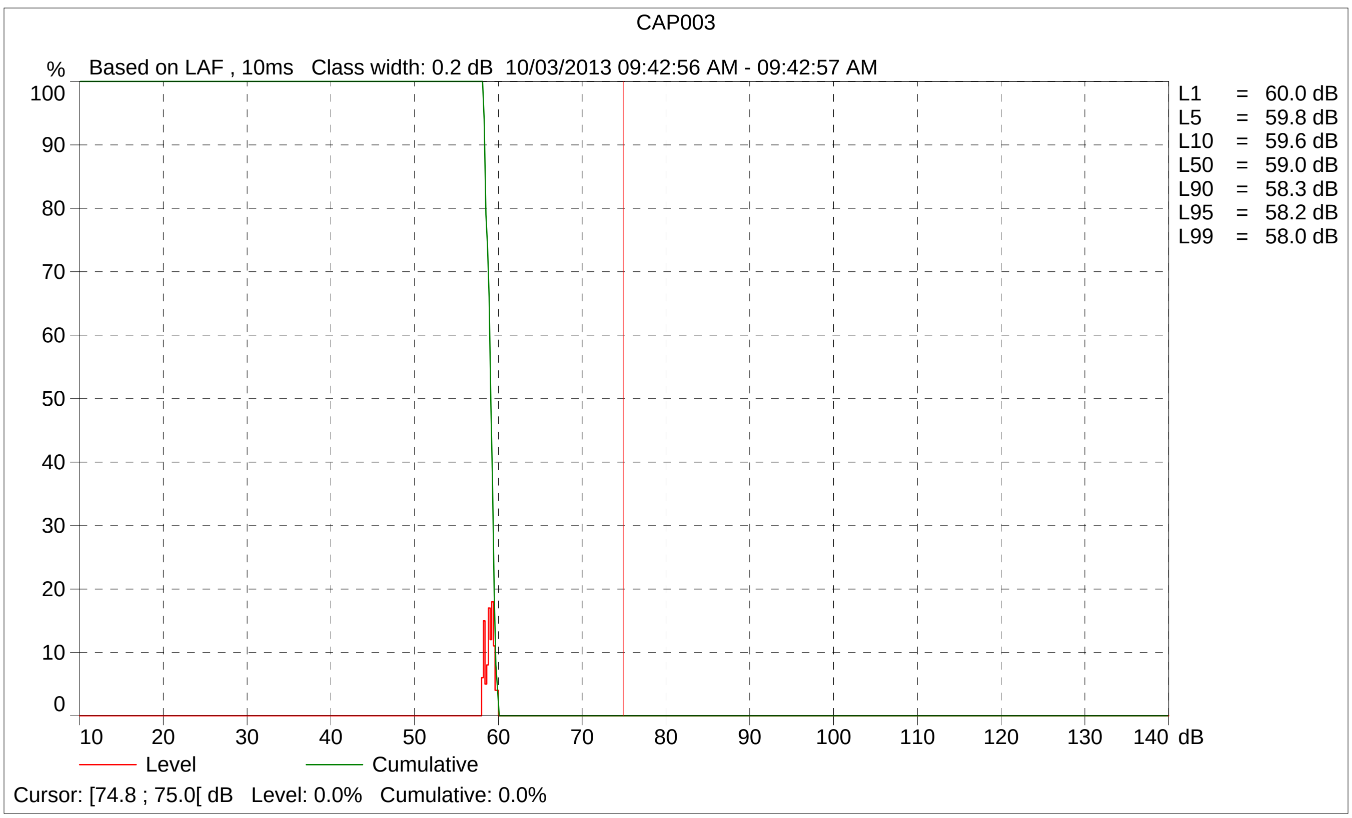

CAP003
% Based on LAF , 10ms Class width: 0.2 dB 10/03/2013 09:37:57 AM - 09:47:57 AM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140 dB
L1 = 64.4 dB
L5 = 62.3 dB
L10 = 61.2 dB
L50 = 57.7 dB
L90 = 54.9 dB
L95 = 54.2 dB
L99 = 52.7 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%

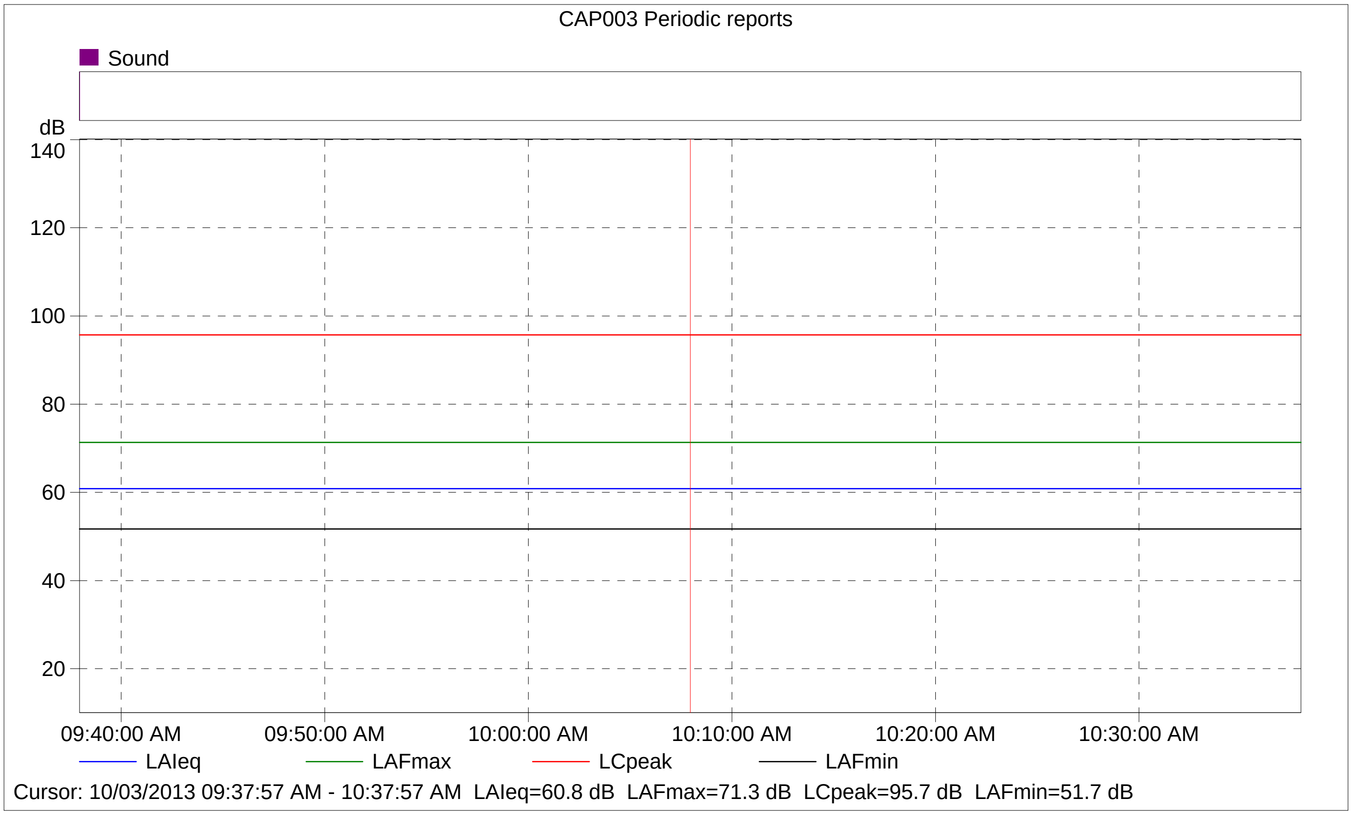


CAP003

	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			60.2	60.0	58.0
Time	09:42:56 AM	0:00:01			
Date	10/03/2013				

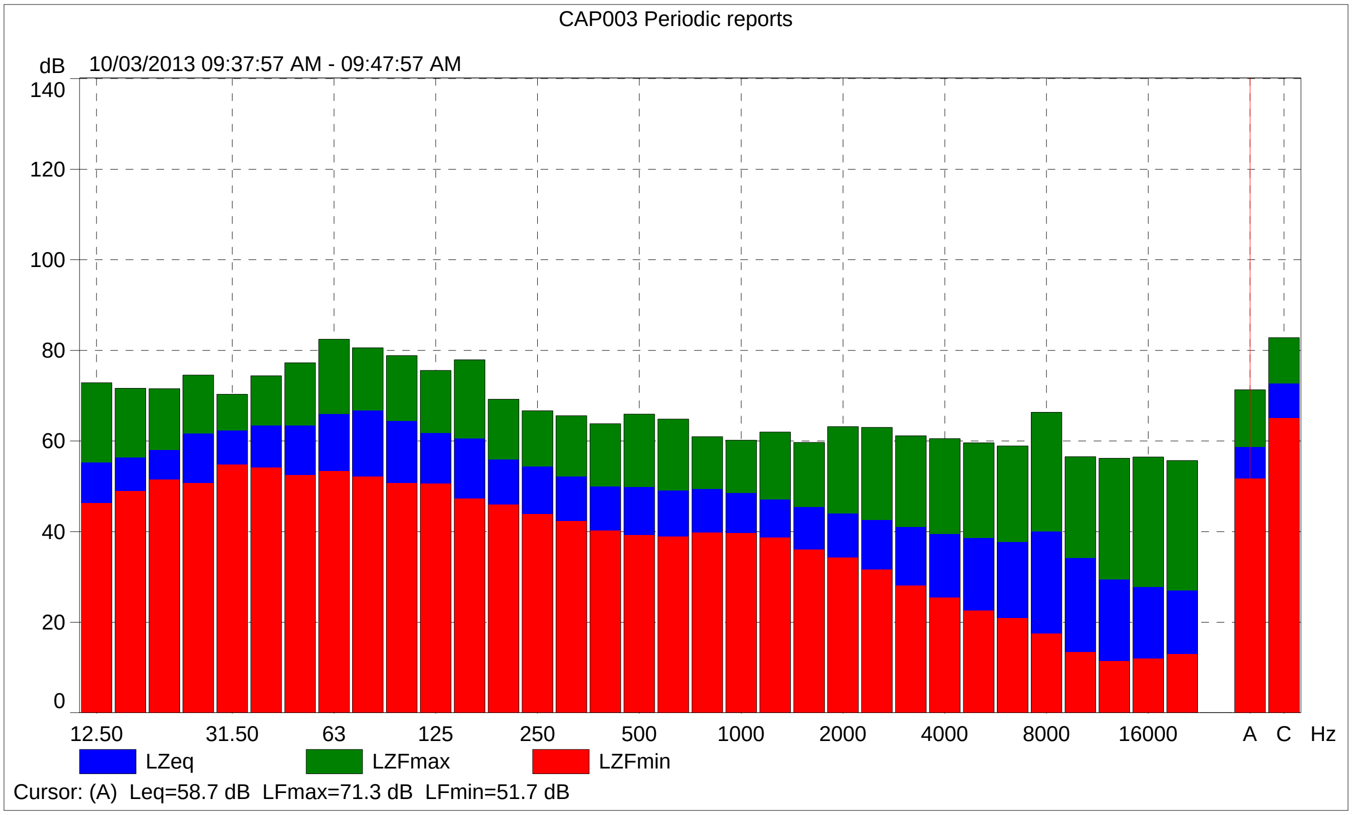

CAP003
dB
10/03/2013 09:42:56 AM - 09:42:57 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=59.0 dB LFmax=60.0 dB LFmin=58.0 dB


CAP003
%
Based on LAF , 10ms Class width: 0.2 dB 10/03/2013 09:42:56 AM - 09:42:57 AM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 60.0 dB
L5 = 59.8 dB
L10 = 59.6 dB
L50 = 59.0 dB
L90 = 58.3 dB
L95 = 58.2 dB
L99 = 58.0 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%

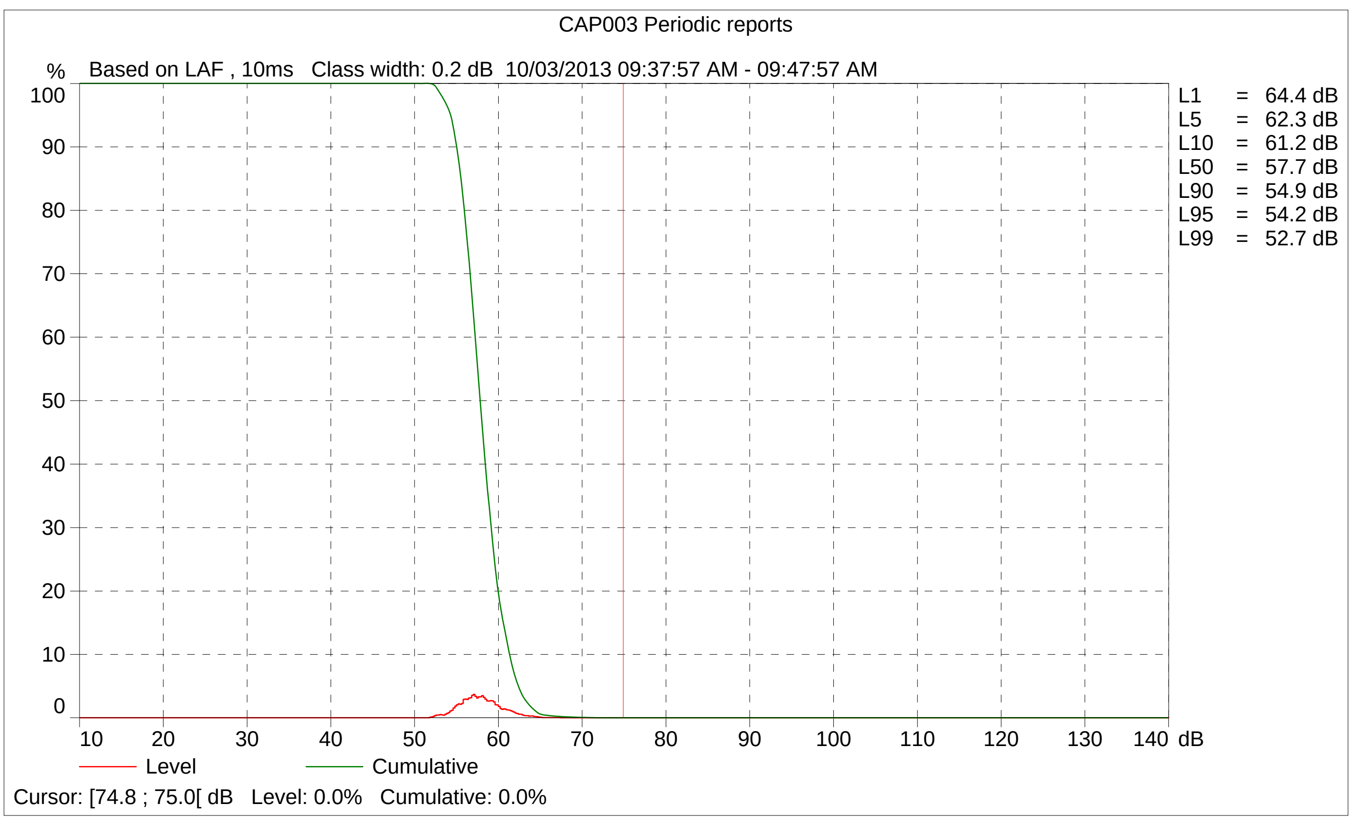


CAP003 Periodic reports

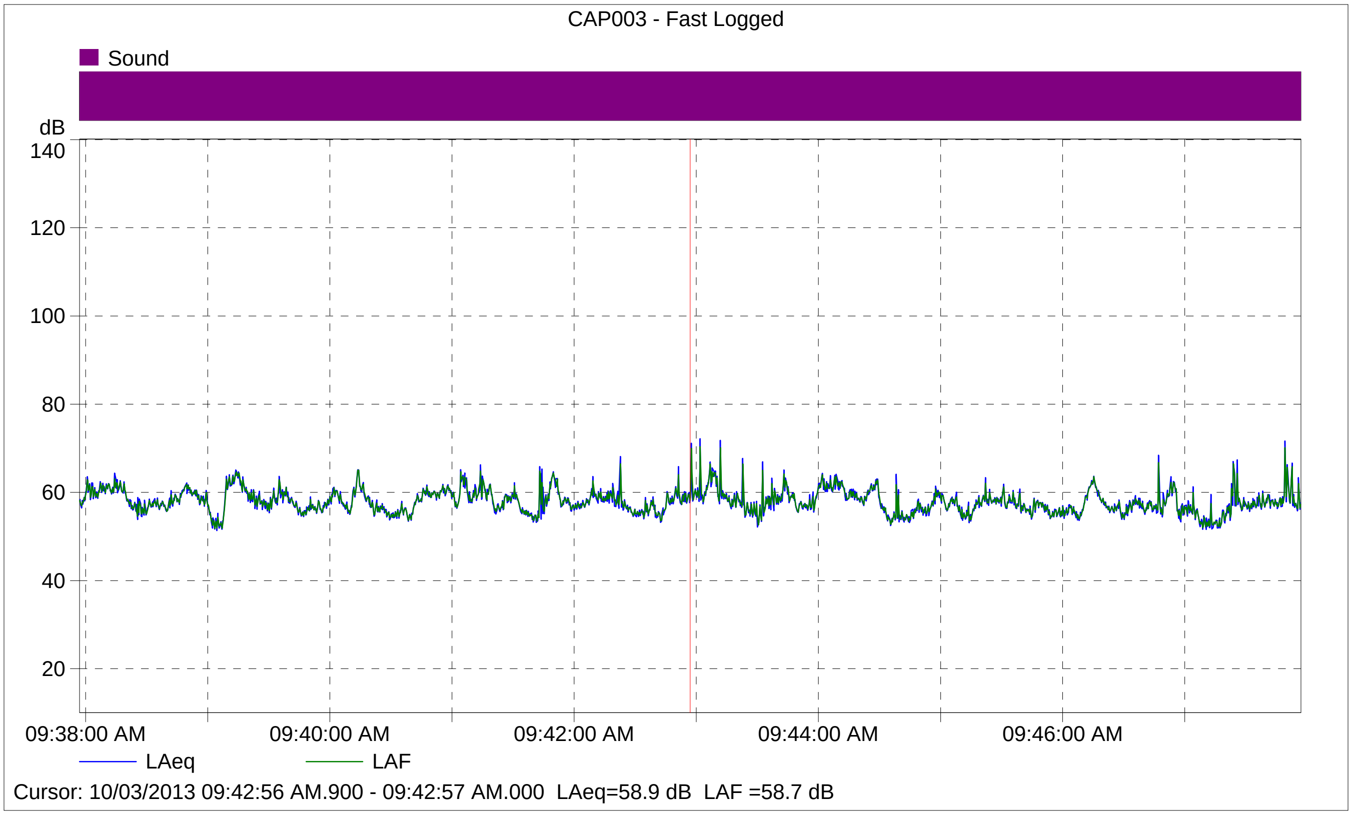
	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	60.8	71.3	51.7
Time	09:37:57 AM	0:10:00				
Date	10/03/2013					



CAP003 Periodic reports
dB
10/03/2013 09:37:57 AM - 09:47:57 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=58.7 dB LFmax=71.3 dB LFmin=51.7 dB



CAP003 Periodic reports
%
Based on LAF , 10ms Class width: 0.2 dB 10/03/2013 09:37:57 AM - 09:47:57 AM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 64.4 dB
L5 = 62.3 dB
L10 = 61.2 dB
L50 = 57.7 dB
L90 = 54.9 dB
L95 = 54.2 dB
L99 = 52.7 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%



CAP003 - Fast Logged

	Start time	Elapsed time	LAeq [dB]
Value			58.9
Time	09:42:56 AM.900	0:00:00.100	
Date	10/03/2013		

Site Number: NM-4			
Recorded By: Bill Wiseman			
Job Number: 131347			
Date: 10/3/13			
Time: 9:18 AM			
Location: Diamond Street, in a residential neighborhood between 42nd and 45th Avenue			
Source of Peak Noise: Cars on Diamond Street and surrounding neighborhood			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
47.5	37.9	70.3	98.3

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	2548189	7/12/2013	
	Microphone	Brüel & Kjær	4189	2543364	7/12/2013	
	Preamp	Brüel & Kjær	ZC 0032	4265	7/12/2013	
	Calibrator	Brüel & Kjær	4231	2545667	7/12/2013	

Weather Data			
Est.	**Duration:** 10minutes		**Sky:** Sunny
	Note: dBA Offset = 0.02		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	Temperature (degrees Fahrenheit)	Barometer Pressure (inches)
	1.0	54	30.06

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 2.0.2
Start Time:		10/03/2013 09:18:39
End Time:		10/03/2013 09:28:39
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.83

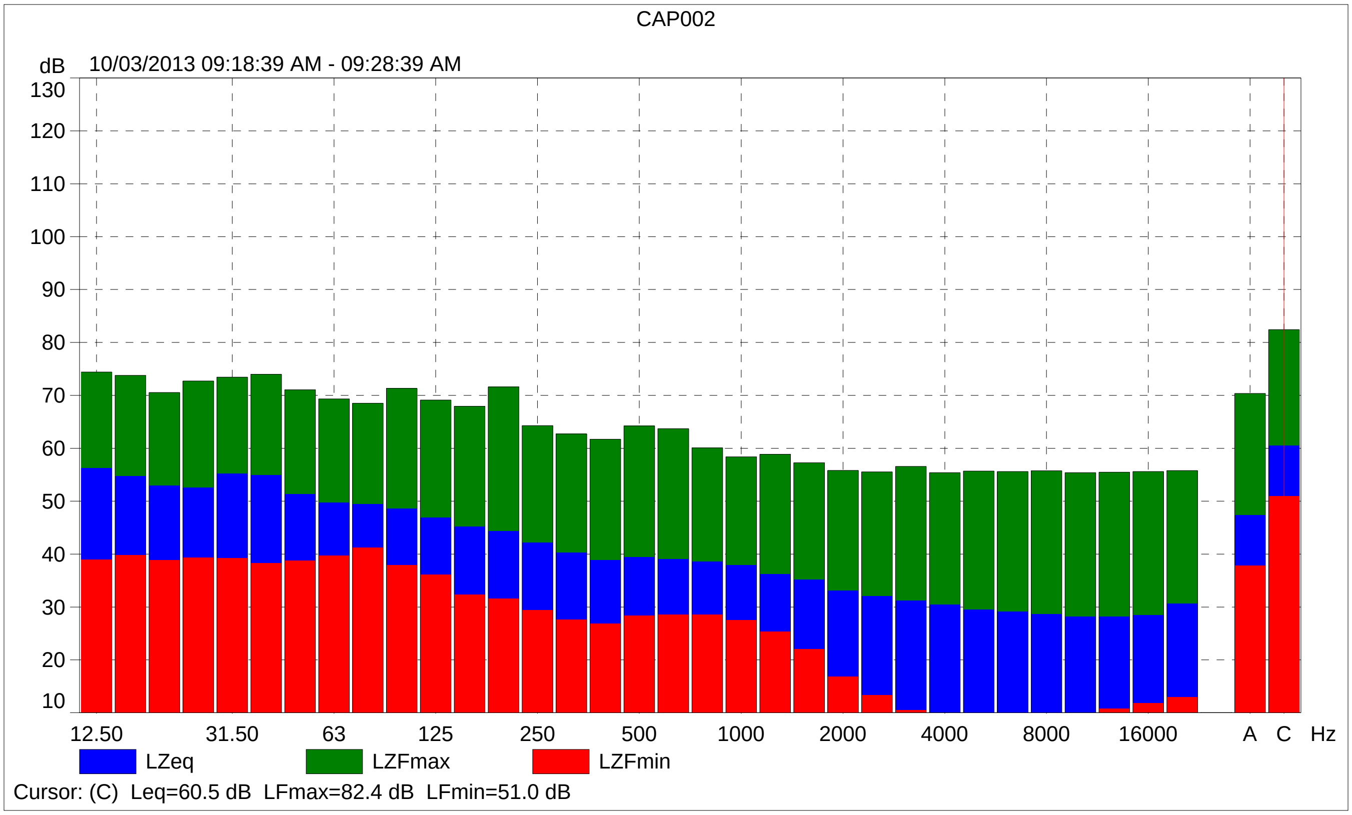
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Diffuse-field

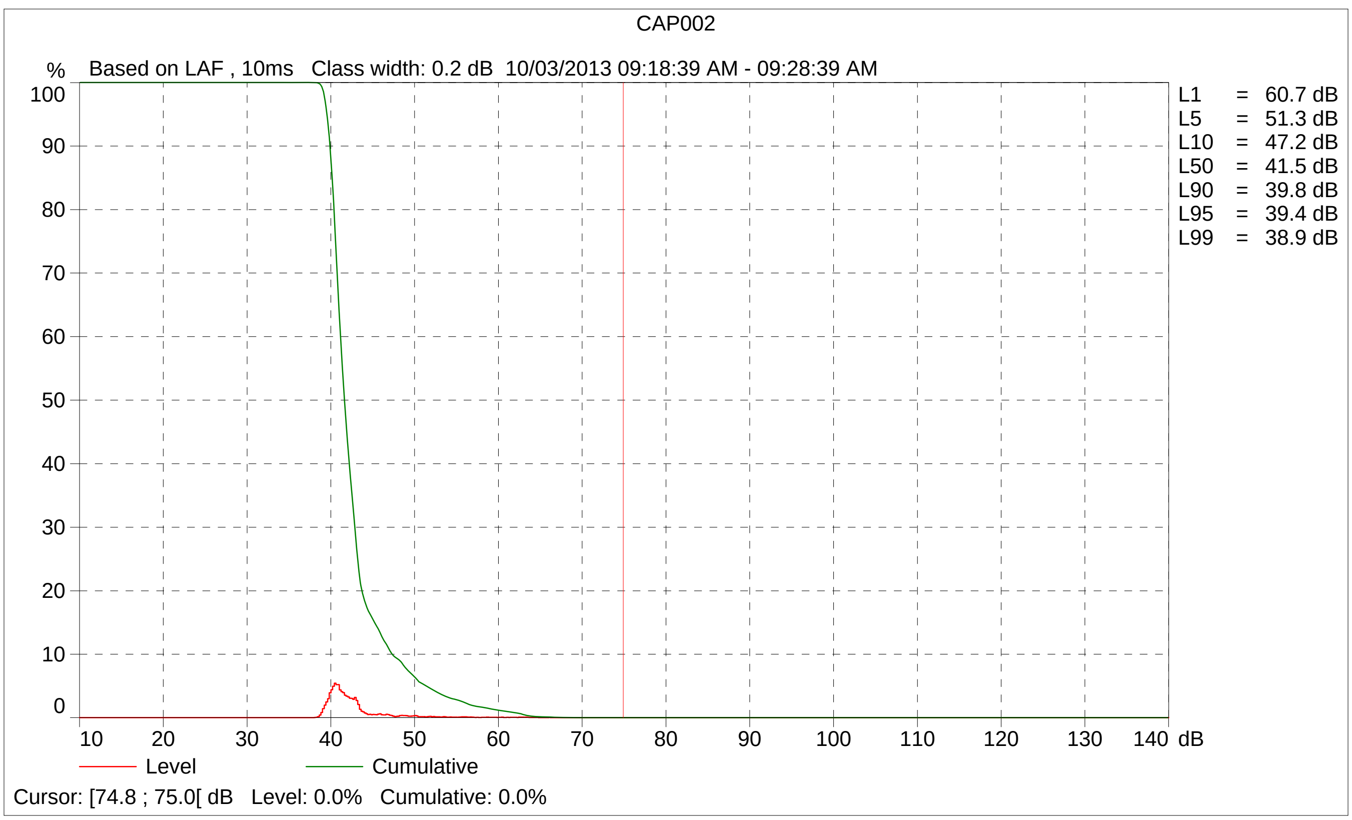
Calibration Time:		10/01/2013 11:27:28
Calibration Type:		External reference
Sensitivity:		63.74 mV/Pa

CAP002

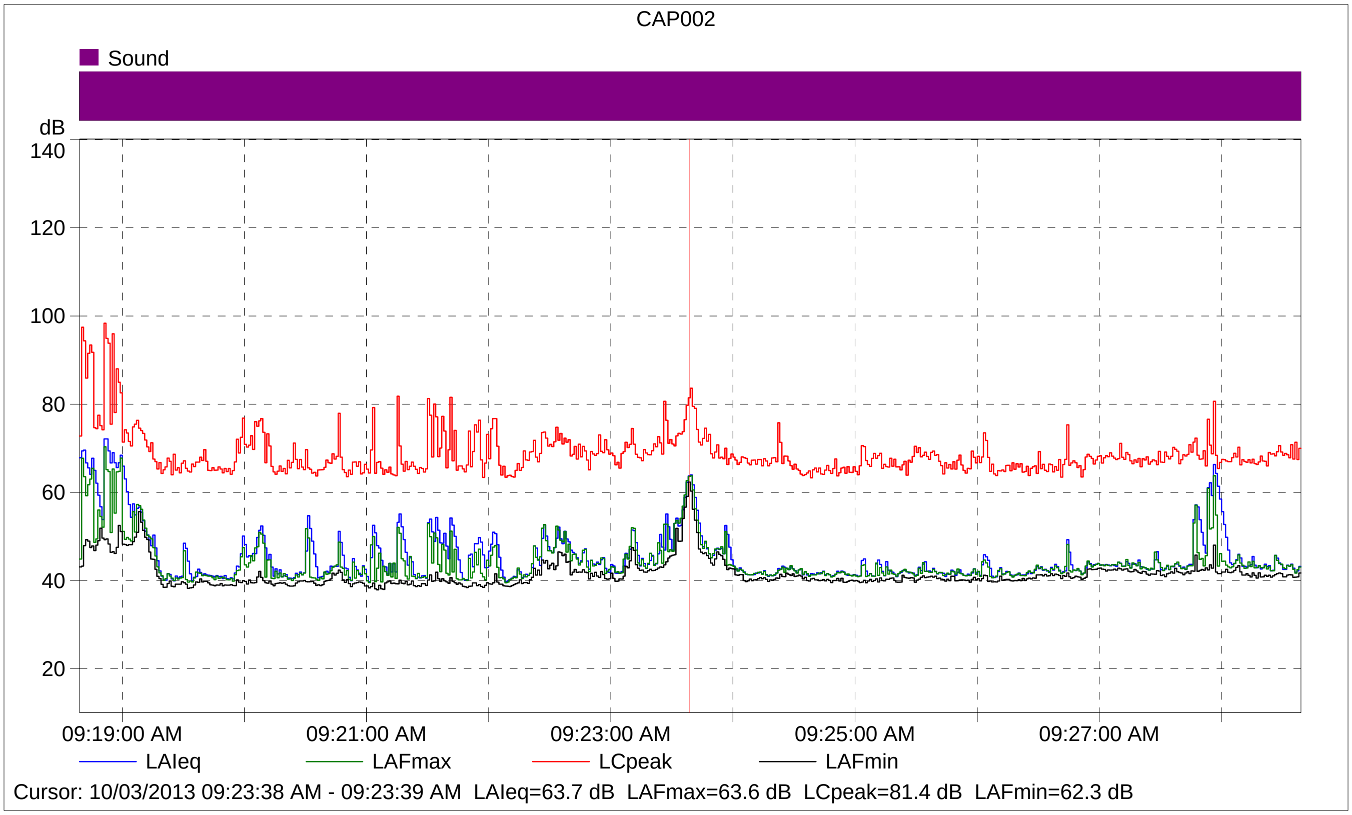
	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	47.5	70.3	37.9
Time	09:18:39 AM	09:28:39 AM	0:10:00				
Date	10/03/2013	10/03/2013					



CAP002
dB 10/03/2013 09:18:39 AM - 09:28:39 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (C) Leq=60.5 dB LFmax=82.4 dB LFmin=51.0 dB

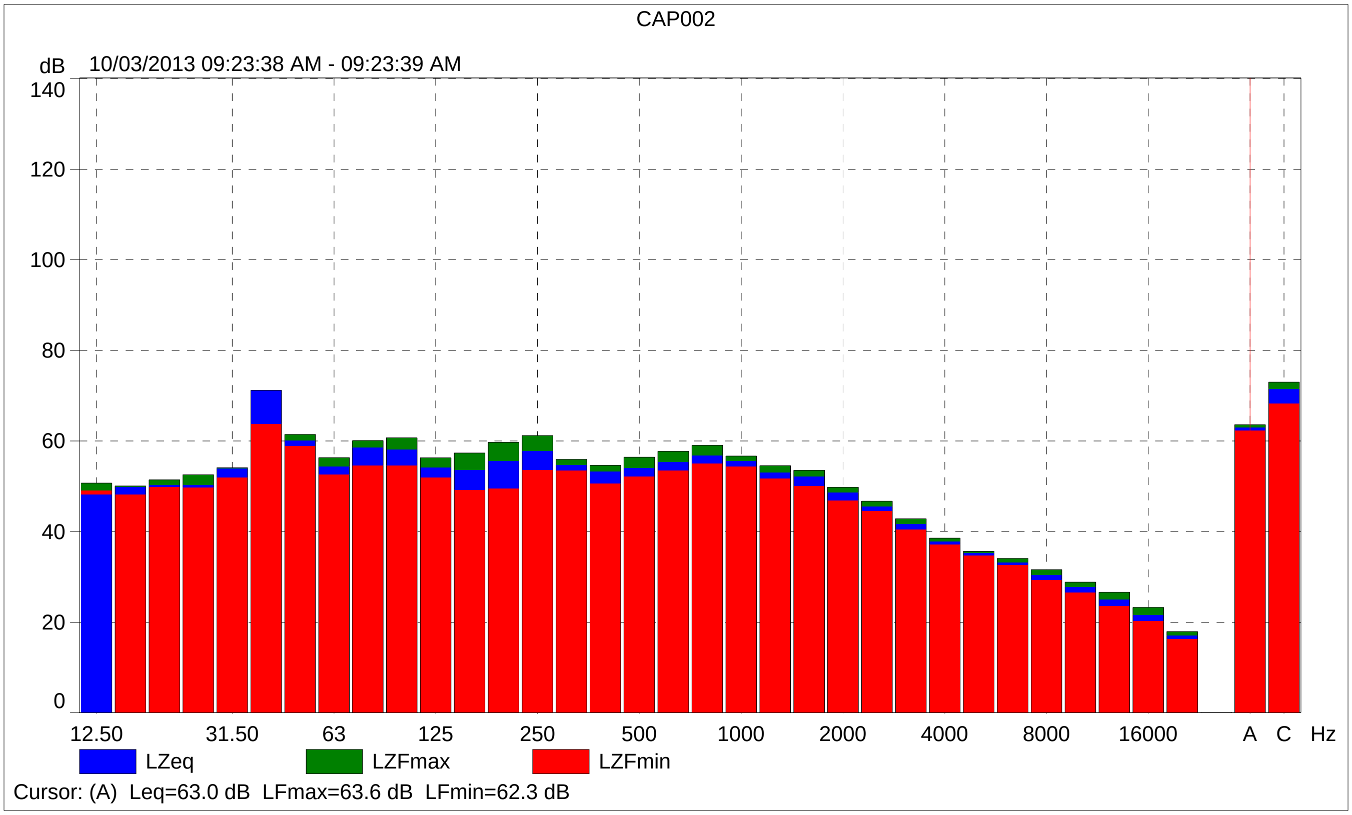


CAP002
% Based on LAF , 10ms Class width: 0.2 dB 10/03/2013 09:18:39 AM - 09:28:39 AM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140 dB
L1 = 60.7 dB
L5 = 51.3 dB
L10 = 47.2 dB
L50 = 41.5 dB
L90 = 39.8 dB
L95 = 39.4 dB
L99 = 38.9 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%

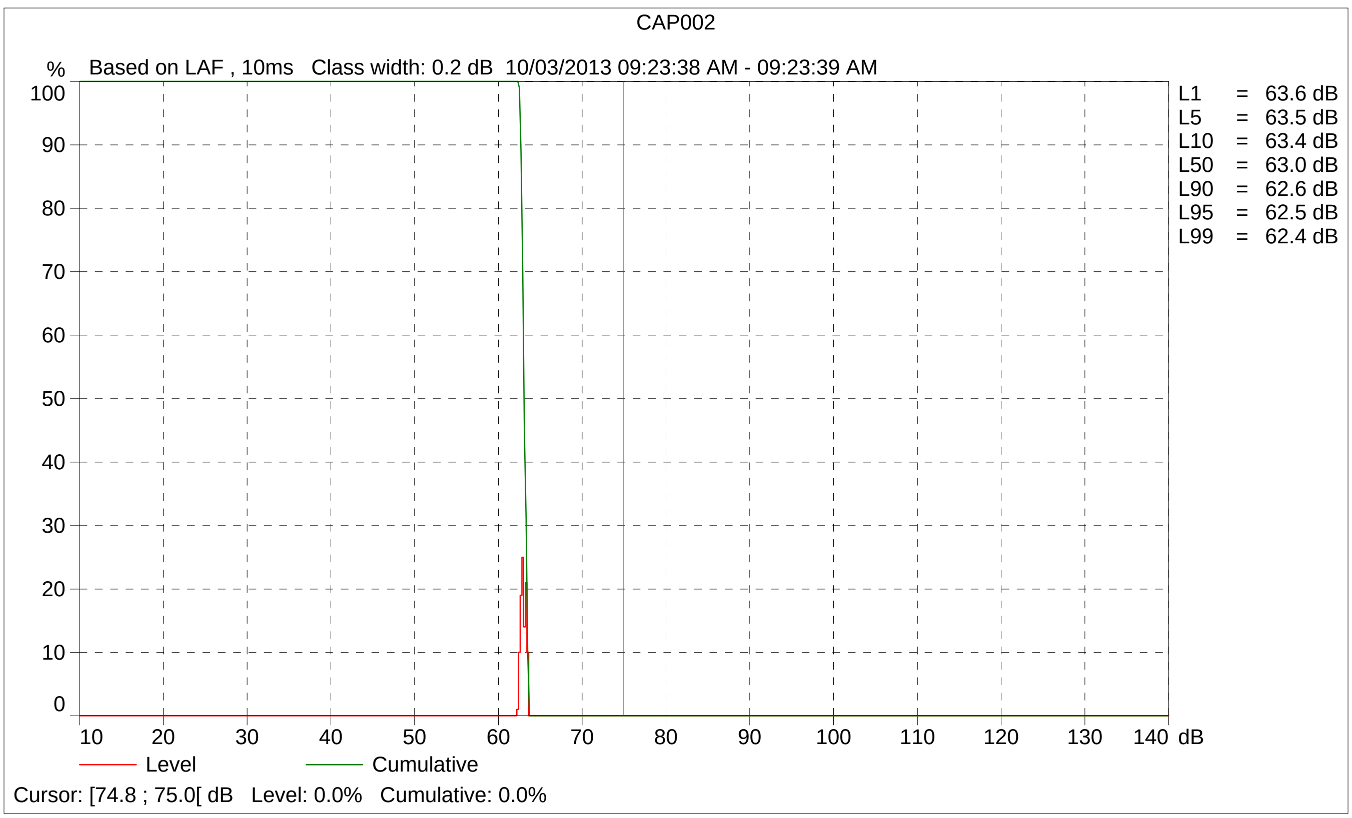


CAP002

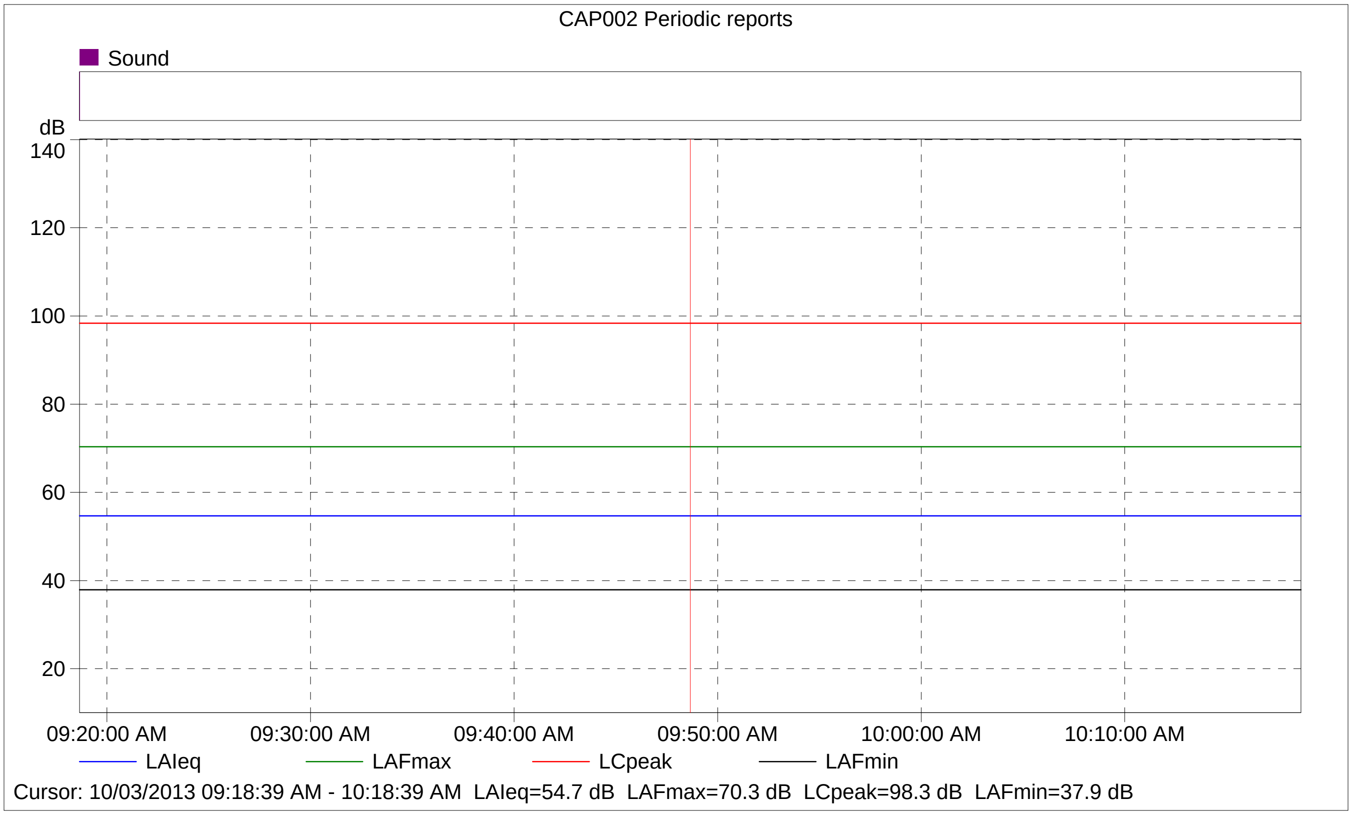
	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			63.7	63.6	62.3
Time	09:23:38 AM	0:00:01			
Date	10/03/2013				



CAP002
dB 10/03/2013 09:23:38 AM - 09:23:39 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A C Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=63.0 dB LFmax=63.6 dB LFmin=62.3 dB

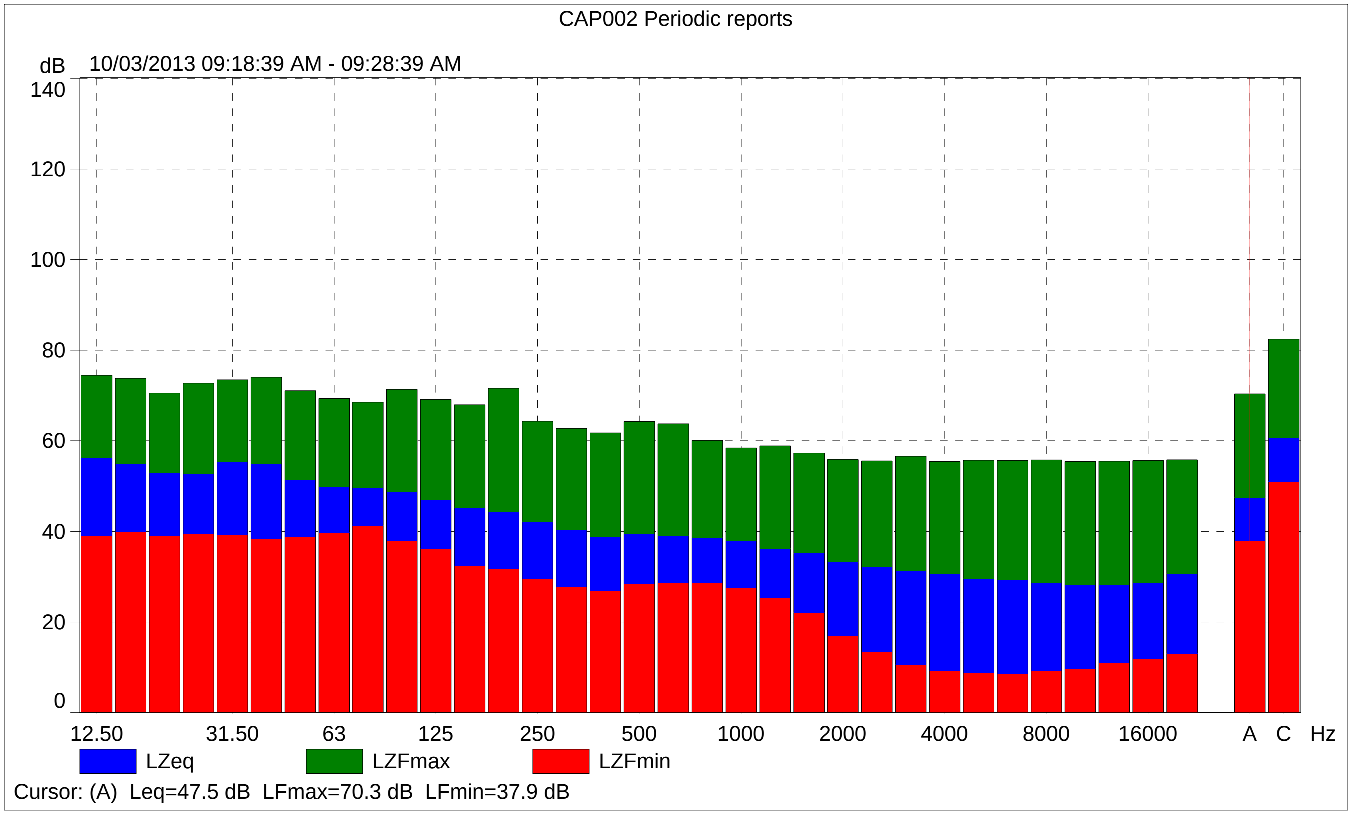


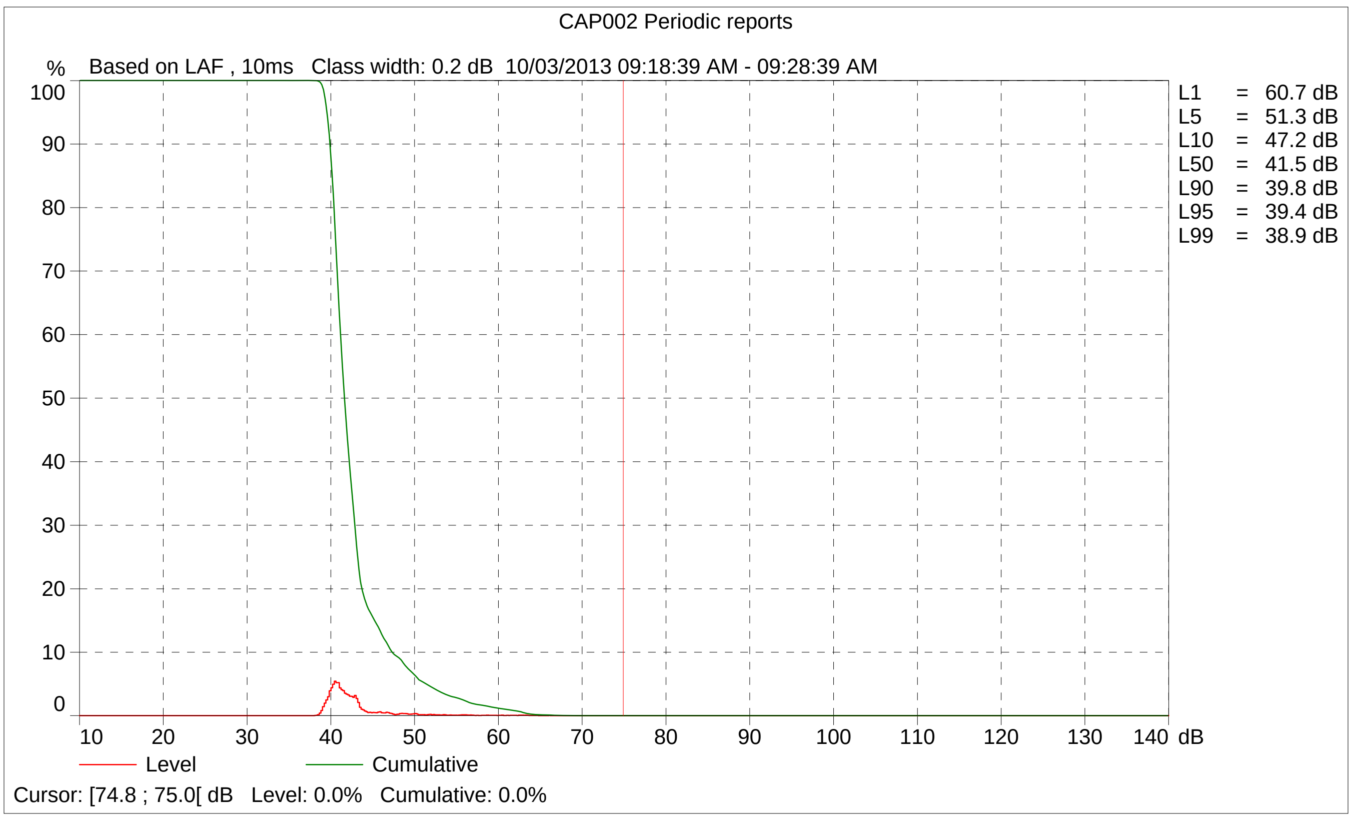
CAP002
% Based on LAF , 10ms Class width: 0.2 dB 10/03/2013 09:23:38 AM - 09:23:39 AM
100
90
80
70
60
50
40
30
20
10
0
10 20 30 40 50 60 70 80 90 100 110 120 130 140 dB
L1 = 63.6 dB
L5 = 63.5 dB
L10 = 63.4 dB
L50 = 63.0 dB
L90 = 62.6 dB
L95 = 62.5 dB
L99 = 62.4 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%

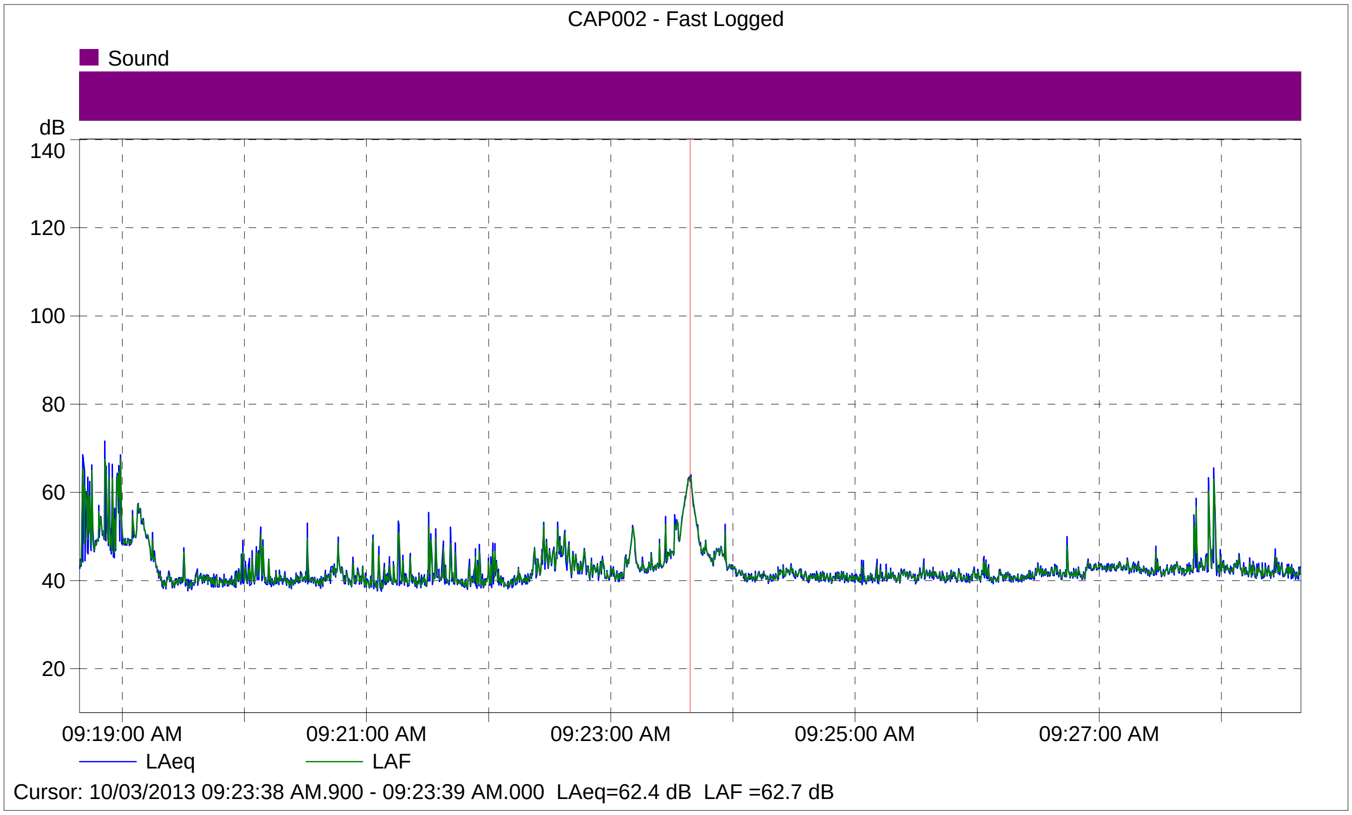


CAP002 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	54.7	70.3	37.9
Time	09:18:39 AM	0:10:00				
Date	10/03/2013					


CAP002 Periodic reports
dB
10/03/2013 09:18:39 AM - 09:28:39 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=47.5 dB LFmax=70.3 dB LFmin=37.9 dB


CAP002 Periodic reports
%
Based on LAF , 10ms Class width: 0.2 dB 10/03/2013 09:18:39 AM - 09:28:39 AM
L1 = 60.7 dB
L5 = 51.3 dB
L10 = 47.2 dB
L50 = 41.5 dB
L90 = 39.8 dB
L95 = 39.4 dB
L99 = 38.9 dB
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.0%



CAP002 - Fast Logged

	Start time	Elapsed time	LAeq [dB]
Value			62.4
Time	09:23:38 AM.900	0:00:00.100	
Date	10/03/2013		

Site Number: NM-5			
Recorded By: Bill Wiseman			
Job Number: 131347			
Date: 10/3/13			
Time: 10:08 AM			
Location: Capitola Village, near the intersection of Esplanade and San Jose Avenue			
Source of Peak Noise: Traffic, people walking/talking, delivery trucks in the area, and recycling activities			
Noise Data			
Leq (dB)	Lmin (dB)	Lmax (dB)	Peak (dB)
57.0	47.4	80.0	99.4

Equipment						
Category	Type	Vendor	Model	Serial No.	Cert. Date	Note
Sound	Sound Level Meter	Brüel & Kjær	2250	2548189	7/12/2013	
	Microphone	Brüel & Kjær	4189	2543364	7/12/2013	
	Preamp	Brüel & Kjær	ZC 0032	4265	7/12/2013	
	Calibrator	Brüel & Kjær	4231	2545667	7/12/2013	

Weather Data			
Est.	**Duration:** 10minutes		**Sky:** Sunny
	Note: dBA Offset = 0.02		**Sensor Height (ft):** 5 ft
	Wind Ave Speed (mph / m/s)	Temperature (degrees Fahrenheit)	Barometer Pressure (inches)
	2.5	59	30.06

Photo of Measurement Location

2250

Instrument:		2250
Application:		BZ7225 Version 2.0.2
Start Time:		10/03/2013 10:08:19
End Time:		10/03/2013 10:18:19
Elapsed Time:		00:10:00
Bandwidth:		1/3-octave
Max Input Level:		138.83

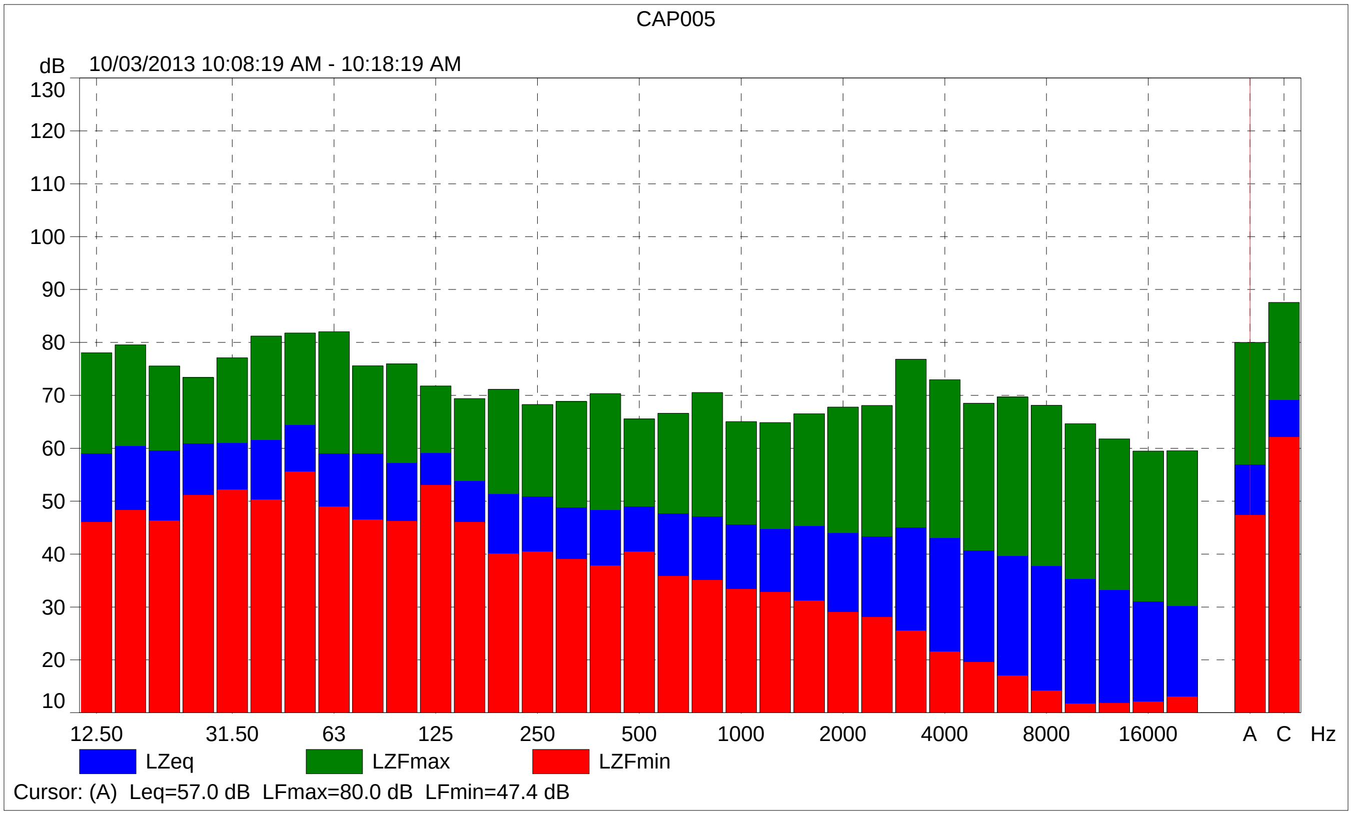
	Time	Frequency
Broadband (excl. Peak):	FSI	AC
Broadband Peak:		C
Spectrum:	FS	Z

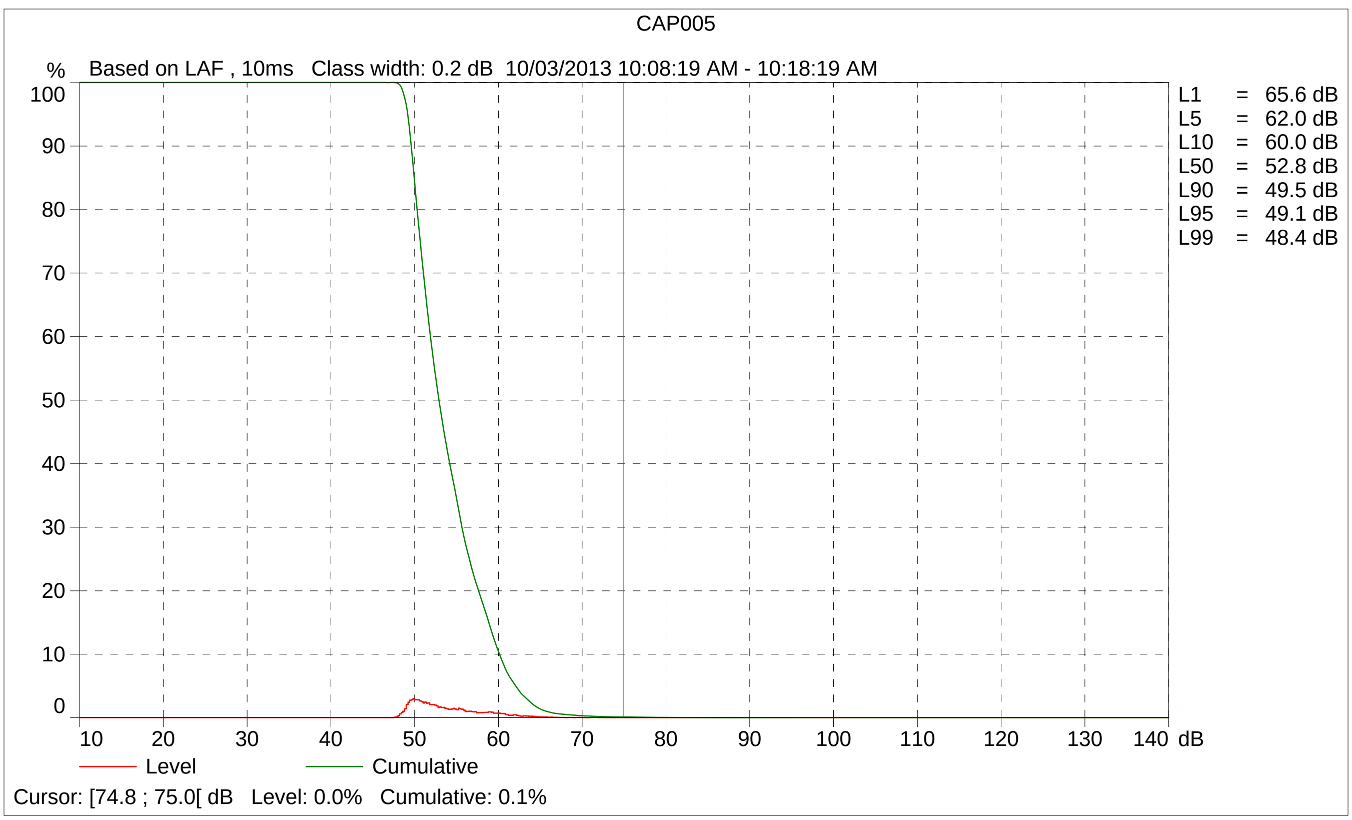
Instrument Serial Number:		2548189
Microphone Serial Number:		2543364
Input:		Top Socket
Windscreen Correction:		UA-1650
Sound Field Correction:		Diffuse-field

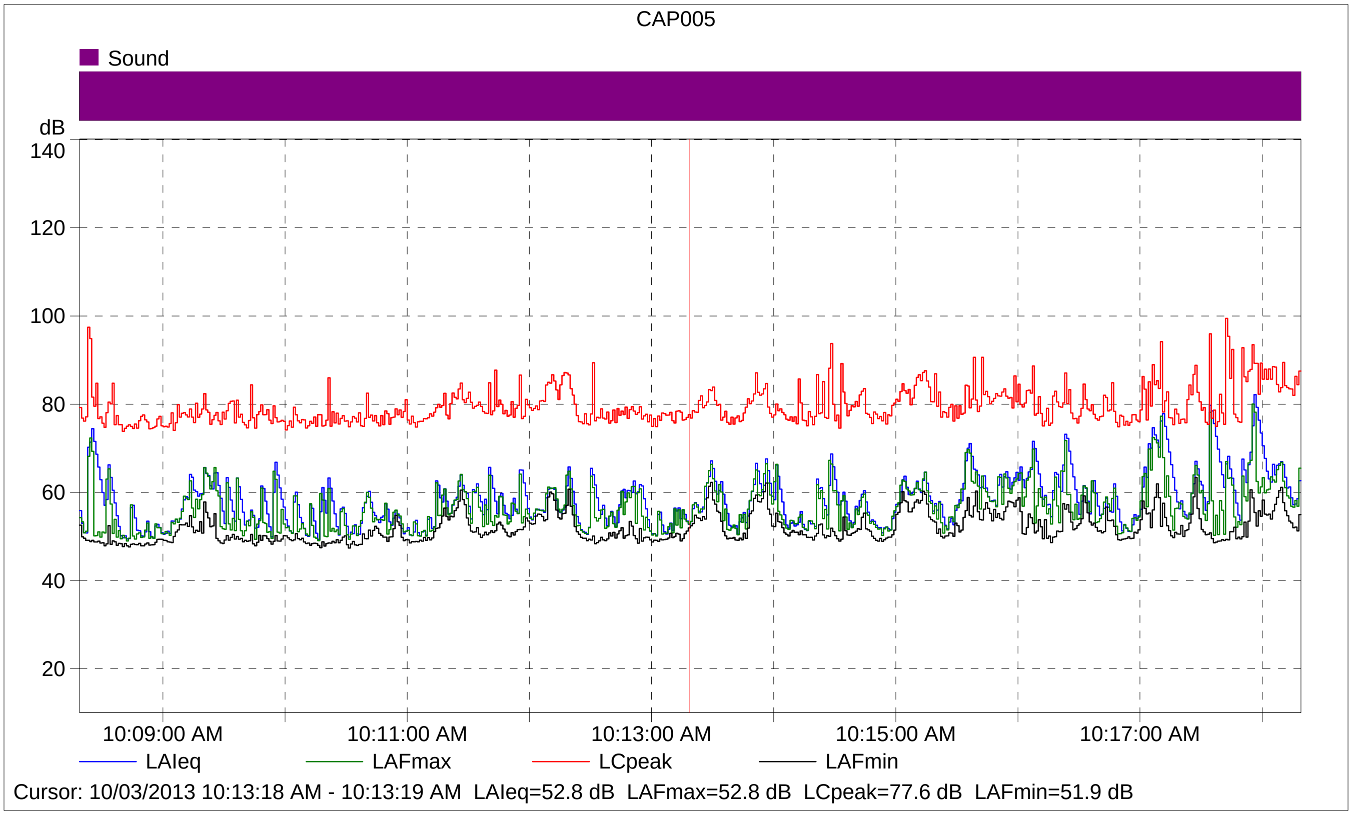
Calibration Time:		10/01/2013 11:27:28
Calibration Type:		External reference
Sensitivity:		63.74 mV/Pa

CAP005

	Start time	End time	Elapsed time	Overload [%]	LAeq [dB]	LAFmax [dB]	LAFmin [dB]
Value				0.00	57.0	80.0	47.4
Time	10:08:19 AM	10:18:19 AM	0:10:00				
Date	10/03/2013	10/03/2013					

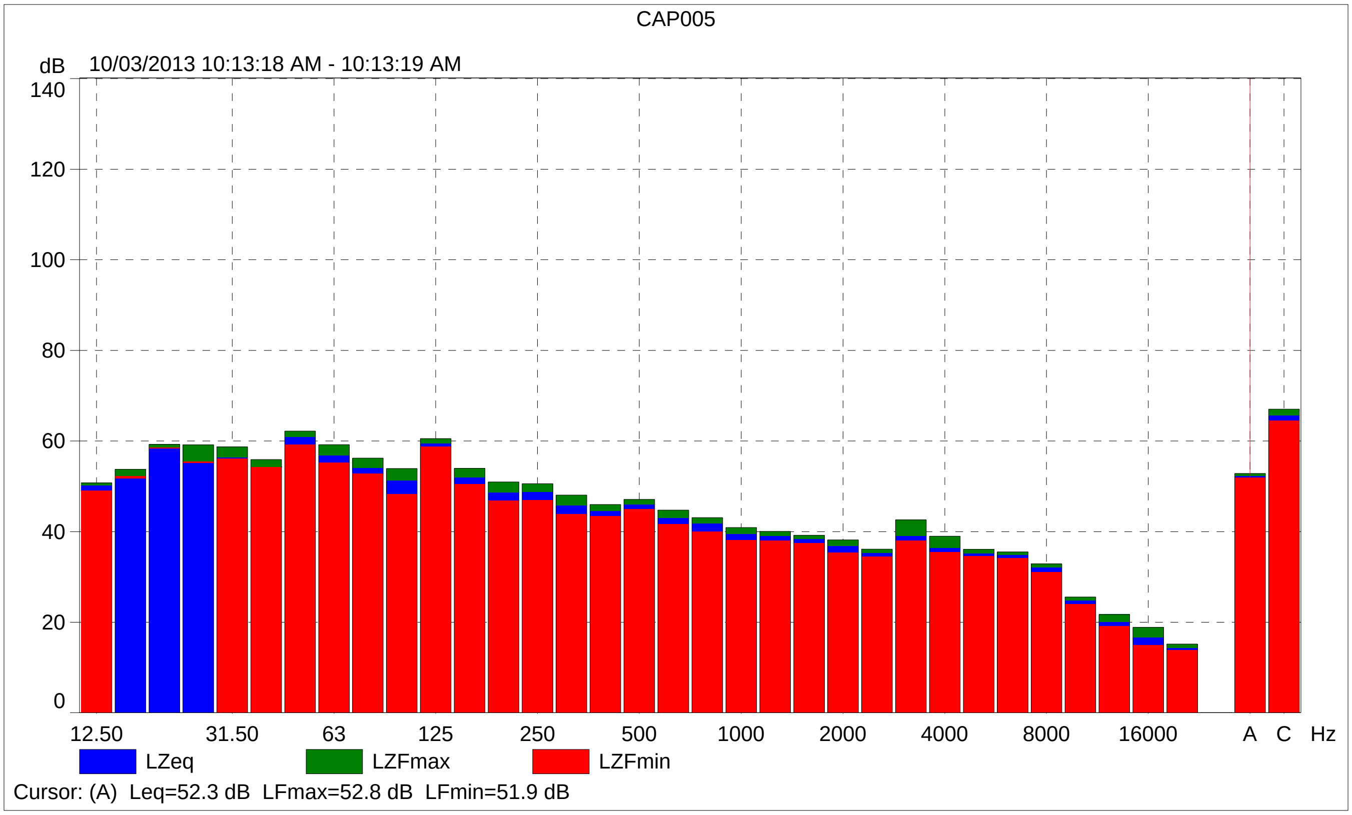

CAP005
dB
10/03/2013 10:08:19 AM - 10:18:19 AM
130
120
110
100
90
80
70
60
50
40
30
20
10
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=57.0 dB LFmax=80.0 dB LFmin=47.4 dB


CAP005
%
Based on LAF , 10ms Class width: 0.2 dB 10/03/2013 10:08:19 AM - 10:18:19 AM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140
dB
L1 = 65.6 dB
L5 = 62.0 dB
L10 = 60.0 dB
L50 = 52.8 dB
L90 = 49.5 dB
L95 = 49.1 dB
L99 = 48.4 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.1%

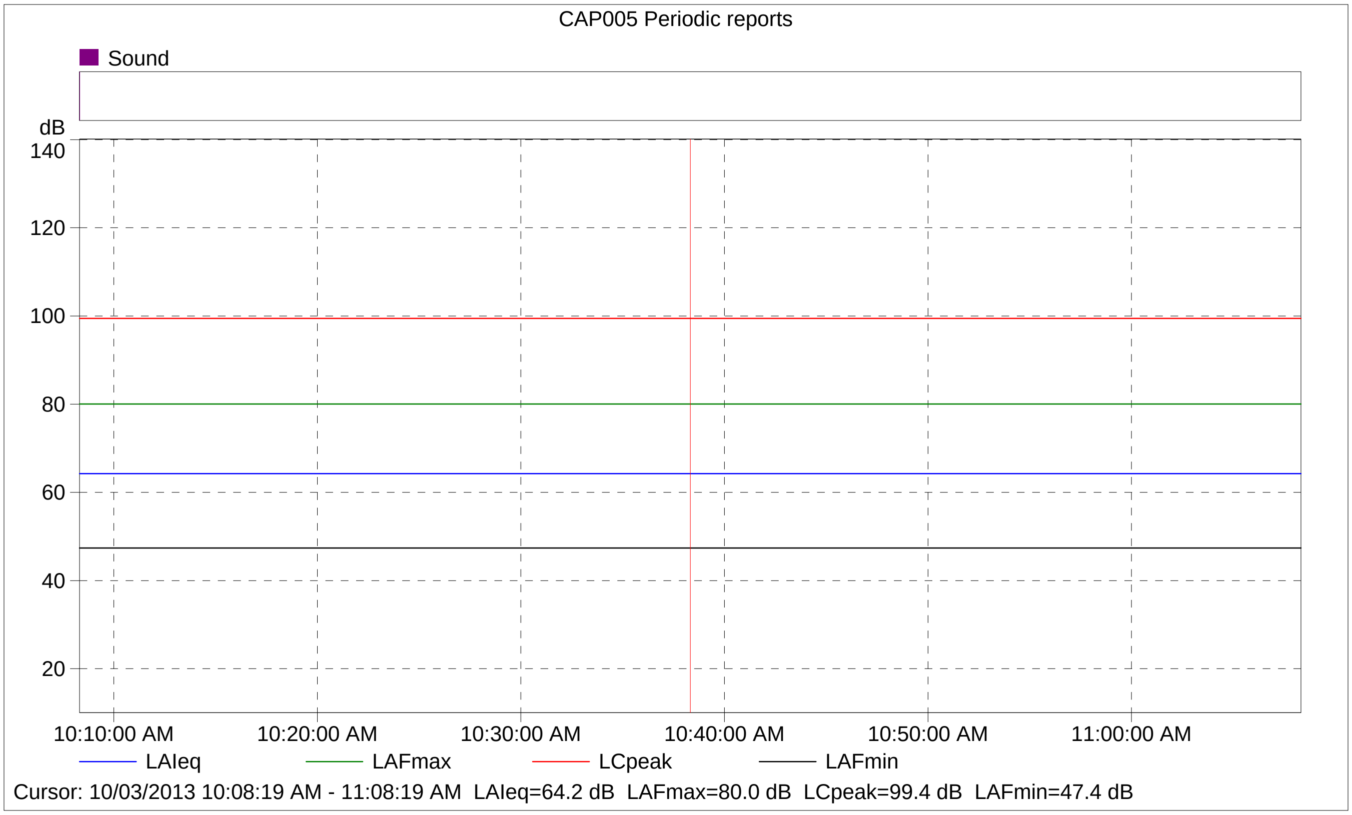


CAP005

	Start time	Elapsed time	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			52.8	52.8	51.9
Time	10:13:18 AM	0:00:01			
Date	10/03/2013				

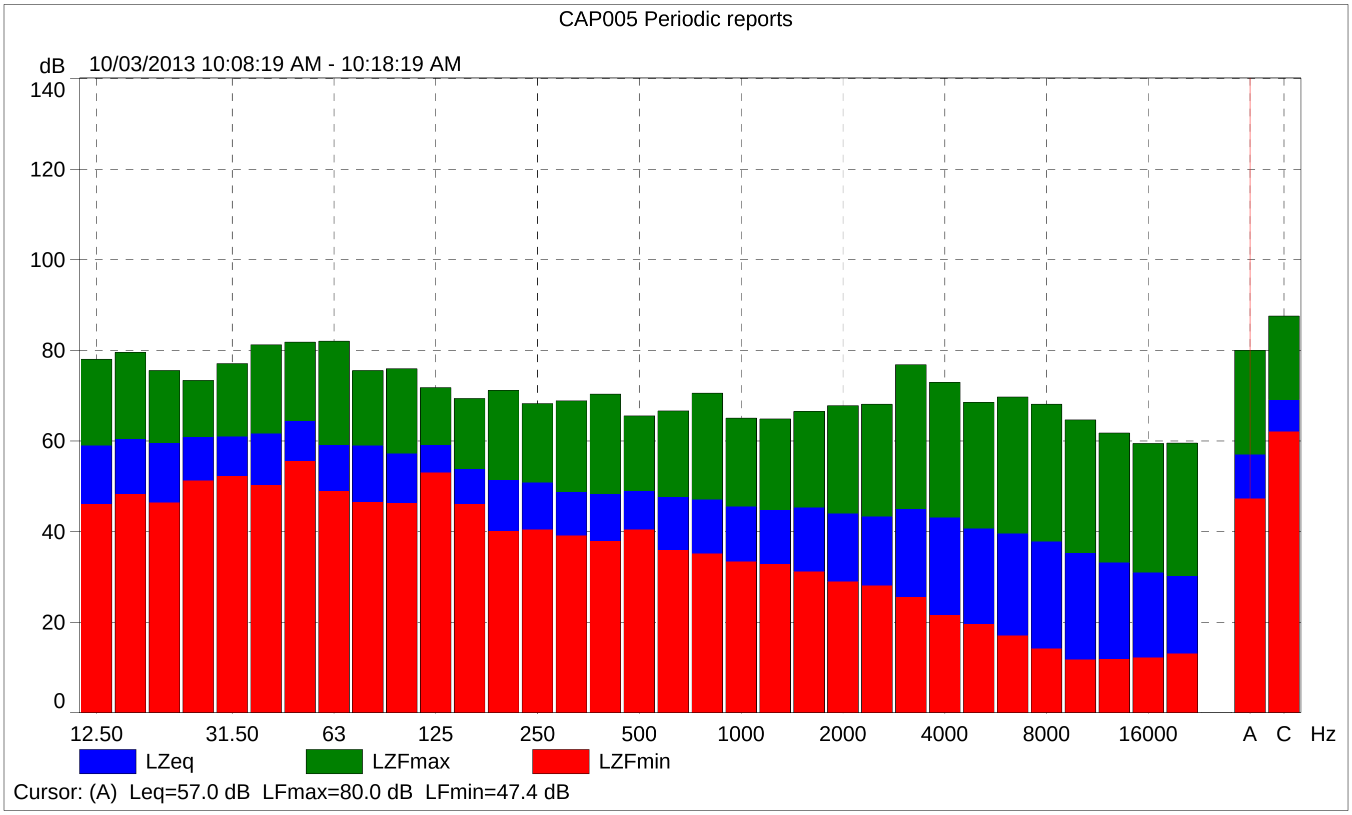


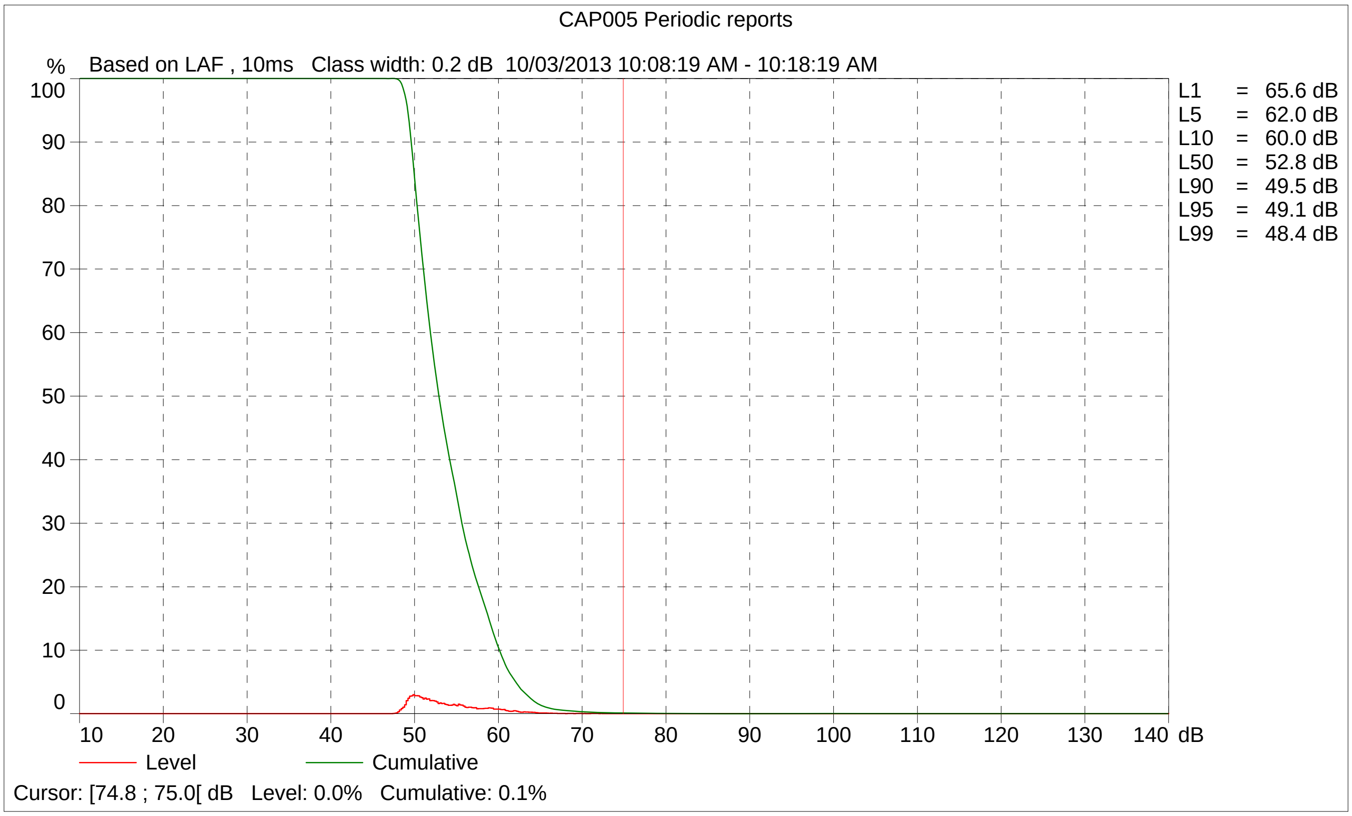
L1	=	52.8 dB
L5	=	52.7 dB
L10	=	52.6 dB
L50	=	52.4 dB
L90	=	52.1 dB
L95	=	52.0 dB
L99	=	51.9 dB

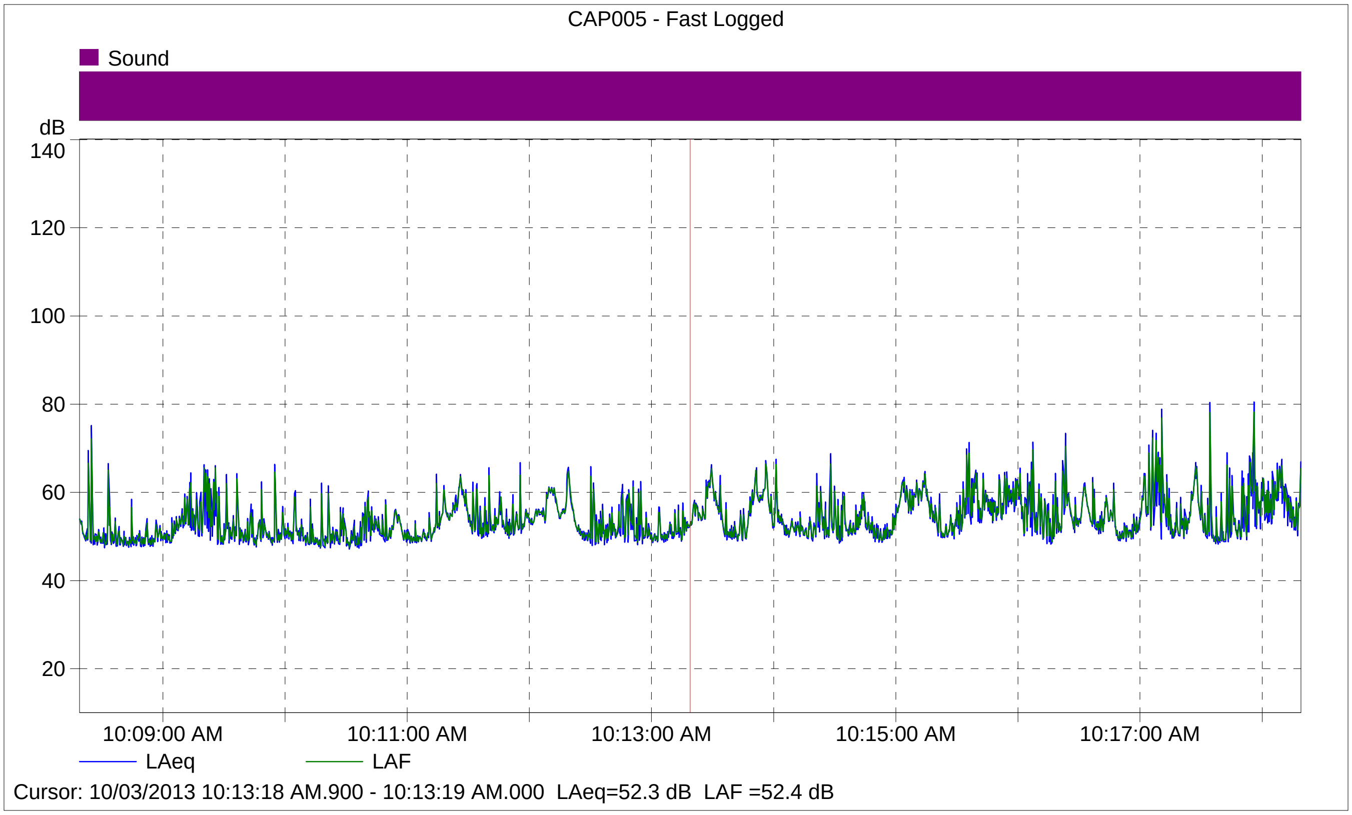


CAP005 Periodic reports

	Start time	Elapsed time	Overload [%]	LAIeq [dB]	LAFmax [dB]	LAFmin [dB]
Value			0.00	64.2	80.0	47.4
Time	10:08:19 AM	0:10:00				
Date	10/03/2013					


CAP005 Periodic reports
dB 10/03/2013 10:08:19 AM - 10:18:19 AM
140
120
100
80
60
40
20
0
12.50
31.50
63
125
250
500
1000
2000
4000
8000
16000
A
C
Hz
LZeq
LZFmax
LZFmin
Cursor: (A) Leq=57.0 dB LFmax=80.0 dB LFmin=47.4 dB


CAP005 Periodic reports
% Based on LAF , 10ms Class width: 0.2 dB 10/03/2013 10:08:19 AM - 10:18:19 AM
100
90
80
70
60
50
40
30
20
10
0
10
20
30
40
50
60
70
80
90
100
110
120
130
140 dB
L1 = 65.6 dB
L5 = 62.0 dB
L10 = 60.0 dB
L50 = 52.8 dB
L90 = 49.5 dB
L95 = 49.1 dB
L99 = 48.4 dB
Level
Cumulative
Cursor: [74.8 ; 75.0[dB Level: 0.0% Cumulative: 0.1%



CAP005 - Fast Logged

	Start time	Elapsed time	LAeq [dB]
Value			52.3
Time	10:13:18 AM.900	0:00:00.100	
Date	10/03/2013		

Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	41st Street		
Road Segment:	NB SR-1 Ramps to Gross Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	30162
Peak Hour Traffic:	**3016.2**
Vehicle Speed:	35
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

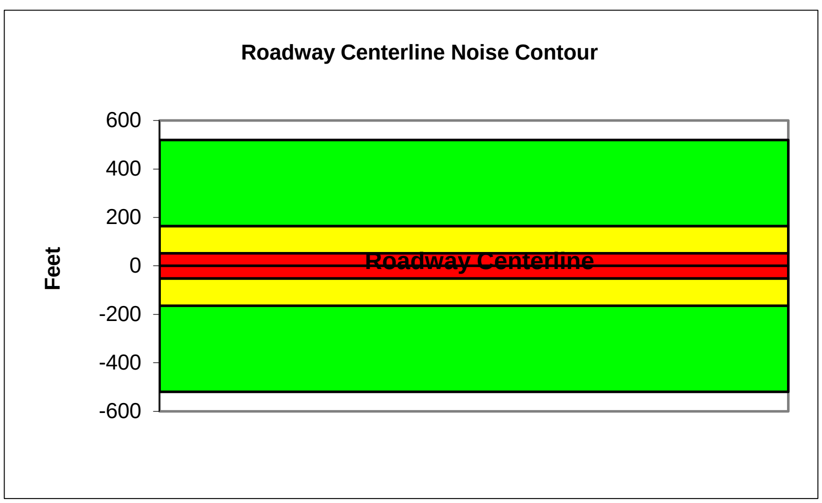
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	54.6	63.4	61.6	55.5	64.2	64.8
Medium Trucks:	64.3	56.3	49.9	48.3	56.8	57.0
Heavy Trucks:	69.5	57.6	48.6	49.8	59.7	59.8
Vehicle Noise:	**72.0**	**65.3**	**62.2**	**57.5**	**66.0**	**66.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	520
65 dBA	164
70 dBA	52
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	41st Street		
Road Segment:	Gross Road to Clares Street		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	43957
Peak Hour Traffic:	**4395.7**
Vehicle Speed:	35
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

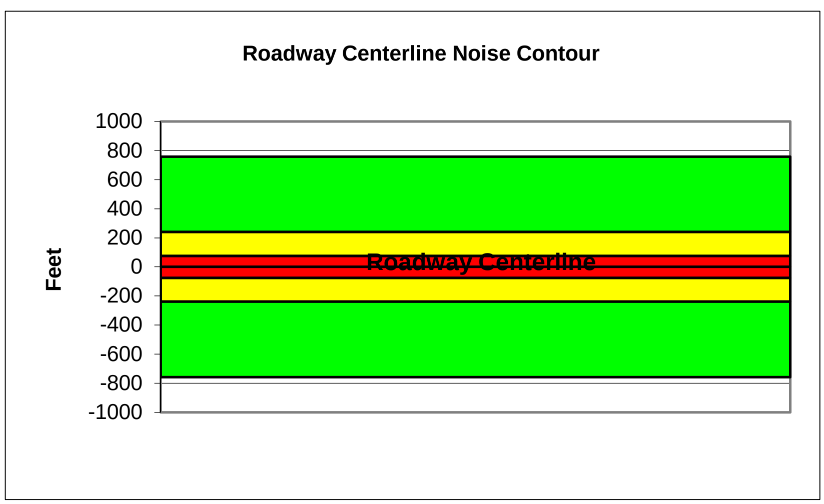
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	56.2	65.0	63.2	57.2	65.8	66.4
Medium Trucks:	66.0	57.9	51.5	49.9	58.4	58.7
Heavy Trucks:	71.2	59.2	50.2	51.4	61.3	61.4
Vehicle Noise:	**73.6**	**67.0**	**63.8**	**59.1**	**67.7**	**68.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	758
65 dBA	240
70 dBA	76
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	41st Street		
Road Segment:	Clares Street to Capitola Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	25284
Peak Hour Traffic:	**2528.4**
Vehicle Speed:	35
Centerline Separation:	45

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

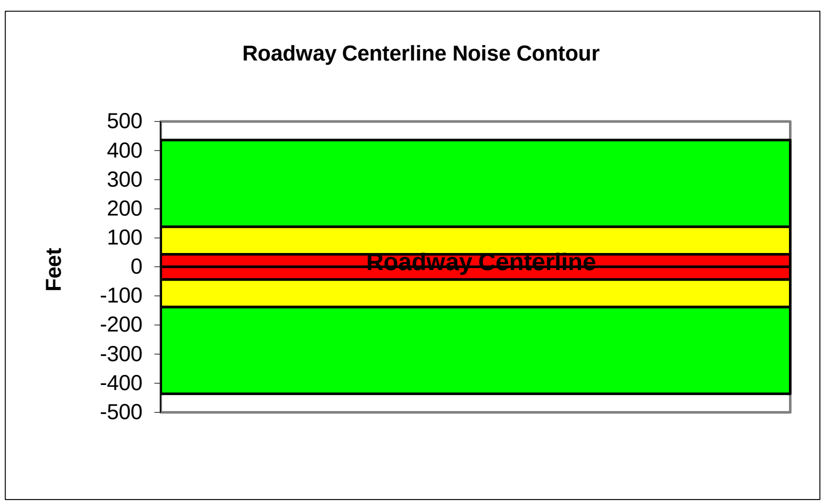
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.7	62.5	60.7	54.6	63.3	63.9
Medium Trucks:	63.4	55.4	49.0	47.4	55.9	56.1
Heavy Trucks:	68.6	56.7	47.6	48.9	58.8	58.9
Vehicle Noise:	**71.1**	**64.4**	**61.3**	**56.6**	**65.1**	**65.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	436
65 dBA	138
70 dBA	44
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	41st Street		
Road Segment:	Capitola Road to Jade Street		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	18977
Peak Hour Traffic:	**1897.7**
Vehicle Speed:	35
Centerline Separation:	34

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

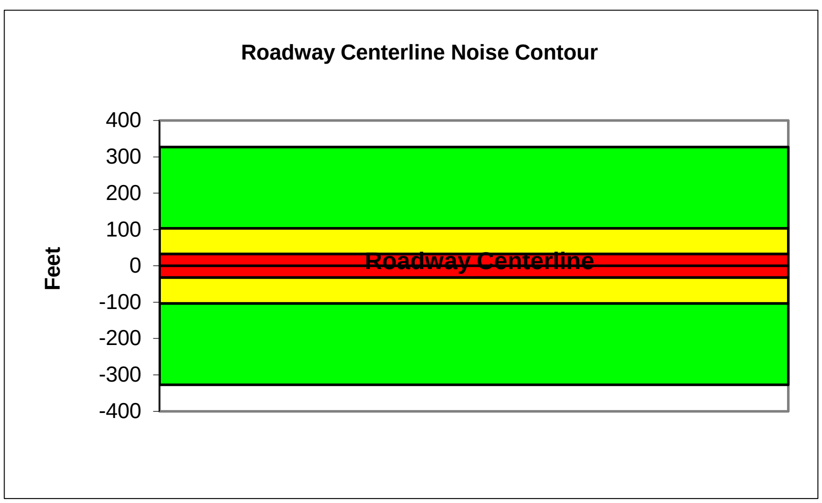
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	52.6	61.4	59.6	53.5	62.2	62.8
Medium Trucks:	62.3	54.3	47.9	46.3	54.8	55.0
Heavy Trucks:	67.6	55.6	46.6	47.8	57.7	57.8
Vehicle Noise:	**70.0**	**63.4**	**60.2**	**55.5**	**64.1**	**64.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	327
65 dBA	103
70 dBA	33
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	41st Street		
Road Segment:	Jade Street to City Limits		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	18977
Peak Hour Traffic:	**1897.7**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

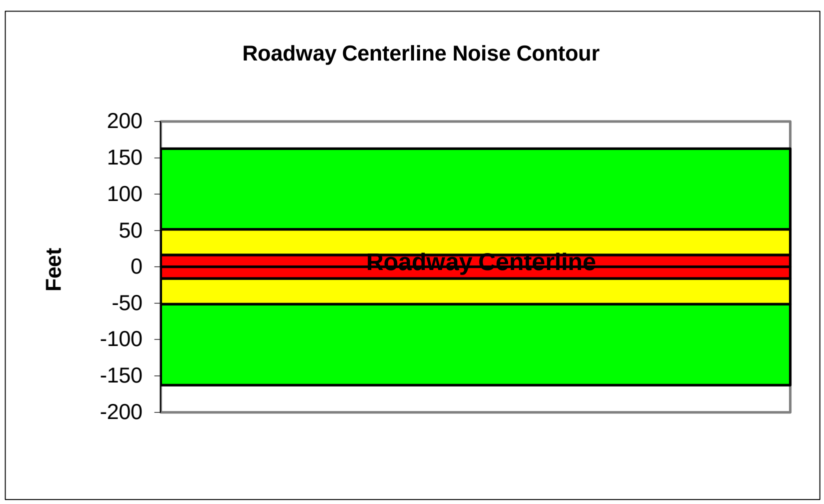
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.6	57.4	55.6	49.5	58.1	58.8
Medium Trucks:	60.2	52.2	45.8	44.2	52.7	52.9
Heavy Trucks:	66.4	54.5	45.4	46.6	57.0	57.1
Vehicle Noise:	**69.1**	**60.6**	**56.6**	**52.7**	**61.3**	**61.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	163
65 dBA	51
70 dBA	16
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Road		
Road Segment:	City Limits to Clares Street		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	18009
Peak Hour Traffic:	**1800.9**
Vehicle Speed:	25
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

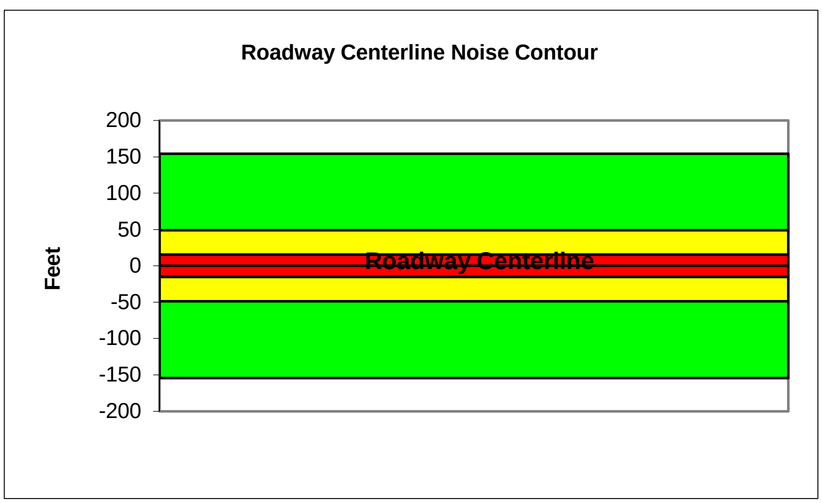
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.2	56.9	55.2	49.1	57.7	58.3
Medium Trucks:	59.8	51.7	45.4	43.8	52.3	52.5
Heavy Trucks:	66.0	54.0	45.0	46.2	56.6	56.7
Vehicle Noise:	**68.6**	**60.2**	**56.1**	**52.3**	**60.8**	**61.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	154
65 dBA	49
70 dBA	15
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Road		
Road Segment:	Clares Street to 41st Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	19022
Peak Hour Traffic:	**1902.2**
Vehicle Speed:	25
Centerline Separation:	38

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

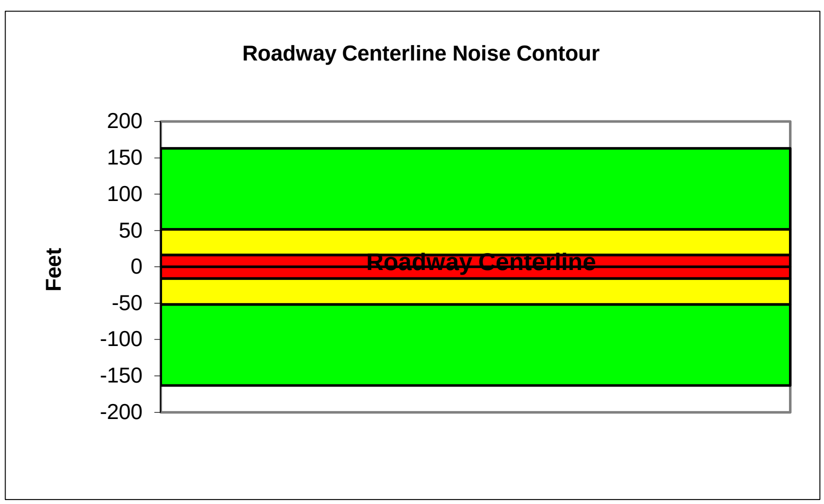
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.4	57.1	55.4	49.3	57.9	58.5
Medium Trucks:	60.0	51.9	45.6	44.0	52.5	52.7
Heavy Trucks:	66.2	54.2	45.2	46.4	56.8	56.9
Vehicle Noise:	**68.8**	**60.4**	**56.4**	**52.5**	**61.1**	**61.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	163
65 dBA	52
70 dBA	16
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Road		
Road Segment:	41st Ave to 42nd Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	13036
Peak Hour Traffic:	**1303.6**
Vehicle Speed:	25
Centerline Separation:	42

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

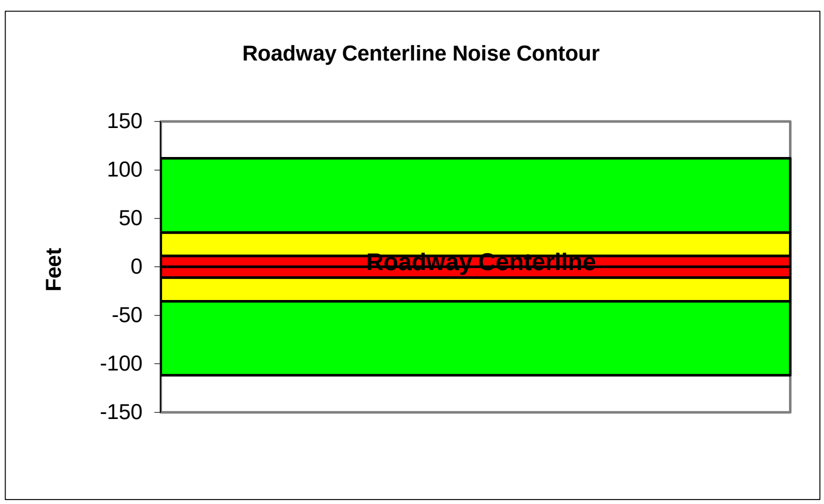
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.7	55.4	53.7	47.6	56.2	56.8
Medium Trucks:	58.3	50.2	43.9	42.3	50.8	51.0
Heavy Trucks:	64.5	52.5	43.5	44.7	55.1	55.2
Vehicle Noise:	**67.1**	**58.7**	**54.7**	**50.8**	**59.3**	**59.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	112
65 dBA	35
70 dBA	11
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Road		
Road Segment:	46th Ave to 49th Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	12771
Peak Hour Traffic:	**1277.1**
Vehicle Speed:	25
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

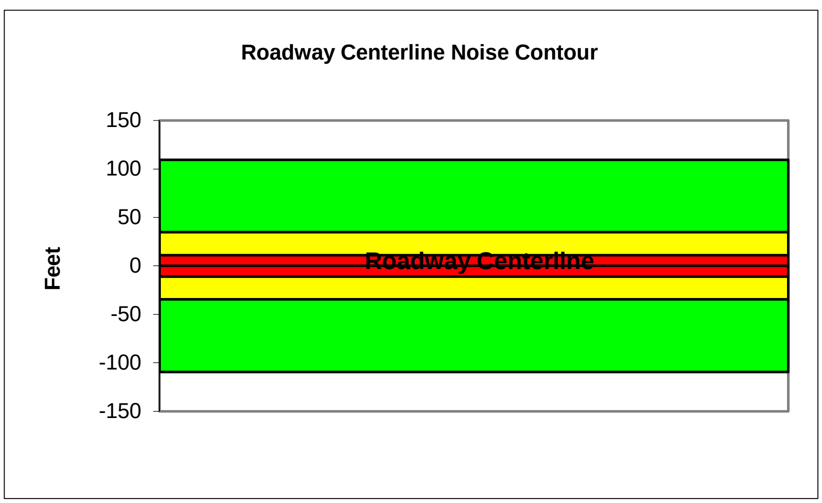
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.9	55.7	53.9	47.9	56.5	57.1
Medium Trucks:	58.6	50.5	44.1	42.6	51.1	51.3
Heavy Trucks:	64.7	52.8	43.7	45.0	55.4	55.5
Vehicle Noise:	**67.4**	**59.0**	**54.9**	**51.1**	**59.6**	**60.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	110
65 dBA	35
70 dBA	11
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Road		
Road Segment:	49th Ave to Wharf Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	8334
Peak Hour Traffic:	**833.4**
Vehicle Speed:	25
Centerline Separation:	22

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

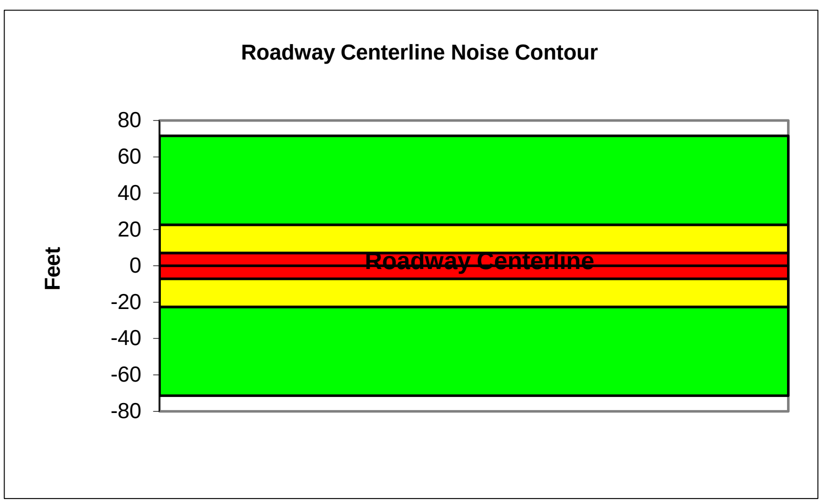
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.1	53.8	52.0	46.0	54.6	55.2
Medium Trucks:	56.7	48.6	42.2	40.7	49.2	49.4
Heavy Trucks:	62.9	50.9	41.9	43.1	53.5	53.6
Vehicle Noise:	**65.5**	**57.1**	**53.0**	**49.2**	**57.7**	**58.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	71
65 dBA	23
70 dBA	7
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Clares Street		
Road Segment:	40th Ave to 41st Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	6440
Peak Hour Traffic:	**644**
Vehicle Speed:	25
Centerline Separation:	26

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

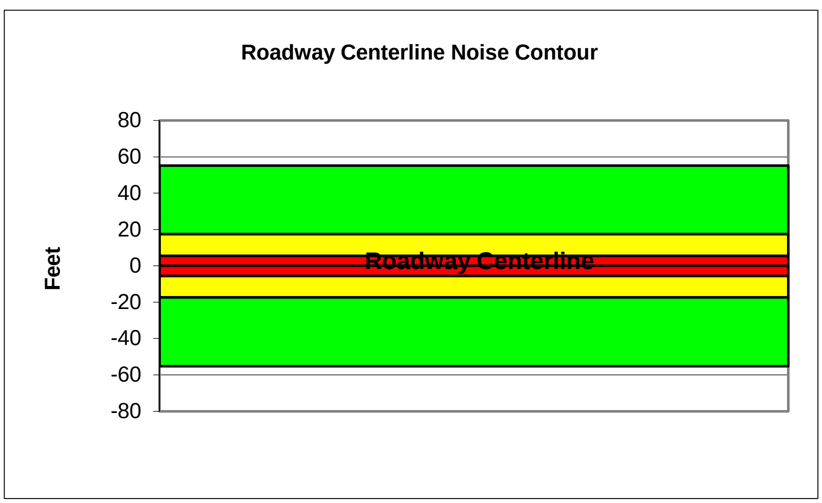
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.9	52.6	50.9	44.8	53.4	54.0
Medium Trucks:	55.5	47.4	41.1	39.5	48.0	48.2
Heavy Trucks:	61.7	49.7	40.7	41.9	52.3	52.4
Vehicle Noise:	**64.3**	**55.9**	**51.8**	**48.0**	**56.5**	**56.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	55
65 dBA	17
70 dBA	6
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Clares Street		
Road Segment:	41st Ave to 42nd Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	4640
Peak Hour Traffic:	**464**
Vehicle Speed:	25
Centerline Separation:	26

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

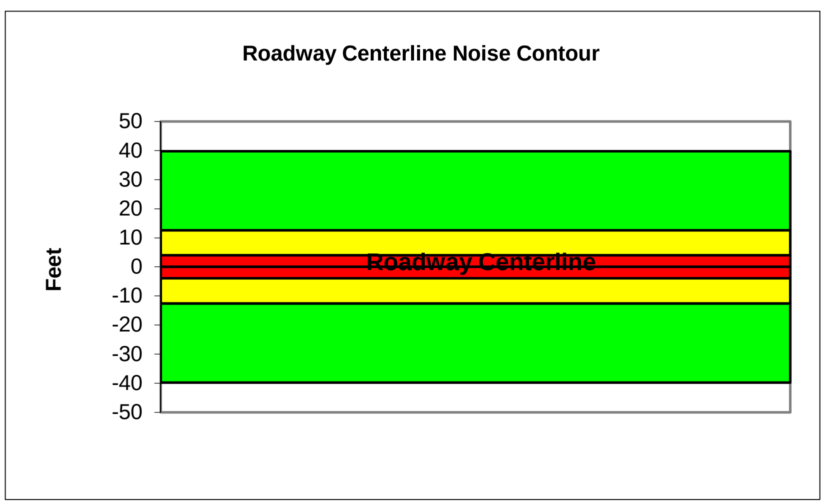
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	42.4	51.2	49.4	43.3	52.0	52.6
Medium Trucks:	54.1	46.0	39.6	38.1	46.6	46.8
Heavy Trucks:	60.2	48.3	39.2	40.5	50.9	51.0
Vehicle Noise:	**62.9**	**54.5**	**50.4**	**46.6**	**55.1**	**55.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	40
65 dBA	13
70 dBA	4
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Clares Street		
Road Segment:	46th Ave to Wharf Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	3400
Peak Hour Traffic:	**340**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

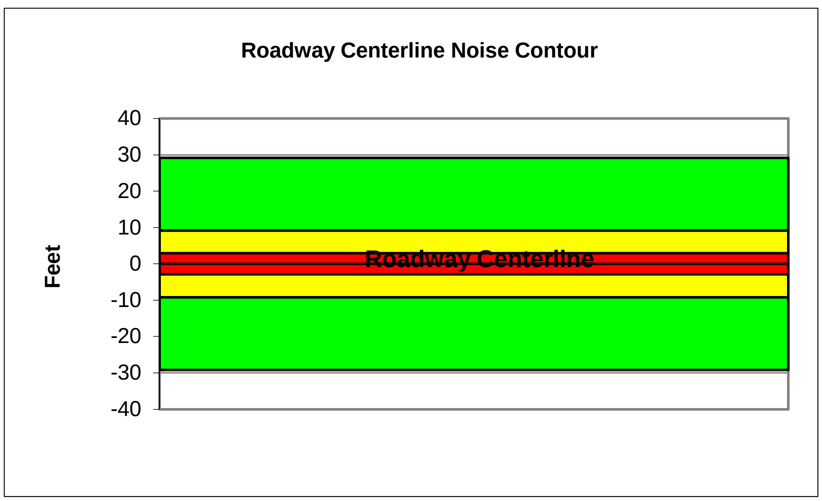
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	41.1	49.9	48.1	42.0	50.7	51.3
Medium Trucks:	52.8	44.7	38.3	36.7	45.2	45.5
Heavy Trucks:	58.9	47.0	37.9	39.2	49.5	49.7
Vehicle Noise:	**61.6**	**53.2**	**49.1**	**45.3**	**53.8**	**54.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	29
65 dBA	9
70 dBA	3
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Wharf Road		
Road Segment:	Clares Street to Captiola Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	2048
Peak Hour Traffic:	**204.8**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

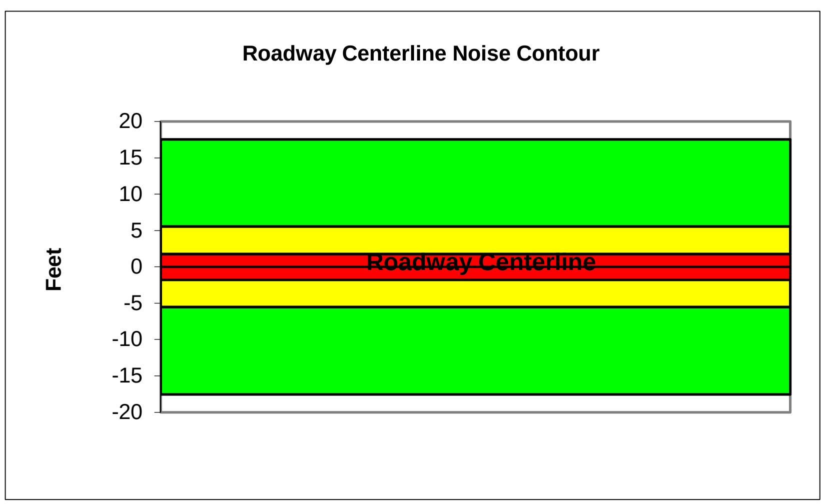
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	38.9	47.7	45.9	39.8	48.5	49.1
Medium Trucks:	50.6	42.5	36.1	34.5	43.0	43.3
Heavy Trucks:	56.7	44.8	35.7	36.9	47.3	47.5
Vehicle Noise:	**59.4**	**50.9**	**46.9**	**43.1**	**51.6**	**52.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	18
65 dBA	6
70 dBA	2
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Wharf Road		
Road Segment:	Captiola Road to Cliff Drive		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	10129
Peak Hour Traffic:	**1012.9**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

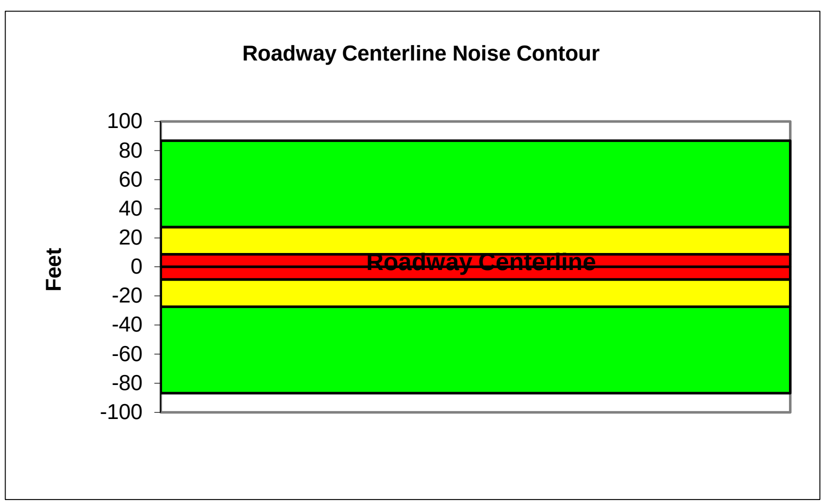
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.9	54.6	52.9	46.8	55.4	56.0
Medium Trucks:	57.5	49.4	43.1	41.5	50.0	50.2
Heavy Trucks:	63.7	51.7	42.7	43.9	54.3	54.4
Vehicle Noise:	**66.3**	**57.9**	**53.8**	**50.0**	**58.5**	**58.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	87
65 dBA	27
70 dBA	9
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Cliff Drive		
Road Segment:	47th Ave to Wharf Road		

PROJECT DATA

Centerline Dist to Barrier:			**0**
Barrier (0=wall, 1= berm):			**0**
Receiver Barrier Dist:			**0**
Centerline Dist. To Observer:			**100**
Barrier Near Lane CL Dist:			**0**
Barrier Far lane CL Dist:			**0**
Pad Elevation:			**0.5**
Road Elevation:			**0**
Observer Height (above grade):			**5.5**
Barrier Height:			**0**
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	8923
Peak Hour Traffic:	**892.3**
Vehicle Speed:	25
Centerline Separation:	22

NOISE INPUTS

Site conditions:**SOFT SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

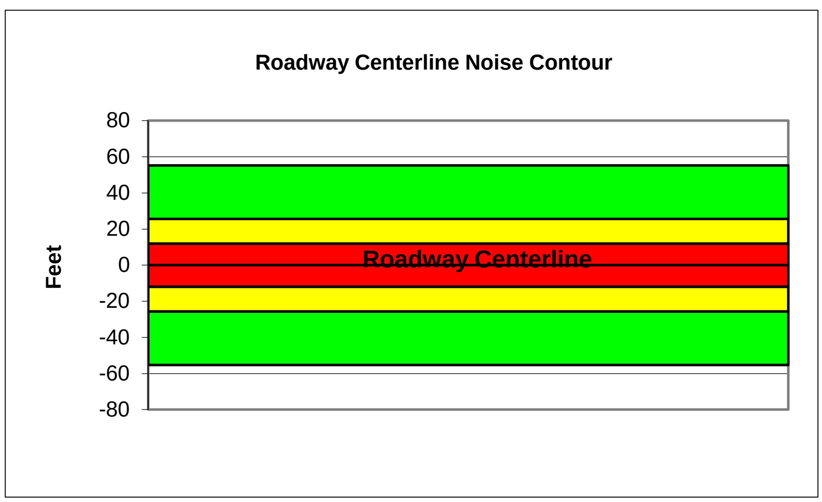
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	42.4	51.2	49.4	43.3	52.0	52.6
Medium Trucks:	54.1	46.0	39.6	38.1	46.5	46.8
Heavy Trucks:	60.2	48.3	39.2	40.5	50.8	51.0
Vehicle Noise:	**62.9**	**54.5**	**50.4**	**46.6**	**55.1**	**55.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	55
65 dBA	26
70 dBA	12
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Cliff Drive		
Road Segment:	Wharf Road to Capitola Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	13179
Peak Hour Traffic:	**1317.9**
Vehicle Speed:	25
Centerline Separation:	22

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

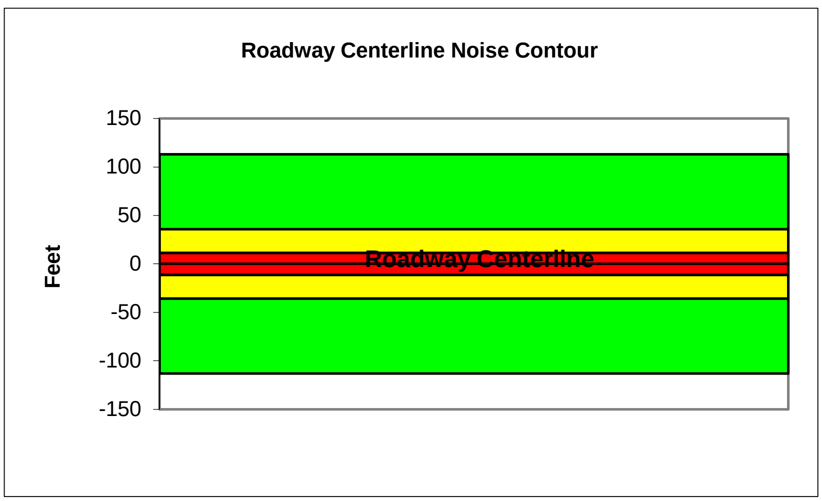
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.0	55.8	54.0	48.0	56.6	57.2
Medium Trucks:	58.7	50.6	44.2	42.7	51.2	51.4
Heavy Trucks:	64.8	52.9	43.8	45.1	55.5	55.6
Vehicle Noise:	**67.5**	**59.1**	**55.0**	**51.2**	**59.7**	**60.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	113
65 dBA	36
70 dBA	11
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Bay Avenue		
Road Segment:	NB SR-1 Ramps to Hill Street		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	19990
Peak Hour Traffic:	**1999**
Vehicle Speed:	25
Centerline Separation:	34

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

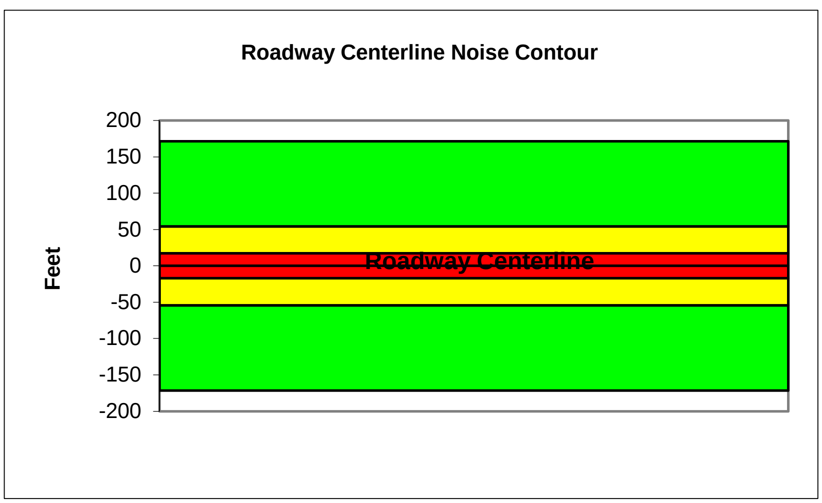
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.6	57.4	55.6	49.6	58.2	58.8
Medium Trucks:	60.3	52.2	45.8	44.3	52.8	53.0
Heavy Trucks:	66.4	54.5	45.5	46.7	57.1	57.2
Vehicle Noise:	**69.1**	**60.7**	**56.6**	**52.8**	**61.3**	**61.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	172
65 dBA	54
70 dBA	17
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Bay Avenue		
Road Segment:	Hill Street to Capitola Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	18922
Peak Hour Traffic:	**1892.2**
Vehicle Speed:	25
Centerline Separation:	34

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

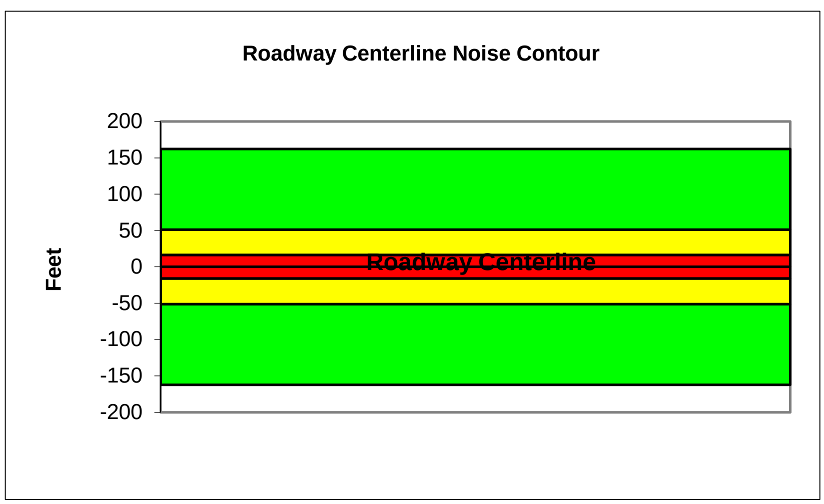
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.4	57.2	55.4	49.3	58.0	58.6
Medium Trucks:	60.1	52.0	45.6	44.0	52.5	52.8
Heavy Trucks:	66.2	54.3	45.2	46.4	56.8	57.0
Vehicle Noise:	**68.9**	**60.4**	**56.4**	**52.6**	**61.1**	**61.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	162
65 dBA	51
70 dBA	16
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Bay Avenue		
Road Segment:	Capitola Ave to Monterey Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	8506
Peak Hour Traffic:	**850.6**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

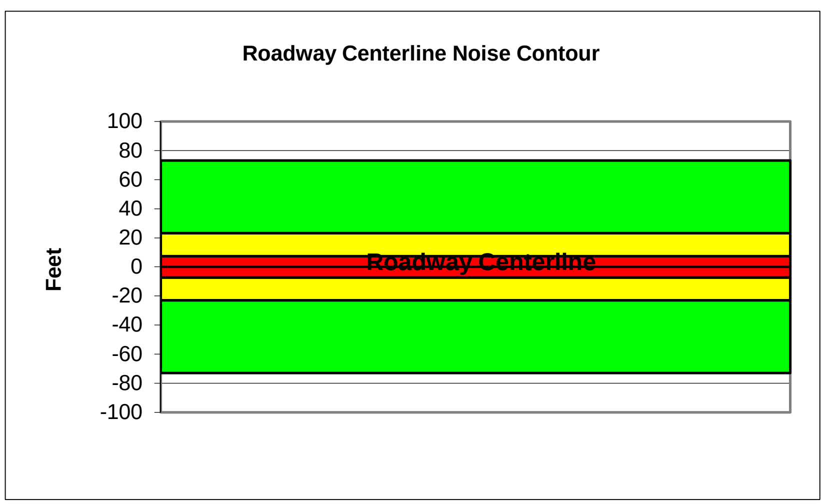
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.1	53.9	52.1	46.0	54.7	55.3
Medium Trucks:	56.8	48.7	42.3	40.7	49.2	49.5
Heavy Trucks:	62.9	51.0	41.9	43.1	53.5	53.6
Vehicle Noise:	**65.6**	**57.1**	**53.1**	**49.3**	**57.8**	**58.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	73
65 dBA	23
70 dBA	7
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Avenue		
Road Segment:	Bay Ave to Riverview Drive		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	5750
Peak Hour Traffic:	**575**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

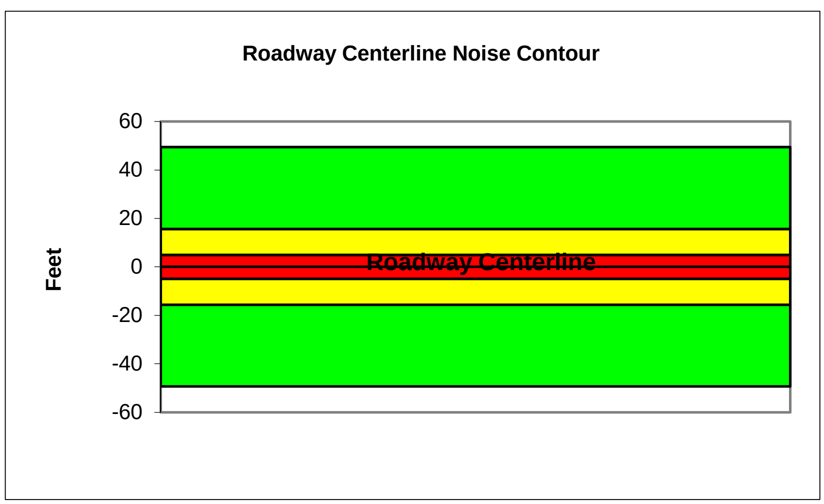
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.4	52.2	50.4	44.3	53.0	53.6
Medium Trucks:	55.1	47.0	40.6	39.0	47.5	47.8
Heavy Trucks:	61.2	49.3	40.2	41.4	51.8	51.9
Vehicle Noise:	**63.9**	**55.4**	**51.4**	**47.6**	**56.1**	**56.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	49
65 dBA	16
70 dBA	5
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Avenue		
Road Segment:	Riverview Drive to Stockton Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	6728
Peak Hour Traffic:	**672.8**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

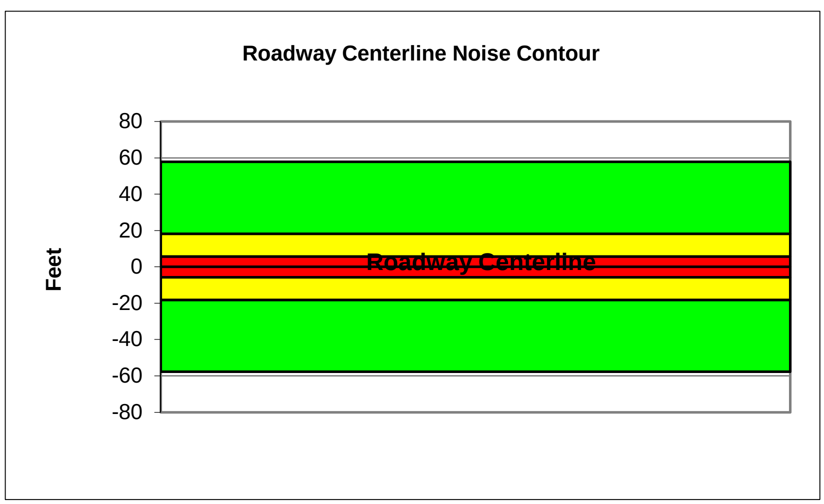
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.1	52.9	51.1	45.0	53.6	54.3
Medium Trucks:	55.7	47.7	41.3	39.7	48.2	48.4
Heavy Trucks:	61.9	50.0	40.9	42.1	52.5	52.6
Vehicle Noise:	**64.5**	**56.1**	**52.1**	**48.2**	**56.8**	**57.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	58
65 dBA	18
70 dBA	6
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Avenue		
Road Segment:	Stockton Ave to Monterey Ave		

PROJECT DATA

Centerline Dist to Barrier			**0**
Barrier (0=wall, 1= berm):			**0**
Receiver Barrier Dist:			**0**
Centerline Dist. To Observer:			**100**
Barrier Near Lane CL Dist:			**0**
Barrier Far lane CL Dist:			**0**
Pad Elevation:			**0.5**
Road Elevation:			**0**
Observer Height (above grade):			**0**
Barrier Height:			**0**
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	6562
Peak Hour Traffic:	**656.2**
Vehicle Speed:	25
Centerline Separation:	22

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

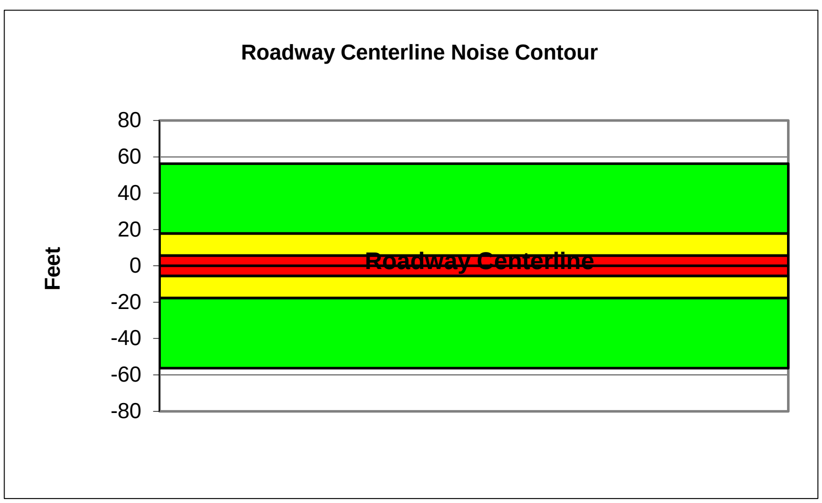
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.0	52.8	51.0	44.9	53.6	54.2
Medium Trucks:	55.7	47.6	41.2	39.6	48.1	48.4
Heavy Trucks:	61.8	49.9	40.8	42.0	52.4	52.6
Vehicle Noise:	**64.5**	**56.0**	**52.0**	**48.2**	**56.7**	**57.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	56
65 dBA	18
70 dBA	6
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Monterey Avenue		
Road Segment:	Washburn Ave to Bay Ave		

PROJECT DATA

Centerline Dist to Barrier			**0**
Barrier (0=wall, 1= berm):			**0**
Receiver Barrier Dist:			**0**
Centerline Dist. To Observer:			**100**
Barrier Near Lane CL Dist:			**0**
Barrier Far lane CL Dist:			**0**
Pad Elevation:			**0.5**
Road Elevation:			**0**
Observer Height (above grade):			**0**
Barrier Height:			**0**
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	4438
Peak Hour Traffic:	**443.8**
Vehicle Speed:	25
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

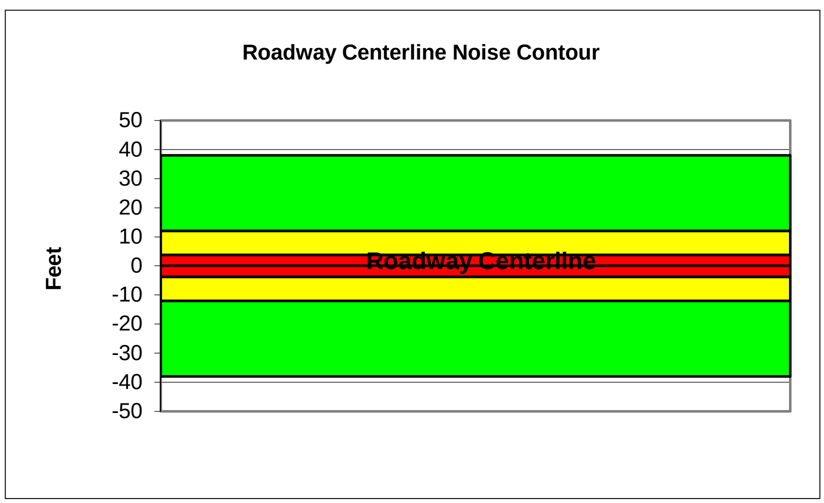
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	42.4	51.1	49.3	43.3	51.9	52.5
Medium Trucks:	54.0	45.9	39.5	38.0	46.5	46.7
Heavy Trucks:	60.2	48.2	39.2	40.4	50.8	50.9
Vehicle Noise:	**62.8**	**54.4**	**50.3**	**46.5**	**55.0**	**55.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	38
65 dBA	12
70 dBA	4
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Monterey Avenue		
Road Segment:	Bay Ave to Park Avenue		

PROJECT DATA

Centerline Dist to Barrier			**0**
Barrier (0=wall, 1= berm):			**0**
Receiver Barrier Dist:			**0**
Centerline Dist. To Observer:			**100**
Barrier Near Lane CL Dist:			**0**
Barrier Far lane CL Dist:			**0**
Pad Elevation:			**0.5**
Road Elevation:			**0**
Observer Height (above grade):			**0**
Barrier Height:			**0**
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	4015
Peak Hour Traffic:	**401.5**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

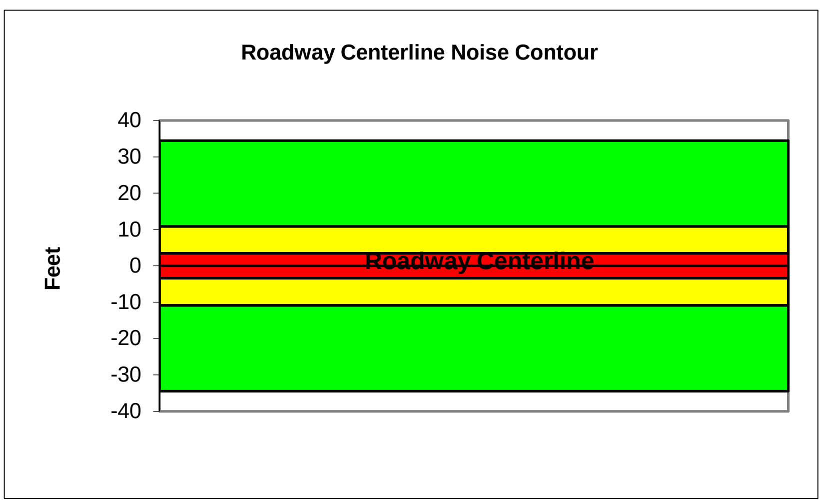
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	41.8	50.6	48.8	42.8	51.4	52.0
Medium Trucks:	53.5	45.4	39.0	37.5	46.0	46.2
Heavy Trucks:	59.6	47.7	38.7	39.9	50.3	50.4
Vehicle Noise:	**62.3**	**53.9**	**49.8**	**46.0**	**54.5**	**54.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	34
65 dBA	11
70 dBA	3
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Monterey Avenue		
Road Segment:	Park Ave to Capitola Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**		
Barrier (0=wall, 1= berm):	**0**		
Receiver Barrier Dist:	**0**		
Centerline Dist. To Observer:	**100**		
Barrier Near Lane CL Dist:	**0**		
Barrier Far lane CL Dist:	**0**		
Pad Elevation:	**0.5**		
Road Elevation:	**0**		
Observer Height (above grade):	**0**		
Barrier Height:	**0**		
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	9758
Peak Hour Traffic:	**975.8**
Vehicle Speed:	25
Centerline Separation:	22

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

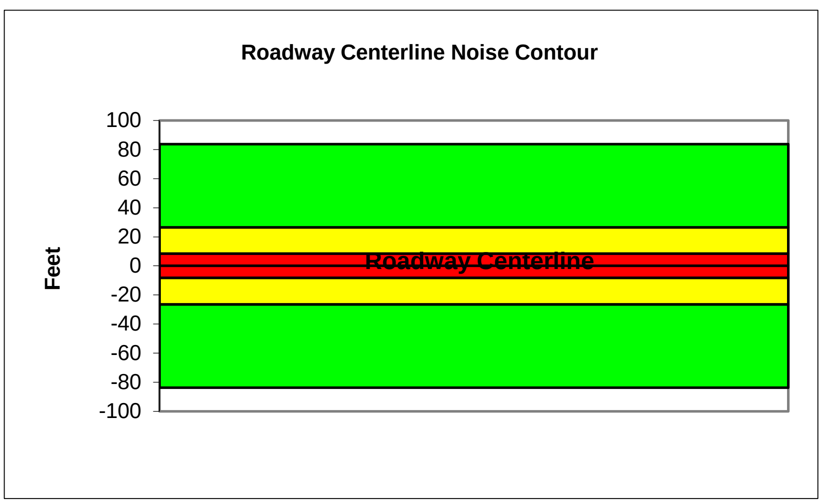
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	45.7	54.5	52.7	46.6	55.3	55.9
Medium Trucks:	57.4	49.3	42.9	41.4	49.8	50.1
Heavy Trucks:	63.5	51.6	42.5	43.8	54.2	54.3
Vehicle Noise:	**66.2**	**57.8**	**53.7**	**49.9**	**58.4**	**58.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	84
65 dBA	27
70 dBA	8
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Park Avenue		
Road Segment:	NB SR-1 Ramps to Kennedy Drive		

PROJECT DATA

Centerline Dist to Barrier:	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**5.5**
Barrier Height:	**0**
Rt View: **90** Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	21715
Peak Hour Traffic:	**2171.5**
Vehicle Speed:	30
Centerline Separation:	24

NOISE INPUTS

Site conditions:**SOFT SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

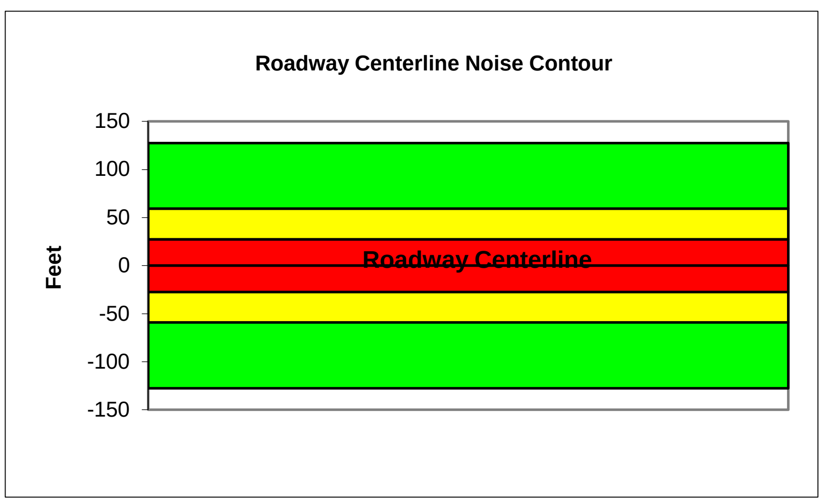
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.5	57.3	55.5	49.4	58.1	58.7
Medium Trucks:	59.1	51.1	44.7	43.1	51.6	51.8
Heavy Trucks:	64.8	52.8	43.8	45.0	55.1	55.3
Vehicle Noise:	**67.3**	**59.8**	**56.2**	**51.9**	**60.5**	**60.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	127
65 dBA	59
70 dBA	27
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Park Avenue		
Road Segment:	Kennedy Drive to Coronado Street		

PROJECT DATA

Centerline Dist to Barrier:			**0**
Barrier (0=wall, 1= berm):			**0**
Receiver Barrier Dist:			**0**
Centerline Dist. To Observer:			**100**
Barrier Near Lane CL Dist:			**0**
Barrier Far lane CL Dist:			**0**
Pad Elevation:			**0.5**
Road Elevation:			**0**
Observer Height (above grade):			**5.5**
Barrier Height:			**0**
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	9607
Peak Hour Traffic:	**960.7**
Vehicle Speed:	35
Centerline Separation:	20

NOISE INPUTS

Site conditions:**SOFT SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

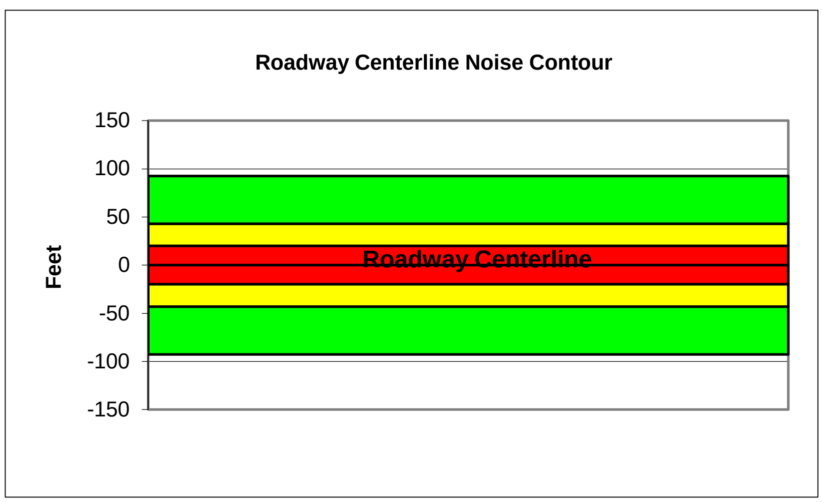
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.0	55.8	54.0	47.9	56.6	57.2
Medium Trucks:	56.7	48.7	42.3	40.7	49.2	49.4
Heavy Trucks:	62.0	50.0	41.0	42.2	52.1	52.2
Vehicle Noise:	**64.4**	**57.8**	**54.6**	**49.9**	**58.4**	**58.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	93
65 dBA	43
70 dBA	20
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Existing
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Park Ave		
Road Segment:	Coronado Street to Monterey Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	8648
Peak Hour Traffic:	**864.8**
Vehicle Speed:	30
Centerline Separation:	22

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

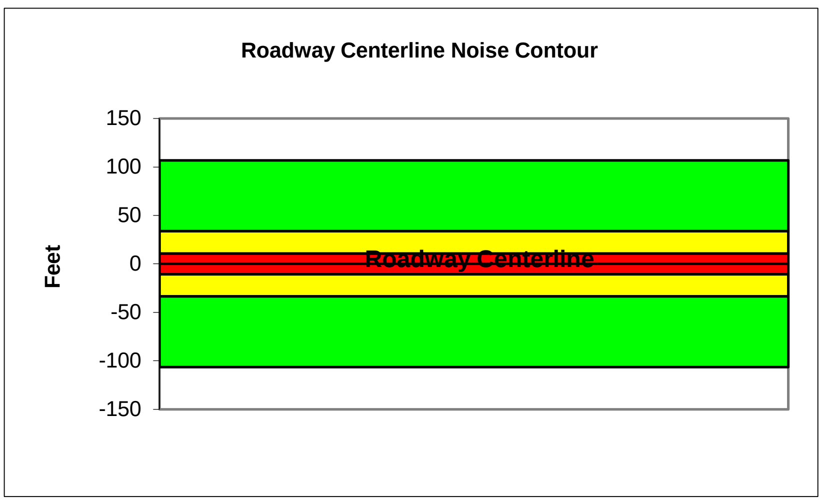
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.5	56.3	54.5	48.4	57.1	57.7
Medium Trucks:	58.1	50.0	43.6	42.1	50.6	50.8
Heavy Trucks:	63.7	51.8	42.7	44.0	54.1	54.2
Vehicle Noise:	**66.3**	**58.8**	**55.2**	**50.9**	**59.4**	**59.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	107
65 dBA	34
70 dBA	11
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	41st Street		
Road Segment:	NB SR-1 Ramps to Gross Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	35397
Peak Hour Traffic:	**3539.7**
Vehicle Speed:	35
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

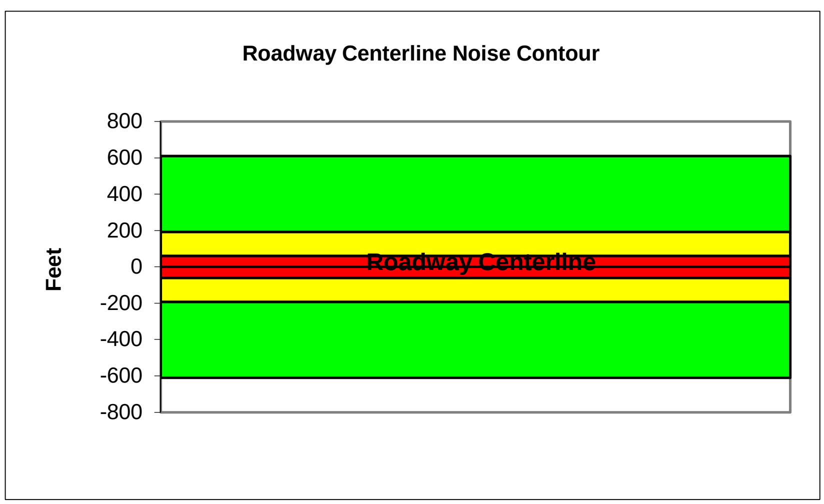
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.3	64.1	62.3	56.2	64.9	65.5
Medium Trucks:	65.0	57.0	50.6	49.0	57.5	57.7
Heavy Trucks:	70.2	58.3	49.2	50.5	60.4	60.5
Vehicle Noise:	**72.7**	**66.0**	**62.9**	**58.2**	**66.7**	**67.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	611
65 dBA	193
70 dBA	61
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	41st Street		
Road Segment:	Gross Road to Clares Street		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	55335
Peak Hour Traffic:	**5533.5**
Vehicle Speed:	35
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

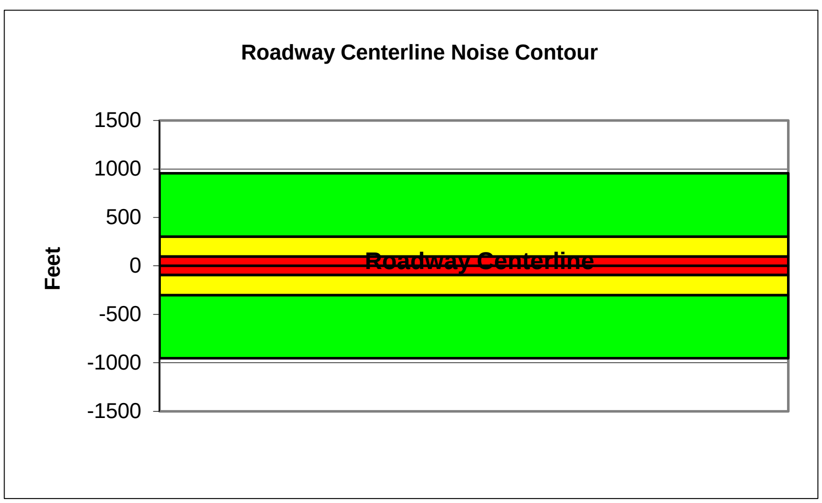
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	57.2	66.0	64.2	58.2	66.8	67.4
Medium Trucks:	67.0	58.9	52.5	50.9	59.4	59.7
Heavy Trucks:	72.2	60.2	51.2	52.4	62.3	62.4
Vehicle Noise:	**74.6**	**68.0**	**64.8**	**60.1**	**68.7**	**69.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	955
65 dBA	302
70 dBA	95
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	41st Street		
Road Segment:	Clares Street to Capitola Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	35841
Peak Hour Traffic:	**3584.1**
Vehicle Speed:	35
Centerline Separation:	45

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

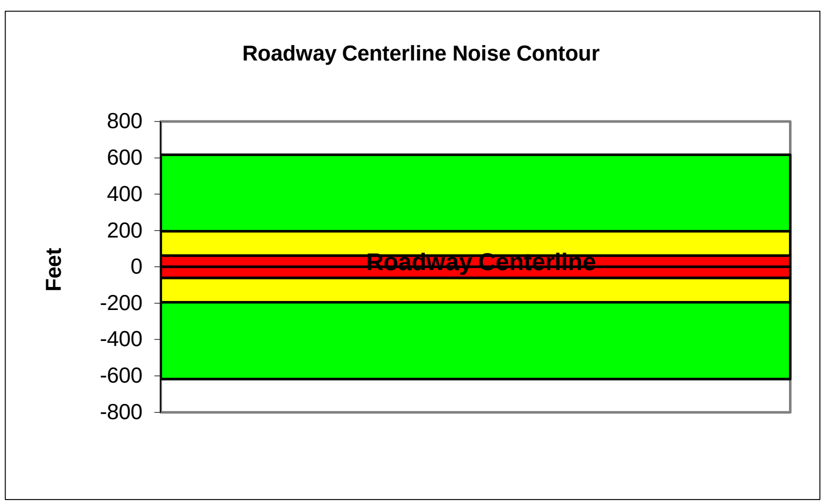
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	55.2	64.0	62.2	56.1	64.8	65.4
Medium Trucks:	64.9	56.9	50.5	48.9	57.4	57.6
Heavy Trucks:	70.2	58.2	49.2	50.4	60.3	60.4
Vehicle Noise:	**72.6**	**66.0**	**62.8**	**58.1**	**66.7**	**67.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	618
65 dBA	195
70 dBA	62
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	41st Street		
Road Segment:	Capitola Road to Jade Street		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	23152
Peak Hour Traffic:	**2315.2**
Vehicle Speed:	35
Centerline Separation:	34

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

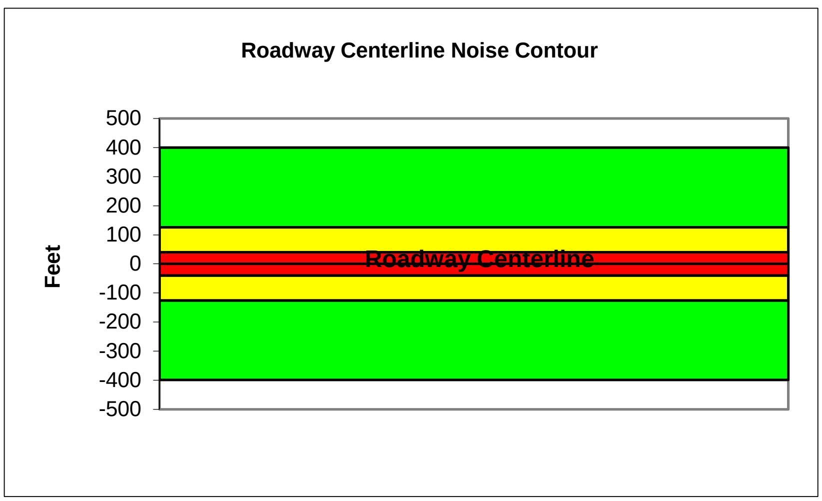
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	53.5	62.3	60.5	54.4	63.1	63.7
Medium Trucks:	63.2	55.1	48.8	47.2	55.7	55.9
Heavy Trucks:	68.4	56.5	47.4	48.7	58.6	58.7
Vehicle Noise:	**70.9**	**64.2**	**61.0**	**56.4**	**64.9**	**65.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	400
65 dBA	126
70 dBA	40
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	41st Street		
Road Segment:	Jade Street to City Limits		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	20389
Peak Hour Traffic:	**2038.9**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

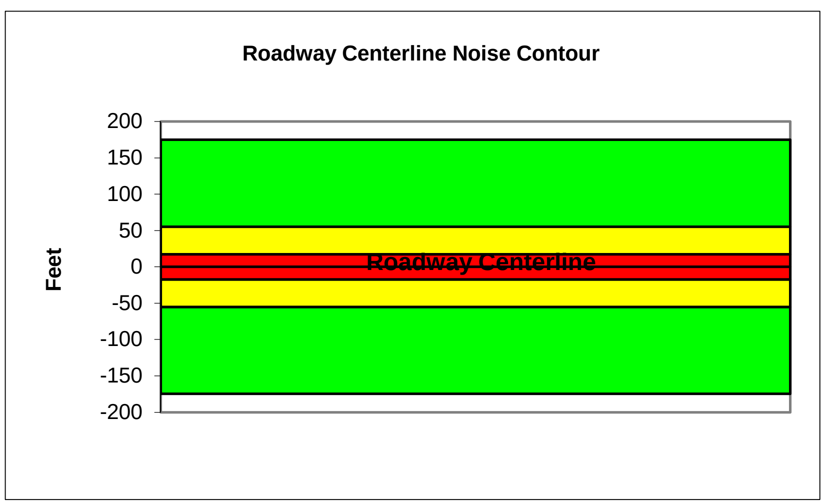
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.9	57.7	55.9	49.8	58.5	59.1
Medium Trucks:	60.5	52.5	46.1	44.5	53.0	53.2
Heavy Trucks:	66.7	54.8	45.7	46.9	57.3	57.4
Vehicle Noise:	**69.4**	**60.9**	**56.9**	**53.1**	**61.6**	**62.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	175
65 dBA	55
70 dBA	17
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Road		
Road Segment:	City Limits to Clares Street		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	22107
Peak Hour Traffic:	**2210.7**
Vehicle Speed:	25
Centerline Separation:	36

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

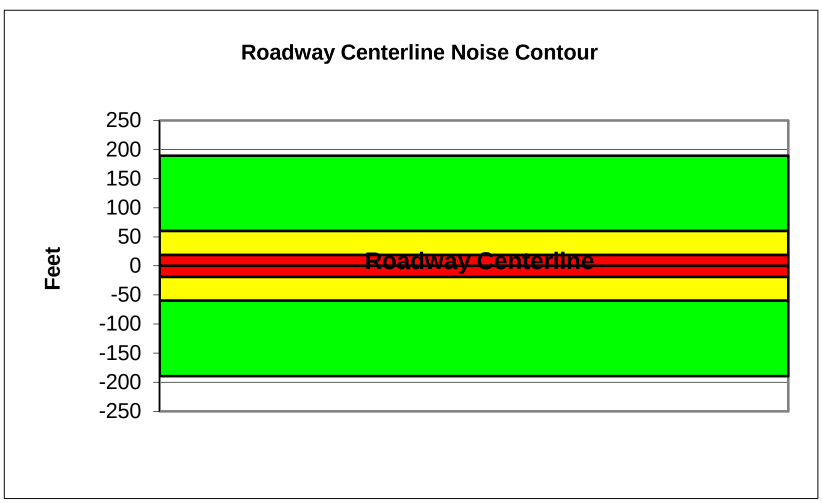
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.1	57.8	56.0	50.0	58.6	59.2
Medium Trucks:	60.7	52.6	46.3	44.7	53.2	53.4
Heavy Trucks:	66.9	54.9	45.9	47.1	57.5	57.6
Vehicle Noise:	**69.5**	**61.1**	**57.0**	**53.2**	**61.7**	**62.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	190
65 dBA	60
70 dBA	19
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Road		
Road Segment:	Clares Street to 41st Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	26700
Peak Hour Traffic:	**2670**
Vehicle Speed:	25
Centerline Separation:	38

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

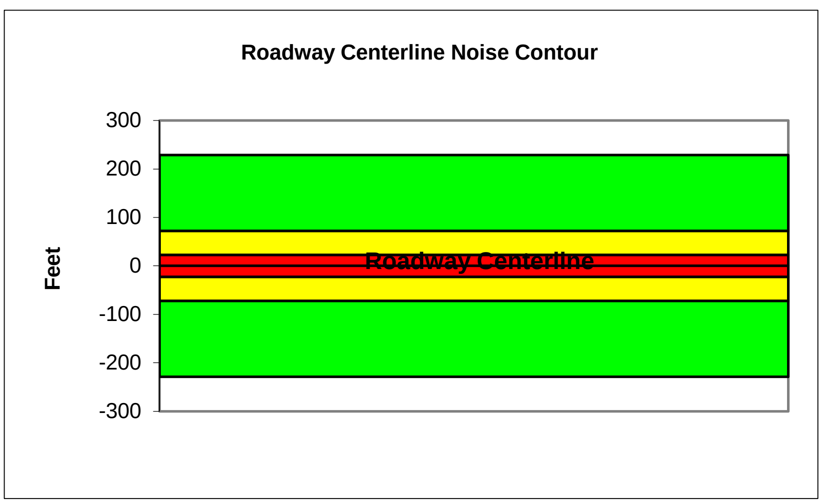
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.8	58.6	56.8	50.8	59.4	60.0
Medium Trucks:	61.5	53.4	47.0	45.5	54.0	54.2
Heavy Trucks:	67.6	55.7	46.6	47.9	58.3	58.4
Vehicle Noise:	**70.3**	**61.9**	**57.8**	**54.0**	**62.5**	**62.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	229
65 dBA	72
70 dBA	23
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Road		
Road Segment:	41st Ave to 42nd Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	15420
Peak Hour Traffic:	**1542**
Vehicle Speed:	25
Centerline Separation:	42

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

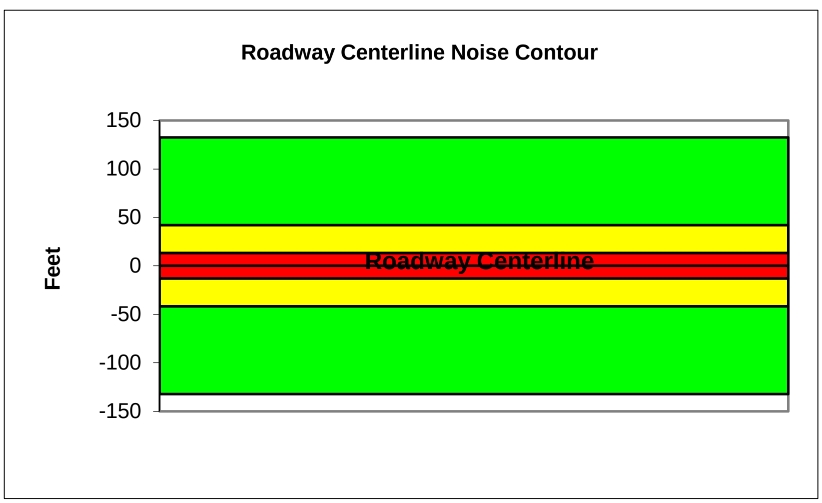
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.4	56.2	54.4	48.3	57.0	57.6
Medium Trucks:	59.0	51.0	44.6	43.0	51.5	51.7
Heavy Trucks:	65.2	53.3	44.2	45.4	55.8	55.9
Vehicle Noise:	**67.9**	**59.4**	**55.4**	**51.6**	**60.1**	**60.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	132
65 dBA	42
70 dBA	13
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Road		
Road Segment:	46th Ave to 49th Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	15132
Peak Hour Traffic:	**1513.2**
Vehicle Speed:	25
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

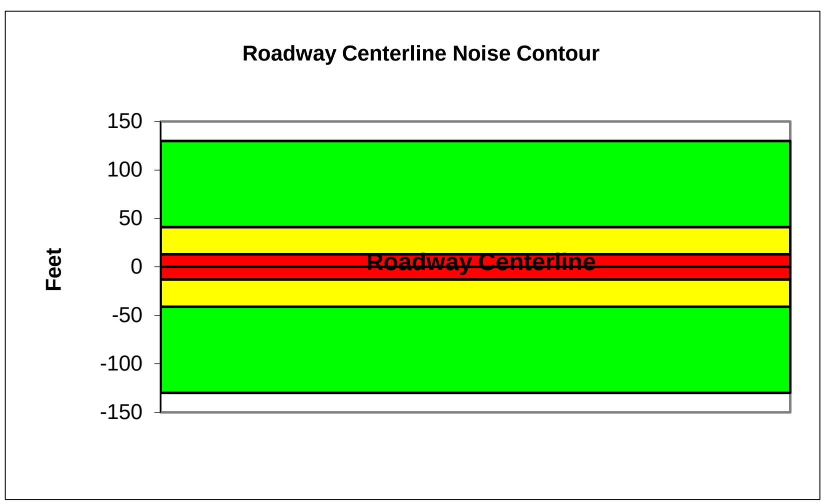
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	47.7	56.5	54.7	48.6	57.2	57.8
Medium Trucks:	59.3	51.3	44.9	43.3	51.8	52.0
Heavy Trucks:	65.5	53.5	44.5	45.7	56.1	56.2
Vehicle Noise:	**68.1**	**59.7**	**55.7**	**51.8**	**60.4**	**60.7**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	130
65 dBA	41
70 dBA	13
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Road		
Road Segment:	49th Ave to Wharf Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	10406
Peak Hour Traffic:	**1040.6**
Vehicle Speed:	25
Centerline Separation:	22

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

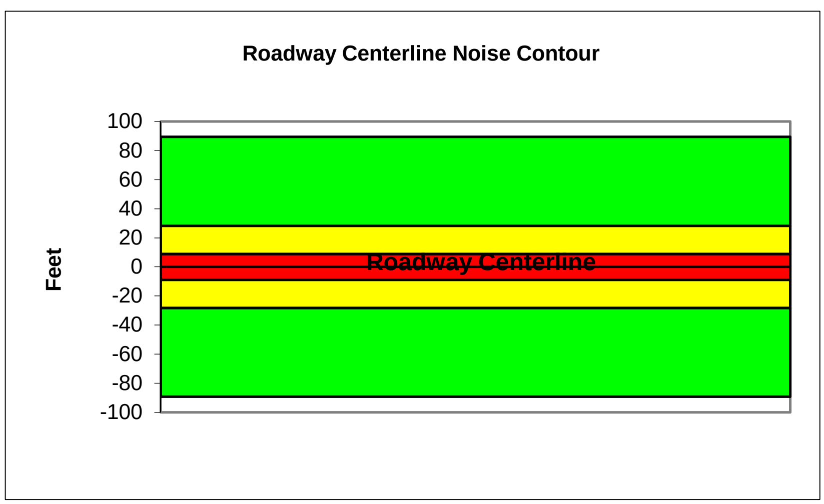
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.0	54.8	53.0	46.9	55.6	56.2
Medium Trucks:	57.7	49.6	43.2	41.6	50.1	50.4
Heavy Trucks:	63.8	51.9	42.8	44.0	54.4	54.6
Vehicle Noise:	**66.5**	**58.0**	**54.0**	**50.2**	**58.7**	**59.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	89
65 dBA	28
70 dBA	9
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Clares Street		
Road Segment:	40th Ave to 41st Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	7310
Peak Hour Traffic:	**731**
Vehicle Speed:	25
Centerline Separation:	26

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

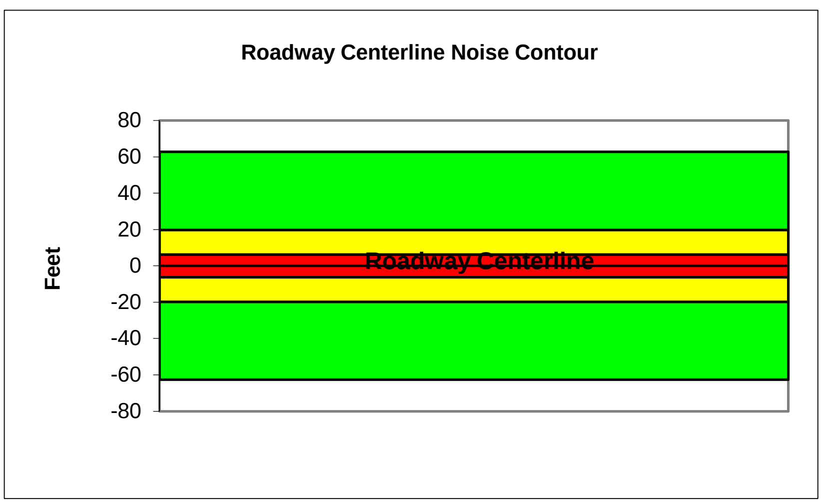
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.4	53.2	51.4	45.3	54.0	54.6
Medium Trucks:	56.1	48.0	41.6	40.0	48.5	48.8
Heavy Trucks:	62.2	50.3	41.2	42.4	52.8	53.0
Vehicle Noise:	**64.9**	**56.4**	**52.4**	**48.6**	**57.1**	**57.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	63
65 dBA	20
70 dBA	6
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Clares Street		
Road Segment:	41st Ave to 42nd Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	4988
Peak Hour Traffic:	**498.8**
Vehicle Speed:	25
Centerline Separation:	26

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

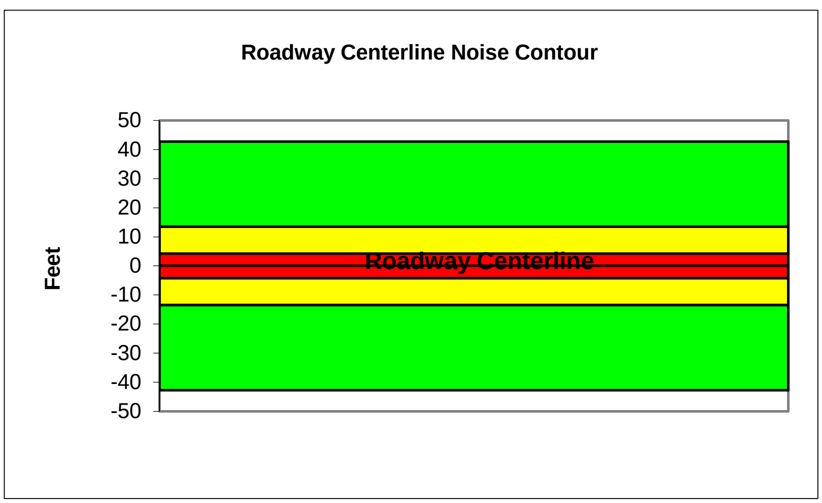
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	42.8	51.5	49.7	43.7	52.3	52.9
Medium Trucks:	54.4	46.3	40.0	38.4	46.9	47.1
Heavy Trucks:	60.6	48.6	39.6	40.8	51.2	51.3
Vehicle Noise:	**63.2**	**54.8**	**50.7**	**46.9**	**55.4**	**55.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	43
65 dBA	14
70 dBA	4
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Clares Street		
Road Segment:	46th Ave to Wharf Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	3621
Peak Hour Traffic:	**362.1**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

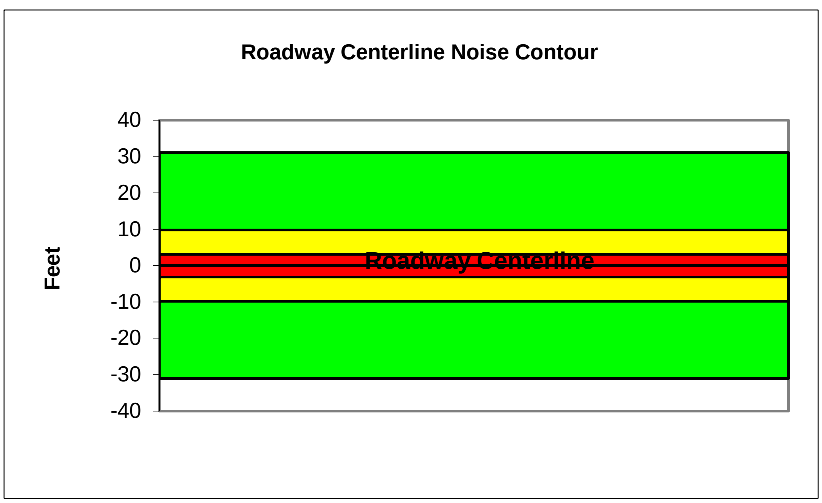
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	41.4	50.2	48.4	42.3	51.0	51.6
Medium Trucks:	53.0	45.0	38.6	37.0	45.5	45.7
Heavy Trucks:	59.2	47.3	38.2	39.4	49.8	49.9
Vehicle Noise:	**61.9**	**53.4**	**49.4**	**45.6**	**54.1**	**54.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	31
65 dBA	10
70 dBA	3
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Wharf Road		
Road Segment:	Clares Street to Captiola Road		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	2560
Peak Hour Traffic:	**256**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

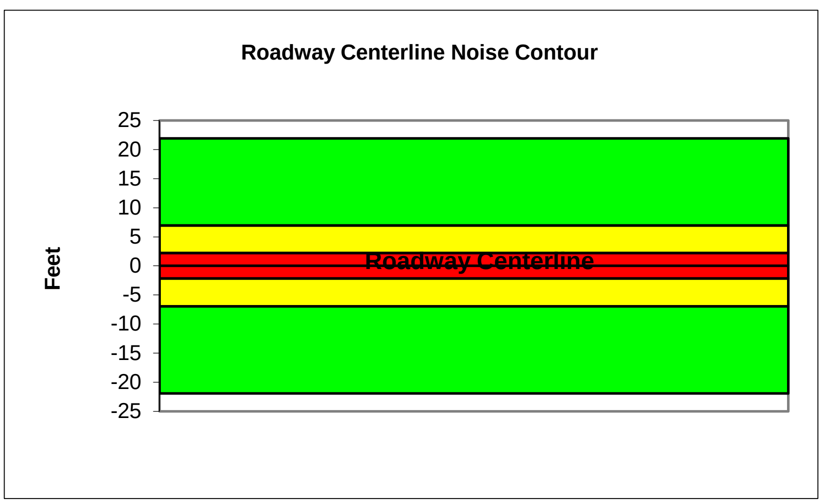
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	39.9	48.7	46.9	40.8	49.5	50.1
Medium Trucks:	51.5	43.5	37.1	35.5	44.0	44.2
Heavy Trucks:	57.7	45.8	36.7	37.9	48.3	48.4
Vehicle Noise:	**60.4**	**51.9**	**47.9**	**44.0**	**52.6**	**53.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	22
65 dBA	7
70 dBA	2
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Wharf Road		
Road Segment:	Captiola Road to Cliff Drive		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	12407
Peak Hour Traffic:	**1240.7**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

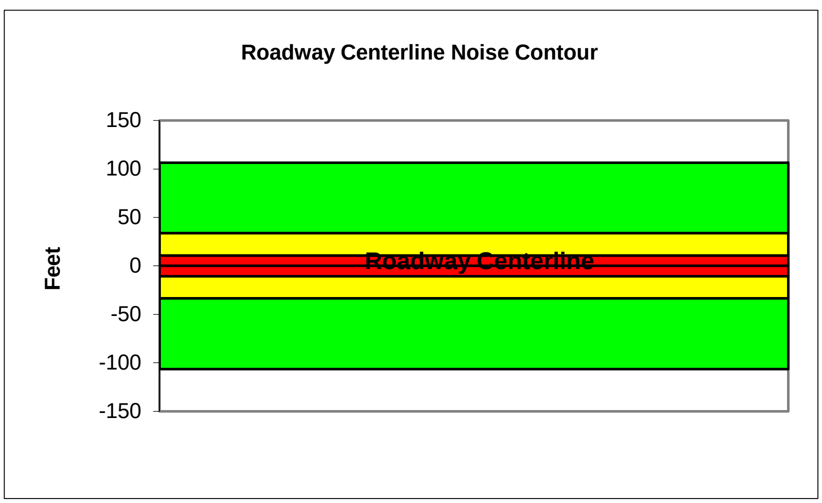
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.7	55.5	53.7	47.7	56.3	56.9
Medium Trucks:	58.4	50.3	43.9	42.4	50.9	51.1
Heavy Trucks:	64.5	52.6	43.6	44.8	55.2	55.3
Vehicle Noise:	**67.2**	**58.8**	**54.7**	**50.9**	**59.4**	**59.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	107
65 dBA	34
70 dBA	11
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Cliff Drive		
Road Segment:	47th Ave to Wharf Road		

PROJECT DATA

Centerline Dist to Barrier:			**0**
Barrier (0=wall, 1= berm):			**0**
Receiver Barrier Dist:			**0**
Centerline Dist. To Observer:			**100**
Barrier Near Lane CL Dist:			**0**
Barrier Far lane CL Dist:			**0**
Pad Elevation:			**0.5**
Road Elevation:			**0**
Observer Height (above grade):			**5.5**
Barrier Height:			**0**
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	10385
Peak Hour Traffic:	**1038.5**
Vehicle Speed:	25
Centerline Separation:	22

NOISE INPUTS

Site conditions:**SOFT SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

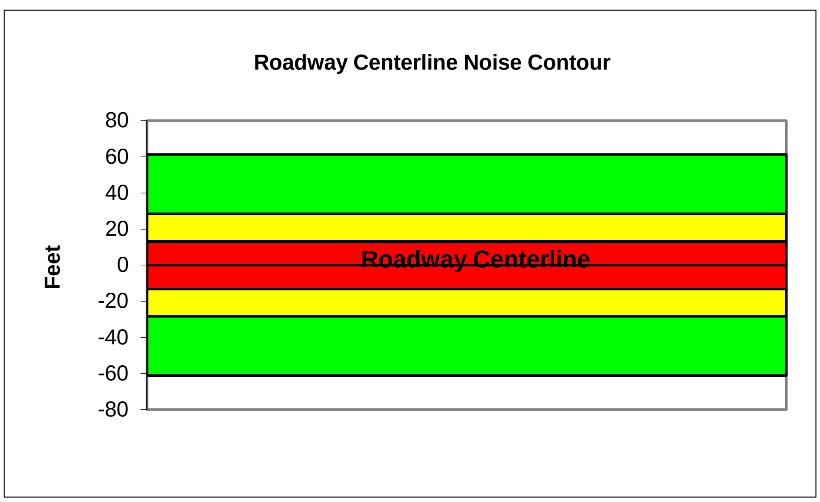
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.1	51.9	50.1	44.0	52.7	53.3
Medium Trucks:	54.7	46.7	40.3	38.7	47.2	47.4
Heavy Trucks:	60.9	49.0	39.9	41.1	51.5	51.6
Vehicle Noise:	**63.6**	**55.1**	**51.1**	**47.3**	**55.8**	**56.2**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	61
65 dBA	28
70 dBA	13
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Cliff Drive		
Road Segment:	Wharf Road to Capitola Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	16527
Peak Hour Traffic:	**1652.7**
Vehicle Speed:	25
Centerline Separation:	22

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

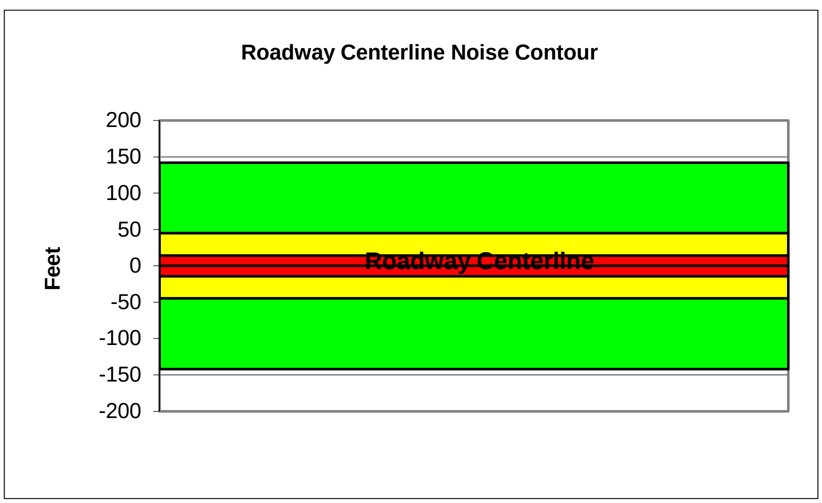
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.0	56.8	55.0	48.9	57.6	58.2
Medium Trucks:	59.7	51.6	45.2	43.6	52.1	52.4
Heavy Trucks:	65.8	53.9	44.8	46.1	56.4	56.6
Vehicle Noise:	**68.5**	**60.1**	**56.0**	**52.2**	**60.7**	**61.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	142
65 dBA	45
70 dBA	14
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Bay Avenue		
Road Segment:	NB SR-1 Ramps to Hill Street		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	20899
Peak Hour Traffic:	**2089.9**
Vehicle Speed:	25
Centerline Separation:	34

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

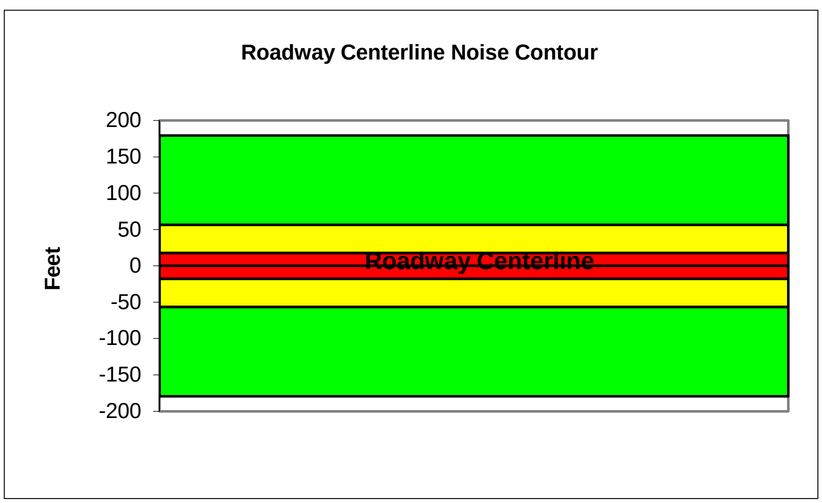
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.8	57.6	55.8	49.8	58.4	59.0
Medium Trucks:	60.5	52.4	46.0	44.5	53.0	53.2
Heavy Trucks:	66.6	54.7	45.6	46.9	57.3	57.4
Vehicle Noise:	**69.3**	**60.9**	**56.8**	**53.0**	**61.5**	**61.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	179
65 dBA	57
70 dBA	18
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Bay Avenue		
Road Segment:	Hill Street to Capitola Ave		

PROJECT DATA

Centerline Dist to Barrier			**0**
Barrier (0=wall, 1= berm):			**0**
Receiver Barrier Dist:			**0**
Centerline Dist. To Observer:			**100**
Barrier Near Lane CL Dist:			**0**
Barrier Far lane CL Dist:			**0**
Pad Elevation:			**0.5**
Road Elevation:			**0**
Observer Height (above grade):			**0**
Barrier Height:			**0**
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	24261
Peak Hour Traffic:	**2426.1**
Vehicle Speed:	25
Centerline Separation:	34

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

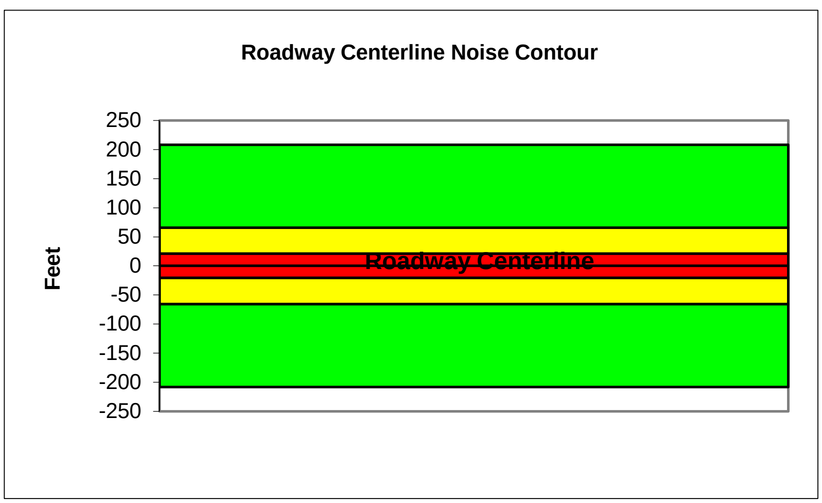
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.5	58.3	56.5	50.4	59.0	59.7
Medium Trucks:	61.1	53.1	46.7	45.1	53.6	53.8
Heavy Trucks:	67.3	55.4	46.3	47.5	57.9	58.0
Vehicle Noise:	**70.0**	**61.5**	**57.5**	**53.6**	**62.2**	**62.6**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	208
65 dBA	66
70 dBA	21
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Bay Avenue		
Road Segment:	Capitola Ave to Monterey Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	10506
Peak Hour Traffic:	**1050.6**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

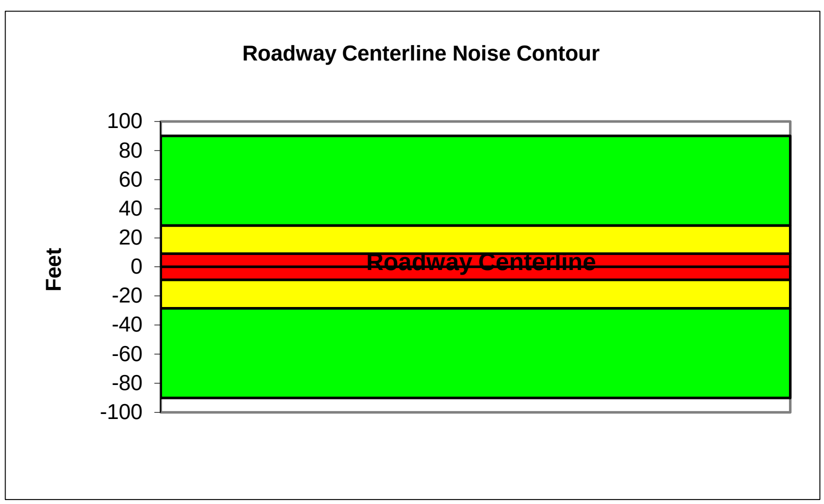
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.0	54.8	53.0	46.9	55.6	56.2
Medium Trucks:	57.7	49.6	43.2	41.6	50.1	50.4
Heavy Trucks:	63.8	51.9	42.8	44.1	54.4	54.6
Vehicle Noise:	**66.5**	**58.1**	**54.0**	**50.2**	**58.7**	**59.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	90
65 dBA	28
70 dBA	9
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Avenue		
Road Segment:	Bay Ave to Riverview Drive		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	7261
Peak Hour Traffic:	**726.1**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

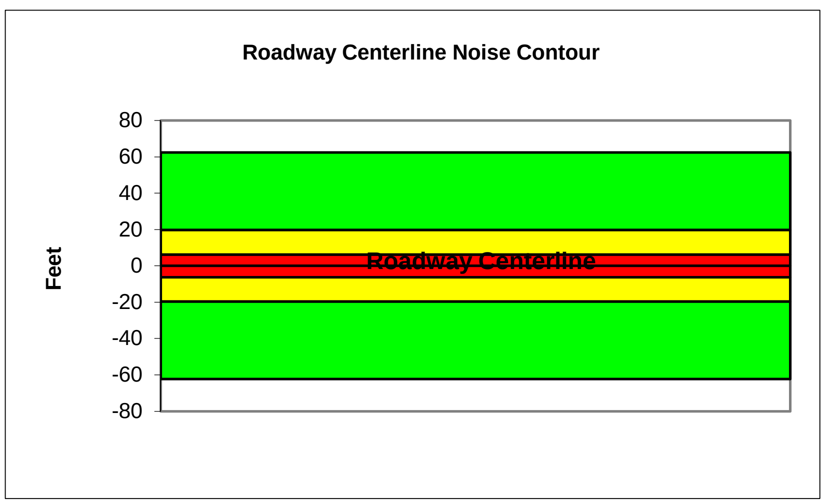
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.4	53.2	51.4	45.3	54.0	54.6
Medium Trucks:	56.1	48.0	41.6	40.0	48.5	48.8
Heavy Trucks:	62.2	50.3	41.2	42.4	52.8	53.0
Vehicle Noise:	**64.9**	**56.4**	**52.4**	**48.6**	**57.1**	**57.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	62
65 dBA	20
70 dBA	6
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Avenue		
Road Segment:	Riverview Drive to Stockton Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	8028
Peak Hour Traffic:	**802.8**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

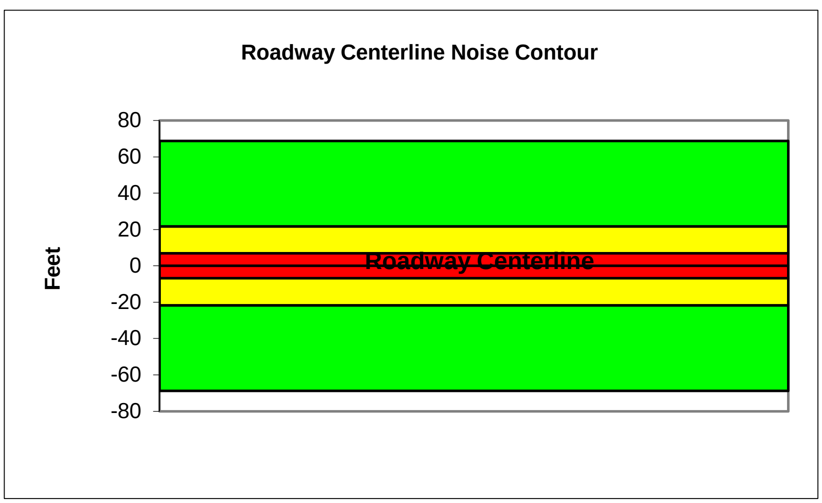
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.9	53.6	51.8	45.8	54.4	55.0
Medium Trucks:	56.5	48.4	42.1	40.5	49.0	49.2
Heavy Trucks:	62.7	50.7	41.7	42.9	53.3	53.4
Vehicle Noise:	**65.3**	**56.9**	**52.8**	**49.0**	**57.5**	**57.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	69
65 dBA	22
70 dBA	7
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Capitola Avenue		
Road Segment:	Stockton Ave to Monterey Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	7676
Peak Hour Traffic:	**767.6**
Vehicle Speed:	25
Centerline Separation:	22

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

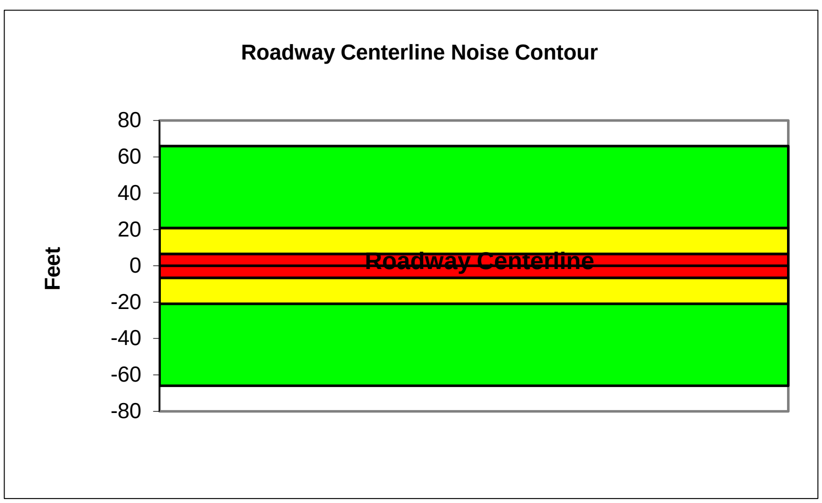
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	44.7	53.5	51.7	45.6	54.3	54.9
Medium Trucks:	56.3	48.3	41.9	40.3	48.8	49.0
Heavy Trucks:	62.5	50.6	41.5	42.7	53.1	53.2
Vehicle Noise:	**65.2**	**56.7**	**52.7**	**48.9**	**57.4**	**57.8**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	66
65 dBA	21
70 dBA	7
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Monterey Avenue		
Road Segment:	Washburn Ave to Bay Ave		

PROJECT DATA

Centerline Dist to Barrier			**0**
Barrier (0=wall, 1= berm):			**0**
Receiver Barrier Dist:			**0**
Centerline Dist. To Observer:			**100**
Barrier Near Lane CL Dist:			**0**
Barrier Far lane CL Dist:			**0**
Pad Elevation:			**0.5**
Road Elevation:			**0**
Observer Height (above grade):			**0**
Barrier Height:			**0**
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	6286
Peak Hour Traffic:	**628.6**
Vehicle Speed:	25
Centerline Separation:	20

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

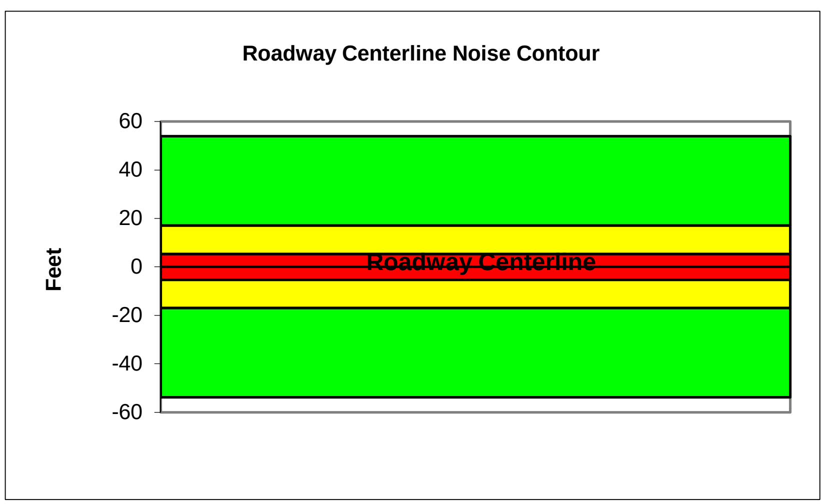
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.9	52.6	50.9	44.8	53.4	54.0
Medium Trucks:	55.5	47.4	41.1	39.5	48.0	48.2
Heavy Trucks:	61.7	49.7	40.7	41.9	52.3	52.4
Vehicle Noise:	**64.3**	**55.9**	**51.8**	**48.0**	**56.5**	**56.9**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	54
65 dBA	17
70 dBA	5
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Monterey Avenue		
Road Segment:	Bay Ave to Park Avenue		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	5778
Peak Hour Traffic:	**577.8**
Vehicle Speed:	25
Centerline Separation:	24

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

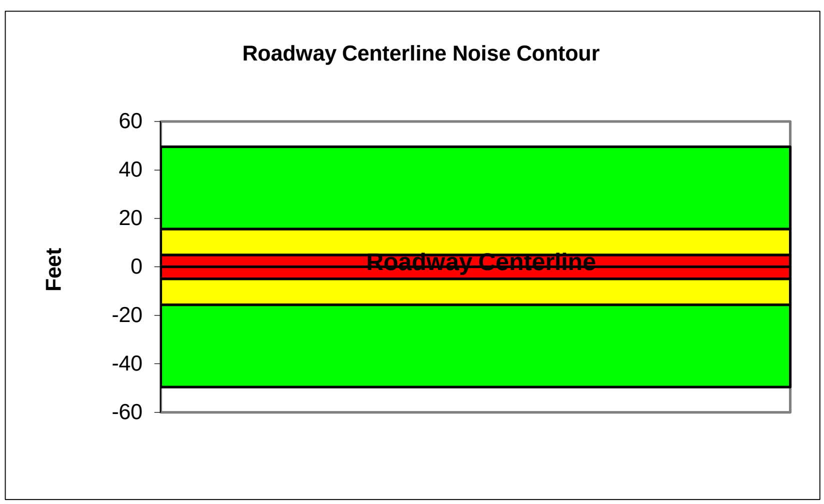
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	43.4	52.2	50.4	44.3	53.0	53.6
Medium Trucks:	55.1	47.0	40.6	39.1	47.5	47.8
Heavy Trucks:	61.2	49.3	40.2	41.5	51.8	52.0
Vehicle Noise:	**63.9**	**55.5**	**51.4**	**47.6**	**56.1**	**56.5**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	50
65 dBA	16
70 dBA	5
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Monterey Avenue		
Road Segment:	Park Ave to Capitola Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	12709
Peak Hour Traffic:	**1270.9**
Vehicle Speed:	25
Centerline Separation:	22

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

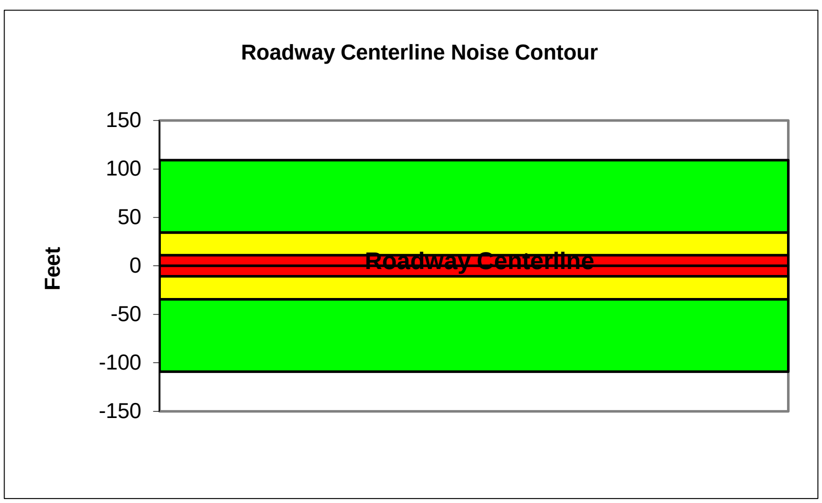
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	46.9	55.7	53.9	47.8	56.4	57.1
Medium Trucks:	58.5	50.5	44.1	42.5	51.0	51.2
Heavy Trucks:	64.7	52.7	43.7	44.9	55.3	55.4
Vehicle Noise:	**67.3**	**58.9**	**54.9**	**51.0**	**59.6**	**60.0**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	109
65 dBA	35
70 dBA	11
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Park Avenue		
Road Segment:	NB SR-1 Ramps to Kennedy Drive		

PROJECT DATA

Centerline Dist to Barrier:	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**5.5**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	28894
Peak Hour Traffic:	**2889.4**
Vehicle Speed:	30
Centerline Separation:	24

NOISE INPUTS

Site conditions:**SOFT SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

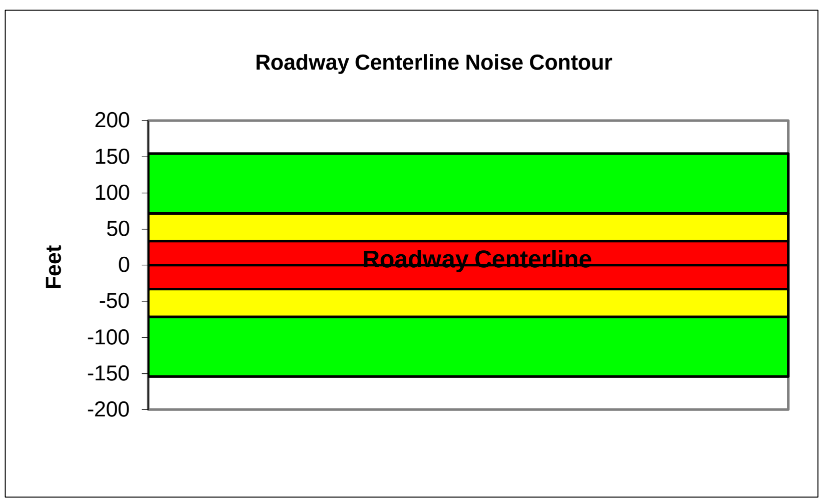
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.8	58.5	56.8	50.7	59.3	59.9
Medium Trucks:	60.4	52.3	45.9	44.3	52.8	53.1
Heavy Trucks:	66.0	54.1	45.0	46.2	56.4	56.5
Vehicle Noise:	**68.5**	**61.0**	**57.5**	**53.2**	**61.7**	**62.1**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	154
65 dBA	72
70 dBA	33
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Park Avenue		
Road Segment:	Kennedy Drive to Coronado Street		

PROJECT DATA

Centerline Dist to Barrier:			**0**
Barrier (0=wall, 1= berm):			**0**
Receiver Barrier Dist:			**0**
Centerline Dist. To Observer:			**100**
Barrier Near Lane CL Dist:			**0**
Barrier Far lane CL Dist:			**0**
Pad Elevation:			**0.5**
Road Elevation:			**0**
Observer Height (above grade):			**5.5**
Barrier Height:			**0**
Rt View:	**90**	Lft View:	**-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	13278
Peak Hour Traffic:	**1327.8**
Vehicle Speed:	35
Centerline Separation:	20

NOISE INPUTS

Site conditions:**SOFT SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

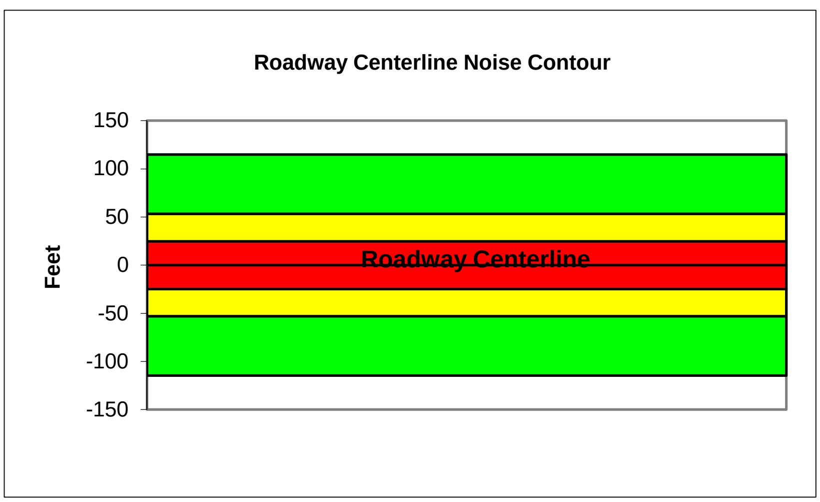
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	48.4	57.2	55.4	49.3	58.0	58.6
Medium Trucks:	58.1	50.1	43.7	42.1	50.6	50.8
Heavy Trucks:	63.4	51.4	42.4	43.6	53.5	53.6
Vehicle Noise:	**65.8**	**59.2**	**56.0**	**51.3**	**59.9**	**60.3**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	115
65 dBA	53
70 dBA	25
Mitigated	
60 dBA	
65 dBA	
70 dBA	



Federal Highway Administration RD-77-108
Traffic Noise Prediction Model (CALVENO)

Project Name:	Capitola General Plan	Scenario:	Future
Analyst:	Ryan Chiene	Job #:	70-100329
Roadway:	Park Ave		
Road Segment:	Coronado Street to Monterey Ave		

PROJECT DATA

Centerline Dist to Barrier	**0**
Barrier (0=wall, 1= berm):	**0**
Receiver Barrier Dist:	**0**
Centerline Dist. To Observer:	**100**
Barrier Near Lane CL Dist:	**0**
Barrier Far lane CL Dist:	**0**
Pad Elevation:	**0.5**
Road Elevation:	**0**
Observer Height (above grade):	**0**
Barrier Height:	**0**
Rt View: **90**	Lft View: **-90**

NOISE SOURCE ELEVATIONS (Feet)

Autos:	**0**
Medium Trucks:	**2.3**
Heavy Trucks:	**8**

SITE DATA

Road Grade:	0
Average Daily Traffic:	12310
Peak Hour Traffic:	**1231**
Vehicle Speed:	30
Centerline Separation:	22

NOISE INPUTS

Site conditions **HARD SITE**

FLEET MIX

Type	Day	Evening	Night	Daily
Auto	0.775	0.129	0.096	0.9742
Med. Truck	0.848	0.049	0.103	0.0184
Heavy Truck	0.865	0.027	0.108	0.0074

UNMITIGATED NOISE LEVELS (No topographic or barrier attenuation)

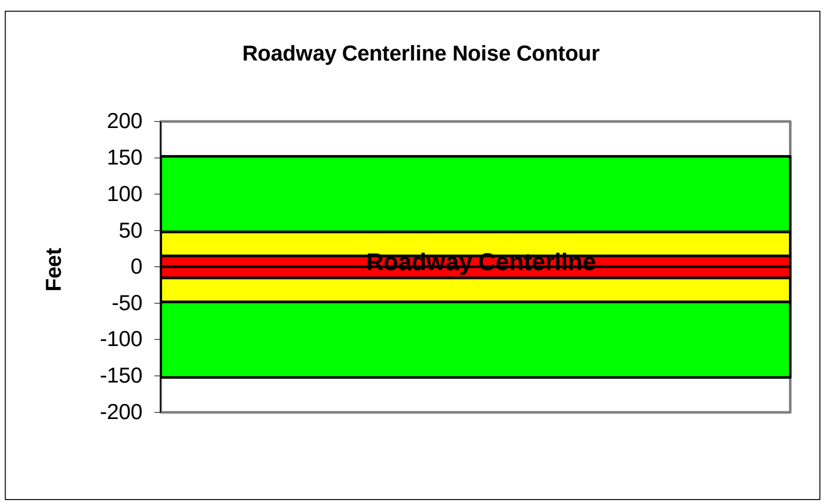
Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:	49.0	57.8	56.0	49.9	58.6	59.2
Medium Trucks:	59.6	51.6	45.2	43.6	52.1	52.3
Heavy Trucks:	65.3	53.3	44.3	45.5	55.6	55.8
Vehicle Noise:	**67.8**	**60.3**	**56.7**	**52.4**	**61.0**	**61.4**

MITIGATED NOISE LEVELS (With topographic or barrier attenuation)

Vehicle Type	Peak Leq	Leq Day	Leq Evening	Leq Night	Ldn	CNEL
Autos:						
Medium Trucks:						
Heavy Trucks:						
Vehicle Noise:						

CENTERLINE NOISE CONTOUR

Unmitigated	
60 dBA	152
65 dBA	48
70 dBA	15
Mitigated	
60 dBA	
65 dBA	
70 dBA	



APPENDIX D

TRAFFIC

Appendix D1: Transportation and Parking White Paper

imagine Capitola

City of Capitola General Plan

White Paper # 3
Transportation & Parking

Prepared by

RBF CONSULTING

and

Kimley-Horn and Associates, Inc.

April 2011

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A. Capitola Redevelopment Agency – Capital Improvement Program, Fiscal Year 2010-11

B. City of Capitola Report on Parking Expansion (April 2010)

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Introduction

This white paper addresses traffic and transportation in Capitola. Topics addressed include circulation, traffic safety, trucking and goods movements, transit services, and non-vehicular transportation (bike, pedestrian and train). This white paper also discusses traffic and transportation issues associated with the three Special Study Areas, namely, 41st Avenue/Capitola Mall, Capitola Village, and Bay Avenue.

A particular focus has been given to parking in Capitola as it is of critical concern to the City and the community. Parking issues in the Village are discussed in the Capitola Village Special Study Area section.

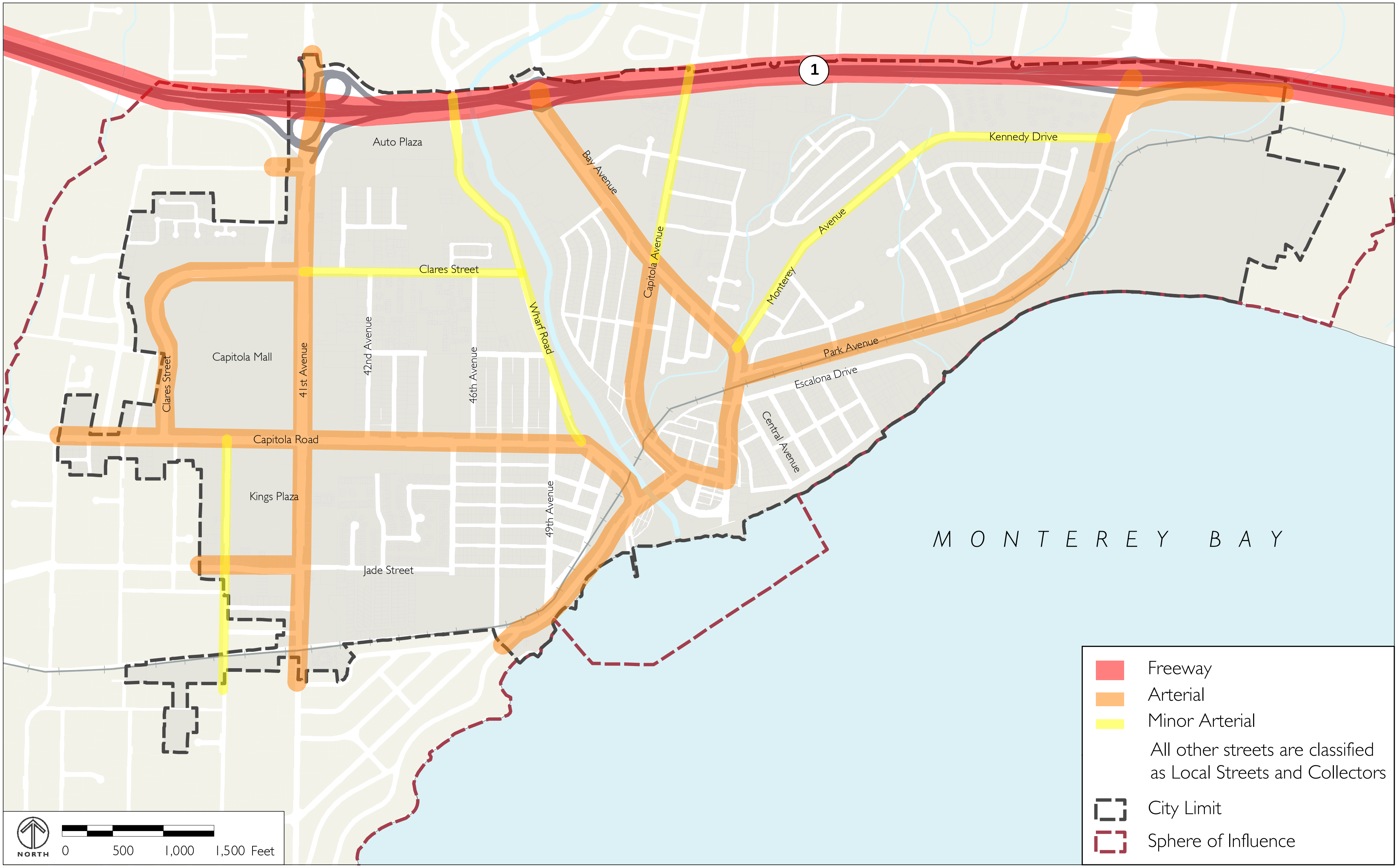
Traffic and parking have long been an issue in Capitola

Circulation

Existing Roadway Network

The existing roadway network in Capitola consists of freeways, arterials, collectors and local streets. In the past, streets have often been classified by their function, commonly referred to as the functional classification system (FCS). This traditional FCS is based on the mobility and access functions of roads for motor vehicle traffic. The FCS allows traffic/transportation engineers to properly design roads. Each class (category) of road has certain design guidelines. These guidelines ensure safety, ease of maneuverability and therefore dictates the cost of construction.

Street classifications are described in Table 3-1: Capitola Street Classifications and are illustrated in Figure 3-1: Existing Roadway Network.



Source: City of Capitola and RBF Consulting, 2011.

FIGURE 3-1

EXISTING ROADWAY NETWORK

Table 3-1: Capitola Street Classifications

Street Classification	Description	Existing Average Daily Traffic Range [1]	Capitola Streets [2]
Principal Arterial (Freeway)	Serves major centers of activity with the highest traffic volumes and longest trip lengths. Integrated internally and between major rural connections. Service to abutting lands is subordinate to travel service to major traffic movements. Design types are interstate, other freeways and other principal arterials.	> 80,000	Highway 1
Arterial	Trips of moderate length at a lower level of mobility than principal arterials. Some emphasis on land access. Often carry local bus routes and provide intra-community continuity but does not access neighborhoods.	6,500 to 45,000	41st Avenue, Gross Road from Soquel Avenue to 41st, Clares Street west of 41st, Brommer Street, Bay Avenue, Capitola Road, East Cliff, Capitola Avenue south of Bay, Monterey Avenue south of Bay and Park Avenue.
Minor Arterials	Provides both land access and traffic circulation within all areas. Accesses neighborhoods and communities collecting and distributing traffic between neighborhoods and the arterial streets.	800 to 4,500	Clares Street (east of 41st), Wharf Road, 38th Avenue, Capitola Avenue (north of Bay), Monterey Avenue (north of Bay) and Kennedy Drive
Local Streets	Primarily permits direct land access and connections to the higher order streets. Lowest level of mobility. Through traffic is usually deliberately discouraged.	~< 2,000	All other streets.

Notes:
1. Average Daily Traffic (ADT) volumes are derived from the Santa Cruz County Regional Transportation Commission (SCCRTC) and applied to the City of Capitola existing General Plan street classifications.
2. As defined by the existing Capitola General Plan, 1989.
Source: City of Capitola, SCCRTC, and RBF Consulting, 2011.

It is important to note that these are the classifications and volumes as defined by the current Capitola General Plan. However, these traffic volumes are no longer consistent with standard FCS practices. As such, a task for the General Plan Update will be to work with City staff to redefine Capitola's roadways according to the FCS. In doing so, the opportunity exists to define the roadway system not strictly to motorized vehicles. Streets and roads, particularly in an urban area, are multi-modal transportation corridors and serve more functions than that of vehicular mobility and access.

As part of the General Plan Update process, an alternative classification system for Capitola streets will be developed to better integrate the road, and its design, into the urban fabric. Alternative classification systems that take into account the variety of functions and users of the road allowance will be considered. This is consistent with the requirement to incorporate "Complete Streets" concepts into the transportation element of a general plan as required under the California Complete Streets Act (AB 1358), which is discussed below in Policies and Regulations.

Principal Arterials (Freeways) and Interchanges

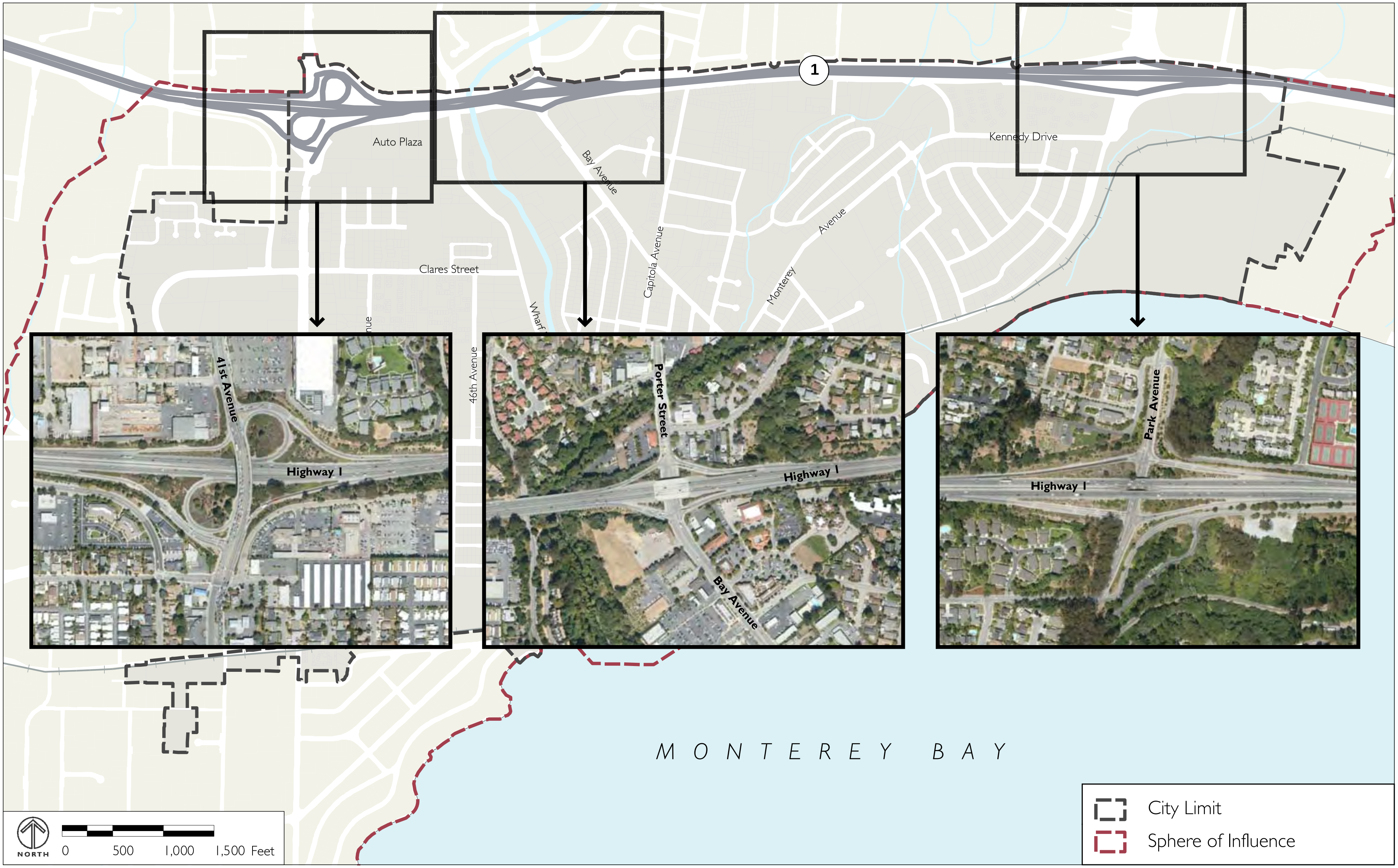
Freeways are designed to carry high volumes of traffic at very high travel speeds. Travel along freeways is generally unimpeded and provides inter-regional and inter-state travel for passenger cars and commercial vehicles.

Highway 1 is the only freeway within Capitola. There are three freeway interchanges providing access to Capitola from Highway 1. These interchanges are located at 41st Avenue, Bay Avenue/Porter Street, and Park Avenue (see Figure 3-2: Highway 1 Interchanges in Capitola). The 41st Avenue interchange is one of the busiest in Santa Cruz County. The bridge over Highway 1 contains two northbound lanes and three southbound lanes and pedestrian sidewalks and bike lanes on both sides. During peak periods, between 12 and 2 PM, and on weekends, this interchange becomes very congested and operates at or near its capacity. At both the Bay Avenue/Porter Street and Park Avenue interchanges, north-south access is via an underpass under Highway 1.

Additionally, two roadways provide through access north across Highway 1 to Soquel. Soquel-Wharf Road passes under Highway 1 east of 41st Avenue and Capitola Road passes over Highway 1 east of Bay Avenue/Porter Street.

Highway 1 HOV Lane Widening Project

The Santa Cruz Country Regional Transportation Commission (SCCRTC) in partnership with California Department of Transportation (Caltrans) and the Federal Highway Administration (FHWA) have developed project alternatives to reduce congestion and improve safety and traffic operations on Highway 1 between Aptos and Santa Cruz. The Highway 1 HOV Lane Widening Project extends approximately 8.5 miles along Highway 1 from San Andreas/Larkin Valley Road to just north of Morrissey Boulevard. This project includes work on all sections of Highway 1 within Capitola and will modify the existing interchanges at 41st Avenue and Bay Avenue/Porter Street into a single interchange with local one-way roadways connecting the arterials. The overpass at 41st Avenue will be reconstructed as will the overpass for Capitola Avenue. The on/off ramps at each interchange will be reconfigured and include ramp metering. Sound walls will be included where necessary to mitigate noise from the highway.



Source: Google Maps and RBF Consulting, 2011.

FIGURE 3-2

HIGHWAY 1 INTERCHANGES IN CAPITOLA

In June 2003, work began with Caltrans and the Federal Highway Administration on the preparation of an Environmental Impact Report and Environmental Assessment (EIR/EA) on the Highway 1 High Occupancy Vehicle (HOV) Lane Project. In September 2006, additional public information meetings were held to share information developed to date on the preliminary design plans, traffic performance measures, and environmental studies. Further detailed project design and environmental data, including the EIR/EA is in development and is planned to be made available in early 2012. Funding is not secured to advance the project beyond the current environmental study. The 2010 Regional Transportation Plan assumes adoption of a transportation sales tax measure to provide a significant amount of the funding needed to advance this project into the next development phase – final design, right-of-way, and construction.

Arterials

Arterials provide regional connectivity and relatively unimpeded traffic flow for both passenger cars and commercial vehicles. These facilities have high vehicle capacities and travel at relatively high speeds (i.e., > 35 mph). Access to arterials is limited by intersection spacing and driveway locations. Arterials can be classified as either major or minor arterials.

41st Avenue is the primary north-south arterial in Capitola and is one of the busiest roadways in Santa Cruz County. The City has worked with Santa Cruz County and Caltrans on a number of improvement projects to help improve traffic and traffic safety conditions on this roadway. The most significant project was the reconfiguration of 41st Avenue between the Highway 1 overpass and Capitola Road. This phased rehabilitation project includes the construction of additional lanes, sidewalk improvements, lane re-stripping, the inclusion of bike lanes and the installation of cameras at key intersections.

A traffic calming improvement project is also being completed on Capitola Road east of 41st Avenue. This project includes the construction of traffic islands and pedestrian crosswalks. Other pending budgeted projects include 38th Avenue repaving, which includes the addition of bike lanes on both sides of the street and Clares Street streetscape improvements between 41st and Wharf Road.

As part of the redevelopment of the Nob Hill shopping center, Bay Avenue at Hill Street was improved with a reconstructed 4-way stop and pedestrian crosswalks, as well as sidewalk improvements.

Local (Neighborhood) Streets

Local or neighborhood streets support low traffic volumes and slow travel speeds, typically in residential areas. They provide direct access to properties and connect to the higher capacity roadway network. Design guidelines of these roadways are designed to minimize travel speed, promote pedestrian safety, and prohibit cut through traffic. Access locations are generally very close together (approximately 500 foot spacing).

Over the years, Capitola has developed from a pre-automobile beach-side summer camp with tents and cottages to a full service community of 1.6 square miles with a year round population near 10,000. Further, surrounding communities have developed along with Capitola so that the demands on the highways and roads have increased not only with Capitola growth, but also with the growth experienced throughout Santa Cruz County. Moreover, reliance on the automobile has, and continues to be, the dominant mode of transportation. In addition to increases in population, our automotive traffic has increased as a result of a long-term trend toward more trips and vehicle miles traveled by individual households.

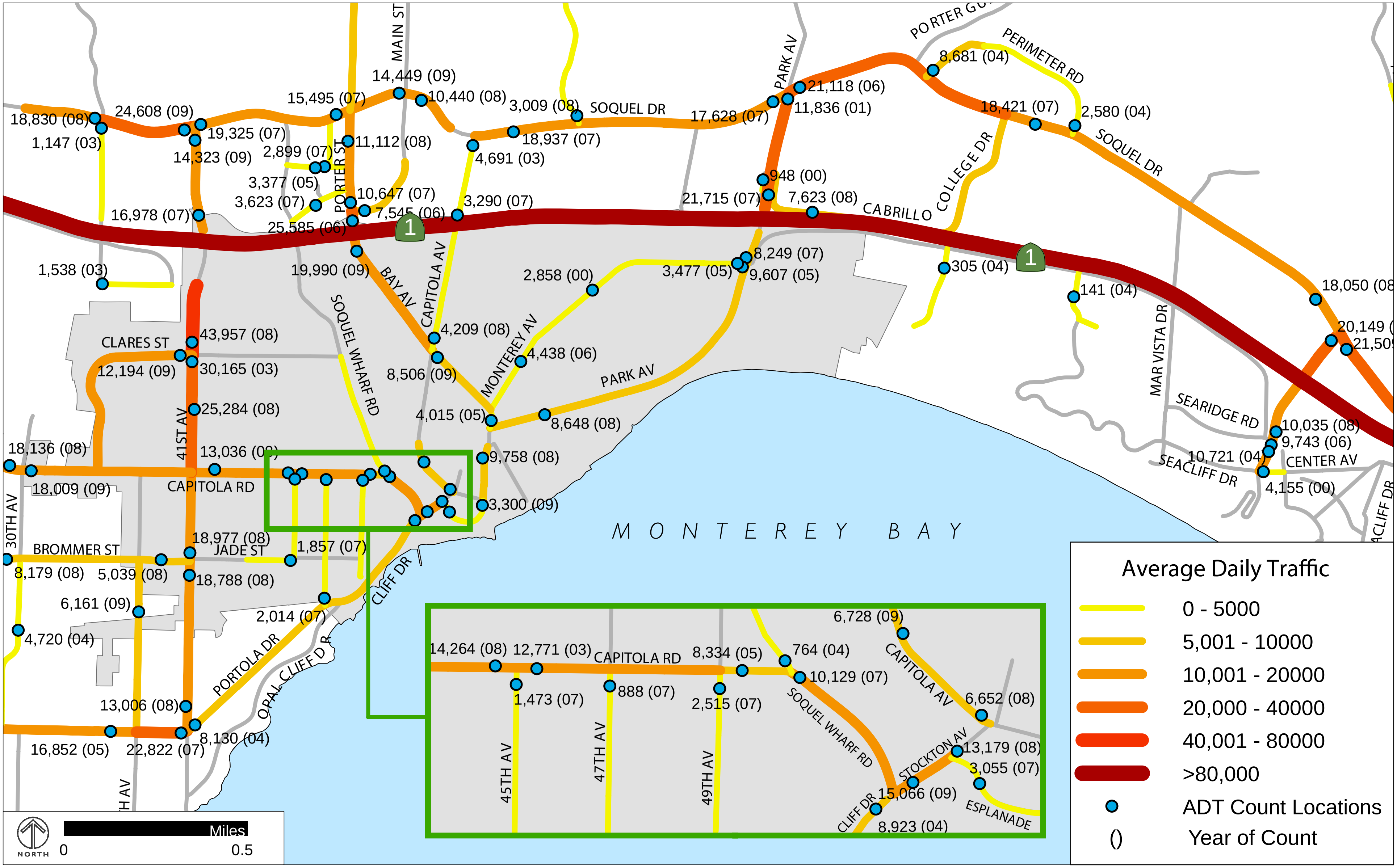
Given these conditions, traffic congestion has increased dramatically, which has resulted in increased trip times. All of these factors have forced drivers to seek "short cuts" through open residential streets, and drive at a higher speed when given the opportunity. As a result, neighborhoods today in Capitola are experiencing more traffic, hearing more traffic noise, and are bearing more traffic-related impacts.

In January 2001, the City established the Neighborhood Advisory Traffic Committee (NATC). The NATC conducted a survey and identified and ranked the problems that were most important in the neighborhoods. Based on the results of the questionnaires, the top citywide concerns of the residents were the speed and volume of traffic through the neighborhoods. To address these concerns, the NATC identified a number of traffic improvements throughout Capitola. Many of these improvements have been completed. Those that are still unfunded, along with other programmed (funded) and non-programmed general street improvement projects are identified in Appendix A - Capitola Redevelopment Agency – Capital Improvement Program, Fiscal Year 2010-11

Existing Traffic Volumes

Figure 3-3: Existing Traffic Volumes shows the total average daily trips (ADTs) of vehicles on selected roads in and around Capitola. These volumes were determined by the Santa Cruz County Regional Transportation Commission (SCCRTC), which is responsible for acquiring traffic count data for all major roadways in Santa Cruz County with the exception of State designated roadways (e.g. Highways 1 and 17). The ADTs are illustrated using color-coded lines, with red being the highest volumes, followed by orange and then yellow. Specific count data and the year of the count (shown in parentheses) is shown numerically at designated intersections and along roadway segments.

It should be noted that this white paper only addresses traffic volumes at a quantified level. As part of the work on the General Plan, the consultant team will analyze the existing and future capacity of existing roadways (Level of Service [LOS] analysis) based on build-out projections as derived from the General Plan land use map.



Source: Santa Cruz County Regional Transportation Commission Monitoring Program (non-highway traffic counts) and Caltrans (state highway counts), 2011.

FIGURE 3-3
EXISTING TRAFFIC VOLUMES

Three interchanges on Highway 1 provide access to Capitola with the busiest being 41st Avenue. This major arterial carries approximately 44,000 vehicles per day just south of the freeway and provides access to the Capitola Mall, Kings Plaza, other commercial and office developments, and also connects to the surrounding neighborhoods. The other two Highway 1 interchanges are Bay Avenue, which carries about 20,000 daily vehicles, and Park Avenue, which carries about 8,300 vehicles.

During the weekday, the primary purpose of trips in Capitola includes home-based work activities and shopping trips. On weekends, the retail activities along 41st Avenue and Bay Avenue result in increased traffic volumes on the roadways. During the summer months, the Capitola Village and Capitola Beach is a primary destination for local residents and visitors. On warm sunny weekends as many as 1,333people visit Capitola Beach, which results in considerable traffic congestion in Capitola Village (RBF Consulting 2008).

Intersections along 41st Avenue operate at congested conditions particularly from Capitola Road north to Highway 1. Additionally, the intersection of Bay Avenue and Capitola Avenue is also congested, especially when New Brighten Middle School closes in the afternoon. Skew geometry (lane configuration adjustments) and high pedestrian and bicycle activity adds to confusion and causes increased delays at these intersections.

During the PM peak hour, traffic through the Village consists of local residents cutting through the Village to Monterey Avenue, Capitola Avenue and Stockton Avenue-Cliff Drive. Stockton Avenue is the only road in Capitola, other than Highway 1, that crosses over Soquel Creek, essentially dividing Capitola in two from a traffic circulation standpoint. The Village also experiences high congestion because of the desire of visitors to park close to Capitola Beach. Vehicles often circulate around the block several times looking for parking spaces, which adds significantly to the traffic congestion.

Other major streets that carry high traffic volumes are Capitola Road (13,000 vehicles per day just east of 41st Avenue and 6,600 vehicles north from City Hall), Portola Drive (13,000 vehicles west of 41st Avenue), and on Wharf Road south of Capitola Road (10,100 vehicles).

Traffic Safety

Traffic safety in Capitola is recorded on a per incidence basis by the Capitola Police Department. Between 2008 and 2010, the total number of accidents has decreased by 18% from 257 to 211. A significant number of accidents have been non-injury accidents. On average, there are about 30 injury accidents in Capitola every year. A summary of all reported accidents by type are described in Table 3-2: Traffic Accidents in Capitola (2008 - 2010), below.[1]

A majority of these accidents occur on arterial roads. In 2010, 38% of all collisions occurred on 41st Avenue, up from 29% in 2008. The most common collision factor was unsafe speeds given the conditions. Other roadways of concern include Wharf Road to Clares Street to the Capitola Mall, which is used as an alternative route to 41st Avenue, the Clares Street "loop", and Park Avenue.[2]

Table 3-2: Traffic Accidents in Capitola (2008 - 2010)

	2008	2009	2010	% Change 2008-10
Injury Collisions	26	33	32	23%
Non-Injury Accidents	159	133	129	-19%
Hit and Run	72	56	50	-31%
Total Accidents	**257**	**222**	**211**	**-18%**

Source: Capitola Police Department, February 2011.

Trucking and Goods Movements

The City does not have an ordinance in the City's Municipal Code that establishes designated truck routes. Truck routes restrict vehicles within a gross vehicle weight, are licensed commercially as a truck, and are used for carrying goods for pickup and delivery. Such an ordinance would require trucks to only drive on truck designated streets except when necessary for egress and ingress by direct route to and from a restricted street for the purposes of loading or unloading.

A majority of the existing truck traffic travels along the existing arterial roads, particularly 41st Avenue, Clares Street, Capitola Road, Bay Avenue, and Capitola Avenue and East Cliff Drive in and out of the Village. However, cut-through traffic on residential streets is an issue. For instance, trucks delivering materials to stores at Kings Plaza, located on the northeast corner of 41st Avenue and Capitola Road, often use 38th Avenue and travel south to Brommer Street, and then onto 41st Avenue. Cut-through truck traffic is also

[1] Capitola does not currently gather statistics on bicycle collisions and bicycle related citations so this information is not available to help assess bicycle safety issues related to the current roadway conditions.

[2] Personal communication, Matt Eller, Capitola Police Department, March 2011.

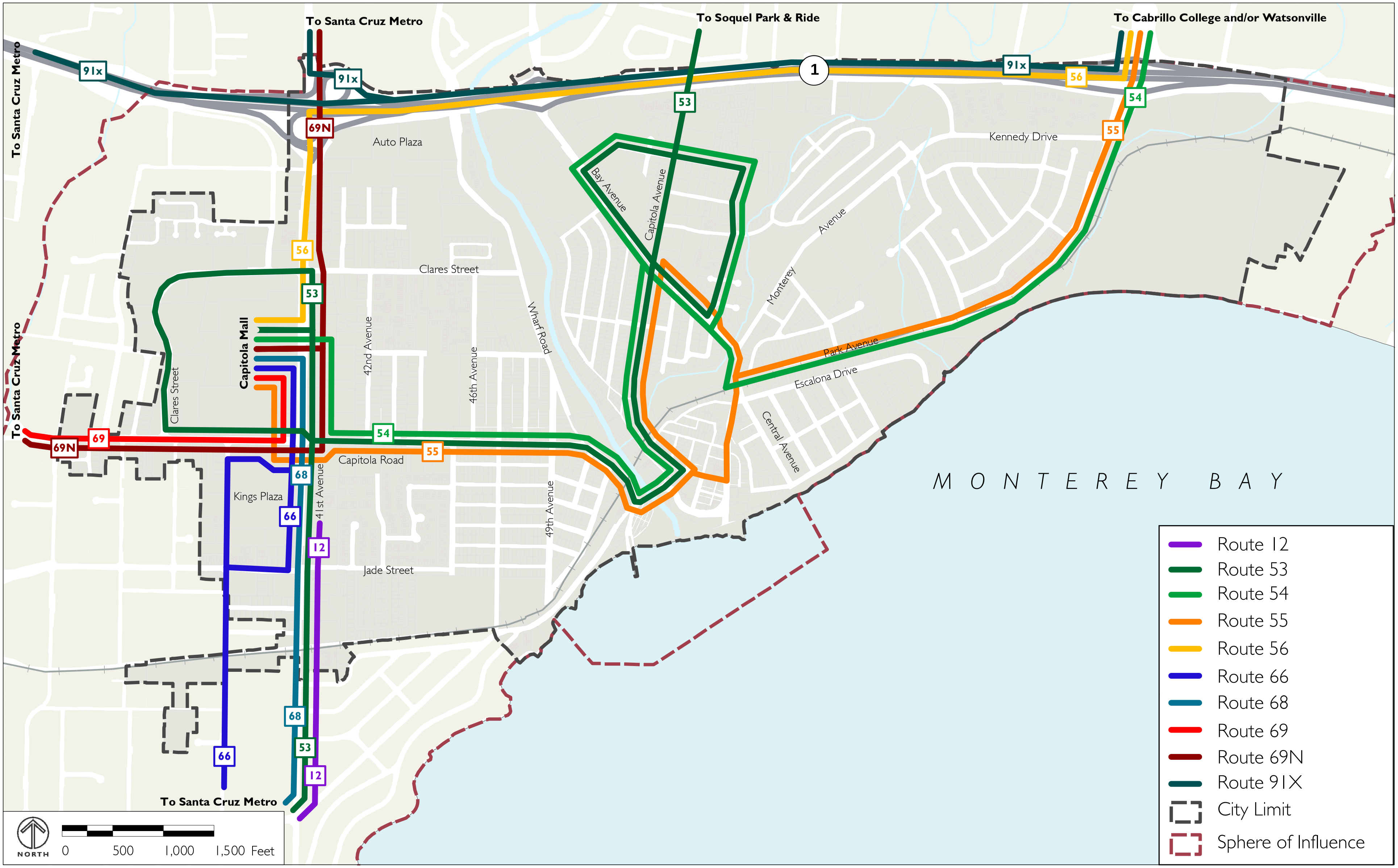
common on Reposa Street and Melton Street between 38th and 41st. The General Plan Update will consider the designation of official truck routes in Capitola.

Transit Services

Bus transit and paratransit (persons with disabilities) service in Capitola is provided by Santa Cruz Metropolitan Transit (Metro). Metro serves all of Santa Cruz County and the cities of Scotts Valley, Santa Cruz, Capitola, and Watsonville. Additionally, Metro partners with the Regional Transportation Commission (SCCRTC), the Association of Monterey Bay Area Governments (AMBAG), UC Santa Cruz Transportation and Parking Services (TAPS), the Santa Clara Valley Transportation Authority (VTA) in overall transportation improvement planning and transit services.

As shown in Figure 3-4: Bus Transit Routes, there are 10 Metro transit lines that service Capitola. With the exception of Line 91x, all public transit lines stop at the Capitola Mall which serves as the primary mid-county transit hub. Three bus lines (53, 54, and 55) also serve Capitola Village.

It should be noted that given current funding constraints, Metro's board is considering a 30 percent service cut, which would reduce or eliminate routes to resolve a projected $3.8 million deficit in the district's $32 million budget during the next 15 months. This potential reduction in service would affect the number and frequency of bus service throughout Santa Cruz County, including Capitola.



Source: Santa Cruz METRO and RBF Consulting, 2011.

FIGURE 3-4

BUS TRANSIT ROUTES

Non-vehicular Transportation

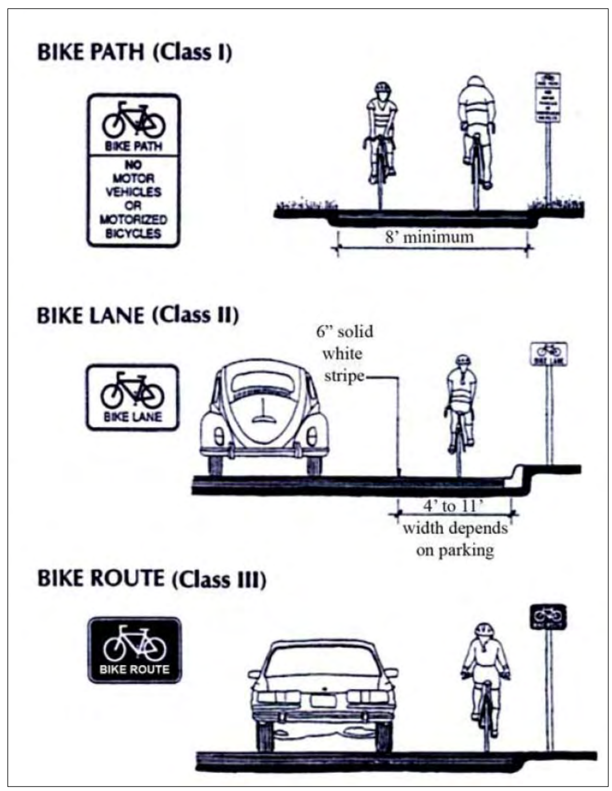
Bicycle Network

In February 2011, Capitola adopted an updated Bicycle Transportation Plan (BTP) (Capitola 2011a). The BTP sets goals and objectives for the purpose of increasing the safety and convenience of bicycle commuting in and around Capitola. It also implements the polices and programs of the Circulation Element of the Capitola General Plan.

In 2000, roughly one third of all commuters in Capitola had a less than 15 minute trip to work, which suggests that the distance traveled was likely less than 9 miles if driving at 35 mph, 2.5 miles if bicycling, or 1.25 miles if walking. All of these trips are achievable on a bicycle in less than one hour. By breaking down barriers to bicycle commuting, especially to those who live within 9 miles of work, the BTP identifies ways to improve bike ridership and achieve the BTP's goal of 5% of total trips and 20% of commuter trips by bicycle by the year 2020.

The BTP identifies a number of existing and proposed bikeways for Capitola, as shown in Figure 3-5: Capitola Bikeways.

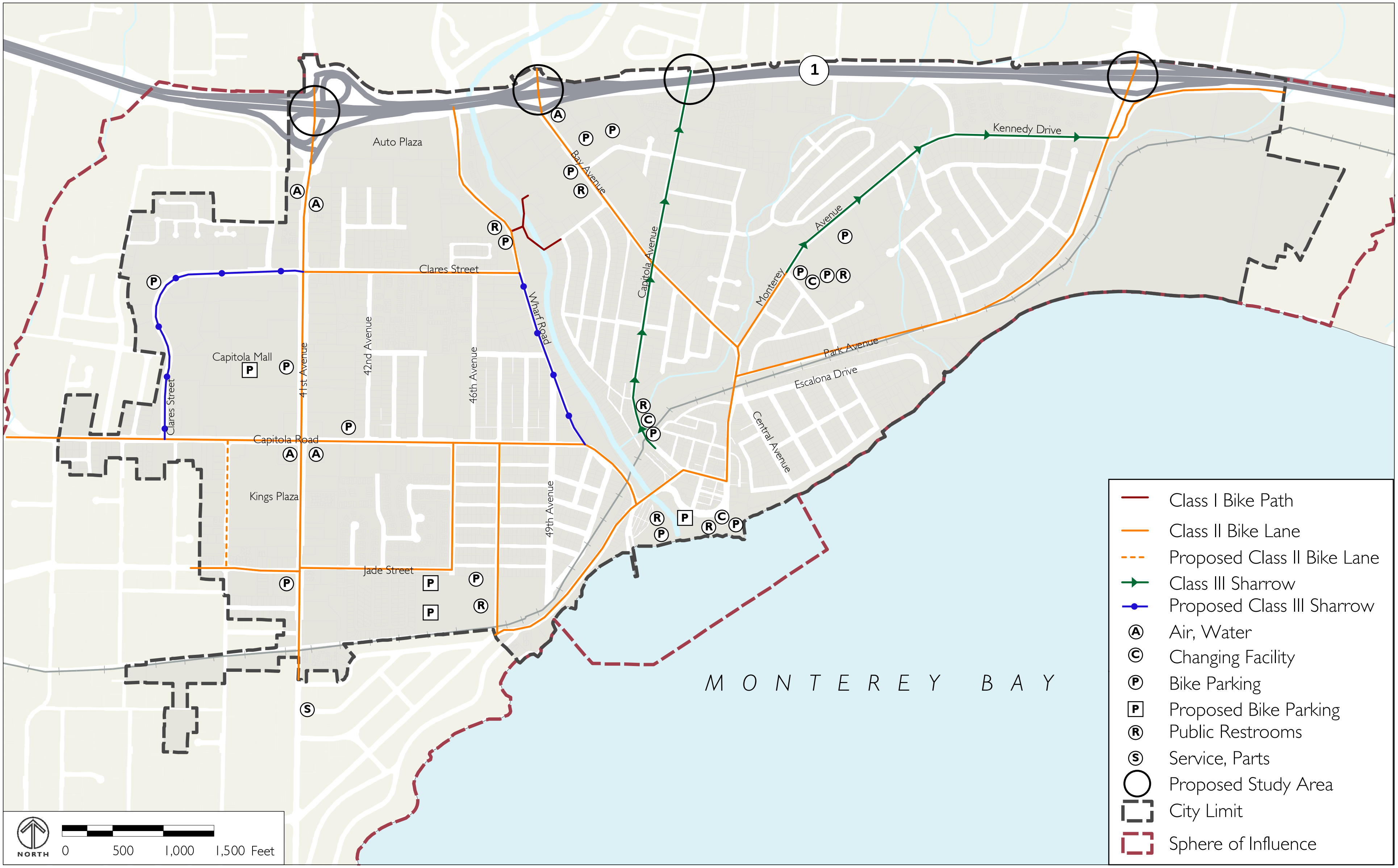
"Bikeway" is a general term used to refer to facilities that primarily provide for bicycle travel. The Caltrans Bikeway Planning and Design section (Chapter 1000 of the State of California Highway Design Manual) categorizes bikeways into three types:



Class I Bikeways are generally referred to as Bike Paths and provide a completely separated right-of-way for the exclusive use of bicycle and pedestrian traffic with cross-flow minimized.

Class II Bikeways are referred to as Bike Lanes and provide a striped lane for one-way bike travel on a street or highway, and typically includes signs placed along the street segment.

Class III Bikeways are referred to as Bike Routes and provide a shared use with pedestrian or motor vehicle traffic. Typically these facilities are city streets with signage designating the segment for Bike Routes without additional striping or facilities. "Sharrows" are signed and painted bike routes that share the road with other vehicles.



Source: City of Capitola and RBF Consulting, 2011.

FIGURE 3-5
CAPITOLA BIKEWAYS

Planned Bikeway Improvements

The BTP has identified a number of bikeways improvement projects which are prioritized according to the following criteria:

1. High density, high demand areas and school routes;
2. Low density areas where cyclist's safety is a concern (neighborhoods); and
3. Recreational routes in low density, low demand areas.

High priority bicycle plan projects include the completion of bicycle lanes on existing streets, on-street bicycle safety improvements and studies, a bicycle safety and education program for students, and the installation of bicycle detector loops or video sensors at signalized intersections and replacement of antiquated or ineffective infrastructure. Other projects that improve bicycle facilities and encourage cycling include bicycle lane maintenance, parking facilities, and inter-modal connections, as well as studies to address unsafe areas for bicyclists. Specific projects by bikeway type (Class) are described below.

Bicycle Paths (Class I)

The current Class I bikeway in Capitola is a path that extends east from Wharf Road across Soquel Creek. This bicycle path allows bicyclists to enjoy Soquel Creek and the historic Rispin Mansion site. If the path was extended north to Soquel Elementary School alongside Soquel Creek, it would create a safe alternative to the Bay Avenue/Highway 1 intersection for students riding to and from school, and allow all cyclists the opportunity to enjoy the flora and fauna in the riparian area. The BTP recommends that a study be conducted to determine the feasibility of extending the path north along Soquel Creek toward Highway 1.

Bicycle Lanes (Class II)

A number of Class II bike lanes exist throughout Capitola. These include designated lands along 41st Avenue, Capitola Road, Jade Street, Bay Avenue, Monterey Avenue, East Cliff Drive, and Park Avenue.

A 0.23 mile Class II bicycle lane is currently funded to be constructed on 38th Avenue between Capitola Road and Brommer Street in 2011 as part of a roadway resurfacing project.

Bicycle Routes (Class III)

Existing Class III bike routes (sharrows) are designated along Capitola Avenue and a portion of Monterey Avenue and Kennedy Drive.

In addition to re-stenciling existing sharrows, the City has also added sharrow markers on Clares Street near the Brown Ranch Shopping Center, and on Wharf Road between Clares Street and Grace Street.

Pedestrian Access

Pedestiran access, primarily via dedicated footpaths and sidewalks, are an important componnet of non-vehicular mobility, and more broadly, the quality of life in a community. Health related benefits, both physical and mental, result from living in a walkable community. Environmental and economic benefits also result from the ability to walk to important locations. In the past, home buyers have generally looked for good schools, large lots, and low crime rates. However, recent trends also consider walkability, bikeability and overall access-convenience of neighborhoods. It is widely accepted that a walkable community is likely to be a healthy, desirable and therefore a more valuable place to live.

Sidewalk Networks

Conditions arise in sidewalk networks that pose risks to pedestrians seeking to use them. These include broken and raised pavement, slopes with potential to tip wheelchairs and related mobility devices, vegetation that intrudes into the walkway, holes around trees, vehicles parked across sidewalks, and signs, poles, stands or benches that obstruct or narrow the path of travel.

When sidewalk networks are not consistently safe and accessible, residents may avoid use of the system. For the elderly and persons with disabilities, this may greatly restrict opportunities for involvement in neighborhood and community activities or may force reliance on the use of more costly transportation services such as paratransit.

For a sidewalk system to function properly it must connect to popular destination points within a community and provide ease of movement for pedestrians traveling into and around a community. Sidewalks that are major paths of travel make important connections within the jurisdiction and with networks of neighboring jurisdictions. These sidewalks tend to be located along major road corridors and connect to key community destinations. Neighborhood sidewalks systems normally serve local residents. They link to neighborhood parks, schools, shops, transit stops and the jurisdiction-wide pedestrian network. The objective of sidewalk maintenance is to have a seamless system, free of obstructions or missing segments, on which pedestrians feel safe and comfortable.

Pedestrian Access in Capitola

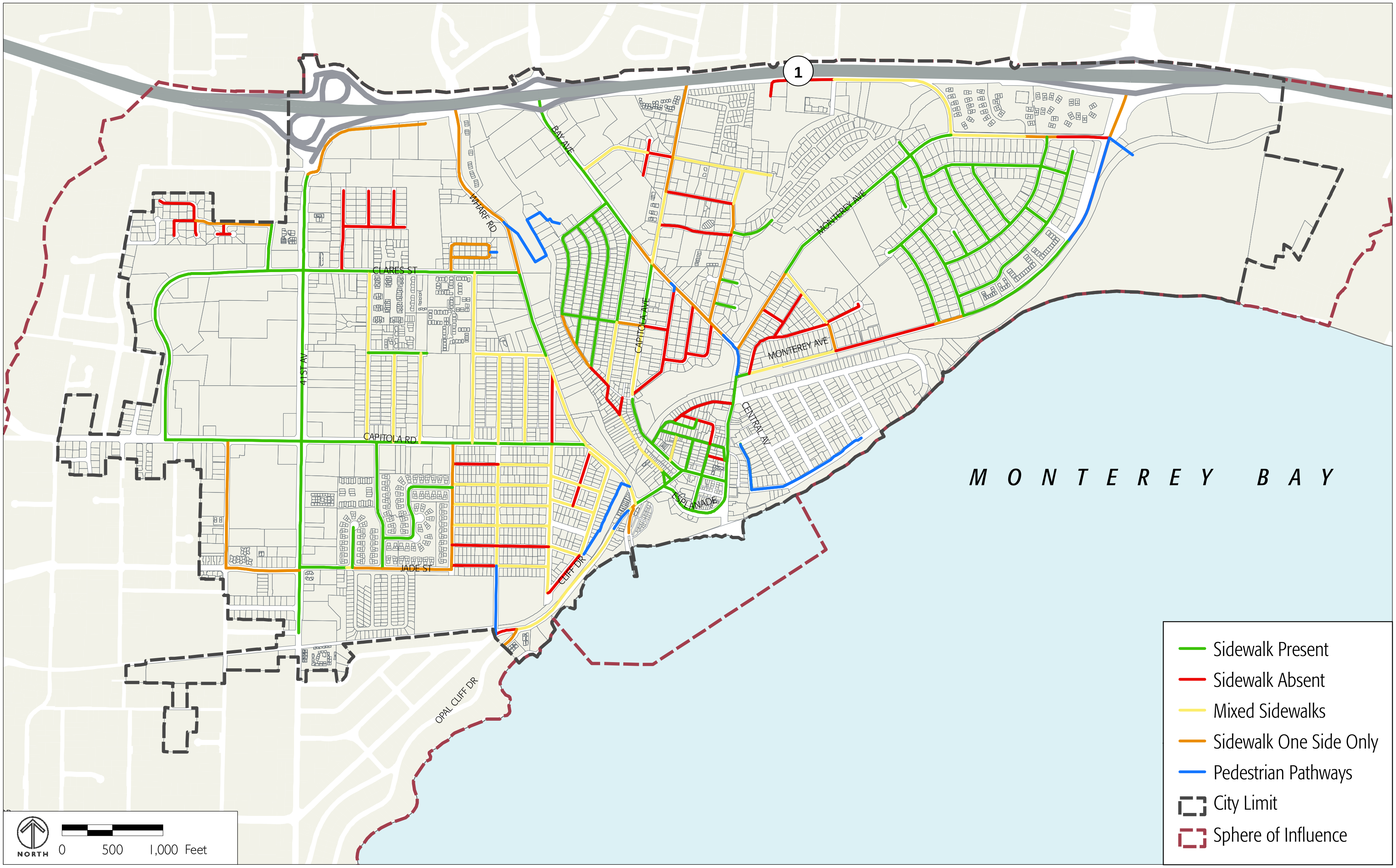
In July 2010, the Pedestrian Safety Work Group (a subcommittee of the Santa Cruz County Regional Transportation Commission's Elderly & Disabled Transportation Advisory Committee) published a report entitled "Improving the Safety and Accessibility of Sidewalks in Santa Cruz County". The goal of the report is to improve the condition of sidewalks throughout all jurisdictions in Santa Cruz County by evaluating current sidewalk maintenance program practices, identifying important potential program components and offering additional resources. The objective is to support jurisdictions in their efforts to achieve, within defined periods of time, sidewalk networks that are in compliance with jurisdiction standards for maintenance.

As described in Appendix A of the report, Capitola has about 26 miles of roadways, of which about 50% have sidewalks. All sidewalks are maintained by the City of Capitola Public Works Department (DPW), with the exception of the downtown where they are maintained by the property owners.

As shown in Figure 3-6: Capitola Sidewalk Inventory, there are many areas throughout Capitola that do not have adequate or complete sidewalk facilities. Most notably, this includes a variety of streets east of 41st Avenue and west of Wharf Road, a small neighborhood west of 41st Avenue and north of Clares Street (Deanes Lane and associated streets), various streets north and south of Bay Avenue, the residential neighborhood north of Capitola Village, a portion of Park Avenue, and the associated residential streets north of Park Avenue along McCormick Avenue.

While only approximately 50% of the Capitola streets have sidewalks, a significant majority of the collector and arterial streets do have sidewalks. This is notable given the fact that traffic travels at higher speeds on these roadways making sidewalks essential. On residential streets, cars travel more slowly, providing an opportunity for shared use of the roadway. For example in the City of Carmel, residential neighborhoods are considered very walkable and yet have no sidewalks. This is due in part to the narrow streets, which helps considerably in maintaining slow vehicular speeds (i.e. less than 25 miles per hour).

As discussed below, the development of "Complete Streets" in Capitola, that allow for all users to effectively travel by motor vehicle, foot, bicycle and transit, will be an essential policy issue that will be addressed in the General Plan update.



Source: City of Capitola, 2010.

FIGURE 3-6
CAPITOLA SIDEWALK INVENTORY

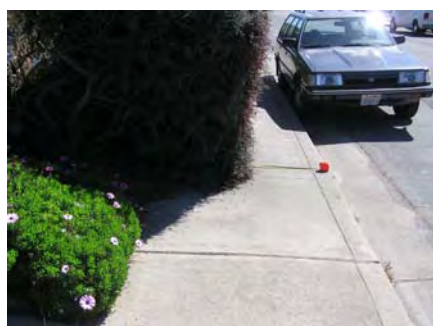
Existing Sidewalk Maintenance Program

Capitola has been informally inventorying sidewalks and pedestrian walkways since the early 1990s. In 2006 and again in 2008, the City Council of Capitola directed staff to implement sidewalk improvement programs. The 2006 initiative was in response to the need to remove vegetative obstructions; the 2008 initiative sought to more fully assess and address hazardous conditions. Since 2006, DPW has been inventorying one-fifth of the residential areas and all of the commercial areas on an annual basis, with the objective if understanding the total percentage of compliant sidewalks throughout the City.

DPW has a goal of 24 hours in response to a reported sidewalk hazards, which includes an inspection. If the uplift hazard is minor (i.e. less than half an inch), the City will grind the walkway. If not, DPW will notify the property owner of their responsibility to fix the problem. DPW staff will advise property owners of contractors who have insurance on file with the City and have done similar work. Property owners are required to complete repairs within 30 days of notification. Approximately 90% of the property owners comply with notices to correct hazards and understand that it is in their best interest to reduce their liability exposure. Right-of-way work requires an encroachment permit, typically provided at no cost by the City. The City also waives permit fees for sidewalk repair work. Action toward property owners that don't comply requires a public hearing per the city's municipal code. This process is unique among local jurisdictions and represents an onerous requirement and unnecessary hurdle to prompt resolution.

Examples of sidewalk barriers and maintenance issues are shown below:


Sidewalk uplift due to tree roots.


Planting obstructing sidewalk


Utility cabinet obstructing sidewalk


Large cracks in driveway

Source: SCCRTC 2010 and Ron Skelton, 2011.

Rail Corridor

The Santa Cruz Branch rail line corridor parallels Highway 1 extending almost 32 miles from the town of Pajaro in Monterey County, to Davenport in Santa Cruz County. This line extends generally east to west through Capitola. As shown in Figure 3-7: Capitola Rail Corridor, within Capitola there are four at-grade crossings and two tressles, including a major crossing over Soquel Creek. The right-of-way is generally 50 to 60 feet wide.

Sierra Northern Railway (SNR), the freight carrier, operates trains approximately twice per week on an as-needed basis to serve existing freight customers. SNR also stores empty tank cars on the unused northern section of the rail line. [3]

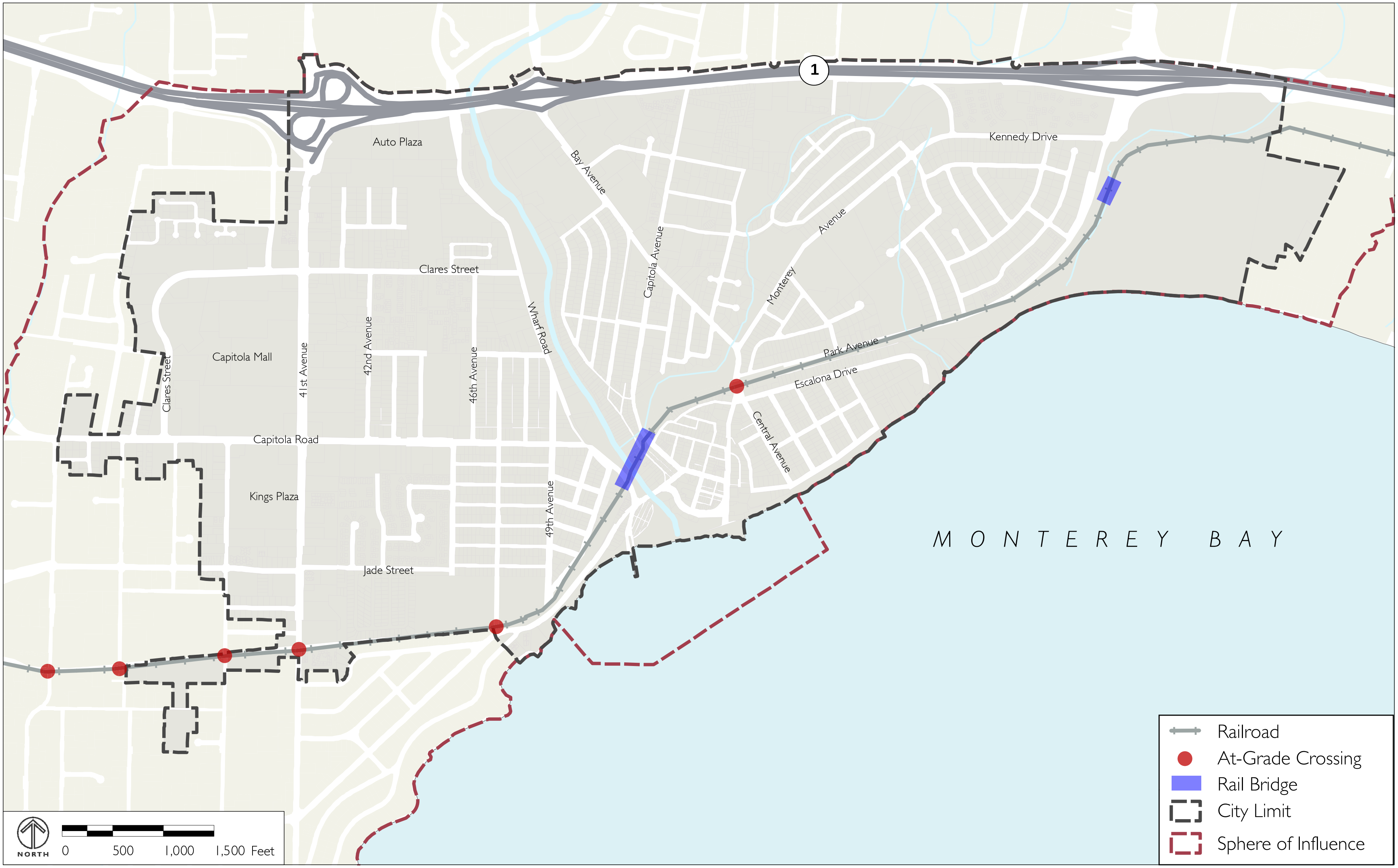
On May 6, 2010, the Santa Cruz County Regional Transportation Commission (SCCRTC) unanimously agreed to acquire the Santa Cruz Branch Rail Line right-of-way for recreational rail, preservation, and future transportation uses. Future transportation uses could include passenger rail service, transit, bicycle and pedestrian facilities, and freight rail service.

On January 19, 2011, the California Transportation Commission (CTC) approved the funding for purchase of the Santa Cruz Branch Rail Line. The CTC determined that the SCCRTC met all of the requirements for use of the voter-approved Proposition 116 funds and cleared the way for the SCCRTC to close the purchase of the 32-mile corridor with the current property owner, Union Pacific Railroad.

SNR is proposing an excursion and dinner train service between the Main Beach/Wharf area of Santa Cruz and the community of Davenport, north of Santa Cruz. At present, no other recreational passenger rail service is being considered.

Additionally, the SCCRTC is in the early stages of developing a master plan for the Monterey Bay Sanctuary Scenic Trail Network. This planning process will analyze potential alignments for trails and trail segments along or near the coast. If segments of the rail line can adequately accommodate a trail segment along with rail service, those trail segments may be constructed on the rail line.

[3] Personal communication with Cliff Walters, General Manger, Santa Cruz Division, Sierra Northern Railway, April 2011.



Source: RBF Consulting, 2011.

FIGURE 3-7

CAPITOLA RAIL CORRIDOR

Policies and Regulations

State and Regulations

California Complete Streets Act (AB 1358)

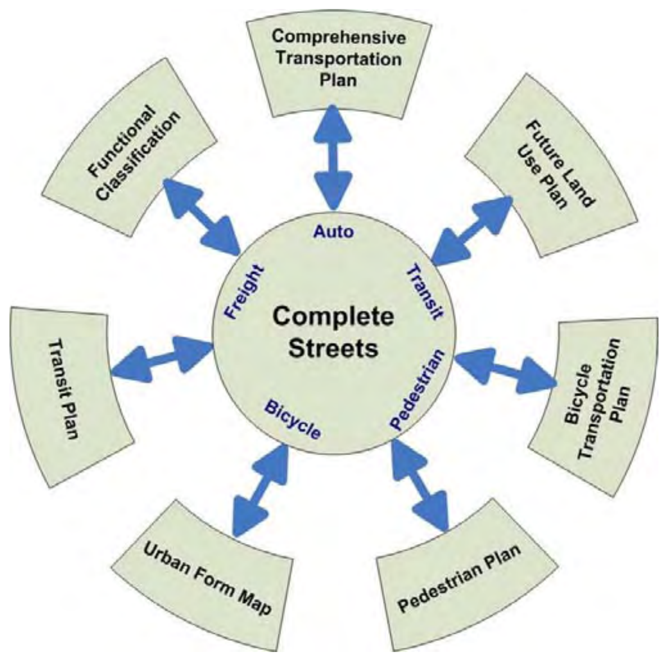
AB 1358 places the planning, designing, and building of complete streets into the larger planning framework of the general plan by requiring jurisdictions to amend their circulation elements to plan for multimodal transportation networks. These networks should allow for all users to effectively travel by motor vehicle, foot, bicycle, and transit to reach key destinations within their community and the larger region. Local jurisdictions need to view all transportation projects, new or retrofit, as opportunities to improve safety, access, and mobility for all travelers and recognize pedestrian, bicycle, and transit modes as integral elements of their transportation system. The standard practice should be to construct complete streets while prioritizing project selection and project funding so that jurisdictions accelerate development of a balanced, multimodal transportation network.

Multimodal transportation networks allow for all modes of travel including walking, bicycling, and transit to be used to reach key destinations in a community and region safely and directly. Jurisdictions can use complete streets design to construct networks of safe streets that are accessible to all modes and all users no matter their age or ability. Complete streets have been defined by various organizations as follows:

National Complete Streets Coalition

"Complete streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street.

Creating complete streets means transportation agencies must change their orientation toward building primarily for cars. Instituting a complete streets policy ensures that transportation agencies routinely design and operate the entire right of way to enable safe access for all users."



American Planning Association

"Complete streets serve everyone – pedestrians, bicyclists, transit riders, and drivers – and they take into account the needs of people with disabilities, older people, and children. The complete streets movement seeks to change the way transportation agencies and communities approach every street project and ensure safety, convenience, and accessibility for all."

Caltrans

"A transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, truckers, and motorists, appropriate to the function and context of the facility. Complete street concepts apply to rural, suburban, and urban areas."

These definitions, and their application in the development of the update to the Capitola General Plan will be an important aspect of the transportation planning process and its broader integration with land use planning and polices.

Association of Monterey Bay Area Government

The Association of Monterey Bay Area Governments (AMBAG) is the federally designated Metropolitan Planning Organization (MPO) for transportation planning activities in the tri-county Monterey Bay Region. AMBAG is the lead agency responsible for developing and administering plans and programs to maintain eligibility and receive federal funds for the transportation systems in the Monterey, San Benito and Santa Cruz Counties. As the MPO, AMBAG provides the forum for cooperative decision making in the development of transportation plans, programs and recommendations.

AMBAG works with Regional Transportation Planning Agencies (San Benito Council of Governments, the Santa Cruz County Regional Transportation Commission and the Transportation Agency for Monterey County), transit providers (Monterey Salinas Transit and Santa Cruz METRO), the Monterey Bay Unified Air Pollution Control District (MBUAPCD), state and federal governments, and organizations having interest in or responsibility for transportation planning and programming. AMBAG also coordinates transportation planning and programming activities with the three counties and eighteen local jurisdictions within the tri-county Monterey Bay Region, including Capitola.

AMBAG staff, regional transportation planning agency staff, and staff from all local jurisdictions in the Monterey Bay Area have been collaborating on developing a regional growth and conservation strategy called Envisioning the Monterey Bay Area. This effort, otherwise known as the "Blueprint," focuses on improved mobility, accessibility and coordinated transportation and local land use that houses the region's future population but also preserves the most important agricultural lands and conservation areas. The Blueprint was formally adopted by the AMBAG Board in February of 2011.

Santa Cruz County Regional Transportation Commission

The Santa Cruz County Regional Transportation Commission (SCCRTC) is comprised of a commission of elected Santa Cruz County and local city elected officials that set priorities for major capital improvements for transportation infrastructure, including highways, major roads, rail and alternative transportation facilities in Santa Cruz County. They also pursue and allocate funding for all elements of the area's transportation system.

One of the primary responsibilities of the SCCRTC is to prepare a Regional Transportation Plan (RTP), a state-mandated, long range planning document to guide future transportation funding decisions. The RTP outlines transportation challenges and establishes investment priorities for all of Santa Cruz County. The plan includes a list of transit, highway, local road, bike, and pedestrian needs throughout Santa Cruz County and estimates the amount of local, state and federal dollars that may be available for these projects over the next 25 years. The plan is updated every four to five years to reflect the latest funding and project needs. The RTP was last updated in 2010. This was a minor update, with a more extensive update that incorporates SB375 greenhouse gas emissions targets anticipated for adoption in 2012.

City of Capitola

The Transportation Element of the existing Capitola General Plan (1989) is the primary transportation policy document for Capitola. Capitola utilizes the level of service (LOS) measurement for determining the level of traffic congestion. LOS is a scale that measures the amount of auto traffic that a roadway or intersection can accommodate, based on such factors as maneuverability, driver dissatisfaction, and delay. Based on these measurements, it is possible to determine the impact of auto traffic at intersections throughout Capitola.

LOS is typically represented by a letter scale that ranges from LOS A to LOS F. As shown in Table 3-3: Intersection Level of Service Definitions, LOS A represents the fastest flow of traffic and LOS F represents significantly congested conditions.

Table 3-3: Intersection Level of Service Definitions

Level of Service	Description	Average Control Delay Per Vehicle: Signalized (sec/veh.)	Average Control Delay Per Vehicle: Unsignalized (sec/veh.)
A	Free flow with no delays. Users are virtually unaffected by others in the traffic stream.	≤ 10	≤ 10
B	Stable traffic. Traffic flows smoothly with few delays.	> 10 – 20	> 10 – 15
C	Stable flow but the operation of individual users becomes affected by other vehicles. Modest delays.	> 20 – 35	> 15 – 25
D	Approaching unstable flow. Operation of individual users becomes significantly affected by other vehicles. Delays may be more than one cycle during peak hours.	> 35 – 55	> 25 – 35
E	Unstable flow with operating conditions at or near the capacity level. Long delays and vehicle queuing.	> 55 – 80	> 35 – 50
F	Forced or breakdown flow that causes reduced capacity. Stop and go traffic conditions. Excessive long delays and vehicle queuing.	> 80	> 50

Source: Transportation Research Board, *Highway Capacity Manual 2000*, National Research Council, 2000.

As defined in Policies 1 and 2 of the Transportation Element, LOS C is the minimum acceptable standard for circulation within Capitola with the exception of Capitola Village, where LOS D is the minimum acceptable standard.

As a result of changes in the California Environmental Quality Act and efforts to improve non-vehicular mobility (i.e. Complete Streets), the General Plan Update process will be re-valuating the LOS standards and policies for Capitola.

Special Study Areas

This section provides more detailed information about the key transportation issues for the General Plan Update Special Study Areas, namely, 41st Avenue/Capitola Mall, Capitola Village, and Bay Avenue. The location of these areas is shown in Figure 3-8: Capitola Special Study Areas.

Given the precedence of the issue and recently completed studies, parking in Capitola Village has been addressed in greater detail.

41st Avenue

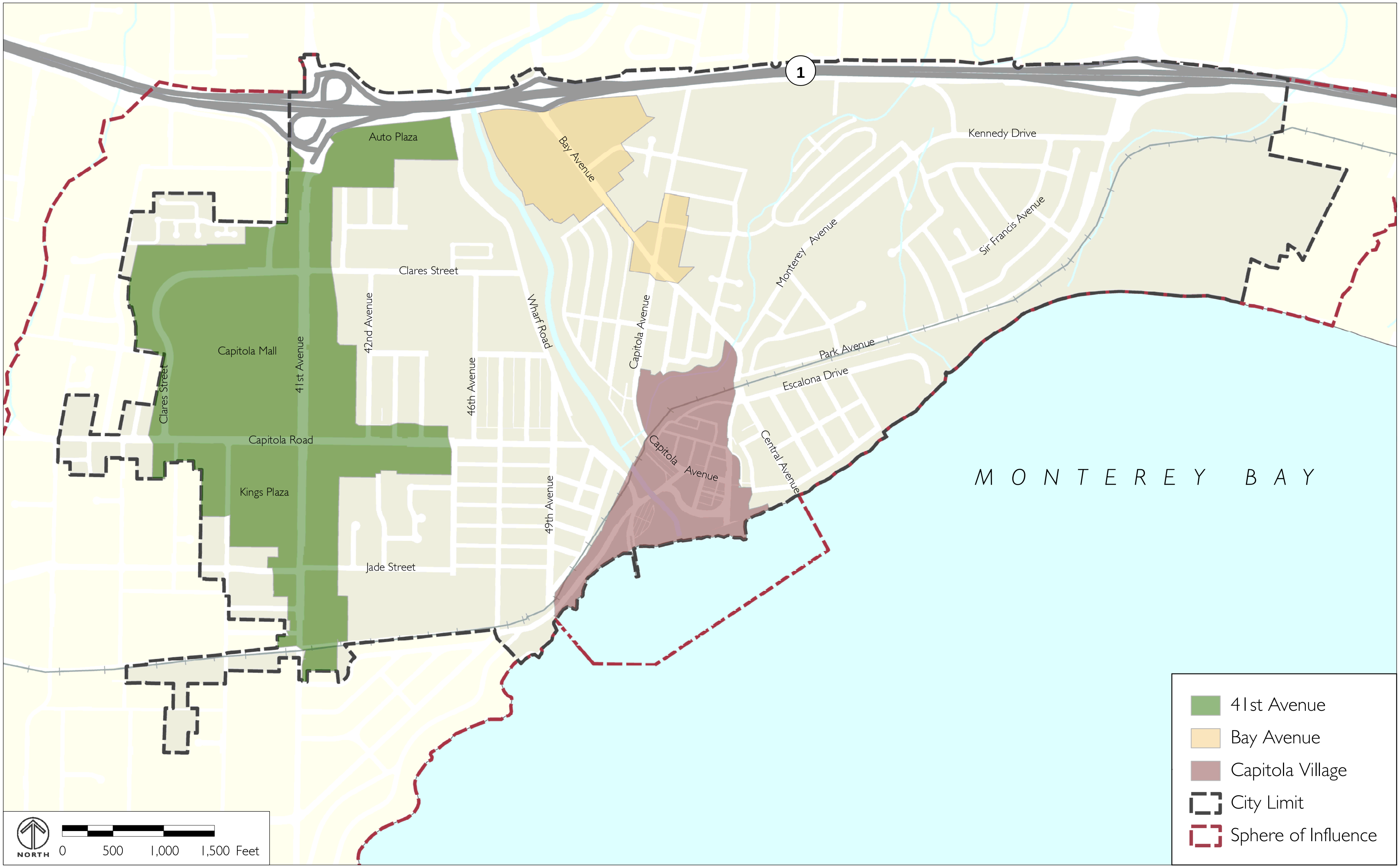
A major arterial in the Capitola Road network sytem is 41st Avenue. It provides access to regionally significant commercial activities and also access to the adjacent residential neighborhoods. Interscetions are closely spaced and congestion occurs particularly during the afternoon and weekend peak hours of noon to two P.M.. Lane utilization plays a critical role in movements between these intersections, particularly close to the freeway, and specific movement demand exceed the available capacity at these intersections. Bike lanes and sidelwaks are provided along 41st Avenue, but the high traffic volumes may be perceived as unsafe for biking and walking. A major transit hub is located at the Capitola Mall, which results in multiple transit acitivities and conncetions along 41st Avenue, as well as through traffic to the neighboring residential neighborhoods.

Capitola Road serves the primary link between the 41st Avenue corridor and Capitola Village. This roadway narrows to two lanes east of 45st Avenue and extends through a residential neighborhood. Further assessment of this linkage, and related traffic impacts will be given further attention as part of the General Plan Update process.

Additionally, the southern end of 41st Avenue, which is located outside of Capitola, has been gradually redeveloping as a popular destination for its mix of restaurants and retail stores. Opportunities to enhance and expand this area with the rest of 41st Avenue merits further attention in coordination with Santa Cruz County.

Given the fact that 41st Avenue and Capitola Road already operate at very congested levels, any proposals to increase densities will have to be carefully considered and evaluated to mitigate additional congestion. This will have to be addressed in coordination with Santa Cruz County, the SCCRTC, and Caltrans.

The impacts of truck traffic on non-arterial streets (e.g. 38th Avenue) and cut-through traffic will also need to be considered as part of the General Plan Update.



Source: Santa Cruz County and RBF Consulting, 2011.

FIGURE 3-8

CAPITOLA SPECIAL STUDY AREAS

Capitola Village

This section addresses specific transportation issues associated with Capitola Village (the Village) including parking, traffic circulation, and bicycle and pedestrian mobility.

Relevant recent studies utilized in this analysis include the following:

- City of Capitola, *Parking Analysis for the Capitola Village Area*, prepared by RBF Consulting, December 1, 2008.
- City of Capitola, *Capitola Village Parking Structure Planning Project for the City of Capitola*, prepared by Watry Design and Field Paoli, February 18, 2011.
- City of Capitola, *Parking Analysis for the Capitola Village Area*, prepared by RBF Consulting, December 1, 2008.
- City of Capitola, *Report on Parking Expansion Alternatives*, prepared for the Traffic and Parking Commission, April 14, 2010.

Parking Supply

Parking, or the lack thereof, is a key issue in the Village. This is largely because the Village is a desirable destination for a variety of local and regional users, particularly during peak summer, holiday, and weekend periods. Routine and predictable users include those destined for retail, restaurant, beach, and residential uses. These user groups typically compete for the very limited parking supply.

The Village Area has a total parking supply of 1,036 spaces. Of these spaces, 682 are off-street with the remaining 354 on-street (RBF Consulting, 2008). Coin-only, POM (Park-O-Meter) brand parking meters are currently utilized throughout the Village as a strategy to manage the limited parking supply. Table 3-4: Capitola Village Parking Meter Strategy provides a summary of the City's existing parking meter strategy. The location of these meter zones is shown in Figure 3-9: Capitola Village Area Parking Program.

Table 3-4: Capitola Village Parking Meter Strategy

Area (City Meter Zone[1])	# Spaces	Time Limit	Time of Day	Days of Week	Cost per hour
Village Area (A1)	179	2-hour	8 am – 8 pm	7-days	$1.50
Cliff Drive (A2)	46	4-hour	8 am – 8 pm	7-days	$1.00
Pacific Cove Lot (B)	218	12-hour	no limit	7-days	$0.50
Total	**443**				

[1] Per Resolution No. 3745, City of Capitola, April 9, 2009.
Source: Steve Jesberg, City of Capitola, February 7, 2011.

Source: City of Capitola and RBF Consulting, 2011.

FIGURE 3-8

CAPITOLA VILLAGE AREA PARKING PROGRAM

The remainder of the parking supply is managed through the use of permits (see Figure 3-9: Capitola Village Area Parking Program). Multiple strategies are currently utilized for residents, City staff, business employees, and longer-term visitors. City Council Resolution No. 3215 (April 25, 2002) established the following general parking permit requirements:

Village Preferential Permit Parking Program

- Households within the Village are entitled to preferential parking permits.
- The number of permits (not to exceed two in any case) is dependent on the number of off-street spaces, the number of registered vehicles, and occupancy type (full or part time).
- For part-time occupancy, permits are transferable between different vehicles.
- Permits are effective for a calendar year, January 1st to December 31st.
- Maximum number of Village preferential parking permits is 350.
- The cost of each permit is $25.
- Free Pacific Cove permits are offered (maximum of 50 per year).

Village Employer/Employee Parking Permits Program.

- Village businesses may apply for up to two village employer/employee parking permits.
- The number of permits shall not exceed 35% of the total number of a business' employees up to a maximum of 50 permits.
- Permits are transferable between different vehicles.
- The cost of each permit is $25.

Portions of the Village not specifically covered by Resolution No 3215 are also subject to permit parking limitations. More specifically, the residential area along Fanmar Way and Terrace Way are subject to permit parking 5:00 pm on Friday to 5:00 pm on Sunday all year long. In addition, residential areas outside the Village are subject to Saturday, Sunday, and Holiday limitations (11:00 am to 5:00 pm) during the summer (Memorial Day weekend through the end of September) when shuttle bus service is provided (discussed below). Finally, the Pacific Cove parking lot requires permits all year long for Village, City, and business staff/employees. For the 2011 year the City has issued a total of 40 Employer/Employee parking permits for Village businesses and has issued a total of 63 parking permits for City employees. All 103 of these cars park in the Pacific Cove parking lot.

Occupancy

As described in the *Parking Analysis for the Capitola Village Area* (RBF Consulting, 2008), during the summertime and on winter Saturdays, parking demand was observed to exceed Village capacity. More specifically, summer Saturdays exceed capacity while on Thursdays the occupancy was at 95%. Winter Saturdays exceed capacity although winter Thursdays experience 65% occupancy. In summary, summer Saturdays experience the highest occupancy, while winter weekdays experience the lowest occupancy throughout the year.

Demand

As described in the *Parking Analysis for the Capitola Village Area* (RBF Consulting 2008), peak parking demand within the Village during Summer weekends is 1,212 spaces. In actual terms, the peak parking demand of 1,212 spaces exceeds the parking supply by 176 spaces (1,036 parking space supply vs. 1,212 parking space demand). However, parking is typically deemed to be at capacity when parking spaces are occupied at 85%. If parking occupancy is higher, vehicles start circulating around the block multiple times to find available parking spaces, and traffic congestion occurs. Therefore, for optimal circulation, the existing parking demand of 1,212 spaces would be increased by 15% (or to 1,426 spaces). In this scenario, a total additional 390 spaces (1,426 spaces less supply of 1,036 spaces = 390), would be considered for optimal traffic circulation in the Village.

Future parking demand has been studied in detail by the Capitola Traffic and Parking Commission. In their report, *Report on Parking Expansion* (Capitola 2010), they considered a low and high range of parking demand based on future anticipated projects and public improvement initiatives in the Village. (see Appendix B).

Table 3-5: Current and Future Parking Demand in Capitola Village summarizes the parking needs, both present and future, that the City of Capitola should plan for in developing new parking in the Village. It takes into consideration potential development of a new hotel at the south end of Monterey, creation of an Esplanade Pedestrian Plan (where current parking exists), expansion of the existing Valet Parking Program, and accommodating miscellaneous future new development.

Table 3-5: Current and Future Parking Demand in Capitola Village

Demand	Low	High
Current Shortfall	176	390
Village Hotel	60	120
Replace Theater Spaces	39	39
Esplanade Pedestrian Walk/Plaza	0	100
Valet Parking Program	0	50
Other New Development	50	100
Total	**325**	**799**

Source: City of Capitola, Report on Parking Expansion Alternatives, April 14, 2010.

Pacific Cove Parking Garage

The parking demand range identified in Table 3-5 was used as the basis for the preparation of a study by Watry Design to construct a parking garage at the Pacific Cove parking lot located behind City Hall (City of Capitola, 2011b). The Pacific Cove parking lot is currently a surface lot and is primarily used over weekends and during the summer vacation period, when demand for visitors to the Village and the beach exceeds the parking supply in the Village. The City plans to construct a parking structure at this lot that will provide additional parking spaces to meet the current shortfall and provide parking spaces for future growth in the Village. An illustration of what the garage might look like is shown in Figure 3-10: Pacific Cove Parking Garage Conceptual Illustration, below.

It is important to note that the future parking demand identified in Table 3-5 represents new parking spaces added to the existing inventory. If a new parking structure is built at the Pacific Cove parking lot site, the spaces eliminated (approximately 230 spaces) to accommodate the structure will need to be added to the future demand projections to determine the total number of planned spaces for the parking structure.

Two design options are currently under consideration by the City. Option 1 is a three-level garage that would accommodate 554 total spaces, or 320 net new spaces (following replacement of the existing spaces) at a cost of $12.8 M. Option 2 is a four-level garage that would accommodate 664 total spaces, or 430 net new stalls at a cost of $18.8M.

Source: Warty Design, Inc. and Field Paoli, 2011.

FIGURE 3-10

PACIFIC COVE PARKING GARAGE CONCEPTUAL ILLUSTRATION

Parking Management

Parking and land use issues in the Village are guided by the City of Capitola's Local Coastal Program, which has been closely reviewed by the Coastal Commission because the Coastal Act assigns a high priority for preserving and expanding visitor serving uses and public access. One of the Coastal Commission's major concerns, then and now, is the impact of the automobile on the Village, and the need for the City to provide additional parking, but without adversely impacting the visual and aesthetic charm of the Village.

Currently, two parking management programs are utilized in the Village Area in an effort to serve the unique user demands and to maximize the efficiency of the limited parking supply.

Village Shuttle Bus Service

As noted above, a Village shuttle bus service is provided by the City on Saturdays, Sundays, and holidays during the summer (Memorial Day weekend through mid-September). Twenty-four person shuttle buses are utilized with service hours of 10:00 am to 8:00 pm. The City is currently leasing a 75-space parking lot near the Highway 1 interchange with Bay Avenue (at The Crossroads shopping center) as a park-and-ride lot for the shuttle bus service. As of 2005, the annual number of shuttle bus riders was just over 13,000 persons (City of Capitola, 2006).

Surfer Board Pass

The City recently initiated a "Surfer Board Pass" program whereby surfers are offered $50 annual parking passes that allows parking within the Village in the morning until 10:00 AM, at which time the typical morning surfing activity ends. Users of these parking passes are allowed to park in metered spaces in the Village.

Pay Stations

The Capitola City Council recently approved a phased implementation plan for new parking pay stations to replace the existing coin-only parking meters within the Village. This new equipment is anticipated to introduce desirable flexibility in how the City collects parking meter fees in both currency format (coin vs. credit card) and the ability to adjust/modify parking rates seasonally and/or by time-of-day. The implementation phases have been defined as follows:

- Phase 1 - Esplanade portion of the Village
- Phase 2 - Remainder of Village
- Phase 3 - Cliff Drive
- Phase 4 - Pacific Cove Parking Lot

The Phase 1 equipment installation and operational implementation is anticipated to be completed prior to Memorial Day weekend 2011. The new equipment will be tested over the summer months and a course of action for implementing Phases 2 through 4 will be determined based on the results of Phase 1.

Intelligent Parking Management System

Parking management techniques have been found within the transportation industry to be very successful in alleviating high parking demand. Parking management techniques applicable to the Village include parking fees that vary according to the time of day and level of demand, valet parking using off-site lots, and variable message signs that indicate when parking is full and direct the visitor to an alternative parking location. The goal of parking management, especially in areas where parking is at or over capacity, is to maximize parking availability by guiding the driver to vacant parking spaces through an intelligent real-time parking management system. Such a system decreases vehicles circulating multiple times around the block looking for parking, while optimizing fee collection. Approaches to solving parking issues in the Village could include implementing a system that would track parking occupancy, and optimize parking fee collections. The benefits of such a system include:

- Facility cost savings and additional revenue generation for the city
- Flexibility in parking provisions and future land planning projects
- Decreased demand of new land for parking
- Promote the use of alternative transportation, like the beach shuttle
- Reduced vehicular travel and emissions

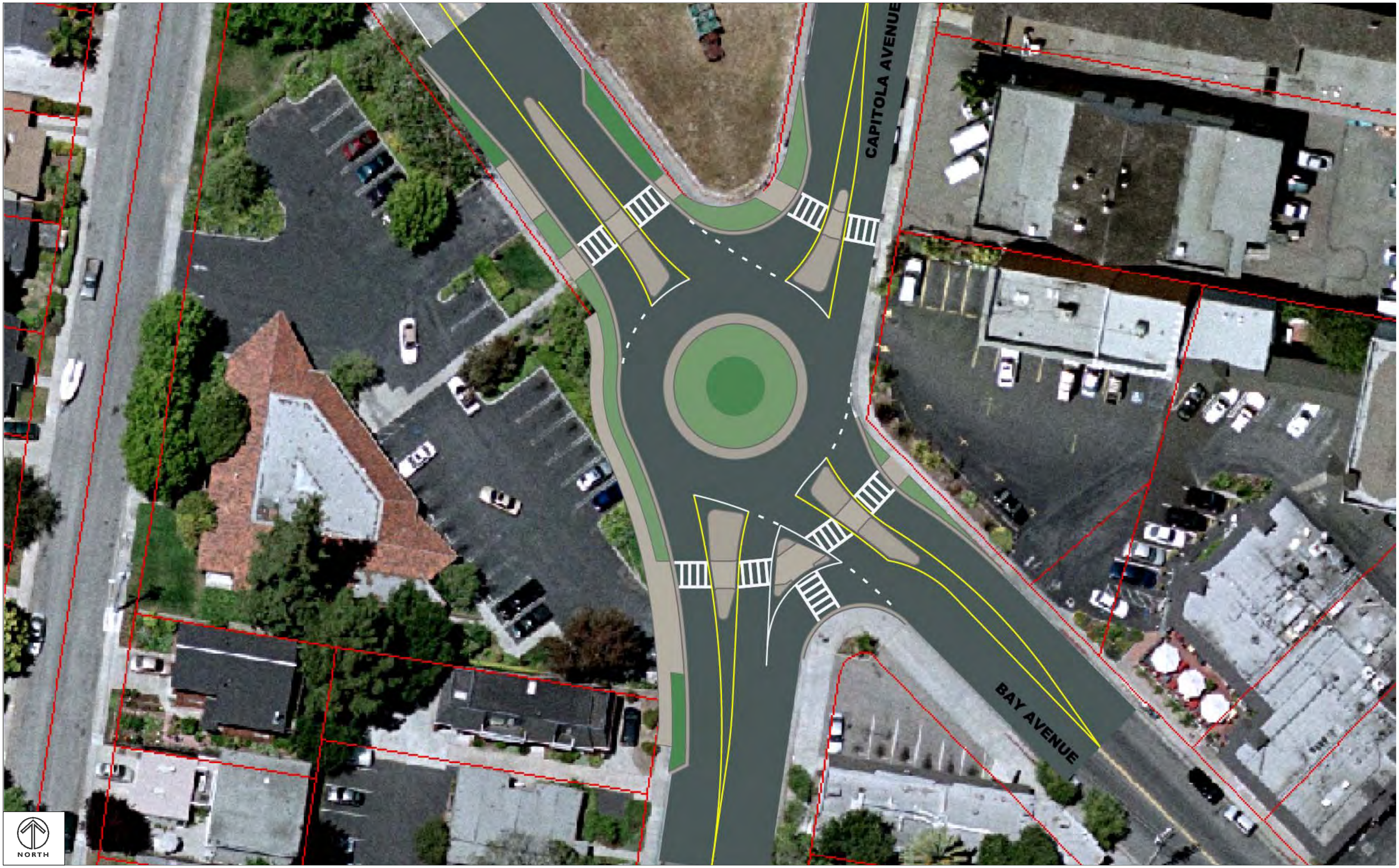
Bay Avenue

Bay Avenue provides access for Highway 1 to commercial land uses immediately south of Highway 1. Bay Avenue also is the main arterial connecting City of Capitola with the town of Soquel. It also provides access to the residential neighborhoods south of the freeway and to Capitola Village. It is a four lane roadway just south of the freeway and changes at Hill Street to a three lane roadway up to Capitola Avenue and then continues southeast as a two lane roadway to Monterey Avenue.

The intersection of Bay Avenue and Capitola Avenue is on a skew angle, which increases crosswalk distances for pedestrians, crossing distances for bicycles and vehicles. It also results in high perception-reaction time from drivers, which adds to the delay at the intersection. Long queues are evident at this intersection during busy peak hours, including when New Brighten Middle school opens in the morning and lets out in the early afternoons. The City has identified the construction of a roundabout as a possible alternative at this intersection. This improvement will help alleviate congestion and improve safety. Figures 3-11 and 3-12 conceptually illustrate both a single- and dual roundabout that could be accommodate at the intersection with minimal acquisition of new right-of-way. Funding sources have yet to identified so the project remains conceptual and under consideration.

Other transportation issues for the Bay Avenue Special Study Area that should be addressed in the General Plan Update include the following:

- Pedestrian and bike mobility along the corridor and under Highway 1 to Porter Street, particularly with respect to students going to/from Soquel Elementary, Soquel High School and New Brighten Middle School. Improved bicycle mobility along this corridor could also help reduce the automotive traffic generated by parents who currently drive their children to school.
- Careful consideration of additional traffic volumes along Bay Avenue generated from any land use changes and close coordination with Caltrans regarding the Highway 1/BayAvenue/Porter Street interchange and the proposed Highway 1 High Occupancy Vehicle (HOV) Lane Project.
- Pedestrian and handicapped mobility for seniors living and shopping in the area and participating in activities at the Mid-County Senior Center. Opportunities to create a gateway entry to Capitola along Bay Avenue.
- Options to improve vehicular and non-vehicular connectivity between Bay Avenue and the Village (e.g. signage to direct people to the Pacific Cove parking lot, Beach Shuttle parking lot, etc.).
- Opportunities to improve the pedestrian environment including landscaping, seating, lighting, etc. as well as additional traffic calming measures.
- Options to improve and enhance the connection to the Soquel Creek and the pedestrian/bike bridge that leads to Rispin Mansion and Wharf Road (signage, lighting, designated and stripped pathways, etc.)



Source: RBF Consulting, 2011.

FIGURE 3-11

BAY AVENUE/CAPITOLA AVENUE INTERSECTION SINGLE ROUNDABOUT CONCEPT

Source: RBF Consulting, 2011.

FIGURE 3-12

BAY AVENUE/CAPITOLA AVENUE INTERSECTION DUAL ROUNDABOUT CONCEPT

References

City of Capitola, *Parking Analysis for the Capitola Village Area*, prepared by RBF Consulting, December 1, 2008.

City of Capitola, *Bicycle Transportation Plan,* adopted February 10, 2011.

City of Capitola, *Capitola Village Parking Structure Planning Project for the City of Capitola*, prepared by Watry Design and Field Paoli, February 18, 2011.

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Santa Cruz County Regional Transportation Commission, *Improving the Safety and Accessibility of Sidewalks in Santa Cruz County*, July 2010

.

Appendix A

Capitola Redevelopment Agency
Capital Improvement Program, Fiscal Year 2010-11

City of Capitola
Capitola Redevelopment Agency
Capital Improvement Program
Fiscal Year 2010-11

Project List - Master

Project Number	Project Category	Location	Project	Year Scheduled	Engineer's Estimate	Total Available Funds	Unfunded	
C3	Creek	Soquel	Stockon Bridge Enhancement	unprogrammed	42,900	-	$ 42,900	
C5	Creek	Soquel	Flume Repair/Replacement	Unprogrammed	500,000	-	$ 500,000	
C6		Beach	West Jetty Refirbishment	Unprogrammed	440,000	-	$ 440,000	
				Total	$ 982,900	$ -	$ 982,900	
F4	Facility	Beulah	Site Development for City use	Unprogrammed	101,800	-	$ 101,800	
F6	Facility	Pacific Cove MHP	New Water Line and Slurry Seal	Unprogrammed	228,000	-	$ 228,000	
F9	Facility	Corp Yard	Second Story Addition - Remodel	Unprogrammed	480,000	-	$ 480,000	
F10	Facility	City Hall	Remodel Council Chambers	unprogrammed	83,200	-	$ 83,200	
F11	Facility	City Hall	Install Emergency Generator	Unprogrammed	92,800	-	$ 92,800	
F13	Facility	City Hall	Remodel City Hall including Offices	Unprogrammed	2,720,000	-	$ 2,720,000	
F14	Facility	Police Department	Remodel Police Department	Unprogrammed	1,632,000	-	$ 1,632,000	
F15	Facility	Community Center	Remodel Community Center	Unprogrammed	1,728,000	-	$ 1,728,000	
				Total	$ 7,065,800	$ -	$ 7,065,800	
P15	Parks	Esplanade	Bluff Erosion Control	2010-11	90,900	90,900	$ -	
P6	Parks	Jade	Soccer and Baseball Field Improvements	Unprogrammed	24,100	-	$ 24,100	
P7	Parks	Cortez	Landscaping and Pathways	Unprogrammed	45,400	-	$ 45,400	
P9	Parks	Monterey	Field Irrigation and Drainage Improvements	Unprogrammed	48,000	-	$ 48,000	
P10	Parks	Cortez	New Play Equipment in Swing Areas	Unprogrammed	96,500	-	$ 96,500	
P11	Parks	Soquel Creek	Repair Retaining Wall	Unprogrammed	49,500	-	$ 49,500	
P12	Parks	Jade & Cortez	Develop Picnic and BBQ area @ Jade	Unprogrammed	37,600	-	$ 37,600	
P13	Parks	TBD	Skate Park Development	Unprogrammed	485,000	-	$ 485,000	
P14	Parks	TBD	Dog Park Development	Unprogrammed	29,700	-	$ 29,700	
P16	Parks	Jade	Reconstruct Tennis Courts	Unprogrammed	100,600	-	$ 100,600	
				Total	$ 1,007,300	$ 90,900	$ 916,400	
S12	Streets	Capitola Rd/42nd	Pedestrian Improvements	2010-11	484,769	484,769	$ -	
S48	Streets	38th Avenue	Overlay from Brommer St to Capitola Rd	2010-11	590,000	590,000	$ -	
S39	Streets	Various	Slurry Seals - 2009	2010-11	70,000	70,000	$ -	
S44	Streets	Various	Slurry Seals -2010	2010-11	70,000	70,000	$ -	
S55	Streets	41st Rehab Phaae 2	Gross Road to Clares Street	2010-11	427,000	52,000	$ 375,000	*
S43	Streets	Cherry Avenue	PMP -2010	2010-11	89,900	89,900	$ -	
S45	Streets	Various	Slurry Seals - 2011	2011-12	70,000	70,000	$ -	
S46	Streets	Park, Reposa, Cliff, El Salto	PMP - 2011	2011-12	502,000	180,000	$ 322,000	
S35	Streets	Bay Avenue Corridor	Utility Undergrounding	2012-13	300,000	300,000	$ -	
S49	Streets	Various	Slurry Seals - 2012	2012-13	70,000	70,000	$ -	
S50	Streets	TBD	PMP - 2012	2012-13	540,000	180,000	$ 360,000	
S51	Streets	Various	Slurry Seal 2013	2013-14	70,000	70,000	$ -	
S52	Streets	TBD	PMP - 2013	2013-14	540,000	180,000	$ 360,000	
S56	Streets	PMP - 2014	TBD	2014-15	502,000	180,000	$ 322,000	
S57	Streets	Slurry - 2014	TBD	2014-15	70,000	70,000	$ -	
S1	Streets	Pacific Cove Parking	Lighting & Sidewalk Improvements	Unprogrammed	95,700	-	$ 95,700	
S2	Streets	Village	Phase II - Multi-modal improvements	Unprogrammed	1,226,800	-	$ 1,226,800	
S8	Streets	Cliff Dr.	Seawall (Corps)	Unprogrammed	1,150,000	-	$ 1,150,000	
S9	Streets	Hooper's Beach	Stairway Repairs	Unprogrammed	32,400	-	$ 32,400	
S10	Streets	41st/Cap Rd	New Signals	Unprogrammed	270,000	-	$ 270,000	
S20	Streets	Pacific Cove Parking	2nd level parking lot addition	Unprogrammed	12,825,000	-	$ 12,825,000	
S21	Streets	Village	Phase III - Multi-modal improvements	Unprogrammed	1,151,600	-	$ 1,151,600	
S22	Streets	Stockton Ave Bridge	Hazard Assessment	Unprogrammed	50,000	-	$ 50,000	
S27	Streets	Village	Phase IV - Multi-modal improvements	Unprogrammed	858,000	-	$ 858,000	
S28	Streets	41st	Widen Highway 1 Overpass to 6 lanes	Unprogrammed	5,775,000	-	$ 5,775,000	
S40	Streets	Grand Ave	Drainage Improvements	Unprogrammed	859,000	42,000	$ 817,000	
S42	Streets	Wharf Road	Retaining wall extension	Unprogrammed	412,500	-	$ 412,500	
S53	Streets	Hill Street	Ped. Impts from Cap Ave to Rosedale	Unprogrammed	120,000	-	$ 120,000	
S54	Streets	Reposa Avenue	Traffic Calming	Unprogrammed	40,000	-	$ 40,000	
				Total	$29,261,669	$ 2,698,669	$ 26,563,000	

* $375,000 of ARRA funds not budgeted at this time and may become available in 2010-11

City of Capitola
Capitola Redevelopment Agency
Capital Improvement Program
Fiscal Year 2010-11

Project List - Master

Project Number	Project Category	Location	Project	Year Scheduled	Engineer's Estimate	Total Available Funds	Unfunded
W2	Wharf		Utility Improvements (Water, Sewer, Electrical)	Unprogrammed	88,100	-	$ 88,100
W3	Wharf		Restaurant & Restroom Remodeling	Unprogrammed	300,000	-	$ 300,000
				Total	$ 388,100	$ -	$ 388,100
N5	NTAC	Clares & Wharf	Clares & Wharf Traffic Calming	2010-11	400,000	400,000	$ -
N3	NTAC	Bay & Cap Ave	Bay Ave/Cap Ave Intersection Improvements	Unprogrammed	564,400	-	$ 564,400
N4	NTAC	Bay & Monterey	Bay Ave/Monterey Ave Intersection Improvements	Unprogrammed	297,000	-	$ 297,000
N6	NTAC	Park Ave	Park Ave sidewalks to Cabrillo	unprogrammed	402,500	-	$ 402,500
N7	NTAC	Monterey Ave	Relocate Stop Signs on Monterey Ave	unprogrammed	8,700		$ 8,700
N8	NTAC	Depot Hill	Ingress/Egress improvements to Depot Hill	unprogrammed	148,500		$ 148,500
N9	NTAC	Stockton Ave	Raised crosswalks at Stockton & Esplanade	Unprogrammed	150,000		$ 150,000
N10	NTAC	Park Ave	Slow Street Design on Park Ave	unprogrammed	123,900		$ 123,900
N12	NTAC	Monterey Ave	Slow street design on lower Monterey Ave	unprogrammed	115,500		$ 115,500
N13	NTAC	Various	Slow street design on Escalona, Fanmar, Cliff Ave, & El Salto	unprogrammed	90,900		$ 90,900
N14	NTAC	Escalona	Small traffic circle at Escalona and Oakland	unprogrammed	12,400		$ 12,400
N15	NTAC	Bay	Traffic Calming on Bay Ave	unprogrammed	206,400		$ 206,400
N16	NTAC	Beulah	One way traffic on Beulah (west to east)	unprogrammed	20,600		$ 20,600
N17	NTAC	Monterey and Hill	Sidewalks on Monterey and Hill	unprogrammed	50,300		$ 50,300
N18	NTAC	47th Ave	Traffic Calmning on 47th Ave	Unprogrammed	80,000		$ 80,000
N19	NTAC	42nd Ave	Bulb-outs on 42nd at DMV	unprogrammed	33,000		$ 33,000
N20	NTAC	Cliff Dr.	Bulb-outs on Cliff Drive below Prospect	unprogrammed	49,500		$ 49,500
N21	NTAC	49th Ave	Bikeway striping on 49th Ave	unprogrammed	4,100		$ 4,100
N22	NTAC	Various	Establish Truck Routes through City	unprogrammed	20,600		$ 20,600
N24	NTAC	Wharf	Replace rolled curb on Wharf Road	Unprogrammed	74,300		$ 74,300
N26	NTAC	49th Ave	Chicanes on 49th Ave	unprogrammed	45,400		$ 45,400
N27	NTAC	Various	Signage depicting Neighborhoods	unprogrammed	20,600		$ 20,600
N28	NTAC	42nd Ave	Slow Traffic Design on 42nd	unprogrammed	53,600		$ 53,600
N11	NTAC	Fanmar	One way Traffic on Fanmar (east to west)	unprogrammed	33,000		$ 33,000
				Total	$3,005,200	$400,000	$2,605,200
				Grand Totals	$41,710,969	$3,189,569	$38,521,400

Appendix B

City of Capitola Report on Parking Expansion (April 2010)

City of Capitola

Traffic and Parking Commission

Report on Parking Expansion Alternatives

Approved by the Traffic and Parking Commission on April 14, 2010

Executive Summary

Over the past eight months the Traffic and Parking Commission for the City of Capitola has determined that the expansion of public parking inventory serving Capitola Village should be one of the City's highest priorities. The Commission has reviewed all the recent reports and studies completed by the City, and using the data contained in these reports made a determination on a range of spaces needed and a location for them.

Using the 2008 Parking Needs Analysis by RBF Consulting, which quantified the existing needs as a range between 176 – 390 parking spaces, the Commission identified and quantified future needs that could be foreseen now. These future needs included spaces for a Village Hotel and other new development, possibly creating an Esplanade pedestrian promenade, and providing parking for a valet parking program. The results of this work indicate that the City should aim to create 325 new parking spaces at a minimum, with a maximum need of 799.

The Commission believes any new parking should be developed in such a way as to reduce vehicles traveling through the Village. The new parking should intercept vehicles coming from Bay Avenue and Park Avenue, and be easy to find for the vehicles entering from Stockton Avenue. The parking should be within walking distance of the Village, but also provide some form of transport between the parking location and the Village. Given these parameters, the Commission further determined that the City owned Pacific Cove property, which currently consists of a public parking lot and the Pacific Cove Mobile Home Park, is the best location for parking expansion.

The Commission realizes that development of new parking spaces cannot be done in isolation. In addition to providing more parking for the Village, the Commission supports the development of programs that will improve parking systems and provide alternatives to the search for parking.

In addition, the Commission has reviewed the Village Parking Permit Program and has recommended minor changes to this program that will be sent to the Council separately. The Commission will also be undertaking a review of the Neighborhood Parking Permit Program.

It is important to note the Commission has focused on parking and not yet on circulation. The Commission realizes that traffic and circulation need to be analyzed as they exist in the Village now, and how they would be impacted by the expansion of spaces in Pacific Cove.

Background

The Traffic and Parking Commission was formed by the Capitola City Council by Resolution No. 3740 which was adopted on February 26, 2009. The Commission's charge is to develop short, medium, and long term plans for City Council consideration that address traffic and parking demands in the City by considering citywide traffic and parking improvements developed in various studies and reports provided to the City Council. Once these plans are in place, the Commission shall act as an advisor to the City Council on implementation of the plans and other duties requested by the Council.

The Commission is comprised of eleven community members representing differing interests in the City and the Village area. Currently the Commission is comprised of the following.

Ed Bottorff, Central Village Resident
Ron Burke, Planning Commission Representative
Carin Hanna, Village Business Owner
Linda Hanson, Appointee of Council Member Norton
Margaret Kinstler, Central Village Resident
Vicki Muse, Appointee of Council Member Begun
Anne Nicol, Appointee of Council Member Nicol
Molly Ording, Appointee of Council Member Storey
Jeanne Roddy, Pacific Cove Mobile Home Park Resident
Nels Westman, Appointee of Council Member Graves
Gary Wetsel, Village Business Owner

The Commission held its first meeting on June 10, 2009. The Commission normally meets on a monthly basis, but has been meeting twice a month in January, February, and March of 2010 in order to complete this report.

On September 9, 2010 the Commission adopted the following vision statement as a guide in their analysis of traffic and parking as it relates to Capitola Village.

A Traffic and Parking Commission vision is to address parking needs in the Central Village without increasing public parking in the Central Village; and any parking removed from the Central Village must be replaced in kind outside the Central Village.

On November 12, 2009 the Commission chair, Gary Wetsel, presented an oral report to the City Council that included the initial recommendations for parking expansion (see Attachment 1 for slide presentation). Following this report, the Commissioners continued to pursue more detailed information on these recommendations. The Commission therefore established the four sub-committees to track and gather more detailed information in key areas in support of the Commission's initial recommendations.

Established Sub-Committees

1. Parking Structure – to identify key elements, potential timetable and costs of a new multi-level parking structure at the Pacific Cove Parking Lot site.
2. Lower Pacific Cove Mobile Home Park Surface Parking – to identify key issues and estimate of cost of creating a surface level parking lot on the western portion of the mobile home park.
3. Hotel – to track and study key issues relating to traffic and parking relative to the proposed Village Hotel.
4. Transportation Links between Pacific Cove and the Central Village - to look for innovative ways to move people that would both be an attraction and encourage people to park at Pacific Cove rather than the Village.

Many of the details contained in the report were the results of the work of these sub-committees.

Introduction

Although there are times when parking is readily available in the Village, including the Pacific Cove Parking Lot, the existing parking supply does not meet the demands during peak periods. This shortage in parking is frustrating for residents, merchants and visitors alike. The beauty of Capitola Village makes it a primary destination for many. Neighboring communities such as Santa Cruz, Los Gatos, Monterey, Pacific Grove, and Carmel either provide free parking or readily accessible parking to their commercial areas. The City of Capitola must strive to do its best to improve the quality of the lives of residents, merchants, and visitors and make planning decisions based on peak demands.

To make Capitola Village sustainable it must be able to handle the influx of seasonal visitors who are currently the life's blood for merchants, while also encouraging locals to visit during the slower periods, providing a stable foundation. To meet both these demands it is necessary to provide parking in the Village that result in the following:

- Improving availability of parking for Village residents without off-street parking.
- Improving availability of parking for customers of Village merchants.
- Improving availability of parking for Village employees.
- Improving availability of parking for beach/Village visitors.
- Lessening impact of Village parking shortage on adjacent neighborhoods.

Recent trends show that more and more people are competing for fewer and fewer parking spaces. Development of parcels, expansion of permit areas, increased permit holders, widening of sidewalks, expansion of loading zones, etc. all conspire to slowly but surely make fewer and fewer spaces available to meet a growing demand. In addition to this shrinking parking supply, stringent Coastal Commission restrictions insure that no well-planned major revitalizing commercial development (such as a hotel) is possible in the Village without a major new source of parking in close proximity to the Village.

In the early 1980's the City purchased Pacific Cove Mobile Home Park and installed the first parking meters in the City for the express purpose of providing additional parking for Capitola Village. While Phase One added 234 new parking spaces in the upper section, Phase Two (the lower section) has remained in residential use to this day. The Commission recommends the construction of new parking spaces in a portion of the existing Pacific Cove Mobile Home Park as potentially the fastest and least expensive source of additional parking. The Commission understands the potential for legal and other logistical challenges to this partial solution; however this cannot be a potential solution until the City begins the necessary process.

It is critical to realize though that developing parking in the lower portion of the Pacific Cove Mobile Home Park will not alone address all the current and future parking needs. Thus it is clear that any expansion parking capacity at Pacific Cove must be further accommodated on the upper level where the existing Pacific Cove Parking Lot is located. This expansion can only be done with a multi-level parking structure. Although both of these parking expansion projects are located on the Pacific Cove property they must be treated as separate projects so that an unforeseen delay in one project does not delay the other.

The Commission has considered other sites for the development of new parking but considers the Pacific Cove property as the only suitable site because it is within a reasonable walking distance of the Village and all roads to the village lead to Pacific Cove (see map on next page). The Commission's search for parking has considered "in-fill" parking by trying to capture every nook and cranny to convert to a public parking space. This "Parkitola" approach simply does not generate sufficient spaces to address the identified long term needs and also has the negative effect of encouraging parkers to spread out into the neighborhoods in search of parking spaces.

Consultants have determined, using Local Coastal Plan criteria, that a deficit of 176 spaces already exists based on existing land uses[i]. This deficit is the absolute minimum need to meet the shortage and nothing short of a parking structure can provide this number, let alone any demand from new development such as a new hotel or closing a portion of the Esplanade to cars.

The construction of a parking structure in Pacific Cove and the development of a Village hotel or any other development are vitally linked because it is highly unlikely that any significant redevelopment project could or should provide the required parking on-site. Smart public/private partnerships could result in the timely construction of the parking structure while providing significantly improved utilization of the available on-site parking and a lower cost to the City resulting from sharing of construction costs.

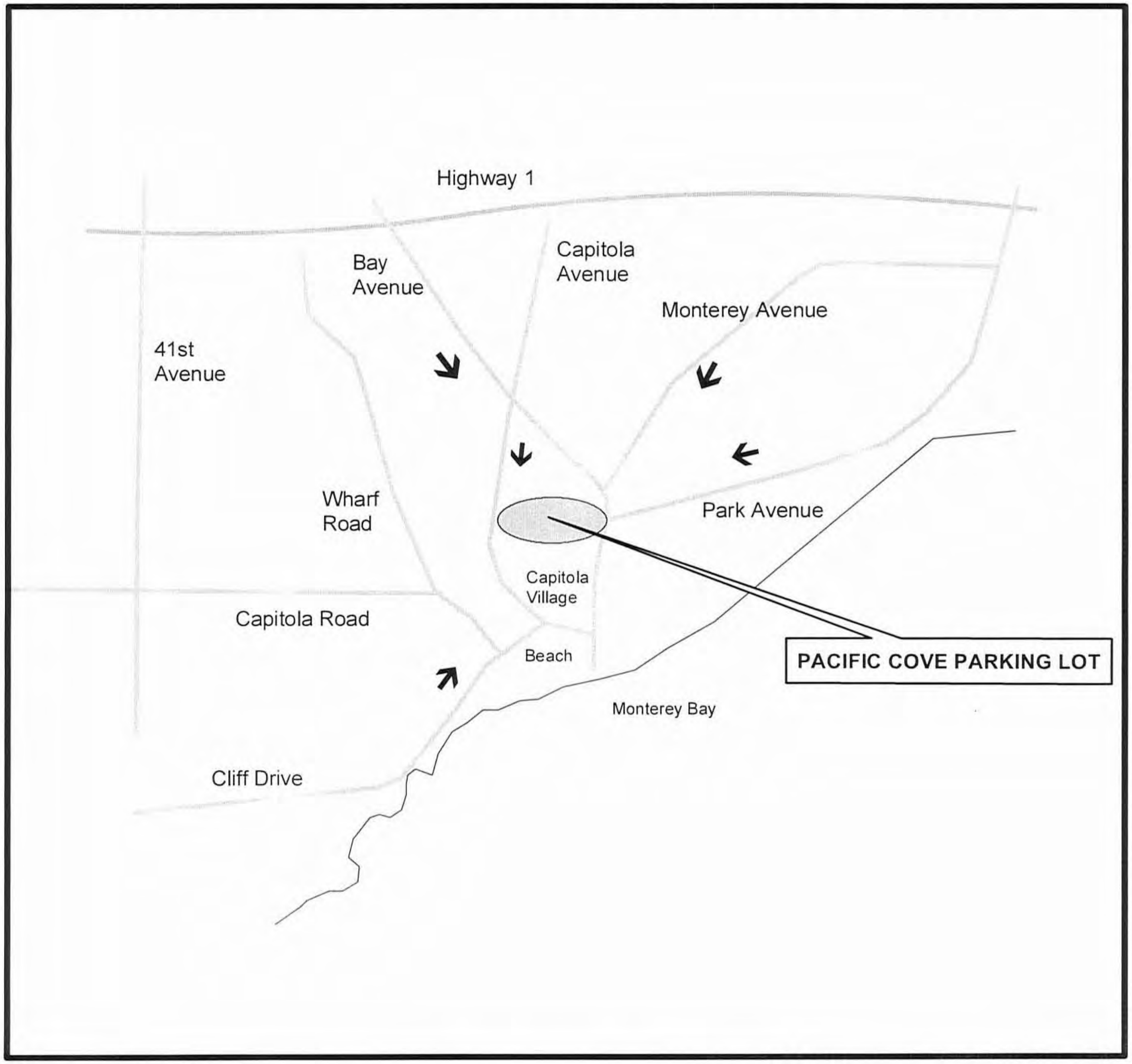
The Commission also believes that a public "people mover" between Pacific Cove and the Village is key to the success. While we are not yet prepared to make a formal recommendation, we believe such a service is readily available and could make Capitola Village "unique" and serve as a very practical addition to the utilization of the parking structure.

Further, while the Commission has not yet formally addressed traffic or congestion in the Village, we believe that parking expansion in the Pacific Cove property as proposed will not only reduce congestion in the Central Village but, because of the its central location, permit a more efficient traffic flow.

The time has come to identify and start work on implementing the right solution. The Commission has reviewed all available studies and information and believes the recommendations in this report focus on the most practical means of addressing this critical need today as well as for the future.

Roads Leading to Capitola Village

All roads point to Pacific Cove



Key Elements for developing new parking for the Village

- Intercepts as many roads as possible headed to the Village
- Easy access for vehicles coming from the Village
- Easy pedestrian access from parking to Village

Parking Needs Analysis

One of the first decision points for the Commission was a determination that if any new parking is built to serve the Village area, it should address not only the existing needs but also the identifiable future needs. The 2008 Parking Analysis[ii] studied the existing parking inventory and the demand for spaces based on the existing number of residential units, commercial space, and demand for parking resulting from visitors to Capitola Beach. This study established a minimum need for 176 parking spaces and also a theoretical maximum 390 based on current needs. The 390 spaces represent a design target of 15% over demand to provide openings in the parking system so that vehicles do not have to circle around looking for a parking space.

After reviewing this report the Commission agreed that these numbers were the best numbers available and used them in identifying the existing parking needs. Next the Commission set out to identify future needs that should be included in any new parking expansion. The Commission considered several issues before settling on the following list:

> Village Hotel - A new village hotel will not be able to provide all the required parking on site. Based on the preliminary plans being presented by Barry Swenson Builder, a hotel on the theater site will require 100 – 120 spaces. In addition the Central Village will lose 39 public paid parking spaces currently available on the theater lot. While the amount of onsite parking that can be provided by the hotel is variable, it was the consensus of the Commission that offsite parking of some level would be required. The Commission decided that a minimum of 60 spaces should be planned in any new parking lot development for a new hotel with a maximum of 120 spaces. The final number will depend on discussions between a hotel developer and the city.
>
> Esplanade Pedestrian Plaza – Over the years the concept of removing all or a portion of parking from the Esplanade to create a pedestrian plaza has been broadly discussed. While the Commission as a body has not taken a position on this matter, it did agree that additional parking would be mandatory for any new development for this concept. A range of 0 – 100 replacement spaces was identified for this need; the zero representing no project and 100 spaces representing full closure of the Esplanade from Stockton Avenue to Monterey Avenue. Partial closure of the Esplanade from San Jose to Monterey would require the replacement of 60 spaces.
>
> Designated Valet Parking Spaces – In 2009 the City approved the development of a valet parking program for the village that entailed utilizing two spaces in the Village as a drop off zone, with the cars being shuttled to a remote parking lot outside the Central Village. The California Coastal Commission, whose approval was required for the project, added language that forbade the use of public parking for the remote lot, effectively eliminating using space in the existing Pacific Cove Parking Lot[iii]. The Commission has added a maximum of 50 spaces to be designated for a valet program.

New Development and Redevelopment – A primary need for new parking for the Village is to enable development and more specifically redevelopment. Current projects have been stymied by the inability to meet parking requirements. The Commission recommends adding 50 -100 spaces for this purpose. It is understood that any development project utilizing these spaces would need to pay for the spaces via an in-lieu parking fee.

The following chart summarizes the parking needs, both present and future, that the City of Capitola should plan for in developing new parking. This range is developed with the idea that updated information will be available to refine this number in the future, while also providing target numbers for use in preliminary planning of a parking structure.

Demand	Low	High
Current Shortfall	176	390
Village Hotel	60	120
Replace Theater Spaces	39	39
Esplanade Pedestrian Walk	0	100
Valet Parking Program	0	50
Other New Development	50	100
Total Long Term Parking Needs	**325**	**799**

It is important to remember that these numbers represent new parking spaces added to existing inventory. If a new parking structure is built at the Pacific Cove Parking Lot site, the spaces eliminated to accommodate the structure will need to be added to these numbers to determine the total number planned for the parking structure.

Short Term Program and Policy Changes to Assist Parking Solutions

Besides adding to the parking inventory the Commission has also reviewed and is recommending several programs that will help manage and enhance parking in the Central Village. Many of these programs aren't new but have never been implemented, or have only been implemented on a trial basis.

Public Valet Parking – As discussed above, a valet parking program would provide an opportunity to add parking outside the Central Village that services visitors to the Village. Although current efforts in attracting a vendor for this operation have not been successful, the Commission recommends that staff continue to work on ways to implement this program.

Pay Stations – The Commission realizes the revenue generated from parking meters in the Village is critical, and that the stand alone parking meters, that accept only coins, have real functional limits that have been reached. At the current meter rate of $1.50 per hour, twelve quarters are needed to pay for the 2 hours of parking currently permitted. Pay stations, where one station services up to 15 spaces and accepts payment via credit cards in addition to coins, would greatly enhance the parking experience. Besides the payment benefits, utilizing pay stations could ultimately lead to advanced parking management systems where vacant spaces are identified and sign boards are utilized to direct drivers to open parking spaces, deterring people from circling around the Village hunting for a space. There are two basic types of pay stations, Pay and Display where a ticket is printed and displayed on the dashboard, and Pay by Space where each parking stall is numbered and paid for at the pay station. The Commission is recommending Pay by Space stations as these types of systems allow a user to pay or add time to their "meter" at any station in the system without returning to their vehicle. Another key component of installing pay stations would be the ability to easily enact variable rate structures where the rate could vary by season, day of the week, or even hour of the day, with all the information contained at each station.

Year Round or Seasonal Shuttle Program – The Commission supports staff's continuing exploration of a city-wide shuttle to encourage residents, employees and visitors to stay out of their cars and still be able to get around town.

Medium Term Program and Policy Changes to Assist Parking Solutions

In-lieu Parking Fees for Commercial Development – The current parking shortfall inside the Central Village does not allow new development and redevelopment. An in-lieu parking program would allow these projects to meet their parking requirements by paying for spaces in an approved parking structure that reflect the actual construction costs. By eliminating parking in the Village, vehicle trips and related congestion would also be reduced.

Zoning Changes for the CV – The 2008 Parking Analysis[iv] includes an analysis of Capitola's parking requirements in the zoning code. This analysis indicates that the existing codes are too strict and do not take into account shared use of existing on-street parking. The Commission supports a review of these requirements and adoption of new codes similar to the ITE standards referenced in the report however until additional parking is developed changes to the Zoning Code would have no impact.

Long Range Parking Space Inventory Development

If additional parking is to be developed the key question is where should it go? The Commission has discussed this issue and has agreed on the following parameters:

1. New parking areas should intercept cars before entering the Village from Park Avenue, Capitola Avenue, and Bay Avenue. Cars entering from Stockton Avenue should be directed to use Capitola Avenue to access the parking lot to discourage circling the Village looking for a space.

2. The new parking areas must have a combination of convenient pedestrian access to the Central Village, and alternate transportation such as a shuttle bus or tramway.
3. The new parking areas should not clutter the entrances to the Village by filling up existing open spaces and landscaped areas such as the UPRR corridors along Cliff Drive and at Monterey Avenue and Park Avenue.
4. The new parking areas must benefit to visitors, residents, business owners and employees.

Given these parameters the Commission recommends the additional parking be located at the Pacific Cove property owned by the City. The existing uses on the property include the Pacific Cove Parking Lot and the Pacific Cove Mobile Home Park. Further development of parking on this site can be accomplished two ways, a multi-level structure over the parking lot and surface parking in the lower mobile home park.

The following chart shows the estimated number of parking spaces that could be provided on the Pacific Cove property:

Pacific Cove Parking Expansion	New Parking	Total Parking
Existing Pacific Cove parking lot		234
Surface on a portion of the lower Pacific Cove Mobile	113	113
Pacific Cove Parking Structure over existing parking	325	325
Total Proposed	**438**	**672**

Two of the Commission's sub-committees have delved into details of these issues and their reports are contained in Attachments 2 and 3.

Fiscal Analysis

Parking Structure

Size – This analysis reflects a 500 space parking structure (175 existing spaces to be replaced and 325 new spaces).

Development Costs - Based on per space cost ranges contained in recent reports to the City from various consultants (high \$21,000; low \$17,000), we have used an average cost estimate of \$19,000 per space which results in a cost of \$9.5 Million.

Potential Funding for Construction:

Source	Amount
Hotel Contribution (See explanation below)	$ 2,900,000
CDBG Grants	$ 2,000,000
EDA Grants	$ 1,000,000
Bond Proceeds	$ 3,600,000
TOTAL	$ 9,500,000

On-going Annual Costs:

Item	Estimated Cost
Debt Service on $3.6 million bond*	$208,000
Operating and Maintenance	$200,000
Total	$408,000

*assumes $3.6 million at 4% over 30 years

Revenue Streams - Sources for revenue streams to pay the annual expense are as follows:

Source	Amount
Dedicated Parking Fund	$ 50,000
Adding parking meters to 43 existing 2-hour unmetered parking spaces in Village	$ 92,000
Enhanced revenue from expanded Pacific Cove parking (@ $1/hr rate)	$163,000
Dedication of 50% of TOT revenues from new Village hotel	$120,000
TOTAL	$424,000

Village Hotel Contribution - The methodology of calculating the Village Hotel's portion of the proposed parking structure was based on the net price per new parking space. While the gross cost per space for a parking structure is $19,000, the net cost must factor out the existing spaces that will be reconstructed. This methodology recognizes the City's contribution of existing spaces and land for the project.

Space determination	
Gross spaces to be built	500
Existing spaces lost due structure construction[v]	175
Net new spaces	325
Net cost per new space	$ 29,000*

*$9,500,000 divided by 325 net spaces

Hotel needs and costs	
Minimum spaces needed	60
Replace theater lot public spaces	39
Total spaces needed by hotel	99
Hotel contribution	$2,900,000*

*99 spaces @ $29,000

Surface Parking in a portion of the Pacific Cove Mobile Home Park

Size – Based on the 2005 Parking Garage and Housing Feasibility Study[vi], this site could provide 113 spaces

Development Costs – The sub-committee estimated the minimum costs at $1.35 million (see attachment 3)

On-going Annual Costs:

Item	**Estimated Cost**
I-Bank loan or other financing*	$ 78,000
Operating and maintenance	$ 20,000
Total	$ 98,000

*assumes $1.35 million at 4% for 30 years

Potential Funding for Relocation and Construction:

Source	**Amount**
Dedicated Parking Fund	$ 50,000
Enhanced revenue from additional 113 spaces (@ $1/hr rate)	$ 56,500
TOTAL	$ 106,500

Other Revenue Streams - Other potential sources of annual revenue that could be utilized for either parking enhancement project:

Source	**Amount**
Cell phone tower on structure	$ 25,000
Increase TOT rate from 10% to 12%	$150,000
Install pay stations in Village with dual rate structure*	$250,000
Village Business District	TBD
Sales Tax Increase Initiative	TBD

*A significant portion of this will be offset by the cost to purchase/lease and operate the pay station system. This revenue figure is VERY preliminary.

Specific Recommendations for Increasing Parking Supply for the Village

1. **Develop surface parking in the Lower Pacific Cove Mobile Home Park** – As part of a long term solution to the shortage of parking spaces in the Central Village, the Lower Portion of the Pacific Cove Mobile Home Park should be converted to surface parking to create the maximum number of parking spaces. These new parking spaces alone will not meet the minimum need of 325 spaces, but it will provide some relief while also providing parking when a parking structure is being built on the Pacific Cove Parking Lot site. If the parking structure is properly sized, this surface parking could potentially be turned to another use upon completion of the structure.
2. **Construct a multi-level parking structure on the Pacific Cove Parking Lot site** –Pursue the construction of a multi-level parking structure on the Pacific Cove Parking Lot site. The Commission's analysis has determined that a parking structure must be included in any solution to meet the minimum demand for additional parking.

Continued Traffic and Parking Commission Roles

The Traffic and Parking Commission feels that this report meets the direction of the City Council to provide guidance on parking in the Village and encourages the City Council to take immediate action to begin implementation of these long-term plans. The Commission realizes that implementing these recommendations entails an enormous amount of work and the Commission is willing and able to assist as necessary. The Commission will work with City staff on these and other matters, but it is ultimately up to the City Council and City staff to provide the direction, leadership and allocation of resources necessary to move forward with these projects.

The Commission will continue with its sub-committee investigations and will next begin a review of the neighborhood parking permit program and traffic circulation and congestion issues.

Endnotes

[i] Parking Garage and Housing Feasibility Study, RBF Consulting, June 2006

[ii] See above

[iii] California Coastal Commission, Local Coastal Program Amendment No. 1-07, September 16, 2009

[iv] See i above

[v] See i above

[vi] See i above

Appendix D2:
Level of Service (LOS) Worksheets

Scenario Report

Scenario:	Ext AM
Command:	Default Command
Volume:	Ext AM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/Veh	Base V/C	Future LOS	Future Del/Veh	Future V/C	Change in
# 1 41st Ave / SR-1 NB Ramps	B	17.6	0.510	B	17.6	0.510	+ 0.000 D/V
# 2 41st Ave / SR-1 SB Ramps	B	13.0	0.614	B	13.0	0.614	+ 0.000 D/V
# 3 41st Ave / Gross Rd	C	21.1	0.531	C	21.1	0.531	+ 0.000 D/V
# 4 41st Ave / Clares St	C	25.2	0.470	C	25.2	0.470	+ 0.000 D/V
# 5 41st Ave / Capitola Rd	C	20.3	0.386	C	20.3	0.386	+ 0.000 D/V
# 6 41st Ave / Brommer St / Jade S	B	18.9	0.488	B	18.9	0.488	+ 0.000 D/V
# 7 Clares St / Capitola Rd	B	15.0	0.401	B	15.0	0.401	+ 0.000 D/V
# 8 Wharf Rd / Clares St	B	11.4	0.530	B	11.4	0.530	+ 0.000 V/C
# 9 49th Ave / Capitola Rd	B	11.0	0.435	B	11.0	0.435	+ 0.000 V/C
# 10 Wharf Rd / Cliff Dr / Stockton	C	17.3	0.742	C	17.3	0.742	+ 0.000 V/C
# 11 Porter St / SR-1 NB Ramps	C	20.5	0.737	C	20.5	0.737	+ 0.000 D/V
# 12 Bay Ave / SR-1 SB Ramps	C	20.1	0.656	C	20.1	0.656	+ 0.000 D/V
# 13 Bay Ave / Hill St	B	14.8	0.523	B	14.8	0.523	+ 0.000 V/C
# 14 Capitola Ave / Bay Ave	B	12.6	0.447	B	12.6	0.447	+ 0.000 V/C
# 15 Monterey Ave / Bay Ave	A	9.4	0.370	A	9.4	0.370	+ 0.000 V/C
# 16 Monterey Ave / Park Ave	B	12.1	0.550	B	12.1	0.550	+ 0.000 V/C
# 17 Capitola Ave / Stockton Ave	C	19.6	0.817	C	19.6	0.817	+ 0.000 V/C
# 18 Monterey Ave / Capitola Ave	B	11.7	0.530	B	11.7	0.530	+ 0.000 V/C
# 19 Park Ave / SR-1 NB Ramps	B	16.5	0.548	B	16.5	0.548	+ 0.000 D/V
# 20 Park Ave / SR-1 SB Ramps	B	20.0	0.592	B	20.0	0.592	+ 0.000 D/V
# 21 Park Ave / Kennedy Dr	E	46.1	1.060	E	46.1	1.060	+ 0.000 V/C

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                    Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #1 41st Ave / SR-1 NB Ramps
********************************************************************************
Cycle (sec):          90                 Critical Vol./Cap.(X):        0.510
Loss Time (sec):       9                 Average Delay (sec/veh):       17.6
Optimal Cycle:        34                 Level Of Service:                 B
********************************************************************************
Street Name:                41st Ave                     SR-1 NB Ramps
Approach:      North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:           Ignore           Ignore          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        0  0  2  0  1   0  0  1  1  0   0  0  0  0  0   1  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  553   280    0  523   136    0    0     0  712    3   472
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:    0  553   280    0  523   136    0    0     0  712    3   472
User Adj:    1.00 1.00  0.00 1.00 1.00  0.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.97 0.97  0.00 0.97 0.97  0.00 0.97 0.97  0.97 0.97 0.97  0.97
PHF Volume:     0  570     0    0  539     0    0    0     0  734    3   487
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:    0  570     0    0  539     0    0    0     0  734    3   487
PCE Adj:     1.00 1.00  0.00 1.00 1.00  0.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  0.00 1.00 1.00  0.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:    0  570     0    0  539     0    0    0     0  734    3   487
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  1.00 0.95  1.00 1.00 0.95  0.95 1.00 1.00  1.00 0.91 0.91  0.85
Lanes:       0.00 2.00  1.00 0.00 2.00  0.00 0.00 0.00  0.00 1.99 0.01  1.00
Final Sat.:     0 3610  1900    0 3610     0    0    0     0 3443   15  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.16  0.00 0.00 0.15  0.00 0.00 0.00  0.00 0.21 0.21  0.30
Crit Moves:       ****       ****                                         ****
Green/Cycle: 0.00 0.31  0.00 0.00 0.31  0.00 0.00 0.00  0.00 0.59 0.59  0.59
Volume/Cap:  0.00 0.51  0.00 0.00 0.48  0.00 0.00 0.00  0.00 0.36 0.36  0.51
Uniform Del:  0.0 25.5   0.0  0.0 25.2   0.0  0.0  0.0   0.0  9.6  9.6  10.8
IncremntDel:  0.0  0.4   0.0  0.0  0.3   0.0  0.0  0.0   0.0  0.1  0.1   0.5
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   0.00 1.00  0.00 0.00 1.00  0.00 0.00 0.00  0.00 1.00 1.00  1.00
Delay/Veh:    0.0 25.9   0.0  0.0 25.6   0.0  0.0  0.0   0.0  9.7  9.7  11.3
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:   0.0 25.9   0.0  0.0 25.6   0.0  0.0  0.0   0.0  9.7  9.7  11.3
LOS by Move:    A    C     A    A    C     A    A    A     A    A    A     B
HCM2kAvgQ:      0    7     0    0    7     0    0    0     0    5    5     8
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #2 41st Ave / SR-1 SB Ramps
********************************************************************************
Cycle (sec):          90                Critical Vol./Cap.(X):        0.614
Loss Time (sec):       9                Average Delay (sec/veh):       13.0
Optimal Cycle:        60                Level Of Service:                 B
********************************************************************************
Street Name:                41st Ave                      SR-1 SB Ramps
Approach:      North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted        Permitted        Permitted
Rights:          Include          Ignore           Include          Include
Min. Green:     0    0    0    0    0    0    0    0    0    0    0    0
Y+R:          4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0
Lanes:        0  0  2  0  1   0  0  3  0  1   1  0  0  1  1   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  647   601     0 1042   200   197     1   457     0     0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0  647   601     0 1042   200   197     1   457     0     0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.93 0.93  0.93  0.93 0.93  0.00  0.93 0.93  0.93  0.93 0.93  0.93
PHF Volume:     0  696   646     0 1120     0   212     1   491     0     0     0
Reduct Vol:     0    0     0     0    0     0     0     0     0     0     0     0
Reduced Vol:    0  696   646     0 1120     0   212     1   491     0     0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0  696   646     0 1120     0   212     1   491     0     0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.95  0.85  1.00 0.91  1.00  0.85 0.85  0.85  1.00 1.00  1.00
Lanes:       0.00 2.00  1.00  0.00 3.00  1.00  1.00 0.01  1.99  0.00 0.00  0.00
Final Sat.:     0 3610  1615     0 5187  1900  1615    7  3223     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.19  0.40  0.00 0.22  0.00  0.13 0.15  0.15  0.00 0.00  0.00
Crit Moves:             ****                        ****
Green/Cycle: 0.00 0.65  0.65  0.00 0.65  0.00  0.25 0.25  0.25  0.00 0.00  0.00
Volume/Cap:  0.00 0.30  0.61  0.00 0.33  0.00  0.53 0.61  0.61  0.00 0.00  0.00
Uniform Del:  0.0  6.8   9.1   0.0  7.0   0.0  29.3 30.0  30.0   0.0  0.0   0.0
IncremntDel:  0.0  0.1   1.1   0.0  0.1   0.0   1.3  1.4   1.4   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00  0.00 1.00  0.00  1.00 1.00  1.00  0.00 0.00  0.00
Delay/Veh:    0.0  6.8  10.2   0.0  7.0   0.0  30.6 31.4  31.4   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  6.8  10.2   0.0  7.0   0.0  30.6 31.4  31.4   0.0  0.0   0.0
LOS by Move:    A    A     B     A    A     A     C    C     C     A    A     A
HCM2kAvgQ:      0    4    10     0    5     0     6    7     7     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #3 41st Ave / Gross Rd
********************************************************************************
Cycle (sec):         120                Critical Vol./Cap.(X):        0.531
Loss Time (sec):      16                Average Delay (sec/veh):       21.1
Optimal Cycle:        90                Level Of Service:                 C
********************************************************************************
Street Name:                 41st Ave                          Gross Rd
Approach:       North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected         Protected        Split Phase       Split Phase
Rights:           Include           Include           Include           Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        1  0  2  1  0    1  0  2  1  0    1  1  0  0  1    0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      66  960    17    75 1095   337   248    7    75    12    5    34
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   66  960    17    75 1095   337   248    7    75    12    5    34
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.90 0.90  0.90  0.90 0.90  0.90  0.90 0.90  0.90  0.90 0.90  0.90
PHF Volume:    73 1067    19    83 1217   374   276    8    83    13    6    38
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   73 1067    19    83 1217   374   276    8    83    13    6    38
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   73 1067    19    83 1217   374   276    8    83    13    6    38
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.91  0.91  0.95 0.88  0.88  0.95 0.95  0.85  0.97 0.97  0.85
Lanes:       1.00 2.95  0.05  1.00 2.29  0.71  1.95 0.05  1.00  0.71 0.29  1.00
Final Sat.:  1805 5081    90  1805 3827  1178  3526  100  1615  1296  540  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.21  0.21  0.05 0.32  0.32  0.08 0.08  0.05  0.01 0.01  0.02
Crit Moves:  ****                   ****              ****                  ****
Green/Cycle: 0.08 0.55  0.55  0.12 0.60  0.60  0.15 0.15  0.15  0.04 0.04  0.04
Volume/Cap:  0.53 0.38  0.38  0.38 0.53  0.53  0.53 0.53  0.35  0.23 0.23  0.53
Uniform Del: 53.3 15.1  15.1  48.5 14.2  14.2  47.3 47.3  46.0  55.4 55.4  56.1
IncremntDel:  3.9  0.1   0.1   1.1  0.2   0.2   1.0  1.0   0.9   1.5  1.5   7.4
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   57.2 15.2  15.2  49.6 14.3  14.3  48.4 48.4  46.9  56.9 56.9  63.6
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  57.2 15.2  15.2  49.6 14.3  14.3  48.4 48.4  46.9  56.9 56.9  63.6
LOS by Move:    E    B     B     D    B     B     D    D     D     E    E     E
HCM2kAvgQ:      3    8     8     3   12    12     5    5     3     1    1     2
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 41st Ave / Clares St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.470
Loss Time (sec):	16	Average Delay (sec/veh):	25.2
Optimal Cycle:	47	Level Of Service:	C

Street Name:	41st Ave						Clares St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	3	0 1	2 0	1!	0 0	0 1	0	0 1
Volume Module:												
Base Vol:	30	662	25	124	669	272	201	46	20	22	75	172
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	662	25	124	669	272	201	46	20	22	75	172
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
PHF Volume:	36	798	30	149	806	328	242	55	24	27	90	207
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	36	798	30	149	806	328	242	55	24	27	90	207
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	36	798	30	149	806	328	242	55	24	27	90	207
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	0.91	0.95	0.91	0.85	0.92	0.95	0.95	0.99	0.99	0.85
Lanes:	1.00	2.89	0.11	1.00	3.00	1.00	2.51	0.34	0.15	0.23	0.77	1.00
Final Sat.:	1805	4973	188	1805	5187	1615	4413	617	268	426	1453	1615
Capacity Analysis Module:												
Vol/Sat:	0.02	0.16	0.16	0.08	0.16	0.20	0.05	0.09	0.09	0.06	0.06	0.13
Crit Moves:		****		****					****	****		
Green/Cycle:	0.05	0.34	0.34	0.18	0.47	0.47	0.19	0.19	0.19	0.13	0.13	0.31
Volume/Cap:	0.43	0.47	0.47	0.47	0.33	0.43	0.29	0.47	0.47	0.47	0.47	0.42
Uniform Del:	46.4	25.9	25.9	37.0	16.6	17.6	34.6	36.0	36.0	40.2	40.2	27.5
IncremntDel:	3.5	0.2	0.2	1.1	0.1	0.4	0.1	0.5	0.5	1.4	1.4	0.6
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	49.9	26.1	26.1	38.1	16.7	18.0	34.8	36.5	36.5	41.6	41.6	28.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	49.9	26.1	26.1	38.1	16.7	18.0	34.8	36.5	36.5	41.6	41.6	28.0
LOS by Move:	D	C	C	D	B	B	C	D	D	D	D	C
HCM2kAvgQ:	1	7	7	4	5	6	3	5	5	4	4	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 41st Ave / Capitola Rd

Cycle (sec):	65	Critical Vol./Cap.(X):	0.386
Loss Time (sec):	12	Average Delay (sec/veh):	20.3
Optimal Cycle:	33	Level Of Service:	C

Street Name:	41st Ave						Capitola Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	2 0	2 0	1	1 0	1 1	0	1 1	0 1	0
Volume Module:												
Base Vol:	47	407	55	123	432	69	133	139	34	102	227	75
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	47	407	55	123	432	69	133	139	34	102	227	75
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	48	415	56	126	441	70	136	142	35	104	232	77
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	48	415	56	126	441	70	136	142	35	104	232	77
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	48	415	56	126	441	70	136	142	35	104	232	77
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.92	0.95	0.85	0.95	0.92	0.92	0.91	0.91	0.91
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.61	0.39	1.00	1.50	0.50
Final Sat.:	1805	3610	1615	3502	3610	1615	1805	2814	688	1733	2606	861
Capacity Analysis Module:												
Vol/Sat:	0.03	0.12	0.03	0.04	0.12	0.04	0.08	0.05	0.05	0.06	0.09	0.09
Crit Moves:		****		****			****					****
Green/Cycle:	0.07	0.30	0.30	0.09	0.32	0.32	0.19	0.19	0.19	0.23	0.23	0.23
Volume/Cap:	0.38	0.39	0.12	0.39	0.38	0.14	0.39	0.26	0.26	0.26	0.39	0.39
Uniform Del:	28.9	18.1	16.6	27.7	17.1	15.7	22.8	22.2	22.2	20.5	21.1	21.1
IncremntDel:	1.9	0.2	0.1	0.8	0.2	0.1	0.7	0.2	0.2	0.1	0.2	0.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	30.8	18.3	16.7	28.5	17.3	15.8	23.5	22.4	22.4	20.6	21.4	21.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	30.8	18.3	16.7	28.5	17.3	15.8	23.5	22.4	22.4	20.6	21.4	21.4
LOS by Move:	C	B	B	C	B	B	C	C	C	C	C	C
HCM2kAvgQ:	1	3	1	1	3	1	2	2	2	2	3	3

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 41st Ave / Brommer St / Jade St

Cycle (sec):	60	Critical Vol./Cap.(X):	0.488
Loss Time (sec):	12	Average Delay (sec/veh):	18.9
Optimal Cycle:	37	Level Of Service:	B

Street Name:	41st Ave						Brommer St / Jade St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	30	408	40	57	357	57	111	89	40	51	72	64
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	408	40	57	357	57	111	89	40	51	72	64
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85	0.85
PHF Volume:	35	480	47	67	420	67	131	105	47	60	85	75
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	35	480	47	67	420	67	131	105	47	60	85	75
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	35	480	47	67	420	67	131	105	47	60	85	75
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.93	0.93	0.97	0.97	0.85	0.98	0.98	0.85
Lanes:	1.00	1.82	0.18	1.00	1.72	0.28	0.56	0.44	1.00	0.41	0.59	1.00
Final Sat.:	1805	3245	318	1805	3048	487	1026	823	1615	772	1090	1615
Capacity Analysis Module:												
Vol/Sat:	0.02	0.15	0.15	0.04	0.14	0.14	0.13	0.13	0.03	0.08	0.08	0.05
Crit Moves:		****		****			****				****	
Green/Cycle:	0.05	0.30	0.30	0.08	0.33	0.33	0.26	0.26	0.26	0.16	0.16	0.16
Volume/Cap:	0.41	0.49	0.49	0.49	0.41	0.41	0.49	0.49	0.11	0.49	0.49	0.29
Uniform Del:	27.8	17.1	17.1	26.6	15.5	15.5	18.8	18.8	16.9	23.0	23.0	22.2
IncremntDel:	3.3	0.3	0.3	2.7	0.2	0.2	0.8	0.8	0.1	1.3	1.3	0.6
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	31.0	17.4	17.4	29.3	15.7	15.7	19.5	19.5	17.0	24.2	24.2	22.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.0	17.4	17.4	29.3	15.7	15.7	19.5	19.5	17.0	24.2	24.2	22.9
LOS by Move:	C	B	B	C	B	B	B	B	B	C	C	C
HCM2kAvgQ:	1	5	5	1	4	4	4	4	1	3	3	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Clares St / Capitola Rd

Cycle (sec):	60	Critical Vol./Cap.(X):	0.401
Loss Time (sec):	12	Average Delay (sec/veh):	15.0
Optimal Cycle:	34	Level Of Service:	B

Street Name:	Clares St						Capitola Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	0	0 1	1 0	2	0 0	0 0	1	1 0
Volume Module:												
Base Vol:	0	0	0	37	0	167	172	321	0	0	323	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	37	0	167	172	321	0	0	323	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	39	0	176	181	338	0	0	340	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	39	0	176	181	338	0	0	340	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	39	0	176	181	338	0	0	340	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	0.95	1.00	1.00	0.93	0.93
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.73	0.27
Final Sat.:	0	0	0	1805	0	1615	1805	3610	0	0	3055	482
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.11	0.10	0.09	0.00	0.00	0.11	0.11
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.27	0.00	0.27	0.25	0.53	0.00	0.00	0.28	0.28
Volume/Cap:	0.00	0.00	0.00	0.08	0.00	0.40	0.40	0.18	0.00	0.00	0.40	0.40
Uniform Del:	0.0	0.0	0.0	16.3	0.0	17.9	18.7	7.4	0.0	0.0	17.6	17.6
IncremntDel:	0.0	0.0	0.0	0.1	0.0	0.6	0.6	0.0	0.0	0.0	0.3	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	16.3	0.0	18.5	19.3	7.4	0.0	0.0	17.9	17.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	16.3	0.0	18.5	19.3	7.4	0.0	0.0	17.9	17.9
LOS by Move:	A	A	A	B	A	B	B	A	A	A	B	B
HCM2kAvgQ:	0	0	0	1	0	3	3	2	0	0	3	3

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #8 Wharf Rd / Clares St
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):        0.530
Loss Time (sec):        0               Average Delay (sec/veh):       11.4
Optimal Cycle:          0               Level Of Service:                 B
********************************************************************************
Street Name:              Wharf Rd                         Clares St
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0  1  0  0  0   0  0  0  1  0   0  0  1! 0  0   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      45  241    0    0  238   152   106    0    37     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   45  241    0    0  238   152   106    0    37     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.93 0.93  0.93  0.93 0.93  0.93  0.93 0.93  0.93  0.93 0.93  0.93
PHF Volume:    48  259    0    0  256   163   114    0    40     0    0     0
Reduct Vol:     0    0    0    0    0     0     0    0     0     0    0     0
Reduced Vol:   48  259    0    0  256   163   114    0    40     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   48  259    0    0  256   163   114    0    40     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.16 0.84  0.00  0.00 0.61  0.39  0.74 0.00  0.26  0.00 0.00  0.00
Final Sat.:   115  614    0    0  483   308   453    0   158     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.42 0.42  xxxx  xxxx 0.53  0.53  0.25 xxxx  0.25  xxxx xxxx  xxxx
Crit Moves:       ****             ****        ****
Delay/Veh:   11.1 11.1   0.0   0.0 12.1  12.1  10.0  0.0  10.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  11.1 11.1   0.0   0.0 12.1  12.1  10.0  0.0  10.0   0.0  0.0   0.0
LOS by Move:    B    B    *    *    B     B     B    *     B     *    *     *
ApproachDel:      11.1             12.1              10.0            xxxxxx
Delay Adj:        1.00             1.00              1.00             xxxxx
ApprAdjDel:       11.1             12.1              10.0            xxxxxx
LOS by Appr:         B                B                 B                 *
AllWayAvgQ:   0.7  0.7   0.7   1.0  1.0   1.0   0.3  0.3   0.3   0.0  0.0   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #9 49th Ave / Capitola Rd
********************************************************************************
Cycle (sec):          100                 Critical Vol./Cap.(X):        0.435
Loss Time (sec):        0                 Average Delay (sec/veh):       11.0
Optimal Cycle:          0                 Level Of Service:                 B
********************************************************************************
Street Name:                49th Ave                        Capitola Rd
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0     0     0    0     0     0    0     0     0    0     0     0
Lanes:        0  0  1! 0  0    0  1  0  0  1    1  0  0  1  0    1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      12    49    21    44    55   156   146   102    11    20   242    12
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   12    49    21    44    55   156   146   102    11    20   242    12
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.97 0.97  0.97  0.97 0.97  0.97  0.97 0.97  0.97  0.97 0.97  0.97
PHF Volume:    12    51    22    45    57   161   151   105    11    21   249    12
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:   12    51    22    45    57   161   151   105    11    21   249    12
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   12    51    22    45    57   161   151   105    11    21   249    12
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.15 0.60  0.25  0.44 0.56  1.00  1.00 0.90  0.10  1.00 0.95  0.05
Final Sat.:    78  318   136   240  300   627   549  542    58   549  574    28
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.16 0.16  0.16  0.19 0.19  0.26  0.27 0.19  0.19  0.04 0.43  0.43
Crit Moves:             ****              ****  ****                        ****
Delay/Veh:   10.3 10.3  10.3  10.4 10.4   9.8  11.3  9.8   9.8   9.2 12.6  12.6
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  10.3 10.3  10.3  10.4 10.4   9.8  11.3  9.8   9.8   9.2 12.6  12.6
LOS by Move:    B    B     B     B    B     A     B    A     A     A    B     B
ApproachDel:      10.3             10.0              10.6             12.4
Delay Adj:        1.00             1.00              1.00             1.00
ApprAdjDel:       10.3             10.0              10.6             12.4
LOS by Appr:         B                B                 B                B
AllWayAvgQ:    0.2  0.2   0.2   0.2  0.2   0.3   0.3  0.2   0.2   0.0  0.7   0.7
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #10 Wharf Rd / Cliff Dr / Stockton Ave
********************************************************************************
Cycle (sec):          100                 Critical Vol./Cap.(X):        0.742
Loss Time (sec):        0                 Average Delay (sec/veh):       17.3
Optimal Cycle:          0                 Level Of Service:                 C
********************************************************************************
Street Name:                Wharf Rd                   Cliff Dr / Stockton Ave
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Ignore
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  1  0  0  0   0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       2    5     5  160    3    14   16  283     0    8  387   303
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:    2    5     5  160    3    14   16  283     0    8  387   303
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
PHF Adj:     0.84 0.84  0.84 0.84 0.84  0.84 0.84 0.84  0.84 0.84 0.84  0.00
PHF Volume:     2    6     6  190    4    17   19  337     0   10  461     0
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:    2    6     6  190    4    17   19  337     0   10  461     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
FinalVolume:    2    6     6  190    4    17   19  337     0   10  461     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Lanes:       0.16 0.42  0.42 0.90 0.02  0.08 0.05 0.95  0.00 0.02 0.98  1.00
Final Sat.:    80  201   201  492    9    43   35  617     0   13  621   725
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.03  0.03 0.39 0.39  0.39 0.55 0.55  xxxx 0.74 0.74  0.00
Crit Moves:  ****           ****                 ****                 ****
Delay/Veh:    9.4  9.4   9.4 12.5 12.5  12.5 14.3 14.3   0.0 22.0 22.0   0.0
Delay Adj:   1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:   9.4  9.4   9.4 12.5 12.5  12.5 14.3 14.3   0.0 22.0 22.0   0.0
LOS by Move:    A    A     A    B    B     B    B    B     *    C    C     *
ApproachDel:       9.4             12.5             14.3             22.0
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:        9.4             12.5             14.3             22.0
LOS by Appr:         A                B                B                C
AllWayAvgQ:   0.0  0.0   0.0  0.5  0.5   0.5  1.1  1.1   1.1  2.4  2.4   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #11 Porter St / SR-1 NB Ramps
********************************************************************************
Cycle (sec):          85                Critical Vol./Cap.(X):         0.737
Loss Time (sec):       9                Average Delay (sec/veh):        20.5
Optimal Cycle:        54                Level Of Service:                  C
********************************************************************************
Street Name:                Porter St                        SR-1 NB Ramps
Approach:       North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Protected        Protected         Permitted         Permitted
Rights:            Include          Include           Include           Include
Min. Green:     0     0     0     0     0     0     0     0     0     0     0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
Lanes:        1  0  2  0  0    0  0  1  1  0    0  0  0  0  0    1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     374  652     0     0  455   477     0     0     0    67   15   169
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  374  652     0     0  455   477     0     0     0    67   15   169
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.92 0.92  0.92  0.92 0.92  0.92  0.92 0.92  0.92  0.92 0.92  0.92
PHF Volume:   407  709     0     0  495   518     0     0     0    73   16   184
Reduct Vol:     0    0     0     0    0     0     0     0     0     0    0     0
Reduced Vol:  407  709     0     0  495   518     0     0     0    73   16   184
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  407  709     0     0  495   518     0     0     0    73   16   184
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.95  1.00  1.00 0.88  0.88  1.00 1.00  1.00  0.85 0.86  0.86
Lanes:       1.00 2.00  0.00  0.00 1.00  1.00  0.00 0.00  0.00  1.00 0.08  0.92
Final Sat.:  1805 3610     0     0 1666  1666     0     0     0  1615  134  1504
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.23 0.20  0.00  0.00 0.30  0.31  0.00 0.00  0.00  0.05 0.12  0.12
Crit Moves:  ****                        ****                          ****
Green/Cycle: 0.31 0.73  0.00  0.00 0.42  0.42  0.00 0.00  0.00  0.17 0.17  0.17
Volume/Cap:  0.74 0.27  0.00  0.00 0.70  0.74  0.00 0.00  0.00  0.27 0.74  0.74
Uniform Del: 26.4  3.9   0.0   0.0 20.2  20.6   0.0  0.0   0.0  31.0 33.7  33.7
IncremntDel:  5.2  0.1   0.0   0.0  1.6   2.1   0.0  0.0   0.0   0.6 10.1  10.1
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  0.00  0.00 1.00  1.00  0.00 0.00  0.00  1.00 1.00  1.00
Delay/Veh:   31.6  4.0   0.0   0.0 21.7  22.7   0.0  0.0   0.0  31.5 43.8  43.8
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  31.6  4.0   0.0   0.0 21.7  22.7   0.0  0.0   0.0  31.5 43.8  43.8
LOS by Move:    C    A     A     A    C     C     A    A     A     C    D     D
HCM2kAvgQ:      9    3     0     0   12    13     0    0     0     2    7     7
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Bay Ave / SR-1 SB Ramps

Cycle (sec):	75	Critical Vol./Cap.(X):	0.656
Loss Time (sec):	9	Average Delay (sec/veh):	20.1
Optimal Cycle:	44	Level Of Service:	C

Street Name:	Bay Ave						SR-1 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0 1 1 0			1 0 2 0 0			1 0 1! 0 1			0 0 0 0 0		
Volume Module:												
Base Vol:	0	704	135	232	295	0	332	2	254	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	704	135	232	295	0	332	2	254	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	741	142	244	311	0	349	2	267	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	741	142	244	311	0	349	2	267	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	741	142	244	311	0	349	2	267	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.93	0.93	0.95	0.95	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Lanes:	0.00	1.68	0.32	1.00	2.00	0.00	1.56	0.01	1.43	0.00	0.00	0.00
Final Sat.:	0	2956	567	1805	3610	0	2540	11	2325	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.25	0.25	0.14	0.09	0.00	0.14	0.19	0.11	0.00	0.00	0.00
Crit Moves:		****		****				****				
Green/Cycle:	0.00	0.38	0.38	0.21	0.59	0.00	0.29	0.29	0.29	0.00	0.00	0.00
Volume/Cap:	0.00	0.66	0.66	0.66	0.15	0.00	0.47	0.66	0.39	0.00	0.00	0.00
Uniform Del:	0.0	19.1	19.1	27.3	6.9	0.0	21.8	23.3	21.3	0.0	0.0	0.0
IncremntDel:	0.0	1.2	1.2	4.2	0.0	0.0	0.3	1.7	0.2	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	20.3	20.3	31.5	7.0	0.0	22.1	25.0	21.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	20.3	20.3	31.5	7.0	0.0	22.1	25.0	21.4	0.0	0.0	0.0
LOS by Move:	A	C	C	C	A	A	C	C	C	A	A	A
HCM2kAvgQ:	0	10	10	5	2	0	5	7	4	0	0	0

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #13 Bay Ave / Hill St
********************************************************************************
Cycle (sec):          100                 Critical Vol./Cap.(X):         0.523
Loss Time (sec):        0                 Average Delay (sec/veh):        14.8
Optimal Cycle:          0                 Level Of Service:                  B
********************************************************************************
Street Name:                Bay Ave                            Hill St
Approach:       North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Stop Sign         Stop Sign         Stop Sign         Stop Sign
Rights:            Include           Include           Include           Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        1  0  1  1  0    1  0  1  1  0    0  1  0  0  1    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      68  483     7    59  374    36    66    8    33     7   30   138
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   68  483     7    59  374    36    66    8    33     7   30   138
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.92 0.92  0.92  0.92 0.92  0.92  0.92 0.92  0.92  0.92 0.92  0.92
PHF Volume:    74  525     8    64  407    39    72    9    36     8   33   150
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   74  525     8    64  407    39    72    9    36     8   33   150
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   74  525     8    64  407    39    72    9    36     8   33   150
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       1.00 1.97  0.03  1.00 1.82  0.18  0.89 0.11  1.00  0.04 0.17  0.79
Final Sat.:   471 1004    15   458  906    88   370   45   476    20   86   397
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.16 0.52  0.52  0.14 0.45  0.44  0.19 0.19  0.08  0.38 0.38  0.38
Crit Moves:       ****             ****        ****                   ****
Delay/Veh:   11.5 16.6  16.6  11.5 15.1  14.9  12.6 12.6  10.2  13.6 13.6  13.6
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  11.5 16.6  16.6  11.5 15.1  14.9  12.6 12.6  10.2  13.6 13.6  13.6
LOS by Move:    B    C     C     B    C     B     B    B     B     B    B     B
ApproachDel:      16.0              14.6              11.8              13.6
Delay Adj:        1.00              1.00              1.00              1.00
ApprAdjDel:       16.0              14.6              11.8              13.6
LOS by Appr:         C                 B                 B                 B
AllWayAvgQ:    0.2  1.0   1.0   0.2  0.7   0.7   0.2  0.2   0.1   0.5  0.5   0.5
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #14 Capitola Ave / Bay Ave
********************************************************************************
Cycle (sec):          100                 Critical Vol./Cap.(X):        0.447
Loss Time (sec):        0                 Average Delay (sec/veh):       12.6
Optimal Cycle:          0                 Level Of Service:                 B
********************************************************************************
Street Name:               Capitola Ave                        Bay Ave
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:            Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  1  0  0  1    0  0  1! 0  0    0  1  0  0  1    1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     111   95     6    28   60    25    48  175   136    38  195    30
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  111   95     6    28   60    25    48  175   136    38  195    30
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.91 0.91  0.91  0.91 0.91  0.91  0.91 0.91  0.91  0.91 0.91  0.91
PHF Volume:   122  104     7    31   66    27    53  192   149    42  214    33
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  122  104     7    31   66    27    53  192   149    42  214    33
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  122  104     7    31   66    27    53  192   149    42  214    33
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.54 0.46  1.00  0.25 0.53  0.22  0.22 0.78  1.00  1.00 0.87  0.13
Final Sat.:   273  233   580   123  264   110   121  440   640   514  490    75
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.45 0.45  0.01  0.25 0.25  0.25  0.44 0.44  0.23  0.08 0.44  0.44
Crit Moves:       ****        ****                  ****                     ****
Delay/Veh:   14.4 14.4   8.6  11.7 11.7  11.7  13.3 13.3   9.6  10.0 13.2  13.2
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  14.4 14.4   8.6  11.7 11.7  11.7  13.3 13.3   9.6  10.0 13.2  13.2
LOS by Move:    B    B     A     B    B     B     B    B     A     A    B     B
ApproachDel:      14.2              11.7              11.9              12.7
Delay Adj:        1.00              1.00              1.00              1.00
ApprAdjDel:       14.2              11.7              11.9              12.7
LOS by Appr:         B                 B                 B                 B
AllWayAvgQ:   0.7  0.7   0.0   0.3  0.3   0.3   0.7  0.7   0.3   0.1  0.7   0.7
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #15 Monterey Ave / Bay Ave
********************************************************************************
Cycle (sec):          100                Critical Vol./Cap.(X):         0.370
Loss Time (sec):        0                Average Delay (sec/veh):         9.4
Optimal Cycle:          0                Level Of Service:                  A
********************************************************************************
Street Name:               Monterey Ave                          Bay Ave
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0     0     0    0     0     0    0     0     0    0     0     0
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     136    50     0    0    28   105  110     0   156    0     0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  136    50     0    0    28   105  110     0   156    0     0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.92 0.92  0.92  0.92 0.92  0.92  0.92 0.92  0.92  0.92 0.92  0.92
PHF Volume:   148    54     0    0    30   114  120     0   170    0     0     0
Reduct Vol:     0     0     0    0     0     0    0     0     0    0     0     0
Reduced Vol:  148    54     0    0    30   114  120     0   170    0     0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  148    54     0    0    30   114  120     0   170    0     0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.73 0.27  0.00  0.00 0.21  0.79  0.41 0.00  0.59  0.00 0.00  0.00
Final Sat.:   518   191     0    0   165   619  323     0   459    0     0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.29 0.29  xxxx  xxxx 0.18  0.18  0.37 xxxx  0.37  xxxx xxxx  xxxx
Crit Moves:  ****                        ****  ****
Delay/Veh:    9.7  9.7   0.0   0.0  8.2   8.2   9.8  0.0   9.8   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   9.7  9.7   0.0   0.0  8.2   8.2   9.8  0.0   9.8   0.0  0.0   0.0
LOS by Move:    A    A     *     *    A     A     A    *     A     *    *     *
ApproachDel:        9.7              8.2              9.8             xxxxxx
Delay Adj:         1.00             1.00             1.00              xxxxx
ApprAdjDel:         9.7              8.2              9.8             xxxxxx
LOS by Appr:          A                A                A                  *
AllWayAvgQ:   0.4  0.4   0.4   0.2  0.2   0.2   0.5  0.5   0.5   0.0  0.0   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #16 Monterey Ave / Park Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	0.550
Loss Time (sec):	0	Average Delay (sec/veh):	12.1
Optimal Cycle:	0	Level Of Service:	B

Street Name:	Monterey Ave						Park Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1 0 0 1			0 1 0 0 1			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	2	130	208	96	83	3	5	3	15	278	3	42
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	130	208	96	83	3	5	3	15	278	3	42
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
PHF Volume:	2	141	226	104	90	3	5	3	16	302	3	46
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	141	226	104	90	3	5	3	16	302	3	46
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	141	226	104	90	3	5	3	16	302	3	46
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.02	0.98	1.00	0.54	0.46	1.00	0.22	0.13	0.65	0.86	0.01	0.13
Final Sat.:	9	584	673	294	254	642	125	75	374	549	6	83
Capacity Analysis Module:												
Vol/Sat:	0.24	0.24	0.34	0.35	0.35	0.01	0.04	0.04	0.04	0.55	0.55	0.55
Crit Moves:			****	****				****		****		
Delay/Veh:	10.3	10.3	10.2	12.1	12.1	8.0	8.8	8.8	8.8	14.4	14.4	14.4
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.3	10.3	10.2	12.1	12.1	8.0	8.8	8.8	8.8	14.4	14.4	14.4
LOS by Move:	B	B	B	B	B	A	A	A	A	B	B	B
ApproachDel:		10.3			12.0			8.8			14.4	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		10.3			12.0			8.8			14.4	
LOS by Appr:		B			B			A			B	
AllWayAvgQ:	0.3	0.3	0.5	0.5	0.5	0.0	0.0	0.0	0.0	1.1	1.1	1.1

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #17 Capitola Ave / Stockton Ave
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):        0.817
Loss Time (sec):       0              Average Delay (sec/veh):       19.6
Optimal Cycle:         0              Level Of Service:                 C
********************************************************************************
Street Name:           Capitola Ave                    Stockton Ave
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        1  0  0  0  1   0  0  1! 0  0   0  0  0  1  0   0  1  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     172    0   329     4   26    11     0   15   226   396   60     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  172    0   329     4   26    11     0   15   226   396   60     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.94 0.94  0.94  0.94 0.94  0.94  0.94 0.94  0.94  0.94 0.94  0.94
PHF Volume:   183    0   350     4   28    12     0   16   240   421   64     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  183    0   350     4   28    12     0   16   240   421   64     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  183    0   350     4   28    12     0   16   240   421   64     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       1.00 0.00  1.00  0.10 0.63  0.27  0.00 0.06  0.94  0.87 0.13  0.00
Final Sat.:   494    0   591    44  289   122     0   37   564   516   78     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.37 xxxx  0.59  0.10 0.10  0.10  xxxx 0.43  0.43  0.82 0.82  xxxx
Crit Moves:             ****       ****                   ****  ****
Delay/Veh:   13.7  0.0  16.2  10.5 10.5  10.5   0.0 12.5  12.5  29.0 29.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  13.7  0.0  16.2  10.5 10.5  10.5   0.0 12.5  12.5  29.0 29.0   0.0
LOS by Move:    B    *     C     B    B     B     *    B     B     D    D     *
ApproachDel:       15.4             10.5             12.5             29.0
Delay Adj:         1.00             1.00             1.00             1.00
ApprAdjDel:        15.4             10.5             12.5             29.0
LOS by Appr:          C                B                B                D
AllWayAvgQ:   0.5  0.0   1.2   0.1  0.1   0.1   0.6  0.6   0.6   3.3  3.3   3.3
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #18 Monterey Ave / Capitola Ave
********************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):        0.530
Loss Time (sec):        0              Average Delay (sec/veh):       11.7
Optimal Cycle:          0              Level Of Service:                 B
********************************************************************************
Street Name:               Monterey Ave                       Capitola Ave
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0     0     0     0     0     0     0     0     0     0     0     0
Lanes:        0  1  0  0  0   0  0  0  0  1   1  0  0  0  0   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      60    80     0     0     0   396   280     0     0     0     0     0
Growth Adj:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Initial Bse:   60    80     0     0     0   396   280     0     0     0     0     0
User Adj:    1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
PHF Adj:     0.93  0.93  0.93  0.93  0.93  0.93  0.93  0.93  0.93  0.93  0.93  0.93
PHF Volume:    65    86     0     0     0   426   301     0     0     0     0     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:   65    86     0     0     0   426   301     0     0     0     0     0
PCE Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
MLF Adj:     1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
FinalVolume:   65    86     0     0     0   426   301     0     0     0     0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
Lanes:       0.43  0.57  0.00  0.00  0.00  1.00  1.00  0.00  0.00  0.00  0.00  0.00
Final Sat.:   276   368     0     0     0   803   640     0     0     0     0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.23  0.23  xxxx  xxxx  xxxx  0.53  0.47  xxxx  xxxx  xxxx  xxxx  xxxx
Crit Moves:        ****                    ****  ****
Delay/Veh:    9.8   9.8   0.0   0.0   0.0  11.8  12.6   0.0   0.0   0.0   0.0   0.0
Delay Adj:   1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00  1.00
AdjDel/Veh:   9.8   9.8   0.0   0.0   0.0  11.8  12.6   0.0   0.0   0.0   0.0   0.0
LOS by Move:    A     A     *     *     *     B     B     *     *     *     *     *
ApproachDel:        9.8              11.8              12.6            xxxxxx
Delay Adj:         1.00              1.00              1.00             xxxxx
ApprAdjDel:         9.8              11.8              12.6            xxxxxx
LOS by Appr:          A                 B                 B                 *
AllWayAvgQ:   0.3   0.3   0.3   1.0   1.0   1.0   0.8   0.8   0.8   0.0   0.0   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Park Ave / SR-1 NB Ramps

Cycle (sec):	80	Critical Vol./Cap.(X):	0.548
Loss Time (sec):	9	Average Delay (sec/veh):	16.5
Optimal Cycle:	36	Level Of Service:	B

Street Name:	Park Ave						SR-1 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	0 0	0 0	1	0 1	0 0	0	0 0	1 0	0	1 0
Volume Module:												
Base Vol:	172	939	0	0	339	290	0	0	0	143	23	175
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	172	939	0	0	339	290	0	0	0	143	23	175
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81	0.81
PHF Volume:	212	1159	0	0	419	358	0	0	0	177	28	216
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	212	1159	0	0	419	358	0	0	0	177	28	216
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	212	1159	0	0	419	358	0	0	0	177	28	216
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	1.00	0.85	1.00	1.00	1.00	0.85	0.87	0.87
Lanes:	1.00	2.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.12	0.88
Final Sat.:	1805	3610	0	0	1900	1615	0	0	0	1615	191	1456
Capacity Analysis Module:												
Vol/Sat:	0.12	0.32	0.00	0.00	0.22	0.22	0.00	0.00	0.00	0.11	0.15	0.15
Crit Moves:	****				****						****	
Green/Cycle:	0.21	0.62	0.00	0.00	0.40	0.40	0.00	0.00	0.00	0.27	0.27	0.27
Volume/Cap:	0.55	0.52	0.00	0.00	0.55	0.55	0.00	0.00	0.00	0.40	0.55	0.55
Uniform Del:	28.0	8.7	0.0	0.0	18.3	18.4	0.0	0.0	0.0	23.9	25.0	25.0
IncremntDel:	1.7	0.2	0.0	0.0	0.8	1.0	0.0	0.0	0.0	0.6	1.4	1.4
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	29.6	8.9	0.0	0.0	19.2	19.4	0.0	0.0	0.0	24.5	26.4	26.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	29.6	8.9	0.0	0.0	19.2	19.4	0.0	0.0	0.0	24.5	26.4	26.4
LOS by Move:	C	A	A	A	B	B	A	A	A	C	C	C
HCM2kAvgQ:	5	8	0	0	8	7	0	0	0	4	6	6

Note: Queue reported is the number of cars per lane.

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                     Level Of Service Computation Report
           2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #20 Park Ave / SR-1 SB Ramps
********************************************************************************
Cycle (sec):          75                Critical Vol./Cap.(X):         0.592
Loss Time (sec):       9                Average Delay (sec/veh):        20.0
Optimal Cycle:        39                Level Of Service:                  B
********************************************************************************
Street Name:                Park Ave                         SR-1 SB Ramps
Approach:       North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Protected        Protected         Permitted         Permitted
Rights:            Include          Include           Include           Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        0  0  2  0  1   1  0  1  0  0   1  1  0  0  1   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  459   164  140  329     0  664    3    97    0    0     0
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:    0  459   164  140  329     0  664    3    97    0    0     0
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.78 0.78  0.78 0.78 0.78  0.78 0.78 0.78  0.78 0.78 0.78  0.78
PHF Volume:     0  588   210  179  422     0  851    4   124    0    0     0
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:    0  588   210  179  422     0  851    4   124    0    0     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:    0  588   210  179  422     0  851    4   124    0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  1.00 0.95  0.85 0.95 1.00  1.00 0.87 0.87  0.85 1.00 1.00  1.00
Lanes:       0.00 2.00  1.00 1.00 1.00  0.00 1.99 0.01  1.00 0.00 0.00  0.00
Final Sat.:     0 3610  1615 1805 1900     0 3291   15  1615    0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.16  0.13 0.10 0.22  0.00 0.26 0.26  0.08 0.00 0.00  0.00
Crit Moves:       ****       ****                  ****
Green/Cycle: 0.00 0.28  0.28 0.17 0.44  0.00 0.44 0.44  0.44 0.00 0.00  0.00
Volume/Cap:  0.00 0.59  0.47 0.59 0.50  0.00 0.59 0.59  0.18 0.00 0.00  0.00
Uniform Del:  0.0 23.5  22.6 28.8 14.9   0.0 16.0 16.0  12.9  0.0  0.0   0.0
IncremntDel:  0.0  1.0   0.8  3.1  0.5   0.0  0.7  0.7   0.1  0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00 1.00 1.00  0.00 1.00 1.00  1.00 0.00 0.00  0.00
Delay/Veh:    0.0 24.5  23.4 31.9 15.4   0.0 16.7 16.7  13.0  0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:   0.0 24.5  23.4 31.9 15.4   0.0 16.7 16.7  13.0  0.0  0.0   0.0
LOS by Move:    A    C     C    C    B     A    B    B     B    A    A     A
HCM2kAvgQ:      0    7     5    4    7     0    8    8     2    0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #21 Park Ave / Kennedy Dr
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         1.060
Loss Time (sec):       0                Average Delay (sec/veh):        46.1
Optimal Cycle:         0                Level Of Service:                  E
********************************************************************************
Street Name:               Park Ave                          Kennedy Dr
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  0  1! 0  0   0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       5  194    15    60  128   251   244   22     3   138  150   172
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    5  194    15    60  128   251   244   22     3   138  150   172
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.83 0.83  0.83  0.83 0.83  0.83  0.83 0.83  0.83  0.83 0.83  0.83
PHF Volume:     6  234    18    72  154   302   294   27     4   166  181   207
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    6  234    18    72  154   302   294   27     4   166  181   207
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    6  234    18    72  154   302   294   27     4   166  181   207
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.02 0.91  0.07  0.14 0.29  0.57  0.91 0.08  0.01  0.48 0.52  1.00
Final Sat.:    10  381    29    68  146   285   388   35     5   204  222   480
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.61 0.61  0.61  1.06 1.06  1.06  0.76 0.76  0.76  0.81 0.81  0.43
Crit Moves:       ****        ****                  ****              ****
Delay/Veh:   22.5 22.5  22.5  83.8 83.8  83.8  31.7 31.7  31.7  37.8 37.8  15.6
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  22.5 22.5  22.5  83.8 83.8  83.8  31.7 31.7  31.7  37.8 37.8  15.6
LOS by Move:    C    C     C     F    F     F     D    D     D     E    E     C
ApproachDel:      22.5             83.8             31.7             29.5
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       22.5             83.8             31.7             29.5
LOS by Appr:         C                F                D                D
AllWayAvgQ:   1.3  1.3   1.3  10.2 10.2  10.2   2.4  2.4   2.4   3.2  3.2   0.7
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Scenario Report

Scenario:	Ext PM
Command:	Default Command
Volume:	Ext PM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/C	Future LOS	Future Del/ Veh	Future V/C	Change in
# 1 41st Ave / SR-1 NB Ramps	B	18.2	0.573	B	18.2	0.573	+ 0.000 D/V
# 2 41st Ave / SR-1 SB Ramps	A	6.3	0.785	A	6.3	0.785	+ 0.000 D/V
# 3 41st Ave / Gross Rd	C	27.8	0.640	C	27.8	0.640	+ 0.000 D/V
# 4 41st Ave / Clares St	C	30.7	0.699	C	30.7	0.699	+ 0.000 D/V
# 5 41st Ave / Capitola Rd	C	24.0	0.650	C	24.0	0.650	+ 0.000 D/V
# 6 41st Ave / Brommer St / Jade S	C	21.2	0.646	C	21.2	0.646	+ 0.000 D/V
# 7 Clares St / Capitola Rd	C	23.6	0.838	C	23.6	0.838	+ 0.000 D/V
# 8 Wharf Rd / Clares St	C	23.9	0.834	C	23.9	0.834	+ 0.000 V/C
# 9 49th Ave / Capitola Rd	C	18.4	0.717	C	18.4	0.717	+ 0.000 V/C
# 10 Wharf Rd / Cliff Dr / Stockton	C	24.6	0.783	C	24.6	0.783	+ 0.000 V/C
# 11 Porter St / SR-1 NB Ramps	C	22.6	0.729	C	22.6	0.729	+ 0.000 D/V
# 12 Bay Ave / SR-1 SB Ramps	C	20.2	0.691	C	20.2	0.691	+ 0.000 D/V
# 13 Bay Ave / Hill St	C	17.6	0.597	C	17.6	0.597	+ 0.000 V/C
# 14 Capitola Ave / Bay Ave	B	14.3	0.523	B	14.3	0.523	+ 0.000 V/C
# 15 Monterey Ave / Bay Ave	B	10.3	0.457	B	10.3	0.457	+ 0.000 V/C
# 16 Monterey Ave / Park Ave	C	18.7	0.791	C	18.7	0.791	+ 0.000 V/C
# 17 Capitola Ave / Stockton Ave	C	22.1	0.809	C	22.1	0.809	+ 0.000 V/C
# 18 Monterey Ave / Capitola Ave	C	19.7	0.816	C	19.7	0.816	+ 0.000 V/C
# 19 Park Ave / SR-1 NB Ramps	B	18.0	0.585	B	18.0	0.585	+ 0.000 D/V
# 20 Park Ave / SR-1 SB Ramps	B	16.8	0.477	B	16.8	0.477	+ 0.000 D/V
# 21 Park Ave / Kennedy Dr	E	41.7	0.960	E	41.7	0.960	+ 0.000 V/C

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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #1 41st Ave / SR-1 NB Ramps
********************************************************************************
Cycle (sec):          90                 Critical Vol./Cap.(X):        0.573
Loss Time (sec):       9                 Average Delay (sec/veh):       18.2
Optimal Cycle:        38                 Level Of Service:                 B
********************************************************************************
Street Name:                41st Ave                       SR-1 NB Ramps
Approach:      North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected         Protected         Protected
Rights:           Ignore           Ignore           Include           Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        0  0  2  0  1   0  0  1  1  0   0  0  0  0  0   1  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  657   360    0  930   179    0    0     0  829    0   384
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:    0  657   360    0  930   179    0    0     0  829    0   384
User Adj:    1.00 1.00  0.00 1.00 1.00  0.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.96 0.96  0.00 0.96 0.96  0.00 0.96 0.96  0.96 0.96 0.96  0.96
PHF Volume:     0  684     0    0  969     0    0    0     0  864    0   400
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:    0  684     0    0  969     0    0    0     0  864    0   400
PCE Adj:     1.00 1.00  0.00 1.00 1.00  0.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  0.00 1.00 1.00  0.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:    0  684     0    0  969     0    0    0     0  864    0   400
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  1.00 0.95  1.00 1.00 0.95  0.95 1.00 1.00  1.00 0.95 1.00  0.85
Lanes:       0.00 2.00  1.00 0.00 2.00  0.00 0.00 0.00  0.00 2.00 0.00  1.00
Final Sat.:     0 3610  1900    0 3610     0    0    0     0 3618    0  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.19  0.00 0.00 0.27  0.00 0.00 0.00  0.00 0.24 0.00  0.25
Crit Moves:  ****                   ****                                    ****
Green/Cycle: 0.00 0.47  0.00 0.00 0.47  0.00 0.00 0.00  0.00 0.43 0.00  0.43
Volume/Cap:  0.00 0.41  0.00 0.00 0.57  0.00 0.00 0.00  0.00 0.55 0.00  0.57
Uniform Del:  0.0 15.7   0.0  0.0 17.4   0.0  0.0  0.0   0.0 19.1  0.0  19.3
IncremntDel:  0.0  0.2   0.0  0.0  0.5   0.0  0.0  0.0   0.0  0.4  0.0   1.2
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   0.00 1.00  0.00 0.00 1.00  0.00 0.00 0.00  0.00 1.00 0.00  1.00
Delay/Veh:    0.0 15.9   0.0  0.0 17.9   0.0  0.0  0.0   0.0 19.5  0.0  20.5
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:   0.0 15.9   0.0  0.0 17.9   0.0  0.0  0.0   0.0 19.5  0.0  20.5
LOS by Move:    A    B     A    A    B     A    A    A     A    B    A     C
HCM2kAvgQ:      0    6     0    0   11     0    0    0     0    9    0     9
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                     Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #2 41st Ave / SR-1 SB Ramps
********************************************************************************
Cycle (sec):           90                Critical Vol./Cap.(X):        0.785
Loss Time (sec):        9                Average Delay (sec/veh):        6.3
Optimal Cycle:         63                Level Of Service:                 A
********************************************************************************
Street Name:                 41st Ave                          SR-1 SB Ramps
Approach:       North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted         Permitted         Permitted         Permitted
Rights:          Include           Ignore            Include           Include
Min. Green:     0     0     0     0     0     0     0     0     0     0     0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
Lanes:        0  0  2  0  1    0  0  3  0  1    1  0  0  1  1    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  971   970     0 1380   359    62     0   128     0     0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0  971   970     0 1380   359    62     0   128     0     0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.91 0.91  0.91  0.91 0.91  0.00  0.91 0.91  0.91  0.91 0.91  0.91
PHF Volume:     0 1067  1066     0 1516     0    68     0   141     0     0     0
Reduct Vol:     0    0     0     0    0     0     0     0     0     0     0     0
Reduced Vol:    0 1067  1066     0 1516     0    68     0   141     0     0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0 1067  1066     0 1516     0    68     0   141     0     0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.95  0.85  1.00 0.91  1.00  0.77 1.00  0.85  1.00 1.00  1.00
Lanes:       0.00 2.00  1.00  0.00 3.00  1.00  1.00 0.00  2.00  0.00 0.00  0.00
Final Sat.:     0 3610  1615     0 5187  1900  1461     0  3230     0     0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.30  0.66  0.00 0.29  0.00  0.05 0.00  0.04  0.00 0.00  0.00
Crit Moves:             ****              ****
Green/Cycle: 0.00 0.84  0.84  0.00 0.84  0.00  0.06 0.00  0.06  0.00 0.00  0.00
Volume/Cap:  0.00 0.35  0.79  0.00 0.35  0.00  0.79 0.00  0.73  0.00 0.00  0.00
Uniform Del:  0.0  1.6   3.4   0.0  1.6   0.0  41.8  0.0  41.6   0.0  0.0   0.0
IncremntDel:  0.0  0.1   3.1   0.0  0.0   0.0  36.3  0.0  13.6   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00  0.00 1.00  0.00  1.00 0.00  1.00  0.00 0.00  0.00
Delay/Veh:    0.0  1.7   6.5   0.0  1.7   0.0  78.1  0.0  55.2   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  1.7   6.5   0.0  1.7   0.0  78.1  0.0  55.2   0.0  0.0   0.0
LOS by Move:    A    A     A     A    A     A     E    A     E     A    A     A
HCM2kAvgQ:      0    4    15     0    4     0     4    0     3     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 41st Ave / Gross Rd

Cycle (sec):	120	Critical Vol./Cap.(X):	0.640
Loss Time (sec):	16	Average Delay (sec/veh):	27.8
Optimal Cycle:	90	Level Of Service:	C

Street Name:	41st Ave						Gross Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	76	1452	31	44	1224	256	415	21	188	42	18	80
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	76	1452	31	44	1224	256	415	21	188	42	18	80
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
PHF Volume:	84	1596	34	48	1345	281	456	23	207	46	20	88
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	84	1596	34	48	1345	281	456	23	207	46	20	88
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	84	1596	34	48	1345	281	456	23	207	46	20	88
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	0.91	0.95	0.89	0.89	0.96	0.96	0.85	0.97	0.97	0.85
Lanes:	1.00	2.94	0.06	1.00	2.48	0.52	1.90	0.10	1.00	0.70	0.30	1.00
Final Sat.:	1805	5063	108	1805	4178	874	3454	175	1615	1285	551	1615
Capacity Analysis Module:												
Vol/Sat:	0.05	0.32	0.32	0.03	0.32	0.32	0.13	0.13	0.13	0.04	0.04	0.05
Crit Moves:	****				****			****				****
Green/Cycle:	0.07	0.53	0.53	0.05	0.50	0.50	0.21	0.21	0.21	0.09	0.09	0.09
Volume/Cap:	0.64	0.59	0.59	0.59	0.64	0.64	0.64	0.64	0.62	0.42	0.42	0.64
Uniform Del:	54.1	19.3	19.3	56.2	21.9	21.9	43.5	43.5	43.3	52.1	52.1	53.1
IncremntDel:	10.2	0.4	0.4	11.3	0.6	0.6	1.9	1.9	3.6	1.8	1.8	9.8
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	64.4	19.7	19.7	67.5	22.4	22.4	45.4	45.4	46.9	53.9	53.9	62.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	64.4	19.7	19.7	67.5	22.4	22.4	45.4	45.4	46.9	53.9	53.9	62.9
LOS by Move:	E	B	B	E	C	C	D	D	D	D	D	E
HCM2kAvgQ:	3	14	14	2	16	16	9	9	8	3	3	4

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #4 41st Ave / Clares St
********************************************************************************
Cycle (sec):          100                 Critical Vol./Cap.(X):         0.699
Loss Time (sec):       16                 Average Delay (sec/veh):        30.7
Optimal Cycle:         69                 Level Of Service:                  C
********************************************************************************
Street Name:                 41st Ave                         Clares St
Approach:      North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected       Split Phase      Split Phase
Rights:           Include          Include          Include           Ovl
Min. Green:     0     0     0    0     0     0    0     0     0    0     0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        1  0  2  1  0   1  0  3  0  1   2  0  1! 0  0   0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      59  999    64  167  818   405  416  122    41   41  105   133
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:   59  999    64  167  818   405  416  122    41   41  105   133
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93
PHF Volume:    63 1074    69  180  880   435  447  131    44   44  113   143
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:   63 1074    69  180  880   435  447  131    44   44  113   143
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:   63 1074    69  180  880   435  447  131    44   44  113   143
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  0.95 0.90  0.90 0.95 0.91  0.85 0.93 0.95  0.95 0.99 0.99  0.85
Lanes:       1.00 2.82  0.18 1.00 3.00  1.00 2.47 0.40  0.13 0.28 0.72  1.00
Final Sat.:  1805 4831   309 1805 5187  1615 4340  723   243  526 1347  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.22  0.22 0.10 0.17  0.27 0.10 0.18  0.18 0.08 0.08  0.09
Crit Moves:       ****       ****                           **** ****
Green/Cycle: 0.05 0.32  0.32 0.14 0.41  0.41 0.26 0.26  0.26 0.12 0.12  0.26
Volume/Cap:  0.66 0.70  0.70 0.70 0.42  0.66 0.40 0.70  0.70 0.70 0.70  0.34
Uniform Del: 46.5 29.9  29.9 40.8 21.1  24.0 30.6 33.5  33.5 42.3 42.3  29.9
IncremntDel: 15.9  1.4   1.4  8.2  0.1   2.5  0.2  2.5   2.5  9.4  9.4   0.5
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Delay/Veh:   62.4 31.3  31.3 49.1 21.3  26.6 30.7 36.0  36.0 51.6 51.6  30.3
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:  62.4 31.3  31.3 49.1 21.3  26.6 30.7 36.0  36.0 51.6 51.6  30.3
LOS by Move:    E    C     C    D    C     C    C    D     D    D    D     C
HCM2kAvgQ:      2   11    11    5    7    11    5   10    10    6    6     4
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #5 41st Ave / Capitola Rd
********************************************************************************
Cycle (sec):          65                Critical Vol./Cap.(X):        0.650
Loss Time (sec):      12                Average Delay (sec/veh):       24.0
Optimal Cycle:        48                Level Of Service:                 C
********************************************************************************
Street Name:                41st Ave                        Capitola Rd
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected       Split Phase      Split Phase
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        1  0  2  0  1   2  0  2  0  1   1  0  1  1  0   1  1  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     140  634   113  181  560    95  312  310    84  177  303    91
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:  140  634   113  181  560    95  312  310    84  177  303    91
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.98 0.98  0.98 0.98 0.98  0.98 0.98 0.98  0.98 0.98 0.98  0.98
PHF Volume:   143  647   115  185  571    97  318  316    86  181  309    93
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:  143  647   115  185  571    97  318  316    86  181  309    93
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:  143  647   115  185  571    97  318  316    86  181  309    93
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  0.95 0.95  0.85 0.92 0.95  0.85 0.95 0.92  0.92 0.91 0.91  0.91
Lanes:       1.00 2.00  1.00 2.00 2.00  1.00 1.00 1.57  0.43 1.00 1.54  0.46
Final Sat.:  1805 3610  1615 3502 3610  1615 1805 2749   745 1735 2669   802
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.08 0.18  0.07 0.05 0.16  0.06 0.18 0.12  0.12 0.10 0.12  0.12
Crit Moves:  ****                 ****       ****                  ****
Green/Cycle: 0.12 0.28  0.28 0.08 0.24  0.24 0.27 0.27  0.27 0.18 0.18  0.18
Volume/Cap:  0.65 0.63  0.25 0.63 0.65  0.25 0.65 0.42  0.42 0.58 0.65  0.65
Uniform Del: 27.2 20.4  18.0 28.8 22.1  19.8 20.9 19.5  19.5 24.5 24.8  24.8
IncremntDel:  6.7  1.3   0.3  4.5  1.7   0.3  3.1  0.3   0.3  0.9  1.7   1.7
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Delay/Veh:   33.9 21.7  18.3 33.4 23.8  20.1 24.0 19.8  19.8 25.4 26.5  26.5
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:  33.9 21.7  18.3 33.4 23.8  20.1 24.0 19.8  19.8 25.4 26.5  26.5
LOS by Move:    C    C     B    C    C     C    C    B     B    C    C     C
HCM2kAvgQ:      3    6     2    2    5     2    6    3     3    4    5     5
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 41st Ave / Brommer St / Jade St

Cycle (sec):	60	Critical Vol./Cap.(X):	0.646
Loss Time (sec):	12	Average Delay (sec/veh):	21.2
Optimal Cycle:	47	Level Of Service:	C

Street Name:	41st Ave						Brommer St / Jade St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	57	548	86	56	578	118	164	164	71	73	104	72
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	57	548	86	56	578	118	164	164	71	73	104	72
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
PHF Volume:	59	565	89	58	596	122	169	169	73	75	107	74
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	59	565	89	58	596	122	169	169	73	75	107	74
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	59	565	89	58	596	122	169	169	73	75	107	74
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.93	0.93	0.95	0.93	0.93	0.98	0.98	0.85	0.98	0.98	0.85
Lanes:	1.00	1.73	0.27	1.00	1.66	0.34	0.50	0.50	1.00	0.41	0.59	1.00
Final Sat.:	1805	3058	480	1805	2923	597	927	927	1615	768	1094	1615
Capacity Analysis Module:												
Vol/Sat:	0.03	0.18	0.18	0.03	0.20	0.20	0.18	0.18	0.05	0.10	0.10	0.05
Crit Moves:	****				****		****				****	
Green/Cycle:	0.05	0.31	0.31	0.05	0.32	0.32	0.28	0.28	0.28	0.15	0.15	0.15
Volume/Cap:	0.65	0.59	0.59	0.59	0.65	0.65	0.65	0.65	0.16	0.65	0.65	0.30
Uniform Del:	28.0	17.4	17.4	27.7	17.7	17.7	18.9	18.9	16.2	23.9	23.9	22.6
IncremntDel:	15.0	0.9	0.9	9.4	1.3	1.3	2.8	2.8	0.2	5.1	5.1	0.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	42.9	18.3	18.3	37.1	19.0	19.0	21.7	21.7	16.4	29.0	29.0	23.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	42.9	18.3	18.3	37.1	19.0	19.0	21.7	21.7	16.4	29.0	29.0	23.3
LOS by Move:	D	B	B	D	B	B	C	C	B	C	C	C
HCM2kAvgQ:	2	6	6	1	6	6	7	7	1	4	4	2

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #7 Clares St / Capitola Rd
********************************************************************************
Cycle (sec):           60                  Critical Vol./Cap.(X):         0.838
Loss Time (sec):       12                  Average Delay (sec/veh):        23.6
Optimal Cycle:         69                  Level Of Service:                  C
********************************************************************************
Street Name:                 Clares St                         Capitola Rd
Approach:       North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected         Protected         Protected         Protected
Rights:           Include           Include           Include           Include
Min. Green:     0     0     0     0     0     0     0     0     0     0     0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
Lanes:        0  0  0  0  0    1  0  0  0  1    1  0  2  0  0    0  0  1  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0     0     0   164     0   474   328   841     0     0   480   111
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0     0     0   164     0   474   328   841     0     0   480   111
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.96 0.96  0.96  0.96 0.96  0.96  0.96 0.96  0.96  0.96 0.96  0.96
PHF Volume:     0     0     0   171     0   494   342   876     0     0   500   116
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    0     0     0   171     0   494   342   876     0     0   500   116
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0     0     0   171     0   494   342   876     0     0   500   116
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 1.00  1.00  0.95 1.00  0.85  0.95 0.95  1.00  1.00 0.92  0.92
Lanes:       0.00 0.00  0.00  1.00 0.00  1.00  1.00 2.00  0.00  0.00 1.62  0.38
Final Sat.:     0     0     0  1805     0  1615  1805 3610     0     0 2850   659
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.00  0.00  0.09 0.00  0.31  0.19 0.24  0.00  0.00 0.18  0.18
Crit Moves:                               ****  ****                   ****
Green/Cycle: 0.00 0.00  0.00  0.36 0.00  0.36  0.23 0.44  0.00  0.00 0.21  0.21
Volume/Cap:  0.00 0.00  0.00  0.26 0.00  0.84  0.84 0.56  0.00  0.00 0.84  0.84
Uniform Del:  0.0  0.0   0.0  13.4  0.0  17.4  22.2 12.6   0.0   0.0 22.7  22.7
IncremntDel:  0.0  0.0   0.0   0.2  0.0  10.3  14.2  0.4   0.0   0.0  8.4   8.4
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 0.00  0.00  1.00 0.00  1.00  1.00 1.00  0.00  0.00 1.00  1.00
Delay/Veh:    0.0  0.0   0.0  13.6  0.0  27.7  36.4 13.1   0.0   0.0 31.2  31.2
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0  0.0   0.0  13.6  0.0  27.7  36.4 13.1   0.0   0.0 31.2  31.2
LOS by Move:    A     A     A     B     A     C     D     B     A     A     C     C
HCM2kAvgQ:      0     0     0     2     0    11     9     7     0     0     6     6
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #8 Wharf Rd / Clares St
********************************************************************************
Cycle (sec):          100                Critical Vol./Cap.(X):        0.834
Loss Time (sec):        0                Average Delay (sec/veh):       23.9
Optimal Cycle:          0                Level Of Service:                 C
********************************************************************************
Street Name:                 Wharf Rd                          Clares St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:    0    0    0    0    0    0    0    0    0    0    0    0
Lanes:        0  1  0  0  0   0  0  0  1  0   0  0  1! 0  0   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      35  467    0    0  278  171  276    0   57    0    0    0
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:   35  467    0    0  278  171  276    0   57    0    0    0
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97 0.97
PHF Volume:    36  481    0    0  287  176  285    0   59    0    0    0
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:   36  481    0    0  287  176  285    0   59    0    0    0
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:   36  481    0    0  287  176  285    0   59    0    0    0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:       0.07 0.93 0.00 0.00 0.62 0.38 0.82 0.01 0.17 0.00 0.00 0.00
Final Sat.:    43  577    0    0  390  240  452    0   93    0    0    0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.83 0.83 xxxx xxxx 0.73 0.73 0.63 0.00 0.63 xxxx xxxx xxxx
Crit Moves:       ****           ****      ****
Delay/Veh:   29.7 29.7  0.0  0.0 21.5 21.5 18.3 18.3 18.3  0.0  0.0  0.0
Delay Adj:   1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  29.7 29.7  0.0  0.0 21.5 21.5 18.3 18.3 18.3  0.0  0.0  0.0
LOS by Move:    D    D    *    *    C    C    C    C    C    *    *    *
ApproachDel:      29.7             21.5             18.3           xxxxxx
Delay Adj:        1.00             1.00             1.00            xxxxx
ApprAdjDel:       29.7             21.5             18.3           xxxxxx
LOS by Appr:         D                C                C                *
AllWayAvgQ:    3.6  3.6  3.6  2.3  2.3  2.3  1.4  1.4  1.4  0.0  0.0  0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                     Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #9 49th Ave / Capitola Rd
********************************************************************************
Cycle (sec):          100                Critical Vol./Cap.(X):        0.717
Loss Time (sec):        0                Average Delay (sec/veh):       18.4
Optimal Cycle:          0                Level Of Service:                 C
********************************************************************************
Street Name:                49th Ave                          Capitola Rd
Approach:      North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0     0     0     0     0     0     0     0     0     0     0     0
Lanes:        0  0  1! 0  0   0  1  0  0  1   1  0  0  1  0   1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       6   58    23    63   66   191   370  376    11    14  200    13
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    6   58    23    63   66   191   370  376    11    14  200    13
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.97 0.97  0.97  0.97 0.97  0.97  0.97 0.97  0.97  0.97 0.97  0.97
PHF Volume:     6   60    24    65   68   197   381  388    11    14  206    13
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    6   60    24    65   68   197   381  388    11    14  206    13
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    6   60    24    65   68   197   381  388    11    14  206    13
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.07 0.67  0.26  0.49 0.51  1.00  1.00 0.97  0.03  1.00 0.94  0.06
Final Sat.:    32  307   122   228  239   534   532  560    16   463  474    31
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.20 0.20  0.20  0.28 0.28  0.37  0.72 0.69  0.69  0.03 0.43  0.43
Crit Moves:       ****                   ****  ****                    ****
Delay/Veh:   12.0 12.0  12.0  12.9 12.9  12.6  24.2 21.3  21.3  10.4 14.5  14.5
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  12.0 12.0  12.0  12.9 12.9  12.6  24.2 21.3  21.3  10.4 14.5  14.5
LOS by Move:    B    B     B     B    B     B     C    C     C     B    B     B
ApproachDel:      12.0              12.7              22.7              14.2
Delay Adj:        1.00              1.00              1.00              1.00
ApprAdjDel:       12.0              12.7              22.7              14.2
LOS by Appr:         B                 B                 C                 B
AllWayAvgQ:   0.2  0.2   0.2   0.4  0.4   0.5   2.2  2.0   2.0   0.0  0.7   0.7
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #10 Wharf Rd / Cliff Dr / Stockton Ave
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):        0.783
Loss Time (sec):       0              Average Delay (sec/veh):       24.6
Optimal Cycle:         0              Level Of Service:                 C
********************************************************************************
Street Name:                Wharf Rd                   Cliff Dr / Stockton Ave
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Ignore
Min. Green:     0     0     0     0     0     0     0     0     0     0     0     0
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  1  0  0  0   0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       2     3     5   396    10    11    12   436     0     7   350   252
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    2     3     5   396    10    11    12   436     0     7   350   252
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     0.99 0.99  0.99  0.99 0.99  0.99  0.99 0.99  0.99  0.99 0.99  0.00
PHF Volume:     2     3     5   400    10    11    12   440     0     7   354     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    2     3     5   400    10    11    12   440     0     7   354     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:    2     3     5   400    10    11    12   440     0     7   354     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.20 0.30  0.50  0.95 0.02  0.03  0.03 0.97  0.00  0.02 0.98  1.00
Final Sat.:    83  124   207   520   13    14    15  563     0    10  516   586
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.02 0.02  0.02  0.77 0.77  0.77  0.78 0.78  xxxx  0.69 0.69  0.00
Crit Moves:       ****             ****             ****        ****
Delay/Veh:   10.3 10.3  10.3  25.7 25.7  25.7  26.4 26.4   0.0  21.6 21.6   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  10.3 10.3  10.3  25.7 25.7  25.7  26.4 26.4   0.0  21.6 21.6   0.0
LOS by Move:    B    B     B     D    D     D     D    D     *     C    C     *
ApproachDel:      10.3             25.7             26.4             21.6
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       10.3             25.7             26.4             21.6
LOS by Appr:        B                D                D                C
AllWayAvgQ:   0.0  0.0   0.0   2.5  2.5   2.5   2.8  2.8   2.8   1.8  1.8   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #11 Porter St / SR-1 NB Ramps
********************************************************************************
Cycle (sec):          85                  Critical Vol./Cap.(X):         0.729
Loss Time (sec):       9                  Average Delay (sec/veh):        22.6
Optimal Cycle:        53                  Level Of Service:                  C
********************************************************************************
Street Name:                Porter St                         SR-1 NB Ramps
Approach:       North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Protected        Protected         Permitted         Permitted
Rights:          Include          Include          Include           Include
Min. Green:    0    0     0    0    0     0    0    0     0    0    0     0
Y+R:         4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        1  0  2  0  0   0  0  1  1  0   0  0  0  0  0   1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:    272  482     0    0  764   284    0    0     0  146    3   276
Growth Adj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse: 272  482     0    0  764   284    0    0     0  146    3   276
User Adj:   1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:    0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96
PHF Volume:  283  502     0    0  796   296    0    0     0  152    3   288
Reduct Vol:    0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol: 283  502     0    0  796   296    0    0     0  152    3   288
PCE Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume: 283  502     0    0  796   296    0    0     0  152    3   288
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:   1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment: 0.95 0.95  1.00 1.00 0.91  0.91 1.00 1.00  1.00 0.85 0.85  0.85
Lanes:      1.00 2.00  0.00 0.00 1.46  0.54 0.00 0.00  0.00 1.00 0.01  0.99
Final Sat.: 1805 3610     0    0 2524   938    0    0     0 1615   17  1601
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:    0.16 0.14  0.00 0.00 0.32  0.32 0.00 0.00  0.00 0.09 0.18  0.18
Crit Moves: ****                 ****                                ****
Green/Cycle: 0.22 0.65  0.00 0.00 0.43  0.43 0.00 0.00  0.00 0.25 0.25  0.25
Volume/Cap: 0.73 0.21  0.00 0.00 0.73  0.73 0.00 0.00  0.00 0.38 0.73  0.73
Uniform Del: 31.0  6.1   0.0  0.0 20.0  20.0  0.0  0.0   0.0 26.7 29.4  29.4
IncremntDel:  6.8  0.0   0.0  0.0  1.8   1.8  0.0  0.0   0.0  0.6  6.7   6.7
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:  1.00 1.00  0.00 0.00 1.00  1.00 0.00 0.00  0.00 1.00 1.00  1.00
Delay/Veh:  37.9  6.2   0.0  0.0 21.8  21.8  0.0  0.0   0.0 27.3 36.1  36.1
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh: 37.9  6.2   0.0  0.0 21.8  21.8  0.0  0.0   0.0 27.3 36.1  36.1
LOS by Move:    D    A     A    A    C     C    A    A     A    C    D     D
HCM2kAvgQ:      7    3     0    0   14    14    0    0     0    4    9     9
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #12 Bay Ave / SR-1 SB Ramps
********************************************************************************
Cycle (sec):          75                Critical Vol./Cap.(X):        0.691
Loss Time (sec):       9                Average Delay (sec/veh):       20.2
Optimal Cycle:        47                Level Of Service:                 C
********************************************************************************
Street Name:                 Bay Ave                         SR-1 SB Ramps
Approach:       North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected         Protected         Permitted         Permitted
Rights:           Include           Include           Include           Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        0  0  1  1  0   1  0  2  0  0   1  0  1! 0  1   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  550   185  366  543     0  219   21   333    0    0     0
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:    0  550   185  366  543     0  219   21   333    0    0     0
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.98 0.98  0.98 0.98 0.98  0.98 0.98 0.98  0.98 0.98 0.98  0.98
PHF Volume:     0  561   189  373  554     0  223   21   340    0    0     0
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:    0  561   189  373  554     0  223   21   340    0    0     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:    0  561   189  373  554     0  223   21   340    0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  1.00 0.91  0.91 0.95 0.95  1.00 0.86 0.86  0.86 1.00 1.00  1.00
Lanes:       0.00 1.50  0.50 1.00 2.00  0.00 1.37 0.07  1.56 0.00 0.00  0.00
Final Sat.:     0 2599   874 1805 3610     0 2239  116  2553    0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.22  0.22 0.21 0.15  0.00 0.10 0.19  0.13 0.00 0.00  0.00
Crit Moves:       ****       ****                  ****
Green/Cycle: 0.00 0.31  0.31 0.30 0.61  0.00 0.27 0.27  0.27 0.00 0.00  0.00
Volume/Cap:  0.00 0.69  0.69 0.69 0.25  0.00 0.37 0.69  0.50 0.00 0.00  0.00
Uniform Del:  0.0 22.6  22.6 23.2  6.7   0.0 22.3 24.7  23.2  0.0  0.0   0.0
IncremntDel:  0.0  1.9   1.9  3.8  0.1   0.0  0.1  2.5   0.3  0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00 1.00 1.00  0.00 1.00 1.00  1.00 0.00 0.00  0.00
Delay/Veh:    0.0 24.5  24.5 27.0  6.7   0.0 22.5 27.1  23.5  0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:   0.0 24.5  24.5 27.0  6.7   0.0 22.5 27.1  23.5  0.0  0.0   0.0
LOS by Move:    A    C     C    C    A     A    C    C     C    A    A     A
HCM2kAvgQ:      0    9     9    7    3     0    3    8     5    0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Level Of Service Computation Report

2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #13 Bay Ave / Hill St

Cycle (sec): 100	Critical Vol./Cap.(X):	0.597
Loss Time (sec): 0	Average Delay (sec/veh):	17.6
Optimal Cycle: 0	Level Of Service:	C

Street Name:	Bay Ave						Hill St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	0 1	0 0	1!	0 0
Volume Module:												
Base Vol:	94	316	20	185	459	61	129	52	75	24	35	113
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	94	316	20	185	459	61	129	52	75	24	35	113
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
PHF Volume:	101	340	22	199	494	66	139	56	81	26	38	122
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	101	340	22	199	494	66	139	56	81	26	38	122
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	101	340	22	199	494	66	139	56	81	26	38	122
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	1.00	1.88	0.12	1.00	1.77	0.23	0.71	0.29	1.00	0.14	0.20	0.66
Final Sat.:	399	802	51	434	826	111	292	118	461	62	91	294
Capacity Analysis Module:												
Vol/Sat:	0.25	0.42	0.42	0.46	0.60	0.59	0.47	0.47	0.17	0.41	0.41	0.41
Crit Moves:		****			****		****				****	
Delay/Veh:	14.2	16.4	16.3	17.3	20.5	20.0	17.9	17.9	11.5	15.6	15.6	15.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	14.2	16.4	16.3	17.3	20.5	20.0	17.9	17.9	11.5	15.6	15.6	15.6
LOS by Move:	B	C	C	C	C	C	C	C	B	C	C	C
ApproachDel:		15.9			19.6			16.0			15.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		15.9			19.6			16.0			15.6	
LOS by Appr:		C			C			C			C	
AllWayAvgQ:	0.3	0.7	0.6	0.8	1.4	1.3	0.8	0.8	0.2	0.6	0.6	0.6

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #14 Capitola Ave / Bay Ave
********************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):         0.523
Loss Time (sec):       0                Average Delay (sec/veh):        14.3
Optimal Cycle:         0                Level Of Service:                  B
********************************************************************************
Street Name:           Capitola Ave                          Bay Ave
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        0  1  0  0  1   0  0  1! 0  0   0  1  0  0  1   1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     138  107     7    34   88    31    20  244   170    47  218    37
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  138  107     7    34   88    31    20  244   170    47  218    37
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.97 0.97  0.97  0.97 0.97  0.97  0.97 0.97  0.97  0.97 0.97  0.97
PHF Volume:   142  110     7    35   91    32    21  252   175    48  225    38
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  142  110     7    35   91    32    21  252   175    48  225    38
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  142  110     7    35   91    32    21  252   175    48  225    38
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.56 0.44  1.00  0.22 0.58  0.20  0.08 0.92  1.00  1.00 0.85  0.15
Final Sat.:   272  211   551   105  273    96    41  497   601   485  455    77
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.52 0.52  0.01  0.33 0.33  0.33  0.51 0.51  0.29  0.10 0.49  0.49
Crit Moves:       ****              ****        ****                  ****
Delay/Veh:   16.7 16.7   8.9  13.1 13.1  13.1  15.2 15.2  10.6  10.5 14.9  14.9
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  16.7 16.7   8.9  13.1 13.1  13.1  15.2 15.2  10.6  10.5 14.9  14.9
LOS by Move:    C    C     A     B    B     B     C    C     B     B    B     B
ApproachDel:      16.5             13.1             13.4             14.2
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       16.5             13.1             13.4             14.2
LOS by Appr:         C                B                B                B
AllWayAvgQ:   0.9  0.9   0.0   0.4  0.4   0.4   0.9  0.9   0.4   0.1  0.8   0.8
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #15 Monterey Ave / Bay Ave
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):        0.457
Loss Time (sec):        0               Average Delay (sec/veh):       10.3
Optimal Cycle:          0               Level Of Service:                 B
********************************************************************************
Street Name:               Monterey Ave                         Bay Ave
Approach:        North Bound       South Bound       East Bound        West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Stop Sign         Stop Sign         Stop Sign         Stop Sign
Rights:            Include           Include           Include           Include
Min. Green:     0     0     0     0     0     0     0     0     0     0     0     0
Lanes:         0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      169    49     0     0    35   122   136     0   194     0     0     0
Growth Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   169    49     0     0    35   122   136     0   194     0     0     0
User Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:      0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    178    52     0     0    37   128   143     0   204     0     0     0
Reduct Vol:      0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:   178    52     0     0    37   128   143     0   204     0     0     0
PCE Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   178    52     0     0    37   128   143     0   204     0     0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:        0.78 0.22  0.00  0.00 0.22  0.78  0.41 0.00  0.59  0.00 0.00  0.00
Final Sat.:    525  152     0     0  165   577   313     0   447     0     0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.34 0.34  xxxx  xxxx 0.22  0.22  0.46 xxxx  0.46  xxxx xxxx  xxxx
Crit Moves:   ****                  ****        ****
Delay/Veh:    10.4 10.4   0.0   0.0  8.7   8.7  11.0  0.0  11.0   0.0  0.0   0.0
Delay Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   10.4 10.4   0.0   0.0  8.7   8.7  11.0  0.0  11.0   0.0  0.0   0.0
LOS by Move:     B    B     *     *    A     A     B    *     B     *    *     *
ApproachDel:       10.4              8.7              11.0            xxxxxx
Delay Adj:         1.00             1.00              1.00             xxxxx
ApprAdjDel:        10.4              8.7              11.0            xxxxxx
LOS by Appr:          B                A                 B                 *
AllWayAvgQ:    0.4  0.4   0.4   0.2  0.2   0.2   0.7  0.7   0.7   0.0  0.0   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #16 Monterey Ave / Park Ave
********************************************************************************
Cycle (sec):          100                Critical Vol./Cap.(X):         0.791
Loss Time (sec):        0                Average Delay (sec/veh):        18.7
Optimal Cycle:          0                Level Of Service:                  C
********************************************************************************
Street Name:               Monterey Ave                        Park Ave
Approach:       North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Stop Sign         Stop Sign         Stop Sign         Stop Sign
Rights:          Include           Include           Include           Include
Min. Green:    0    0     0     0    0     0     0    0     0     0    0     0
Lanes:       0  1  0  0  1    0  1  0  0  1    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       2  162   492   120  103     3     6    4    10   260    3    52
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    2  162   492   120  103     3     6    4    10   260    3    52
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.93 0.93  0.93  0.93 0.93  0.93  0.93 0.93  0.93  0.93 0.93  0.93
PHF Volume:     2  174   529   129  111     3     6    4    11   280    3    56
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    2  174   529   129  111     3     6    4    11   280    3    56
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    2  174   529   129  111     3     6    4    11   280    3    56
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.01 0.99  1.00  0.54 0.46  1.00  0.30 0.20  0.50  0.83 0.01  0.16
Final Sat.:     7  581   669   275  236   590   142   95   237   465    5    93
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.30 0.30  0.79  0.47 0.47  0.01  0.05 0.05  0.05  0.60 0.60  0.60
Crit Moves:             ****  ****                   ****                ****
Delay/Veh:   11.2 11.2  24.4  14.9 14.9   8.5   9.9  9.9   9.9  17.2 17.2  17.2
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  11.2 11.2  24.4  14.9 14.9   8.5   9.9  9.9   9.9  17.2 17.2  17.2
LOS by Move:    B    B     C     B    B     A     A    A     A     C    C     C
ApproachDel:      21.1              14.8               9.9              17.2
Delay Adj:        1.00              1.00              1.00              1.00
ApprAdjDel:       21.1              14.8               9.9              17.2
LOS by Appr:         C                 B                 A                 C
AllWayAvgQ:   0.4  0.4   3.0   0.8  0.8   0.0   0.0  0.0   0.0   1.3  1.3   1.3
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #17 Capitola Ave / Stockton Ave
********************************************************************************
Cycle (sec):         100              Critical Vol./Cap.(X):        0.809
Loss Time (sec):       0              Average Delay (sec/veh):       22.1
Optimal Cycle:         0              Level Of Service:                 C
********************************************************************************
Street Name:           Capitola Ave                      Stockton Ave
Approach:       North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign         Stop Sign         Stop Sign
Rights:           Include          Include           Include           Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        1  0  0  0  1   0  0  1! 0  0   0  0  0  1  0   0  1  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     215    0   462    5   32    13    0   19   282  367   26     0
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:  215    0   462    5   32    13    0   19   282  367   26     0
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96 0.96 0.96  0.96
PHF Volume:   224    0   481    5   33    14    0   20   294  382   27     0
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:  224    0   481    5   33    14    0   20   294  382   27     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:  224    0   481    5   33    14    0   20   294  382   27     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Lanes:       1.00 0.00  1.00 0.10 0.64  0.26 0.00 0.06  0.94 0.93 0.07  0.00
Final Sat.:   497    0   595   42  272   110    0   36   541  509   36     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.45 xxxx  0.81 0.12 0.12  0.12 xxxx 0.54  0.54 0.75 0.75  xxxx
Crit Moves:             ****      ****                  ****      ****
Delay/Veh:   15.5  0.0  28.0 11.1 11.1  11.1  0.0 15.2  15.2 25.3 25.3   0.0
Delay Adj:   1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:  15.5  0.0  28.0 11.1 11.1  11.1  0.0 15.2  15.2 25.3 25.3   0.0
LOS by Move:    C    *     D    B    B     B    *    C     C    D    D     *
ApproachDel:      24.1              11.1              15.2              25.3
Delay Adj:        1.00              1.00              1.00              1.00
ApprAdjDel:       24.1              11.1              15.2              25.3
LOS by Appr:        C                 B                 C                 D
AllWayAvgQ:   0.8  0.0   3.2  0.1  0.1   0.1  1.0  1.0   1.0  2.4  2.4   2.4
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
```

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--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #18 Monterey Ave / Capitola Ave
********************************************************************************
Cycle (sec):          100                Critical Vol./Cap.(X):        0.816
Loss Time (sec):        0                Average Delay (sec/veh):       19.7
Optimal Cycle:          0                Level Of Service:                 C
********************************************************************************
Street Name:               Monterey Ave                      Capitola Ave
Approach:       North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign         Stop Sign         Stop Sign         Stop Sign
Rights:           Include           Include           Include           Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  1  0  0  0    0  0  0  0  1    1  0  0  0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      75  123     0     0    0   350   495    0     0     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   75  123     0     0    0   350   495    0     0     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    79  129     0     0    0   368   521    0     0     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   79  129     0     0    0   368   521    0     0     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   79  129     0     0    0   368   521    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.38 0.62  0.00  0.00 0.00  1.00  1.00 0.00  0.00  0.00 0.00  0.00
Final Sat.:   213  349     0     0    0   666   638    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.37 0.37  xxxx  xxxx xxxx  0.55  0.82 xxxx  xxxx  xxxx xxxx  xxxx
Crit Moves:       ****                   ****  ****
Delay/Veh:   12.2 12.2   0.0   0.0  0.0  13.7  27.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  12.2 12.2   0.0   0.0  0.0  13.7  27.0  0.0   0.0   0.0  0.0   0.0
LOS by Move:    B    B     *     *    *     B     D    *     *     *    *     *
ApproachDel:      12.2              13.7              27.0            xxxxxx
Delay Adj:        1.00              1.00              1.00             xxxxx
ApprAdjDel:       12.2              13.7              27.0            xxxxxx
LOS by Appr:         B                 B                 D                 *
AllWayAvgQ:   0.5  0.5   0.5   1.0  1.0   1.0   3.3  3.3   3.3   0.0  0.0   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Park Ave / SR-1 NB Ramps

Cycle (sec):	80		Critical Vol./Cap.(X):	0.585
Loss Time (sec):	9		Average Delay (sec/veh):	18.0
Optimal Cycle:	39		Level Of Service:	B

Street Name:	Park Ave						SR-1 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	0	0 0	1 0	1	0 0	0 0	0	1 0	0 1	0
Volume Module:												
Base Vol:	98	405	0	0	464	392	0	0	0	238	6	251
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	98	405	0	0	464	392	0	0	0	238	6	251
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
PHF Volume:	111	460	0	0	527	445	0	0	0	270	7	285
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	111	460	0	0	527	445	0	0	0	270	7	285
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	111	460	0	0	527	445	0	0	0	270	7	285
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	1.00	0.85	1.00	1.00	1.00	0.85	0.85	0.85
Lanes:	1.00	2.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.02	0.98
Final Sat.:	1805	3610	0	0	1900	1615	0	0	0	1615	38	1583
Capacity Analysis Module:												
Vol/Sat:	0.06	0.13	0.00	0.00	0.28	0.28	0.00	0.00	0.00	0.17	0.18	0.18
Crit Moves:	****				****						****	
Green/Cycle:	0.11	0.58	0.00	0.00	0.47	0.47	0.00	0.00	0.00	0.31	0.31	0.31
Volume/Cap:	0.59	0.22	0.00	0.00	0.59	0.58	0.00	0.00	0.00	0.54	0.59	0.59
Uniform Del:	34.1	8.1	0.0	0.0	15.3	15.3	0.0	0.0	0.0	23.0	23.4	23.4
IncremntDel:	4.6	0.1	0.0	0.0	1.0	1.1	0.0	0.0	0.0	1.2	1.8	1.8
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	38.8	8.2	0.0	0.0	16.3	16.4	0.0	0.0	0.0	24.3	25.2	25.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	38.8	8.2	0.0	0.0	16.3	16.4	0.0	0.0	0.0	24.3	25.2	25.2
LOS by Move:	D	A	A	A	B	B	A	A	A	C	C	C
HCM2kAvgQ:	3	3	0	0	10	9	0	0	0	6	7	7

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #20 Park Ave / SR-1 SB Ramps

Cycle (sec):	75	Critical Vol./Cap.(X):	0.477
Loss Time (sec):	9	Average Delay (sec/veh):	16.8
Optimal Cycle:	32	Level Of Service:	B

Street Name:	Park Ave						SR-1 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	1	1 0	1 0	0	1 1	0 0	1	0 0	0 0	0
Volume Module:												
Base Vol:	0	273	278	283	416	0	235	3	102	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	273	278	283	416	0	235	3	102	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	287	293	298	438	0	247	3	107	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	287	293	298	438	0	247	3	107	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	287	293	298	438	0	247	3	107	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	0.95	1.00	1.00	0.90	0.90	0.85	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	1.00	1.00	0.00	1.97	0.03	1.00	0.00	0.00	0.00
Final Sat.:	0	3610	1615	1805	1900	0	3362	43	1615	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.08	0.18	0.17	0.23	0.00	0.07	0.07	0.07	0.00	0.00	0.00
Crit Moves:			****	****				****				
Green/Cycle:	0.00	0.38	0.38	0.35	0.73	0.00	0.15	0.15	0.15	0.00	0.00	0.00
Volume/Cap:	0.00	0.21	0.48	0.48	0.32	0.00	0.48	0.48	0.43	0.00	0.00	0.00
Uniform Del:	0.0	15.7	17.6	19.2	3.7	0.0	29.0	29.0	28.7	0.0	0.0	0.0
IncremntDel:	0.0	0.1	0.6	0.6	0.1	0.0	0.7	0.7	1.2	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	15.7	18.2	19.8	3.8	0.0	29.6	29.6	29.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	15.7	18.2	19.8	3.8	0.0	29.6	29.6	29.9	0.0	0.0	0.0
LOS by Move:	A	B	B	B	A	A	C	C	C	A	A	A
HCM2kAvgQ:	0	2	6	5	4	0	3	3	3	0	0	0

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #21 Park Ave / Kennedy Dr
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):        0.960
Loss Time (sec):        0               Average Delay (sec/veh):       41.7
Optimal Cycle:          0               Level Of Service:                 E
********************************************************************************
Street Name:                Park Ave                          Kennedy Dr
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       4  300   189   161  135   182   178  113     3    41   55    89
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    4  300   189   161  135   182   178  113     3    41   55    89
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.96 0.96  0.96  0.96 0.96  0.96  0.96 0.96  0.96  0.96 0.96  0.96
PHF Volume:     4  313   197   168  141   190   185  118     3    43   57    93
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    4  313   197   168  141   190   185  118     3    43   57    93
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    4  313   197   168  141   190   185  118     3    43   57    93
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.01 0.61  0.38  0.34 0.28  0.38  0.61 0.38  0.01  0.43 0.57  1.00
Final Sat.:     4  326   205   177  149   200   271  172     5   169  227   440
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.96 0.96  0.96  0.95 0.95  0.95  0.68 0.68  0.68  0.25 0.25  0.21
Crit Moves:  ****                  ****             ****        ****
Delay/Veh:   53.7 53.7  53.7  50.7 50.7  50.7  24.7 24.7  24.7  14.1 14.1  12.4
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  53.7 53.7  53.7  50.7 50.7  50.7  24.7 24.7  24.7  14.1 14.1  12.4
LOS by Move:    F    F     F     F    F     F     C    C     C     B    B     B
ApproachDel:      53.7             50.7              24.7              13.3
Delay Adj:        1.00             1.00              1.00              1.00
ApprAdjDel:       53.7             50.7              24.7              13.3
LOS by Appr:         F                F                 C                 B
AllWayAvgQ:   6.5  6.5   6.5   6.0  6.0   6.0   1.7  1.7   1.7   0.3  0.3   0.2
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
```

Scenario Report

Scenario:	2035 AM
Command:	Default Command
Volume:	2035 AM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/Veh	Base V/C	Future LOS	Future Del/Veh	Future V/C	Change in
# 1 41st Ave / SR-1 NB Ramps	B	17.9	0.580	B	17.9	0.580	+ 0.000 D/V
# 2 41st Ave / SR-1 SB Ramps	B	17.9	0.891	B	17.9	0.891	+ 0.000 D/V
# 3 41st Ave / Gross Rd	C	20.8	0.690	C	20.8	0.690	+ 0.000 D/V
# 4 41st Ave / Clares St	C	25.2	0.521	C	25.2	0.521	+ 0.000 D/V
# 5 41st Ave / Capitola Rd	C	22.6	0.596	C	22.6	0.596	+ 0.000 D/V
# 6 41st Ave / Brommer St / Jade S	B	19.2	0.489	B	19.2	0.489	+ 0.000 D/V
# 7 Clares St / Capitola Rd	B	13.8	0.480	B	13.8	0.480	+ 0.000 D/V
# 8 Wharf Rd / Clares St	B	12.2	0.561	B	12.2	0.561	+ 0.000 V/C
# 9 49th Ave / Capitola Rd	C	16.6	0.756	C	16.6	0.756	+ 0.000 V/C
# 10 Wharf Rd / Cliff Dr / Stockton	C	22.6	0.846	C	22.6	0.846	+ 0.000 V/C
# 11 Porter St / SR-1 NB Ramps	E	62.1	1.116	E	62.1	1.116	+ 0.000 D/V
# 12 Bay Ave / SR-1 SB Ramps	C	21.6	0.775	C	21.6	0.775	+ 0.000 D/V
# 13 Bay Ave / Hill St	C	17.4	0.597	C	17.4	0.597	+ 0.000 V/C
# 14 Capitola Ave / Bay Ave	B	14.3	0.547	B	14.3	0.547	+ 0.000 V/C
# 15 Monterey Ave / Bay Ave	B	10.3	0.405	B	10.3	0.405	+ 0.000 V/C
# 16 Monterey Ave / Park Ave	D	29.8	0.942	D	29.8	0.942	+ 0.000 V/C
# 17 Capitola Ave / Stockton Ave	D	27.9	0.918	D	27.9	0.918	+ 0.000 V/C
# 18 Monterey Ave / Capitola Ave	B	13.9	0.653	B	13.9	0.653	+ 0.000 V/C
# 19 Park Ave / SR-1 NB Ramps	C	29.8	0.902	C	29.8	0.902	+ 0.000 D/V
# 20 Park Ave / SR-1 SB Ramps	C	20.4	0.629	C	20.4	0.629	+ 0.000 D/V
# 21 Park Ave / Kennedy Dr	F	159.1	1.746	F	159.1	1.746	+ 0.000 V/C

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #1 41st Ave / SR-1 NB Ramps

Cycle (sec):	90	Critical Vol./Cap.(X):	0.580
Loss Time (sec):	9	Average Delay (sec/veh):	17.9
Optimal Cycle:	39	Level Of Service:	B

Street Name:	41st Ave						SR-1 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Ignore			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2 0	1	0 0	1 1	0	0 0	0 0	0	1 1	0 0	1
Volume Module:												
Base Vol:	0	553	292	0	587	183	0	0	0	1130	7	518
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	553	292	0	587	183	0	0	0	1130	7	518
User Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.00	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	582	0	0	618	0	0	0	0	1189	7	545
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	582	0	0	618	0	0	0	0	1189	7	545
PCE Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	582	0	0	618	0	0	0	0	1189	7	545
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	1.00	1.00	0.95	0.95	1.00	1.00	1.00	0.90	0.90	0.85
Lanes:	0.00	2.00	1.00	0.00	2.00	0.00	0.00	0.00	0.00	1.99	0.01	1.00
Final Sat.:	0	3610	1900	0	3610	0	0	0	0	3391	21	1615
Capacity Analysis Module:												
Vol/Sat:	0.00	0.16	0.00	0.00	0.17	0.00	0.00	0.00	0.00	0.35	0.35	0.34
Crit Moves:	****				****					****		
Green/Cycle:	0.00	0.30	0.00	0.00	0.30	0.00	0.00	0.00	0.00	0.60	0.60	0.60
Volume/Cap:	0.00	0.55	0.00	0.00	0.58	0.00	0.00	0.00	0.00	0.58	0.58	0.56
Uniform Del:	0.0	26.7	0.0	0.0	27.0	0.0	0.0	0.0	0.0	10.8	10.8	10.6
IncremntDel:	0.0	0.6	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.4	0.4	0.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	0.00	0.00	1.00	0.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	0.0	27.2	0.0	0.0	27.8	0.0	0.0	0.0	0.0	11.2	11.2	11.3
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	27.2	0.0	0.0	27.8	0.0	0.0	0.0	0.0	11.2	11.2	11.3
LOS by Move:	A	C	A	A	C	A	A	A	A	B	B	B
HCM2kAvgQ:	0	7	0	0	8	0	0	0	0	10	10	9

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 41st Ave / SR-1 SB Ramps

Cycle (sec):	90	Critical Vol./Cap.(X):	0.891
Loss Time (sec):	9	Average Delay (sec/veh):	17.9
Optimal Cycle:	94	Level Of Service:	B

Street Name:	41st Ave						SR-1 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 1	0 0	3	0 1	1 0	0	1 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	657	921	0	1549	200	207	1	618	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	657	921	0	1549	200	207	1	618	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	692	969	0	1631	0	218	1	651	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	692	969	0	1631	0	218	1	651	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	692	969	0	1631	0	218	1	651	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	1.00	0.91	1.00	0.85	0.85	0.85	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	3.00	1.00	1.00	0.01	1.99	0.00	0.00	0.00
Final Sat.:	0	3610	1615	0	5187	1900	1615	5	3225	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.19	0.60	0.00	0.31	0.00	0.13	0.20	0.20	0.00	0.00	0.00
Crit Moves:			****					****				
Green/Cycle:	0.00	0.67	0.67	0.00	0.67	0.00	0.23	0.23	0.23	0.00	0.00	0.00
Volume/Cap:	0.00	0.28	0.89	0.00	0.47	0.00	0.60	0.89	0.89	0.00	0.00	0.00
Uniform Del:	0.0	5.9	12.0	0.0	7.0	0.0	31.1	33.7	33.7	0.0	0.0	0.0
IncremntDel:	0.0	0.1	9.4	0.0	0.1	0.0	2.7	13.1	13.1	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	6.0	21.4	0.0	7.1	0.0	33.8	46.9	46.9	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	6.0	21.4	0.0	7.1	0.0	33.8	46.9	46.9	0.0	0.0	0.0
LOS by Move:	A	A	C	A	A	A	C	D	D	A	A	A
HCM2kAvgQ:	0	4	24	0	8	0	6	12	12	0	0	0

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #3 41st Ave / Gross Rd
********************************************************************************
Cycle (sec):         120                Critical Vol./Cap.(X):        0.690
Loss Time (sec):      16                Average Delay (sec/veh):       20.8
Optimal Cycle:        90                Level Of Service:                 C
********************************************************************************
Street Name:                 41st Ave                          Gross Rd
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected       Split Phase      Split Phase
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        1  0  2  1  0   1  0  2  1  0   1  1  0  0  1   0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      76 1296    20   90 1665   410  267    7    81   20   10    42
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:   76 1296    20   90 1665   410  267    7    81   20   10    42
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93 0.93 0.93  0.93
PHF Volume:    82 1394    22   97 1790   441  287    8    87   22   11    45
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:   82 1394    22   97 1790   441  287    8    87   22   11    45
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:   82 1394    22   97 1790   441  287    8    87   22   11    45
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  0.95 0.91  0.91 0.95 0.88  0.88 0.95 0.95  0.85 0.97 0.97  0.85
Lanes:       1.00 2.95  0.05 1.00 2.41  0.59 1.95 0.05  1.00 0.67 0.33  1.00
Final Sat.:  1805 5098    79 1805 4037   994 3533   93  1615 1226  613  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.27  0.27 0.05 0.44  0.44 0.08 0.08  0.05 0.02 0.02  0.03
Crit Moves:  ****                   ****         ****                       ****
Green/Cycle: 0.07 0.59  0.59 0.12 0.64  0.64 0.12 0.12  0.12 0.04 0.04  0.04
Volume/Cap:  0.69 0.46  0.46 0.46 0.69  0.69 0.69 0.69  0.46 0.43 0.43  0.69
Uniform Del: 54.9 13.7  13.7 49.5 13.8  13.8 50.8 50.8  49.4 56.2 56.2  56.8
IncremntDel: 15.9  0.1   0.1  1.6  0.6   0.6  4.8  4.8   1.7  4.0  4.0  26.9
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Delay/Veh:   70.8 13.8  13.8 51.1 14.4  14.4 55.6 55.6  51.1 60.2 60.2  83.7
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:  70.8 13.8  13.8 51.1 14.4  14.4 55.6 55.6  51.1 60.2 60.2  83.7
LOS by Move:    E    B     B    D    B     B    E    E     D    E    E     F
HCM2kAvgQ:      3   10    10    3   19    19    7    7     4    2    2     3
********************************************************************************
Note: Queue reported is the number of cars per lane.
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #4 41st Ave / Clares St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.521
Loss Time (sec):	16	Average Delay (sec/veh):	25.2
Optimal Cycle:	51	Level Of Service:	C

Street Name:	41st Ave						Clares St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	3	0 1	2 0	1!	0 0	0 1	0	0 1
Volume Module:												
Base Vol:	35	872	26	141	1103	377	327	52	32	24	78	175
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	35	872	26	141	1103	377	327	52	32	24	78	175
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	37	918	27	148	1161	397	344	55	34	25	82	184
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	37	918	27	148	1161	397	344	55	34	25	82	184
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	37	918	27	148	1161	397	344	55	34	25	82	184
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	0.91	0.95	0.91	0.85	0.92	0.95	0.95	0.99	0.99	0.85
Lanes:	1.00	2.91	0.09	1.00	3.00	1.00	2.58	0.26	0.16	0.24	0.76	1.00
Final Sat.:	1805	5017	150	1805	5187	1615	4506	478	294	442	1436	1615
Capacity Analysis Module:												
Vol/Sat:	0.02	0.18	0.18	0.08	0.22	0.25	0.08	0.11	0.11	0.06	0.06	0.11
Crit Moves:	****					****		****			****	
Green/Cycle:	0.04	0.35	0.35	0.16	0.47	0.47	0.22	0.22	0.22	0.11	0.11	0.27
Volume/Cap:	0.52	0.52	0.52	0.52	0.47	0.52	0.35	0.52	0.52	0.52	0.52	0.43
Uniform Del:	47.1	25.7	25.7	38.6	18.0	18.5	33.0	34.4	34.4	42.0	42.0	30.2
IncremntDel:	6.8	0.3	0.3	1.7	0.1	0.7	0.2	0.6	0.6	2.4	2.4	0.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	53.9	25.9	25.9	40.3	18.1	19.2	33.1	35.0	35.0	44.4	44.4	30.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	53.9	25.9	25.9	40.3	18.1	19.2	33.1	35.0	35.0	44.4	44.4	30.9
LOS by Move:	D	C	C	D	B	B	C	C	C	D	D	C
HCM2kAvgQ:	1	8	8	4	8	8	4	6	6	4	4	5

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 41st Ave / Capitola Rd

Cycle (sec):	65	Critical Vol./Cap.(X):	0.596
Loss Time (sec):	12	Average Delay (sec/veh):	22.6
Optimal Cycle:	44	Level Of Service:	C

Street Name:	41st Ave						Capitola Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	2 0	2 0	1	1 0	1 1	0	1 1	0 1	0
Volume Module:												
Base Vol:	69	476	60	165	568	184	203	180	43	119	437	100
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	69	476	60	165	568	184	203	180	43	119	437	100
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	73	501	63	174	598	194	214	189	45	125	460	105
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	73	501	63	174	598	194	214	189	45	125	460	105
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	73	501	63	174	598	194	214	189	45	125	460	105
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.92	0.95	0.85	0.95	0.92	0.92	0.92	0.92	0.92
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.61	0.39	1.00	1.63	0.37
Final Sat.:	1805	3610	1615	3502	3610	1615	1805	2829	676	1748	2844	651
Capacity Analysis Module:												
Vol/Sat:	0.04	0.14	0.04	0.05	0.17	0.12	0.12	0.07	0.07	0.07	0.16	0.16
Crit Moves:	****				****		****					****
Green/Cycle:	0.07	0.25	0.25	0.09	0.28	0.28	0.20	0.20	0.20	0.27	0.27	0.27
Volume/Cap:	0.60	0.55	0.15	0.55	0.60	0.43	0.60	0.34	0.34	0.26	0.60	0.60
Uniform Del:	29.4	21.0	18.8	28.3	20.3	19.3	23.7	22.4	22.4	18.6	20.6	20.6
IncremntDel:	7.8	0.7	0.2	2.0	1.0	0.7	2.7	0.3	0.3	0.1	0.9	0.9
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	37.3	21.7	19.0	30.2	21.3	19.9	26.4	22.7	22.7	18.6	21.4	21.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.3	21.7	19.0	30.2	21.3	19.9	26.4	22.7	22.7	18.6	21.4	21.4
LOS by Move:	D	C	B	C	C	B	C	C	C	B	C	C
HCM2kAvgQ:	1	4	1	2	5	3	4	2	2	2	6	6

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #6 41st Ave / Brommer St / Jade St

Cycle (sec):	60	Critical Vol./Cap.(X):	0.489
Loss Time (sec):	12	Average Delay (sec/veh):	19.2
Optimal Cycle:	37	Level Of Service:	B

Street Name:	41st Ave						Brommer St / Jade St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	1	1 0	1 0	1	1 0	0 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	30	421	41	98	419	57	121	95	45	60	72	96
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	30	421	41	98	419	57	121	95	45	60	72	96
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	32	443	43	103	441	60	127	100	47	63	76	101
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	32	443	43	103	441	60	127	100	47	63	76	101
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	32	443	43	103	441	60	127	100	47	63	76	101
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.94	0.94	0.95	0.93	0.93	0.97	0.97	0.85	0.98	0.98	0.85
Lanes:	1.00	1.82	0.18	1.00	1.76	0.24	0.56	0.44	1.00	0.45	0.55	1.00
Final Sat.:	1805	3247	316	1805	3121	425	1036	813	1615	845	1014	1615
Capacity Analysis Module:												
Vol/Sat:	0.02	0.14	0.14	0.06	0.14	0.14	0.12	0.12	0.03	0.07	0.07	0.06
Crit Moves:		****		****			****				****	
Green/Cycle:	0.04	0.28	0.28	0.12	0.35	0.35	0.25	0.25	0.25	0.15	0.15	0.15
Volume/Cap:	0.40	0.49	0.49	0.49	0.40	0.40	0.49	0.49	0.12	0.49	0.49	0.41
Uniform Del:	27.9	18.1	18.1	24.8	14.7	14.7	19.2	19.2	17.3	23.3	23.3	23.0
IncremntDel:	3.3	0.4	0.4	1.8	0.2	0.2	0.8	0.8	0.1	1.3	1.3	1.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	31.3	18.4	18.4	26.6	14.9	14.9	20.0	20.0	17.4	24.6	24.6	24.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	31.3	18.4	18.4	26.6	14.9	14.9	20.0	20.0	17.4	24.6	24.6	24.1
LOS by Move:	C	B	B	C	B	B	B	B	B	C	C	C
HCM2kAvgQ:	1	4	4	2	4	4	4	4	1	3	3	2

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Clares St / Capitola Rd

Cycle (sec):	60	Critical Vol./Cap.(X):	0.480
Loss Time (sec):	12	Average Delay (sec/veh):	13.8
Optimal Cycle:	37	Level Of Service:	B

Street Name:		Clares St						Capitola Rd				
Approach:		North Bound			South Bound			East Bound			West Bound	
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:		Protected			Protected			Protected			Protected	
Rights:		Include			Include			Include			Include	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:		0 0 0 0 0			1 0 0 0 1			1 0 2 0 0			0 0 1 1 0	
Volume Module:												
Base Vol:	0	0	0	37	0	167	172	458	0	0	540	51
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	37	0	167	172	458	0	0	540	51
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	39	0	176	181	482	0	0	568	54
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	39	0	176	181	482	0	0	568	54
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	39	0	176	181	482	0	0	568	54
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	0.95	1.00	1.00	0.94	0.94
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.83	0.17
Final Sat.:	0	0	0	1805	0	1615	1805	3610	0	0	3256	307
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.02	0.00	0.11	0.10	0.13	0.00	0.00	0.17	0.17
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.23	0.00	0.23	0.21	0.57	0.00	0.00	0.36	0.36
Volume/Cap:	0.00	0.00	0.00	0.10	0.00	0.48	0.48	0.23	0.00	0.00	0.48	0.48
Uniform Del:	0.0	0.0	0.0	18.3	0.0	20.1	20.9	6.3	0.0	0.0	14.7	14.7
IncremntDel:	0.0	0.0	0.0	0.1	0.0	1.0	1.0	0.1	0.0	0.0	0.3	0.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	18.4	0.0	21.1	21.8	6.4	0.0	0.0	15.0	15.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	18.4	0.0	21.1	21.8	6.4	0.0	0.0	15.0	15.0
LOS by Move:	A	A	A	B	A	C	C	A	A	A	B	B
HCM2kAvgQ:	0	0	0	1	0	3	4	2	0	0	5	5

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #8 Wharf Rd / Clares St
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):        0.561
Loss Time (sec):        0               Average Delay (sec/veh):       12.2
Optimal Cycle:          0               Level Of Service:                 B
********************************************************************************
Street Name:                Wharf Rd                         Clares St
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        0  1  0  0  0   0  0  0  1  0   0  0  1! 0  0   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      48  285     0     0  257   158   111    0    38     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   48  285     0     0  257   158   111    0    38     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    51  300     0     0  271   166   117    0    40     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   51  300     0     0  271   166   117    0    40     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   51  300     0     0  271   166   117    0    40     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.14 0.86  0.00  0.00 0.62  0.38  0.74 0.00  0.26  0.00 0.00  0.00
Final Sat.:   104  619     0     0  482   296   443    0   152     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.48 0.48  xxxx  xxxx 0.56  0.56  0.26 xxxx  0.26  xxxx xxxx  xxxx
Crit Moves:  ****                        ****  ****
Delay/Veh:   12.1 12.1   0.0   0.0 12.9  12.9  10.3  0.0  10.3   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  12.1 12.1   0.0   0.0 12.9  12.9  10.3  0.0  10.3   0.0  0.0   0.0
LOS by Move:    B    B     *     *    B     B     B    *     B     *    *     *
ApproachDel:      12.1             12.9             10.3            xxxxxx
Delay Adj:        1.00             1.00             1.00             xxxxx
ApprAdjDel:       12.1             12.9             10.3            xxxxxx
LOS by Appr:         B                B                B                 *
AllWayAvgQ:   0.9  0.9   0.9   1.2  1.2   1.2   0.3  0.3   0.3   0.0  0.0   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #9 49th Ave / Capitola Rd
********************************************************************************
Cycle (sec):          100                 Critical Vol./Cap.(X):         0.756
Loss Time (sec):        0                 Average Delay (sec/veh):        16.6
Optimal Cycle:          0                 Level Of Service:                  C
********************************************************************************
Street Name:                49th Ave                         Capitola Rd
Approach:       North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign         Stop Sign         Stop Sign         Stop Sign
Rights:           Include           Include           Include           Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  1  0  0  1    1  0  0  1  0    1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      22   56    30    45   55   160   171  163    18    20  392    15
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   22   56    30    45   55   160   171  163    18    20  392    15
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    23   59    32    47   58   168   180  172    19    21  413    16
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   23   59    32    47   58   168   180  172    19    21  413    16
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   23   59    32    47   58   168   180  172    19    21  413    16
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.20 0.52  0.28  0.45 0.55  1.00  1.00 0.90  0.10  1.00 0.96  0.04
Final Sat.:    93  237   127   212  259   537   505  495    55   517  546    21
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.25 0.25  0.25  0.22 0.22  0.31  0.36 0.35  0.35  0.04 0.76  0.76
Crit Moves:  ****                        ****  ****                    ****
Delay/Veh:   12.3 12.3  12.3  11.8 11.8  11.5  13.1 12.1  12.1   9.7 24.8  24.8
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  12.3 12.3  12.3  11.8 11.8  11.5  13.1 12.1  12.1   9.7 24.8  24.8
LOS by Move:    B    B     B     B    B     B     B    B     B     A    C     C
ApproachDel:      12.3              11.6              12.6              24.1
Delay Adj:        1.00              1.00              1.00              1.00
ApprAdjDel:       12.3              11.6              12.6              24.1
LOS by Appr:         B                 B                 B                 C
AllWayAvgQ:   0.3  0.3   0.3   0.2  0.2   0.4   0.5  0.5   0.5   0.0  2.5   2.5
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #10 Wharf Rd / Cliff Dr / Stockton Ave
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):        0.846
Loss Time (sec):        0               Average Delay (sec/veh):       22.6
Optimal Cycle:          0               Level Of Service:                 C
********************************************************************************
Street Name:                Wharf Rd                   Cliff Dr / Stockton Ave
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Ignore
Min. Green:     0     0     0    0     0     0    0     0     0    0     0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  0    0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       5     8     8  220     5    18   20   330     0   10   478   467
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:    5     8     8  220     5    18   20   330     0   10   478   467
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
PHF Adj:     0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.00
PHF Volume:     5     8     8  232     5    19   21   347     0   11   503     0
Reduct Vol:     0     0     0    0     0     0    0     0     0    0     0     0
Reduced Vol:    5     8     8  232     5    19   21   347     0   11   503     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
FinalVolume:    5     8     8  232     5    19   21   347     0   11   503     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Lanes:       0.24 0.38  0.38 0.91 0.02  0.07 0.06 0.94  0.00 0.02 0.98  1.00
Final Sat.:   109  175   175  481   11    39   35  578     0   12  595   689
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.05 0.05  0.05 0.48 0.48  0.48 0.60 0.60  xxxx 0.85 0.85  0.00
Crit Moves:  ****                 ****                 ****            ****
Delay/Veh:   10.0 10.0  10.0 14.5 14.5  14.5 16.4 16.4   0.0 31.6 31.6   0.0
Delay Adj:   1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:  10.0 10.0  10.0 14.5 14.5  14.5 16.4 16.4   0.0 31.6 31.6   0.0
LOS by Move:    B    B     B    B    B     B    C    C     *    D    D     *
ApproachDel:      10.0             14.5             16.4             31.6
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       10.0             14.5             16.4             31.6
LOS by Appr:         B                B                C                D
AllWayAvgQ:   0.0  0.0   0.0  0.8  0.8   0.8  1.3  1.3   1.3  3.9  3.9   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #11 Porter St / SR-1 NB Ramps
********************************************************************************
Cycle (sec):          85                Critical Vol./Cap.(X):        1.116
Loss Time (sec):       9                Average Delay (sec/veh):       62.1
Optimal Cycle:       160                Level Of Service:                 E
********************************************************************************
Street Name:               Porter St                      SR-1 NB Ramps
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected         Protected         Permitted         Permitted
Rights:           Include           Include           Include           Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        1  0  2  0  0   0  0  1  1  0   0  0  0  0  0   1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     389  662     0    0  486   744    0    0     0  203   27   429
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:  389  662     0    0  486   744    0    0     0  203   27   429
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95
PHF Volume:   409  697     0    0  512   783    0    0     0  214   28   452
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:  409  697     0    0  512   783    0    0     0  214   28   452
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:  409  697     0    0  512   783    0    0     0  214   28   452
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  0.95 0.95  1.00 1.00 0.86  0.86 1.00 1.00  1.00 0.85 0.86  0.86
Lanes:       1.00 2.00  0.00 0.00 1.00  1.00 0.00 0.00  0.00 1.00 0.06  0.94
Final Sat.:  1805 3610     0    0 1641  1641    0    0     0 1615   97  1535
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.23 0.19  0.00 0.00 0.31  0.48 0.00 0.00  0.00 0.13 0.29  0.29
Crit Moves:  ****                       ****                         ****
Green/Cycle: 0.20 0.63  0.00 0.00 0.43  0.43 0.00 0.00  0.00 0.26 0.26  0.26
Volume/Cap:  1.12 0.31  0.00 0.00 0.73  1.12 0.00 0.00  0.00 0.50 1.12  1.12
Uniform Del: 33.9  7.2   0.0  0.0 20.2  24.3  0.0  0.0   0.0 26.6 31.3  31.3
IncremntDel: 82.4  0.1   0.0  0.0  1.6  64.5  0.0  0.0   0.0  1.0 79.0  79.0
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   1.00 1.00  0.00 0.00 1.00  1.00 0.00 0.00  0.00 1.00 1.00  1.00
Delay/Veh:  116.2  7.3   0.0  0.0 21.8  88.8  0.0  0.0   0.0 27.5  110 110.3
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh: 116.2  7.3   0.0  0.0 21.8  88.8  0.0  0.0   0.0 27.5  110 110.3
LOS by Move:    F    A     A    A    C     F    A    A     A    C    F     F
HCM2kAvgQ:     16    4     0    0   13    36    0    0     0    5   23    23
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #12 Bay Ave / SR-1 SB Ramps
********************************************************************************
Cycle (sec):         75                Critical Vol./Cap.(X):        0.775
Loss Time (sec):      9                Average Delay (sec/veh):       21.6
Optimal Cycle:       58                Level Of Service:                 C
********************************************************************************
Street Name:                Bay Ave                           SR-1 SB Ramps
Approach:      North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected         Permitted         Permitted
Rights:           Include          Include           Include           Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        0  0  1  1  0   1  0  2  0  0   1  0  1! 0  1   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  728   286  267  427     0  332    6   328    0    0     0
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:    0  728   286  267  427     0  332    6   328    0    0     0
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95
PHF Volume:     0  766   301  281  449     0  349    6   345    0    0     0
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:    0  766   301  281  449     0  349    6   345    0    0     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:    0  766   301  281  449     0  349    6   345    0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  1.00 0.91  0.91 0.95 0.95  1.00 0.86 0.86  0.86 1.00 1.00  1.00
Lanes:       0.00 1.44  0.56 1.00 2.00  0.00 1.49 0.02  1.49 0.00 0.00  0.00
Final Sat.:     0 2483   975 1805 3610     0 2431   29  2422    0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.31  0.31 0.16 0.12  0.00 0.14 0.22  0.14 0.00 0.00  0.00
Crit Moves:       ****       ****                  ****
Green/Cycle: 0.00 0.40  0.40 0.20 0.60  0.00 0.28 0.28  0.28 0.00 0.00  0.00
Volume/Cap:  0.00 0.77  0.77 0.77 0.21  0.00 0.51 0.77  0.51 0.00 0.00  0.00
Uniform Del:  0.0 19.6  19.6 28.4  6.9   0.0 22.7 24.8  22.6  0.0  0.0   0.0
IncremntDel:  0.0  2.8   2.8 10.0  0.0   0.0  0.3  4.2   0.3  0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00 1.00 1.00  0.00 1.00 1.00  1.00 0.00 0.00  0.00
Delay/Veh:    0.0 22.4  22.4 38.4  6.9   0.0 23.0 29.0  23.0  0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:   0.0 22.4  22.4 38.4  6.9   0.0 23.0 29.0  23.0  0.0  0.0   0.0
LOS by Move:    A    C     C    D    A     A    C    C     C    A    A     A
HCM2kAvgQ:      0   13    13    6    2     0    5   10     5    0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #13 Bay Ave / Hill St
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):        0.597
Loss Time (sec):        0               Average Delay (sec/veh):       17.4
Optimal Cycle:          0               Level Of Service:                 C
********************************************************************************
Street Name:                Bay Ave                          Hill St
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:          Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        1  0  1  1  0    1  0  1  1  0    0  1  0  0  1    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      72  534     9   105  460    45    72   15    43     7   35   143
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   72  534     9   105  460    45    72   15    43     7   35   143
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    76  562     9   111  484    47    76   16    45     7   37   151
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   76  562     9   111  484    47    76   16    45     7   37   151
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   76  562     9   111  484    47    76   16    45     7   37   151
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       1.00 1.97  0.03  1.00 1.82  0.18  0.83 0.17  1.00  0.04 0.19  0.77
Final Sat.:   444  942    16   443  874    86   328   68   449    18   91   372
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.17 0.60  0.60  0.25 0.55  0.55  0.23 0.23  0.10  0.41 0.41  0.41
Crit Moves:       ****             ****             ****             ****
Delay/Veh:   12.2 20.0  20.0  13.1 18.5  18.2  13.5 13.5  10.8  14.7 14.7  14.7
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  12.2 20.0  20.0  13.1 18.5  18.2  13.5 13.5  10.8  14.7 14.7  14.7
LOS by Move:    B    C     C     B    C     C     B    B     B     B    B     B
ApproachDel:      19.1             17.5             12.6             14.7
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       19.1             17.5             12.6             14.7
LOS by Appr:         C                C                B                B
AllWayAvgQ:   0.2  1.3   1.3   0.3  1.1   1.1   0.3  0.3   0.1   0.6  0.6   0.6
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                     Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #14 Capitola Ave / Bay Ave
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):        0.547
Loss Time (sec):        0               Average Delay (sec/veh):       14.3
Optimal Cycle:          0               Level Of Service:                 B
********************************************************************************
Street Name:             Capitola Ave                         Bay Ave
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  1  0  0  1   0  0  1! 0  0   0  1  0  0  1   1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     124  131     6    35   92    30    57  188   158    42  204    34
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  124  131     6    35   92    30    57  188   158    42  204    34
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:   131  138     6    37   97    32    60  198   166    44  215    36
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  131  138     6    37   97    32    60  198   166    44  215    36
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  131  138     6    37   97    32    60  198   166    44  215    36
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.49 0.51  1.00  0.22 0.59  0.19  0.23 0.77  1.00  1.00 0.86  0.14
Final Sat.:   238  252   557   106  280    91   123  404   596   480  451    75
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.55 0.55  0.01  0.35 0.35  0.35  0.49 0.49  0.28  0.09 0.48  0.48
Crit Moves:       ****             ****             ****             ****
Delay/Veh:   17.1 17.1   8.8  13.3 13.3  13.3  15.1 15.1  10.6  10.5 14.6  14.6
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  17.1 17.1   8.8  13.3 13.3  13.3  15.1 15.1  10.6  10.5 14.6  14.6
LOS by Move:    C    C     A     B    B     B     C    C     B     B    B     B
ApproachDel:      17.0             13.3             13.3             14.0
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       17.0             13.3             13.3             14.0
LOS by Appr:        C                B                B                B
AllWayAvgQ:   1.0  1.0   0.0   0.4  0.4   0.4   0.8  0.8   0.3   0.1  0.8   0.8
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #15 Monterey Ave / Bay Ave
********************************************************************************
Cycle (sec):          100                Critical Vol./Cap.(X):        0.405
Loss Time (sec):        0                Average Delay (sec/veh):       10.3
Optimal Cycle:          0                Level Of Service:                 B
********************************************************************************
Street Name:               Monterey Ave                         Bay Ave
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:            Include          Include          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        0  1  0  0  0   0  0  0  1  0   0  0  1! 0  0   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     146   50     0     0  125   136   113    0   166     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  146   50     0     0  125   136   113    0   166     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:   154   53     0     0  132   143   119    0   175     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  154   53     0     0  132   143   119    0   175     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  154   53     0     0  132   143   119    0   175     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.74 0.26  0.00  0.00 0.48  0.52  0.41 0.00  0.59  0.00 0.00  0.00
Final Sat.:   504  172     0     0  361   393   294    0   431     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.31 0.31  xxxx  xxxx 0.36  0.36  0.41 xxxx  0.41  xxxx xxxx  xxxx
Crit Moves:       ****                   ****                ****
Delay/Veh:   10.1 10.1   0.0   0.0 10.0  10.0  10.6  0.0  10.6   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  10.1 10.1   0.0   0.0 10.0  10.0  10.6  0.0  10.6   0.0  0.0   0.0
LOS by Move:    B    B     *     *    A     A     B    *     B     *    *     *
ApproachDel:      10.1             10.0              10.6            xxxxxx
Delay Adj:        1.00             1.00              1.00             xxxxx
ApprAdjDel:       10.1             10.0              10.6            xxxxxx
LOS by Appr:         B                A                 B                 *
AllWayAvgQ:   0.4  0.4   0.4   0.5  0.5   0.5   0.6  0.6   0.6   0.0  0.0   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #16 Monterey Ave / Park Ave
********************************************************************************
Cycle (sec):          100                Critical Vol./Cap.(X):        0.942
Loss Time (sec):        0                Average Delay (sec/veh):       29.8
Optimal Cycle:          0                Level Of Service:                 D
********************************************************************************
Street Name:               Monterey Ave                        Park Ave
Approach:       North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Stop Sign         Stop Sign         Stop Sign         Stop Sign
Rights:            Include           Include           Include           Include
Min. Green:     0     0     0     0     0     0     0     0     0     0     0     0
Lanes:        0  1  0  0  1    0  1  0  0  1    0  0  1! 0  0    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      12  140   266   143  162     8    12     6    30   449     6    55
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   12  140   266   143  162     8    12     6    30   449     6    55
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    13  147   280   151  171     8    13     6    32   473     6    58
Reduct Vol:     0    0     0     0    0     0     0     0     0     0     0     0
Reduced Vol:   13  147   280   151  171     8    13     6    32   473     6    58
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   13  147   280   151  171     8    13     6    32   473     6    58
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.08 0.92  1.00  0.47 0.53  1.00  0.25 0.12  0.63  0.88 0.01  0.11
Final Sat.:    39  450   544   223  253   542   114   57   285   502    7    61
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.33 0.33  0.51  0.67 0.67  0.02  0.11 0.11  0.11  0.94 0.94  0.94
Crit Moves:             ****       ****                     ****       ****
Delay/Veh:   13.1 13.1  15.3  23.0 23.0   9.2  11.0 11.0  11.0  48.4 48.4  48.4
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  13.1 13.1  15.3  23.0 23.0   9.2  11.0 11.0  11.0  48.4 48.4  48.4
LOS by Move:    B    B     C     C    C     A     B    B     B     E    E     E
ApproachDel:      14.5              22.7              11.0              48.4
Delay Adj:        1.00              1.00              1.00              1.00
ApprAdjDel:       14.5              22.7              11.0              48.4
LOS by Appr:         B                 C                 B                 E
AllWayAvgQ:   0.4  0.4   0.9   1.7  1.7   0.0   0.1  0.1   0.1   6.2  6.2   6.2
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #17 Capitola Ave / Stockton Ave
********************************************************************************
Cycle (sec):          100                Critical Vol./Cap.(X):        0.918
Loss Time (sec):        0                Average Delay (sec/veh):       27.9
Optimal Cycle:          0                Level Of Service:                 D
********************************************************************************
Street Name:           Capitola Ave                        Stockton Ave
Approach:      North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign         Stop Sign         Stop Sign
Rights:           Include          Include           Include           Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        1  0  0  0  1   0  0  1! 0  0   0  0  0  1  0   0  1  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     203    0   373   15   39    20    0   29   320  406   65     0
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:  203    0   373   15   39    20    0   29   320  406   65     0
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95
PHF Volume:   214    0   393   16   41    21    0   31   337  427   68     0
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:  214    0   393   16   41    21    0   31   337  427   68     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:  214    0   393   16   41    21    0   31   337  427   68     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Lanes:       1.00 0.00  1.00 0.20 0.53  0.27 0.00 0.08  0.92 0.86 0.14  0.00
Final Sat.:   460    0   544   84  218   112    0   46   510  466   75     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.46 xxxx  0.72 0.19 0.19  0.19 xxxx 0.66  0.66 0.92 0.92  xxxx
Crit Moves:             ****            ****            ****  ****
Delay/Veh:   16.6  0.0  23.2 12.4 12.4  12.4  0.0 19.4  19.4 45.2 45.2   0.0
Delay Adj:   1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:  16.6  0.0  23.2 12.4 12.4  12.4  0.0 19.4  19.4 45.2 45.2   0.0
LOS by Move:    C    *     C    B    B     B    *    C     C    E    E     *
ApproachDel:      20.9             12.4             19.4             45.2
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       20.9             12.4             19.4             45.2
LOS by Appr:         C                B                C                E
AllWayAvgQ:   0.8  0.0   2.1  0.2  0.2   0.2  1.6  1.6   1.6  5.3  5.3   5.3
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #18 Monterey Ave / Capitola Ave

Cycle (sec): 100
Loss Time (sec): 0
Optimal Cycle: 0
Critical Vol./Cap.(X): 0.653
Average Delay (sec/veh): 13.9
Level Of Service: B

Street Name:		Monterey Ave						Capitola Ave				
Approach:		North Bound			South Bound			East Bound			West Bound	
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:		Stop Sign			Stop Sign			Stop Sign			Stop Sign	
Rights:		Include			Include			Include			Include	
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:		0 1 0 0 0			0 0 0 0 1			1 0 0 0 0			0 0 0 0 0	
Volume Module:												
Base Vol:	72	83	0	0	0	486	309	0	0	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	72	83	0	0	0	486	309	0	0	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	76	87	0	0	0	512	325	0	0	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	76	87	0	0	0	512	325	0	0	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	76	87	0	0	0	512	325	0	0	0	0	0
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.46	0.54	0.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00
Final Sat.:	285	329	0	0	0	783	613	0	0	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.27	0.27	xxxx	xxxx	xxxx	0.65	0.53	xxxx	xxxx	xxxx	xxxx	xxxx
Crit Moves:	****					****	****					
Delay/Veh:	10.4	10.4	0.0	0.0	0.0	14.9	14.1	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	10.4	10.4	0.0	0.0	0.0	14.9	14.1	0.0	0.0	0.0	0.0	0.0
LOS by Move:	B	B	*	*	*	B	B	*	*	*	*	*
ApproachDel:		10.4			14.9			14.1			xxxxxx	
Delay Adj:		1.00			1.00			1.00			xxxxx	
ApprAdjDel:		10.4			14.9			14.1			xxxxxx	
LOS by Appr:		B			B			B			*	
AllWayAvgQ:	0.3	0.3	0.3	1.6	1.6	1.6	0.9	0.9	0.9	0.0	0.0	0.0

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #19 Park Ave / SR-1 NB Ramps
********************************************************************************
Cycle (sec):          80                Critical Vol./Cap.(X):        0.902
Loss Time (sec):       9                Average Delay (sec/veh):       29.8
Optimal Cycle:        93                Level Of Service:                 C
********************************************************************************
Street Name:                Park Ave                       SR-1 NB Ramps
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected         Permitted        Permitted
Rights:           Include          Include           Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        1  0  2  0  0   0  0  1  0  1   0  0  0  0  0   1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     310  997     0    0  361   436    0    0     0  330  248   307
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:  310  997     0    0  361   436    0    0     0  330  248   307
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95
PHF Volume:   326 1049     0    0  380   459    0    0     0  347  261   323
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:  326 1049     0    0  380   459    0    0     0  347  261   323
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:  326 1049     0    0  380   459    0    0     0  347  261   323
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  0.95 0.95  1.00 1.00 1.00  0.85 1.00 1.00  1.00 0.85 0.92  0.92
Lanes:       1.00 2.00  0.00 0.00 1.00  1.00 0.00 0.00  0.00 1.00 0.45  0.55
Final Sat.:  1805 3610     0    0 1900  1615    0    0     0 1615  779   964
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.18 0.29  0.00 0.00 0.20  0.28 0.00 0.00  0.00 0.22 0.34  0.34
Crit Moves:  ****                       ****                        ****
Green/Cycle: 0.20 0.52  0.00 0.00 0.32  0.32 0.00 0.00  0.00 0.37 0.37  0.37
Volume/Cap:  0.90 0.56  0.00 0.00 0.63  0.90 0.00 0.00  0.00 0.58 0.90  0.90
Uniform Del: 31.2 13.2   0.0  0.0 23.5  26.2  0.0  0.0   0.0 20.1 23.7  23.7
IncremntDel: 24.7  0.4   0.0  0.0  2.2  19.1  0.0  0.0   0.0  1.4 15.8  15.8
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   1.00 1.00  0.00 0.00 1.00  1.00 0.00 0.00  0.00 1.00 1.00  1.00
Delay/Veh:   55.9 13.6   0.0  0.0 25.7  45.3  0.0  0.0   0.0 21.5 39.6  39.6
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:  55.9 13.6   0.0  0.0 25.7  45.3  0.0  0.0   0.0 21.5 39.6  39.6
LOS by Move:    E    B     A    A    C     D    A    A     A    C    D     D
HCM2kAvgQ:      9    9     0    0    9    15    0    0     0    7   18    18
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #20 Park Ave / SR-1 SB Ramps
********************************************************************************
Cycle (sec):          75                 Critical Vol./Cap.(X):        0.629
Loss Time (sec):       9                 Average Delay (sec/veh):       20.4
Optimal Cycle:        42                 Level Of Service:                 C
********************************************************************************
Street Name:                Park Ave                        SR-1 SB Ramps
Approach:       North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Protected         Protected         Permitted         Permitted
Rights:            Include           Include           Include           Include
Min. Green:     0    0    0    0    0    0    0    0    0    0    0    0
Y+R:          4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0
Lanes:        0  0  2  0  1   1  0  1  0  0   1  1  0  0  1   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  538   295   199  530     0   775    5   205     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0  538   295   199  530     0   775    5   205     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:     0  566   311   209  558     0   816    5   216     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0  566   311   209  558     0   816    5   216     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0  566   311   209  558     0   816    5   216     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.95  0.85  0.95 1.00  1.00  0.88 0.88  0.85  1.00 1.00  1.00
Lanes:       0.00 2.00  1.00  1.00 1.00  0.00  1.99 0.01  1.00  0.00 0.00  0.00
Final Sat.:     0 3610  1615  1805 1900     0  3330   21  1615     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.16  0.19  0.12 0.29  0.00  0.24 0.24  0.13  0.00 0.00  0.00
Crit Moves:             ****  ****                   ****
Green/Cycle: 0.00 0.31  0.31  0.18 0.49  0.00  0.39 0.39  0.39  0.00 0.00  0.00
Volume/Cap:  0.00 0.51  0.63  0.63 0.60  0.00  0.63 0.63  0.34  0.00 0.00  0.00
Uniform Del:  0.0 21.4  22.4  28.2 13.8   0.0  18.5 18.5  16.1   0.0  0.0   0.0
IncremntDel:  0.0  0.4   2.6   3.8  1.1   0.0   1.0  1.0   0.3   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  0.00 0.00  0.00
Delay/Veh:    0.0 21.8  25.0  32.0 14.9   0.0  19.5 19.5  16.5   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0 21.8  25.0  32.0 14.9   0.0  19.5 19.5  16.5   0.0  0.0   0.0
LOS by Move:    A    C     C     C    B     A     B    B     B     A    A     A
HCM2kAvgQ:      0    6     7     4    9     0     9    9     4     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #21 Park Ave / Kennedy Dr
********************************************************************************
Cycle (sec):         100               Critical Vol./Cap.(X):        1.746
Loss Time (sec):       0               Average Delay (sec/veh):      159.1
Optimal Cycle:         0               Level Of Service:                 F
********************************************************************************
Street Name:               Park Ave                         Kennedy Dr
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Stop Sign        Stop Sign         Stop Sign        Stop Sign
Rights:            Include          Include           Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      10  246    71   292  157   298   252   30     4   208  175   352
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   10  246    71   292  157   298   252   30     4   208  175   352
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    11  259    75   307  165   314   265   32     4   219  184   371
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   11  259    75   307  165   314   265   32     4   219  184   371
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   11  259    75   307  165   314   265   32     4   219  184   371
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.03 0.75  0.22  0.39 0.21  0.40  0.89 0.10  0.01  0.54 0.46  1.00
Final Sat.:    13  318    92   176   95   180   349   42     6   223  188   463
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.81 0.81  0.81  1.75 1.75  1.75  0.76 0.76  0.76  0.98 0.98  0.80
Crit Moves:       ****        ****              ****                   ****
Delay/Veh:   38.0 38.0  38.0 364.3  364 364.3  34.1 34.1  34.1  69.4 69.4  35.1
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  38.0 38.0  38.0 364.3  364 364.3  34.1 34.1  34.1  69.4 69.4  35.1
LOS by Move:    E    E     E     F    F     F     D    D     D     F    F     E
ApproachDel:      38.0             364.3             34.1              52.9
Delay Adj:        1.00              1.00             1.00              1.00
ApprAdjDel:       38.0             364.3             34.1              52.9
LOS by Appr:         E                 F                D                 F
AllWayAvgQ:   3.1  3.1   3.1  44.2 44.2  44.2   2.4  2.4   2.4   6.6  6.6   3.2
********************************************************************************
Note: Queue reported is the number of cars per lane.
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Scenario Report

Scenario:	2035 PM
Command:	Default Command
Volume:	2035 PM
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/C	Future LOS	Future Del/ Veh	Future V/C	Change in
# 1 41st Ave / SR-1 NB Ramps	C	20.4	0.683	C	20.4	0.683	+ 0.000 D/V
# 2 41st Ave / SR-1 SB Ramps	C	24.3	1.067	C	24.3	1.067	+ 0.000 D/V
# 3 41st Ave / Gross Rd	C	28.5	0.731	C	28.5	0.731	+ 0.000 D/V
# 4 41st Ave / Clares St	C	33.0	0.819	C	33.0	0.819	+ 0.000 D/V
# 5 41st Ave / Capitola Rd	C	26.2	0.731	C	26.2	0.731	+ 0.000 D/V
# 6 41st Ave / Brommer St / Jade S	C	23.8	0.716	C	23.8	0.716	+ 0.000 D/V
# 7 Clares St / Capitola Rd	C	26.2	0.886	C	26.2	0.886	+ 0.000 D/V
# 8 Wharf Rd / Clares St	C	24.6	0.851	C	24.6	0.851	+ 0.000 V/C
# 9 49th Ave / Capitola Rd	C	24.8	0.847	C	24.8	0.847	+ 0.000 V/C
# 10 Wharf Rd / Cliff Dr / Stockton	F	56.1	1.046	F	56.1	1.046	+ 0.000 V/C
# 11 Porter St / SR-1 NB Ramps	D	43.0	0.975	D	43.0	0.975	+ 0.000 D/V
# 12 Bay Ave / SR-1 SB Ramps	D	35.4	0.976	D	35.4	0.976	+ 0.000 D/V
# 13 Bay Ave / Hill St	D	26.1	0.796	D	26.1	0.796	+ 0.000 V/C
# 14 Capitola Ave / Bay Ave	D	26.3	0.842	D	26.3	0.842	+ 0.000 V/C
# 15 Monterey Ave / Bay Ave	B	12.7	0.606	B	12.7	0.606	+ 0.000 V/C
# 16 Monterey Ave / Park Ave	F	60.7	1.169	F	60.7	1.169	+ 0.000 V/C
# 17 Capitola Ave / Stockton Ave	E	36.9	0.946	E	36.9	0.946	+ 0.000 V/C
# 18 Monterey Ave / Capitola Ave	D	25.4	0.894	D	25.4	0.894	+ 0.000 V/C
# 19 Park Ave / SR-1 NB Ramps	C	21.7	0.685	C	21.7	0.685	+ 0.000 D/V
# 20 Park Ave / SR-1 SB Ramps	C	34.2	0.943	C	34.2	0.943	+ 0.000 D/V
# 21 Park Ave / Kennedy Dr	F	225.9	1.706	F	225.9	1.706	+ 0.000 V/C

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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #1 41st Ave / SR-1 NB Ramps
********************************************************************************
Cycle (sec):          90                  Critical Vol./Cap.(X):        0.683
Loss Time (sec):       9                  Average Delay (sec/veh):       20.4
Optimal Cycle:        48                  Level Of Service:                 C
********************************************************************************
Street Name:                 41st Ave                      SR-1 NB Ramps
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:           Ignore           Ignore           Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        0  0  2  0  1    0  0  1  1  0    0  0  0  0  0    1  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  719   360    0 1012   266    0    0     0 1097    0   492
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:    0  719   360    0 1012   266    0    0     0 1097    0   492
User Adj:    1.00 1.00  0.00 1.00 1.00  0.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.00 0.95 0.95  0.00 0.95 0.95  0.95 0.95 0.95  0.95
PHF Volume:     0  757     0    0 1065     0    0    0     0 1155    0   518
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:    0  757     0    0 1065     0    0    0     0 1155    0   518
PCE Adj:     1.00 1.00  0.00 1.00 1.00  0.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  0.00 1.00 1.00  0.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:    0  757     0    0 1065     0    0    0     0 1155    0   518
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  1.00 0.95  1.00 1.00 0.95  0.95 1.00 1.00  1.00 0.95 1.00  0.85
Lanes:       0.00 2.00  1.00 0.00 2.00  0.00 0.00 0.00  0.00 2.00 0.00  1.00
Final Sat.:     0 3610  1900    0 3610     0    0    0     0 3618    0  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.21  0.00 0.00 0.30  0.00 0.00 0.00  0.00 0.32 0.00  0.32
Crit Moves:  ****                ****                            ****
Green/Cycle: 0.00 0.43  0.00 0.00 0.43  0.00 0.00 0.00  0.00 0.47 0.00  0.47
Volume/Cap:  0.00 0.48  0.00 0.00 0.68  0.00 0.00 0.00  0.00 0.68 0.00  0.69
Uniform Del:  0.0 18.3   0.0  0.0 20.6   0.0  0.0  0.0   0.0 18.7  0.0  18.8
IncremntDel:  0.0  0.2   0.0  0.0  1.3   0.0  0.0  0.0   0.0  1.2  0.0   2.6
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   0.00 1.00  0.00 0.00 1.00  0.00 0.00 0.00  0.00 1.00 0.00  1.00
Delay/Veh:    0.0 18.6   0.0  0.0 21.8   0.0  0.0  0.0   0.0 19.9  0.0  21.4
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:   0.0 18.6   0.0  0.0 21.8   0.0  0.0  0.0   0.0 19.9  0.0  21.4
LOS by Move:    A    B     A    A    C     A    A    A     A    B    A     C
HCM2kAvgQ:      0    8     0    0   13     0    0    0     0   13    0    12
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #2 41st Ave / SR-1 SB Ramps

Cycle (sec):	90	Critical Vol./Cap.(X):	1.067
Loss Time (sec):	9	Average Delay (sec/veh):	24.3
Optimal Cycle:	160	Level Of Service:	C

Street Name:	41st Ave						SR-1 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Ignore			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	2	0 1	0 0	3	0 1	1 0	0	1 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	1110	1374	0	1727	370	75	0	199	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	1110	1374	0	1727	370	75	0	199	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.00	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	1168	1446	0	1818	0	79	0	209	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	1168	1446	0	1818	0	79	0	209	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	1168	1446	0	1818	0	79	0	209	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.95	0.85	1.00	0.91	1.00	0.77	1.00	0.85	1.00	1.00	1.00
Lanes:	0.00	2.00	1.00	0.00	3.00	1.00	1.00	0.00	2.00	0.00	0.00	0.00
Final Sat.:	0	3610	1615	0	5187	1900	1461	0	3230	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.32	0.90	0.00	0.35	0.00	0.05	0.00	0.06	0.00	0.00	0.00
Crit Moves:			****						****			
Green/Cycle:	0.00	0.84	0.84	0.00	0.84	0.00	0.06	0.00	0.06	0.00	0.00	0.00
Volume/Cap:	0.00	0.39	1.07	0.00	0.42	0.00	0.89	0.00	1.07	0.00	0.00	0.00
Uniform Del:	0.0	1.7	7.2	0.0	1.8	0.0	42.0	0.0	42.3	0.0	0.0	0.0
IncremntDel:	0.0	0.1	44.5	0.0	0.1	0.0	60.4	0.0	83.2	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	1.8	51.8	0.0	1.9	0.0	102.4	0.0	125.4	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	1.8	51.8	0.0	1.9	0.0	102.4	0.0	125.4	0.0	0.0	0.0
LOS by Move:	A	A	D	A	A	A	F	A	F	A	A	A
HCM2kAvgQ:	0	4	53	0	5	0	5	0	7	0	0	0

Note: Queue reported is the number of cars per lane.

Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #3 41st Ave / Gross Rd

Cycle (sec):	120	Critical Vol./Cap.(X):	0.731
Loss Time (sec):	16	Average Delay (sec/veh):	28.5
Optimal Cycle:	90	Level Of Service:	C

Street Name:	41st Ave						Gross Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2	1 0	1 0	2	1 0	1 1	0	0 1	0 1	0	0 1
Volume Module:												
Base Vol:	85	1977	31	49	1599	283	443	21	200	49	20	90
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	85	1977	31	49	1599	283	443	21	200	49	20	90
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	89	2081	33	52	1683	298	466	22	211	52	21	95
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	89	2081	33	52	1683	298	466	22	211	52	21	95
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	89	2081	33	52	1683	298	466	22	211	52	21	95
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.91	0.91	0.95	0.89	0.89	0.95	0.95	0.85	0.97	0.97	0.85
Lanes:	1.00	2.95	0.05	1.00	2.55	0.45	1.91	0.09	1.00	0.71	0.29	1.00
Final Sat.:	1805	5097	80	1805	4310	763	3461	164	1615	1303	532	1615
Capacity Analysis Module:												
Vol/Sat:	0.05	0.41	0.41	0.03	0.39	0.39	0.13	0.13	0.13	0.04	0.04	0.06
Crit Moves:	****				****		****					****
Green/Cycle:	0.07	0.56	0.56	0.04	0.53	0.53	0.18	0.18	0.18	0.08	0.08	0.08
Volume/Cap:	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.73	0.71	0.49	0.49	0.73
Uniform Del:	54.9	19.4	19.4	57.0	21.4	21.4	46.1	46.1	45.9	52.8	52.8	53.9
IncremntDel:	20.0	0.9	0.9	30.9	1.0	1.0	4.1	4.1	7.6	2.6	2.6	19.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	74.9	20.3	20.3	87.9	22.4	22.4	50.3	50.3	53.5	55.4	55.4	72.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	74.9	20.3	20.3	87.9	22.4	22.4	50.3	50.3	53.5	55.4	55.4	72.9
LOS by Move:	E	C	C	F	C	C	D	D	D	E	E	E
HCM2kAvgQ:	3	20	20	2	20	20	10	10	9	3	3	5

Note: Queue reported is the number of cars per lane.

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                     Level Of Service Computation Report
            2000 HCM Operations Method (Base Volume Alternative)
*******************************************************************************
Intersection #4 41st Ave / Clares St
*******************************************************************************
Cycle (sec):         100                Critical Vol./Cap.(X):        0.819
Loss Time (sec):      16                Average Delay (sec/veh):       33.0
Optimal Cycle:        91                Level Of Service:                 C
*******************************************************************************
Street Name:                41st Ave                         Clares St
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected       Split Phase      Split Phase
Rights:           Include          Include          Include           Ovl
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Y+R:          4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0   4.0  4.0   4.0
Lanes:        1  0  2  1  0    1  0  3  0  1    2  0  1! 0  0    0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      73 1375    64   168 1064   511   541  122    50    44  113   149
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   73 1375    64   168 1064   511   541  122    50    44  113   149
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    77 1447    67   177 1120   538   569  128    53    46  119   157
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   77 1447    67   177 1120   538   569  128    53    46  119   157
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   77 1447    67   177 1120   538   569  128    53    46  119   157
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.90  0.90  0.95 0.91  0.85  0.92 0.95  0.95  0.99 0.99  0.85
Lanes:       1.00 2.87  0.13  1.00 3.00  1.00  2.52 0.34  0.14  0.28 0.72  1.00
Final Sat.:  1805 4922   229  1805 5187  1615  4427  617   253   525 1348  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.29  0.29  0.10 0.22  0.33  0.13 0.21  0.21  0.09 0.09  0.10
Crit Moves:       ****        ****                   ****             ****
Green/Cycle: 0.05 0.36  0.36  0.12 0.42  0.42  0.25 0.25  0.25  0.11 0.11  0.23
Volume/Cap:  0.79 0.82  0.82  0.82 0.51  0.79  0.51 0.82  0.82  0.82 0.82  0.43
Uniform Del: 46.7 29.1  29.1  43.0 21.1  24.9  31.9 35.1  35.1  43.7 43.7  33.1
IncremntDel: 33.0  3.0   3.0  21.3  0.2   6.0   0.3  5.9   5.9  22.5 22.5   0.8
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   79.7 32.1  32.1  64.3 21.3  30.8  32.2 41.1  41.1  66.2 66.2  33.9
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  79.7 32.1  32.1  64.3 21.3  30.8  32.2 41.1  41.1  66.2 66.2  33.9
LOS by Move:    E    C     C     E    C     C     C    D     D     E    E     C
HCM2kAvgQ:      2   15    15     5    9    14     7   13    13     7    7     4
*******************************************************************************
Note: Queue reported is the number of cars per lane.
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Level Of Service Computation Report

2000 HCM Operations Method (Base Volume Alternative)

Intersection #5 41st Ave / Capitola Rd

Cycle (sec):	65	Critical Vol./Cap.(X):	0.731
Loss Time (sec):	12	Average Delay (sec/veh):	26.2
Optimal Cycle:	56	Level Of Service:	C

Street Name:	41st Ave						Capitola Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0	2 0	1	2 0	2 0	1	1 0	1 1	0	1 1	0 1	0
Volume Module:												
Base Vol:	140	648	123	208	592	96	353	321	85	186	306	137
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	140	648	123	208	592	96	353	321	85	186	306	137
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	147	682	129	219	623	101	372	338	89	196	322	144
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	147	682	129	219	623	101	372	338	89	196	322	144
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	147	682	129	219	623	101	372	338	89	196	322	144
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	0.85	0.92	0.95	0.85	0.95	0.92	0.92	0.90	0.90	0.90
Lanes:	1.00	2.00	1.00	2.00	2.00	1.00	1.00	1.58	0.42	1.00	1.38	0.62
Final Sat.:	1805	3610	1615	3502	3610	1615	1805	2766	732	1719	2375	1063
Capacity Analysis Module:												
Vol/Sat:	0.08	0.19	0.08	0.06	0.17	0.06	0.21	0.12	0.12	0.11	0.14	0.14
Crit Moves:	****				****		****					****
Green/Cycle:	0.11	0.26	0.26	0.09	0.24	0.24	0.28	0.28	0.28	0.19	0.19	0.19
Volume/Cap:	0.73	0.72	0.31	0.72	0.73	0.26	0.73	0.43	0.43	0.61	0.73	0.73
Uniform Del:	27.9	21.9	19.3	28.9	22.9	20.2	21.1	19.1	19.1	24.3	24.9	24.9
IncremntDel:	12.8	2.8	0.4	8.3	3.2	0.4	5.4	0.3	0.3	1.1	3.1	3.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	40.7	24.6	19.7	37.2	26.2	20.6	26.5	19.4	19.4	25.4	28.0	28.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	40.7	24.6	19.7	37.2	26.2	20.6	26.5	19.4	19.4	25.4	28.0	28.0
LOS by Move:	D	C	B	D	C	C	C	B	B	C	C	C
HCM2kAvgQ:	3	7	2	2	6	2	7	4	4	5	6	6

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #6 41st Ave / Brommer St / Jade St
********************************************************************************
Cycle (sec):          60                  Critical Vol./Cap.(X):        0.716
Loss Time (sec):      12                  Average Delay (sec/veh):       23.8
Optimal Cycle:        53                  Level Of Service:                 C
********************************************************************************
Street Name:                41st Ave                    Brommer St / Jade St
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected        Protected        Protected
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        1  0  1  1  0    1  0  1  1  0    0  1  0  0  1    0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      59  562    87    74  613   120   197  182    72    78  106   127
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   59  562    87    74  613   120   197  182    72    78  106   127
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:    62  592    92    78  645   126   207  192    76    82  112   134
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   62  592    92    78  645   126   207  192    76    82  112   134
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   62  592    92    78  645   126   207  192    76    82  112   134
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  0.95 0.93  0.93  0.95 0.93  0.93  0.98 0.98  0.85  0.98 0.98  0.85
Lanes:       1.00 1.73  0.27  1.00 1.67  0.33  0.52 0.48  1.00  0.42 0.58  1.00
Final Sat.:  1805 3064   474  1805 2944   576   963  890  1615   789 1072  1615
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.03 0.19  0.19  0.04 0.22  0.22  0.22 0.22  0.05  0.10 0.10  0.08
Crit Moves:  ****                  ****        ****                   ****
Green/Cycle: 0.05 0.29  0.29  0.06 0.31  0.31  0.30 0.30  0.30  0.15 0.15  0.15
Volume/Cap:  0.72 0.67  0.67  0.67 0.72  0.72  0.72 0.72  0.16  0.72 0.72  0.57
Uniform Del: 28.2 18.8  18.8  27.4 18.5  18.5  18.7 18.7  15.4  24.5 24.5  23.9
IncremntDel: 24.7  1.7   1.7  13.8  2.3   2.3   4.4  4.4   0.2   8.9  8.9   3.3
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Delay/Veh:   52.9 20.5  20.5  41.2 20.8  20.8  23.1 23.1  15.5  33.3 33.3  27.2
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  52.9 20.5  20.5  41.2 20.8  20.8  23.1 23.1  15.5  33.3 33.3  27.2
LOS by Move:    D    C     C     D    C     C     C    C     B     C    C     C
HCM2kAvgQ:      3    7     7     1    7     7     8    8     1     5    5     3
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #7 Clares St / Capitola Rd

Cycle (sec):	60	Critical Vol./Cap.(X):	0.886
Loss Time (sec):	12	Average Delay (sec/veh):	26.2
Optimal Cycle:	78	Level Of Service:	C

Street Name:	Clares St						Capitola Rd					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Protected			Protected		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	0	0 0	1 0	0	0 1	1 0	2	0 0	0 0	1	1 0
Volume Module:												
Base Vol:	0	0	0	164	0	474	328	979	0	0	586	111
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	164	0	474	328	979	0	0	586	111
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	0	0	0	173	0	499	345	1031	0	0	617	117
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	0	0	173	0	499	345	1031	0	0	617	117
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	0	0	173	0	499	345	1031	0	0	617	117
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	1.00	0.95	1.00	0.85	0.95	0.95	1.00	1.00	0.93	0.93
Lanes:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	2.00	0.00	0.00	1.68	0.32
Final Sat.:	0	0	0	1805	0	1615	1805	3610	0	0	2962	561
Capacity Analysis Module:												
Vol/Sat:	0.00	0.00	0.00	0.10	0.00	0.31	0.19	0.29	0.00	0.00	0.21	0.21
Crit Moves:						****	****				****	
Green/Cycle:	0.00	0.00	0.00	0.35	0.00	0.35	0.22	0.45	0.00	0.00	0.24	0.24
Volume/Cap:	0.00	0.00	0.00	0.27	0.00	0.89	0.89	0.63	0.00	0.00	0.89	0.89
Uniform Del:	0.0	0.0	0.0	14.1	0.0	18.4	22.8	12.6	0.0	0.0	22.2	22.2
IncremntDel:	0.0	0.0	0.0	0.2	0.0	15.5	20.8	0.8	0.0	0.0	11.3	11.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	0.00	0.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	1.00	1.00
Delay/Veh:	0.0	0.0	0.0	14.3	0.0	33.9	43.6	13.5	0.0	0.0	33.4	33.4
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	0.0	0.0	14.3	0.0	33.9	43.6	13.5	0.0	0.0	33.4	33.4
LOS by Move:	A	A	A	B	A	C	D	B	A	A	C	C
HCM2kAvgQ:	0	0	0	2	0	13	10	9	0	0	7	7

Note: Queue reported is the number of cars per lane.

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                     Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #8 Wharf Rd / Clares St
********************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):        0.851
Loss Time (sec):        0              Average Delay (sec/veh):       24.6
Optimal Cycle:          0              Level Of Service:                 C
********************************************************************************
Street Name:               Wharf Rd                          Clares St
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:            Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  1  0  0  0    0  0  0  1  0    0  0  1! 0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      40  490     0     0  298   166   279    0    57     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   40  490     0     0  298   166   279    0    57     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:    40  490     0     0  298   166   279    0    57     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   40  490     0     0  298   166   279    0    57     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   40  490     0     0  298   166   279    0    57     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.08 0.92  0.00  0.00 0.64  0.36  0.83 0.00  0.17  0.00 0.00  0.00
Final Sat.:    47  576     0     0  404   225   450    0    92     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.85 0.85  xxxx  xxxx 0.74  0.74  0.62 xxxx  0.62  xxxx xxxx  xxxx
Crit Moves:       ****             ****        ****
Delay/Veh:   31.5 31.5   0.0   0.0 21.7  21.7  18.0  0.0  18.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  31.5 31.5   0.0   0.0 21.7  21.7  18.0  0.0  18.0   0.0  0.0   0.0
LOS by Move:    D    D     *     *    C     C     C    *     C     *    *     *
ApproachDel:      31.5             21.7              18.0            xxxxxx
Delay Adj:        1.00             1.00              1.00             xxxxx
ApprAdjDel:       31.5             21.7              18.0            xxxxxx
LOS by Appr:         D                C                 C                 *
AllWayAvgQ:   3.9  3.9   3.9   2.3  2.3   2.3   1.3  1.3   1.3   0.0  0.0   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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--------------------------------------------------------------------------------
                     Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #9 49th Ave / Capitola Rd
********************************************************************************
Cycle (sec):          100              Critical Vol./Cap.(X):        0.847
Loss Time (sec):        0              Average Delay (sec/veh):       24.8
Optimal Cycle:          0              Level Of Service:                 C
********************************************************************************
Street Name:               49th Ave                          Capitola Rd
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  0  1! 0  0    0  1  0  0  1    1  0  0  1  0    1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      12   61    28    67   75   206   389  435    17    18  249    18
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   12   61    28    67   75   206   389  435    17    18  249    18
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.97 0.97  0.97  0.97 0.97  0.97  0.97 0.97  0.97  0.97 0.97  0.97
PHF Volume:    12   63    29    69   77   212   401  448    18    19  257    19
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:   12   63    29    69   77   212   401  448    18    19  257    19
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:   12   63    29    69   77   212   401  448    18    19  257    19
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.12 0.60  0.28  0.47 0.53  1.00  1.00 0.96  0.04  1.00 0.93  0.07
Final Sat.:    52  264   121   212  237   510   509  529    21   444  451    33
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.24 0.24  0.24  0.33 0.33  0.42  0.79 0.85  0.85  0.04 0.57  0.57
Crit Moves:  ****                      ****        ****                ****
Delay/Veh:   13.1 13.1  13.1  14.0 14.0  14.0  30.8 34.9  34.9  10.8 18.6  18.6
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  13.1 13.1  13.1  14.0 14.0  14.0  30.8 34.9  34.9  10.8 18.6  18.6
LOS by Move:    B    B     B     B    B     B     D    D     D     B    C     C
ApproachDel:      13.1             14.0              33.0              18.1
Delay Adj:        1.00             1.00              1.00              1.00
ApprAdjDel:       13.1             14.0              33.0              18.1
LOS by Appr:         B                B                 D                 C
AllWayAvgQ:   0.3  0.3   0.3   0.4  0.4   0.6   3.0  3.9   3.9   0.0  1.2   1.2
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #10 Wharf Rd / Cliff Dr / Stockton Ave
********************************************************************************
Cycle (sec):          100                Critical Vol./Cap.(X):         1.046
Loss Time (sec):        0                Average Delay (sec/veh):        56.1
Optimal Cycle:          0                Level Of Service:                  F
********************************************************************************
Street Name:                Wharf Rd                  Cliff Dr / Stockton Ave
Approach:       North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Stop Sign        Stop Sign         Stop Sign         Stop Sign
Rights:            Include          Include           Include           Ignore
Min. Green:     0     0     0     0     0     0     0     0     0     0     0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  0    0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       3     5     9   464    15    12    18   546     0    10   378   303
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    3     5     9   464    15    12    18   546     0    10   378   303
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
PHF Volume:     3     5     9   464    15    12    18   546     0    10   378     0
Reduct Vol:     0     0     0     0     0     0     0     0     0     0     0     0
Reduced Vol:    3     5     9   464    15    12    18   546     0    10   378     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  0.00
FinalVolume:    3     5     9   464    15    12    18   546     0    10   378     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.18 0.29  0.53  0.95 0.03  0.02  0.03 0.97  0.00  0.03 0.97  1.00
Final Sat.:    72  120   215   493   16    13    17  522     0    12  470   534
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.04 0.04  0.04  0.94 0.94  0.94  1.05 1.05  xxxx  0.80 0.80  0.00
Crit Moves:       ****             ****        ****                    ****
Delay/Veh:   11.6 11.6  11.6  51.6 51.6  51.6  77.2 77.2   0.0  33.0 33.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  11.6 11.6  11.6  51.6 51.6  51.6  77.2 77.2   0.0  33.0 33.0   0.0
LOS by Move:    B    B     B     F    F     F     F    F     *     D    D     *
ApproachDel:      11.6             51.6              77.2              33.0
Delay Adj:        1.00             1.00              1.00              1.00
ApprAdjDel:       11.6             51.6              77.2              33.0
LOS by Appr:         B                F                 F                 D
AllWayAvgQ:   0.0  0.0   0.0   6.0  6.0   6.0  10.1 10.1  10.1   3.1  3.1   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #11 Porter St / SR-1 NB Ramps
********************************************************************************
Cycle (sec):           85                 Critical Vol./Cap.(X):         0.975
Loss Time (sec):        9                 Average Delay (sec/veh):        43.0
Optimal Cycle:        145                 Level Of Service:                  D
********************************************************************************
Street Name:                Porter St                       SR-1 NB Ramps
Approach:       North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Protected        Protected         Permitted         Permitted
Rights:            Include          Include           Include           Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        1  0  2  0  0    0  0  1  1  0    0  0  0  0  0    1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     337  505     0    0  851   483    0    0     0  227   13   465
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:  337  505     0    0  851   483    0    0     0  227   13   465
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Volume:   337  505     0    0  851   483    0    0     0  227   13   465
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:  337  505     0    0  851   483    0    0     0  227   13   465
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:  337  505     0    0  851   483    0    0     0  227   13   465
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  0.95 0.95  1.00 1.00 0.90  0.90 1.00 1.00  1.00 0.85 0.85  0.85
Lanes:       1.00 2.00  0.00 0.00 1.28  0.72 0.00 0.00  0.00 1.00 0.03  0.97
Final Sat.:  1805 3610     0    0 2179  1236    0    0     0 1615   44  1578
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.19 0.14  0.00 0.00 0.39  0.39 0.00 0.00  0.00 0.14 0.29  0.29
Crit Moves:  ****                 ****                                ****
Green/Cycle: 0.19 0.59  0.00 0.00 0.40  0.40 0.00 0.00  0.00 0.30 0.30  0.30
Volume/Cap:  0.98 0.24  0.00 0.00 0.98  0.98 0.00 0.00  0.00 0.47 0.98  0.98
Uniform Del: 34.2  8.2   0.0  0.0 25.1  25.1  0.0  0.0   0.0 24.1 29.3  29.3
IncremntDel: 41.6  0.1   0.0  0.0 18.6  18.6  0.0  0.0   0.0  0.7 34.1  34.1
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   1.00 1.00  0.00 0.00 1.00  1.00 0.00 0.00  0.00 1.00 1.00  1.00
Delay/Veh:   75.8  8.3   0.0  0.0 43.7  43.7  0.0  0.0   0.0 24.8 63.5  63.5
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:  75.8  8.3   0.0  0.0 43.7  43.7  0.0  0.0   0.0 24.8 63.5  63.5
LOS by Move:    E    A     A    A    D     D    A    A     A    C    E     E
HCM2kAvgQ:      9    3     0    0   25    25    0    0     0    5   18    18
********************************************************************************
Note: Queue reported is the number of cars per lane.
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #12 Bay Ave / SR-1 SB Ramps

Cycle (sec):	75	Critical Vol./Cap.(X):	0.976
Loss Time (sec):	9	Average Delay (sec/veh):	35.4
Optimal Cycle:	131	Level Of Service:	D

Street Name:	Bay Ave						SR-1 SB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 0	1	1 0	1 0	2	0 0	1 0	1!	0 1	0 0	0	0 0
Volume Module:												
Base Vol:	0	604	390	484	594	0	252	57	499	0	0	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	604	390	484	594	0	252	57	499	0	0	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
PHF Volume:	0	629	406	504	619	0	263	59	520	0	0	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	0	629	406	504	619	0	263	59	520	0	0	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	0	629	406	504	619	0	263	59	520	0	0	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	0.89	0.89	0.95	0.95	1.00	0.86	0.86	0.86	1.00	1.00	1.00
Lanes:	0.00	1.22	0.78	1.00	2.00	0.00	1.29	0.13	1.58	0.00	0.00	0.00
Final Sat.:	0	2064	1333	1805	3610	0	2121	216	2590	0	0	0
Capacity Analysis Module:												
Vol/Sat:	0.00	0.30	0.30	0.28	0.17	0.00	0.12	0.27	0.20	0.00	0.00	0.00
Crit Moves:		****		****				****				
Green/Cycle:	0.00	0.31	0.31	0.29	0.60	0.00	0.28	0.28	0.28	0.00	0.00	0.00
Volume/Cap:	0.00	0.98	0.98	0.98	0.29	0.00	0.44	0.98	0.71	0.00	0.00	0.00
Uniform Del:	0.0	25.5	25.5	26.5	7.3	0.0	22.1	26.7	24.2	0.0	0.0	0.0
IncremntDel:	0.0	21.8	21.8	33.2	0.1	0.0	0.2	24.7	2.1	0.0	0.0	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	0.00	0.00
Delay/Veh:	0.0	47.3	47.3	59.7	7.4	0.0	22.3	51.4	26.3	0.0	0.0	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	0.0	47.3	47.3	59.7	7.4	0.0	22.3	51.4	26.3	0.0	0.0	0.0
LOS by Move:	A	D	D	E	A	A	C	D	C	A	A	A
HCM2kAvgQ:	0	19	19	12	3	0	4	16	8	0	0	0

Note: Queue reported is the number of cars per lane.

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                     Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #13 Bay Ave / Hill St
*******************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):        0.796
Loss Time (sec):        0               Average Delay (sec/veh):       26.1
Optimal Cycle:          0               Level Of Service:                 D
*******************************************************************************
Street Name:                Bay Ave                          Hill St
Approach:       North Bound       South Bound       East Bound        West Bound
Movement:      L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Stop Sign         Stop Sign         Stop Sign         Stop Sign
Rights:            Include           Include           Include           Include
Min. Green:     0     0     0     0     0     0     0     0     0     0     0     0
Lanes:         1  0  1  1  0    1  0  1  1  0    0  1  0  0  1    0  0  1! 0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       99  462    26   224  614    71   139   60    79    31   40   152
Growth Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    99  462    26   224  614    71   139   60    79    31   40   152
User Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Volume:     99  462    26   224  614    71   139   60    79    31   40   152
Reduct Vol:      0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    99  462    26   224  614    71   139   60    79    31   40   152
PCE Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:      1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    99  462    26   224  614    71   139   60    79    31   40   152
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:        1.00 1.89  0.11  1.00 1.79  0.21  0.70 0.30  1.00  0.14 0.18  0.68
Final Sat.:    369  749    42   400  772    90   261  113   413    59   77   291
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:      0.27 0.62  0.61  0.56 0.80  0.79  0.53 0.53  0.19  0.52 0.52  0.52
Crit Moves:        ****             ****             ****                   ****
Delay/Veh:    15.4 24.3  24.1  21.9 35.7  34.7  21.1 21.1  12.6  19.3 19.3  19.3
Delay Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   15.4 24.3  24.1  21.9 35.7  34.7  21.1 21.1  12.6  19.3 19.3  19.3
LOS by Move:     C    C     C     C    E     D     C    C     B     C    C     C
ApproachDel:       22.8              32.3              18.7              19.3
Delay Adj:         1.00              1.00              1.00              1.00
ApprAdjDel:        22.8              32.3              18.7              19.3
LOS by Appr:          C                 D                 C                 C
AllWayAvgQ:    0.3  1.4   1.4   1.2  3.0   2.9   1.0  1.0   0.2   1.0  1.0   1.0
*******************************************************************************
Note: Queue reported is the number of cars per lane.
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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #14 Capitola Ave / Bay Ave
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):         0.842
Loss Time (sec):        0               Average Delay (sec/veh):        26.3
Optimal Cycle:          0               Level Of Service:                  D
********************************************************************************
Street Name:             Capitola Ave                         Bay Ave
Approach:       North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        0  1  0  0  1   0  0  1! 0  0   0  1  0  0  1   1  0  0  1  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     171  137     9    52  110    42    72  305   190    53  257    45
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  171  137     9    52  110    42    72  305   190    53  257    45
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:   180  144     9    55  116    44    76  321   200    56  271    47
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  180  144     9    55  116    44    76  321   200    56  271    47
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  180  144     9    55  116    44    76  321   200    56  271    47
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.56 0.44  1.00  0.25 0.54  0.21  0.19 0.81  1.00  1.00 0.85  0.15
Final Sat.:   239  192   484   104  220    84    90  381   524   422  389    68
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.75 0.75  0.02  0.53 0.53  0.53  0.84 0.84  0.38  0.13 0.69  0.69
Crit Moves:       ****        ****                  ****                  ****
Delay/Veh:   29.9 29.9  10.0  19.1 19.1  19.1  37.5 37.5  13.4  12.1 24.7  24.7
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  29.9 29.9  10.0  19.1 19.1  19.1  37.5 37.5  13.4  12.1 24.7  24.7
LOS by Move:    D    D     A     C    C     C     E    E     B     B    C     C
ApproachDel:      29.4             19.1             29.4             22.8
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:       29.4             19.1             29.4             22.8
LOS by Appr:        D                C                D                C
AllWayAvgQ:   2.3  2.3   0.0   0.9  0.9   0.9   3.6  3.6   0.6   0.1  1.8   1.8
********************************************************************************
Note: Queue reported is the number of cars per lane.
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                     Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #15 Monterey Ave / Bay Ave
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):        0.606
Loss Time (sec):        0               Average Delay (sec/veh):       12.7
Optimal Cycle:          0               Level Of Service:                 B
********************************************************************************
Street Name:                Monterey Ave                       Bay Ave
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0     0     0     0     0     0     0     0     0     0     0     0
Lanes:        0  1  0  0  0   0  0  0  1  0   0  0  1! 0  0   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     206   60     0     0   45   140   172    0   246     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  206   60     0     0   45   140   172    0   246     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:   217   63     0     0   47   147   181    0   259     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  217   63     0     0   47   147   181    0   259     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  217   63     0     0   47   147   181    0   259     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.77 0.23  0.00  0.00 0.24  0.76  0.41 0.01  0.58  0.00 0.00  0.00
Final Sat.:   492  143     0     0  165   514   299    0   427     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.44 0.44  xxxx  xxxx 0.29  0.29  0.61 0.00  0.61  xxxx xxxx  xxxx
Crit Moves:       ****              ****        ****
Delay/Veh:   12.2 12.2   0.0   0.0  9.7   9.7  14.3 14.3  14.3   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  12.2 12.2   0.0   0.0  9.7   9.7  14.3 14.3  14.3   0.0  0.0   0.0
LOS by Move:    B    B     *     *    A     A     B    B     B     *    *     *
ApproachDel:      12.2              9.7              14.3            xxxxxx
Delay Adj:        1.00             1.00              1.00             xxxxx
ApprAdjDel:       12.2              9.7              14.3            xxxxxx
LOS by Appr:         B                A                 B                 *
AllWayAvgQ:   0.7  0.7   0.7   0.3  0.3   0.3   1.3  1.3   1.3   0.0  0.0   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
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Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #16 Monterey Ave / Park Ave

Cycle (sec):	100	Critical Vol./Cap.(X):	1.169
Loss Time (sec):	0	Average Delay (sec/veh):	60.7
Optimal Cycle:	0	Level Of Service:	F

Street Name:	Monterey Ave						Park Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 1 0 0 1			0 1 0 0 1			0 0 1! 0 0			0 0 1! 0 0		
Volume Module:												
Base Vol:	2	202	679	153	122	3	15	12	15	308	10	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	202	679	153	122	3	15	12	15	308	10	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	2	213	715	161	128	3	16	13	16	324	11	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	213	715	161	128	3	16	13	16	324	11	64
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	213	715	161	128	3	16	13	16	324	11	64
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.01	0.99	1.00	0.56	0.44	1.00	0.36	0.28	0.36	0.81	0.03	0.16
Final Sat.:	5	538	612	264	211	545	154	123	154	436	14	86
Capacity Analysis Module:												
Vol/Sat:	0.39	0.39	1.17	0.61	0.61	0.01	0.10	0.10	0.10	0.74	0.74	0.74
Crit Moves:			****	****			****					****
Delay/Veh:	13.5	13.5	113.8	20.6	20.6	9.2	11.4	11.4	11.4	25.9	25.9	25.9
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	13.5	13.5	113.8	20.6	20.6	9.2	11.4	11.4	11.4	25.9	25.9	25.9
LOS by Move:	B	B	F	C	C	A	B	B	B	D	D	D
ApproachDel:		90.6			20.4			11.4			25.9	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		90.6			20.4			11.4			25.9	
LOS by Appr:		F			C			B			D	
AllWayAvgQ:	0.6	0.6	17.9	1.4	1.4	0.0	0.1	0.1	0.1	2.4	2.4	2.4

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #17 Capitola Ave / Stockton Ave
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):         0.946
Loss Time (sec):        0               Average Delay (sec/veh):        36.9
Optimal Cycle:          0               Level Of Service:                  E
********************************************************************************
Street Name:               Capitola Ave                      Stockton Ave
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:           Include          Include          Include          Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        1  0  0  0  1    0  0  1! 0  0    0  0  0  1  0    0  1  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     272    0   501     6   38    17     0   25   308   374   86     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:  272    0   501     6   38    17     0   25   308   374   86     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:   286    0   527     6   40    18     0   26   324   394   91     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  286    0   527     6   40    18     0   26   324   394   91     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  286    0   527     6   40    18     0   26   324   394   91     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       1.00 0.00  1.00  0.10 0.62  0.28  0.00 0.08  0.92  0.81 0.19  0.00
Final Sat.:   470    0   557    41  258   115     0   41   501   427   98     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.61 xxxx  0.95  0.16 0.16  0.16  xxxx 0.65  0.65  0.92 0.92  xxxx
Crit Moves:             ****  ****                        ****  ****
Delay/Veh:   21.4  0.0  50.1  12.3 12.3  12.3   0.0 19.8  19.8  47.5 47.5   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  21.4  0.0  50.1  12.3 12.3  12.3   0.0 19.8  19.8  47.5 47.5   0.0
LOS by Move:    C    *     F     B    B     B     *    C     C     E    E     *
ApproachDel:      40.0              12.3              19.8              47.5
Delay Adj:        1.00              1.00              1.00              1.00
ApprAdjDel:       40.0              12.3              19.8              47.5
LOS by Appr:        E                 B                 C                 E
AllWayAvgQ:   1.5  0.0   6.3   0.2  0.2   0.2   1.6  1.6   1.6   5.5  5.5   5.5
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
```

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--------------------------------------------------------------------------------
                    Level Of Service Computation Report
          2000 HCM 4-Way Stop Method (Base Volume Alternative)
********************************************************************************
Intersection #18 Monterey Ave / Capitola Ave
********************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):         0.894
Loss Time (sec):        0               Average Delay (sec/veh):        25.4
Optimal Cycle:          0               Level Of Service:                  D
********************************************************************************
Street Name:             Monterey Ave                      Capitola Ave
Approach:       North Bound       South Bound       East Bound        West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Stop Sign         Stop Sign         Stop Sign         Stop Sign
Rights:           Include           Include           Include           Include
Min. Green:     0    0     0     0    0     0     0    0     0     0    0     0
Lanes:        0  1  0  0  0    0  0  0  0  1    1  0  0  0  0    0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:      95  155     0     0    0   374   523    0     0     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:   95  155     0     0    0   374   523    0     0     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:   100  163     0     0    0   394   551    0     0     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:  100  163     0     0    0   394   551    0     0     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:  100  163     0     0    0   394   551    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.38 0.62  0.00  0.00 0.00  1.00  1.00 0.00  0.00  0.00 0.00  0.00
Final Sat.:   208  339     0     0    0   636   616    0     0     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.48 0.48  xxxx  xxxx xxxx  0.62  0.89 xxxx  xxxx  xxxx xxxx  xxxx
Crit Moves:       ****                   ****  ****
Delay/Veh:   14.4 14.4   0.0   0.0  0.0  16.0  37.4  0.0   0.0   0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:  14.4 14.4   0.0   0.0  0.0  16.0  37.4  0.0   0.0   0.0  0.0   0.0
LOS by Move:    B    B     *     *    *     C     E    *     *     *    *     *
ApproachDel:      14.4              16.0              37.4            xxxxxx
Delay Adj:        1.00              1.00              1.00             xxxxx
ApprAdjDel:       14.4              16.0              37.4            xxxxxx
LOS by Appr:         B                 C                 E                 *
AllWayAvgQ:   0.8  0.8   0.8   1.3  1.3   1.3   4.9  4.9   4.9   0.0  0.0   0.0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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Level Of Service Computation Report
2000 HCM Operations Method (Base Volume Alternative)

Intersection #19 Park Ave / SR-1 NB Ramps

Cycle (sec):	80	Critical Vol./Cap.(X):	0.685
Loss Time (sec):	9	Average Delay (sec/veh):	21.7
Optimal Cycle:	47	Level Of Service:	C

Street Name:	Park Ave						SR-1 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0 2 0 0			0 0 1 0 1			0 0 0 0 0			1 0 0 1 0		
Volume Module:												
Base Vol:	207	455	0	0	478	451	0	0	0	297	13	286
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	207	455	0	0	478	451	0	0	0	297	13	286
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	218	479	0	0	503	475	0	0	0	313	14	301
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	218	479	0	0	503	475	0	0	0	313	14	301
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	218	479	0	0	503	475	0	0	0	313	14	301
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	1.00	0.85	1.00	1.00	1.00	0.85	0.86	0.86
Lanes:	1.00	2.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.04	0.96
Final Sat.:	1805	3610	0	0	1900	1615	0	0	0	1615	71	1556
Capacity Analysis Module:												
Vol/Sat:	0.12	0.13	0.00	0.00	0.26	0.29	0.00	0.00	0.00	0.19	0.19	0.19
Crit Moves:	****					****					****	
Green/Cycle:	0.18	0.61	0.00	0.00	0.43	0.43	0.00	0.00	0.00	0.28	0.28	0.28
Volume/Cap:	0.69	0.22	0.00	0.00	0.62	0.69	0.00	0.00	0.00	0.69	0.69	0.69
Uniform Del:	30.9	7.2	0.0	0.0	17.7	18.5	0.0	0.0	0.0	25.5	25.5	25.5
IncremntDel:	6.1	0.1	0.0	0.0	1.4	2.9	0.0	0.0	0.0	4.3	4.3	4.3
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	37.0	7.2	0.0	0.0	19.2	21.3	0.0	0.0	0.0	29.9	29.8	29.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	37.0	7.2	0.0	0.0	19.2	21.3	0.0	0.0	0.0	29.9	29.8	29.8
LOS by Move:	D	A	A	A	B	C	A	A	A	C	C	C
HCM2kAvgQ:	5	3	0	0	10	11	0	0	0	8	8	8

Note: Queue reported is the number of cars per lane.

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                      Level Of Service Computation Report
             2000 HCM Operations Method (Base Volume Alternative)
********************************************************************************
Intersection #20 Park Ave / SR-1 SB Ramps
********************************************************************************
Cycle (sec):          75                Critical Vol./Cap.(X):        0.943
Loss Time (sec):       9                Average Delay (sec/veh):       34.2
Optimal Cycle:       109                Level Of Service:                 C
********************************************************************************
Street Name:                Park Ave                      SR-1 SB Ramps
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected         Permitted        Permitted
Rights:           Include          Include          Include          Include
Min. Green:     0    0    0    0    0    0    0    0    0    0    0    0
Y+R:          4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0
Lanes:        0  0  2  0  1   1  0  1  0  0   1  1  0  0  1   0  0  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       0  296   737   357  430     0   363   34   243     0    0     0
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    0  296   737   357  430     0   363   34   243     0    0     0
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.97 0.97  0.97  0.97 0.97  0.97  0.97 0.97  0.97  0.97 0.97  0.97
PHF Volume:     0  305   760   368  443     0   374   35   251     0    0     0
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    0  305   760   368  443     0   374   35   251     0    0     0
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    0  305   760   368  443     0   374   35   251     0    0     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900  1900 1900  1900  1900 1900  1900  1900 1900  1900
Adjustment:  1.00 0.95  0.85  0.95 1.00  1.00  0.92 0.92  0.85  1.00 1.00  1.00
Lanes:       0.00 2.00  1.00  1.00 1.00  0.00  1.83 0.17  1.00  0.00 0.00  0.00
Final Sat.:     0 3610  1615  1805 1900     0  3179  298  1615     0    0     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.00 0.08  0.47  0.20 0.23  0.00  0.12 0.12  0.16  0.00 0.00  0.00
Crit Moves:             ****  ****                        ****
Green/Cycle: 0.00 0.50  0.50  0.22 0.72  0.00  0.16 0.16  0.16  0.00 0.00  0.00
Volume/Cap:  0.00 0.17  0.94  0.94 0.33  0.00  0.72 0.72  0.94  0.00 0.00  0.00
Uniform Del:  0.0 10.3  17.8  28.9  4.0   0.0  29.7 29.7  31.0   0.0  0.0   0.0
IncremntDel:  0.0  0.0  19.1  31.2  0.1   0.0   4.3  4.3  39.8   0.0  0.0   0.0
InitQueuDel:  0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0   0.0  0.0   0.0
Delay Adj:   0.00 1.00  1.00  1.00 1.00  0.00  1.00 1.00  1.00  0.00 0.00  0.00
Delay/Veh:    0.0 10.3  36.9  60.1  4.1   0.0  34.0 34.0  70.7   0.0  0.0   0.0
User DelAdj: 1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh:   0.0 10.3  36.9  60.1  4.1   0.0  34.0 34.0  70.7   0.0  0.0   0.0
LOS by Move:    A    B     D     E    A     A     C    C     E     A    A     A
HCM2kAvgQ:      0    2    22    10    4     0     6    6    10     0    0     0
********************************************************************************
Note: Queue reported is the number of cars per lane.
********************************************************************************
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                     Level Of Service Computation Report
            2000 HCM 4-Way Stop Method (Base Volume Alternative)
*******************************************************************************
Intersection #21 Park Ave / Kennedy Dr
*******************************************************************************
Cycle (sec):          100               Critical Vol./Cap.(X):        1.706
Loss Time (sec):        0               Average Delay (sec/veh):      225.9
Optimal Cycle:          0               Level Of Service:                 F
*******************************************************************************
Street Name:                Park Ave                          Kennedy Dr
Approach:       North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R    L  -  T  -  R    L  -  T  -  R    L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:         Stop Sign        Stop Sign        Stop Sign        Stop Sign
Rights:            Include          Include          Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Lanes:        0  0  1! 0  0    0  0  1! 0  0    0  0  1! 0  0    0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       8  397   294   310  165   185   201  137     6    85   60   314
Growth Adj:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Initial Bse:    8  397   294   310  165   185   201  137     6    85   60   314
User Adj:    1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95  0.95 0.95  0.95
PHF Volume:     8  418   309   326  174   195   212  144     6    89   63   331
Reduct Vol:     0    0     0     0    0     0     0    0     0     0    0     0
Reduced Vol:    8  418   309   326  174   195   212  144     6    89   63   331
PCE Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
FinalVolume:    8  418   309   326  174   195   212  144     6    89   63   331
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Adjustment:  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
Lanes:       0.01 0.57  0.42  0.47 0.25  0.28  0.58 0.40  0.02  0.59 0.41  1.00
Final Sat.:     5  245   181   198  106   118   233  159     7   223  158   426
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     1.71 1.71  1.71  1.64 1.64  1.64  0.91 0.91  0.91  0.40 0.40  0.78
Crit Moves:       ****             ****        ****                         ****
Delay/Veh:  348.2  348 348.2 322.1  322 322.1  55.2 55.2  55.2  18.2 18.2  34.2
Delay Adj:   1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00  1.00 1.00  1.00
AdjDel/Veh: 348.2  348 348.2 322.1  322 322.1  55.2 55.2  55.2  18.2 18.2  34.2
LOS by Move:    F    F     F     F    F     F     F    F     F     C    C     D
ApproachDel:     348.2            322.1             55.2             29.1
Delay Adj:        1.00             1.00             1.00             1.00
ApprAdjDel:      348.2            322.1             55.2             29.1
LOS by Appr:         F                F                F                D
AllWayAvgQ:  40.3 40.3  40.3  36.4 36.4  36.4   4.8  4.8   4.8   0.6  0.6   2.7
*******************************************************************************
Note: Queue reported is the number of cars per lane.
*******************************************************************************
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                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #10 Wharf Rd / Cliff Dr / Stockton Ave
********************************************************************************
Cycle (sec):          70                Critical Vol./Cap.(X):        0.426
Loss Time (sec):       0                Average Delay (sec/veh):        9.6
Optimal Cycle: OPTIMIZED                Level Of Service:                 A
********************************************************************************
Street Name:                Wharf Rd                 Cliff Dr / Stockton Ave
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Split Phase      Split Phase       Permitted        Permitted
Rights:           Include          Include          Include          Ignore
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  1  0  0  0   0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       5    8     8  220    5    18   20  330     0   10  478   467
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:    5    8     8  220    5    18   20  330     0   10  478   467
Added Vol:      0    0     0    0    0     0    0    0     0    0    0     0
PasserByVol:    0    0     0    0    0     0    0    0     0    0    0     0
Initial Fut:    5    8     8  220    5    18   20  330     0   10  478   467
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
PHF Adj:     0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.00
PHF Volume:     5    8     8  232    5    19   21  347     0   11  503     0
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:    5    8     8  232    5    19   21  347     0   11  503     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
FinalVolume:    5    8     8  232    5    19   21  347     0   11  503     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  0.94 0.94  0.94 0.95 0.95  0.95 0.97 0.97  1.00 0.99 0.99  1.00
Lanes:       0.24 0.38  0.38 0.91 0.02  0.07 0.06 0.94  0.00 0.02 0.98  1.00
Final Sat.:   424  679   679 1630   37   133  105 1732     0   39 1850  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.01  0.01 0.14 0.14  0.14 0.20 0.20  0.00 0.27 0.27  0.00
Crit Moves:       ****       ****                                 ****
Green/Cycle: 0.03 0.03  0.03 0.33 0.33  0.33 0.64 0.64  0.00 0.64 0.64  0.00
Volume/Cap:  0.43 0.43  0.43 0.43 0.43  0.43 0.31 0.31  0.00 0.43 0.43  0.00
Uniform Del: 33.4 33.4  33.4 18.1 18.1  18.1  5.7  5.7   0.0  6.3  6.3   0.0
IncremntDel:  5.6  5.6   5.6  0.5  0.5   0.5  0.2  0.2   0.0  0.2  0.2   0.0
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00 1.00 1.00  0.00
Delay/Veh:   39.0 39.0  39.0 18.6 18.6  18.6  5.9  5.9   0.0  6.6  6.6   0.0
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:  39.0 39.0  39.0 18.6 18.6  18.6  5.9  5.9   0.0  6.6  6.6   0.0
LOS by Move:    D    D     D    B    B     B    A    A     A    A    A     A
HCM2kAvgQ:      1    1     1    5    5     5    4    4     0    6    6     0
```

```
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #10 Wharf Rd / Cliff Dr / Stockton Ave
********************************************************************************
Cycle (sec):          70                Critical Vol./Cap.(X):        0.582
Loss Time (sec):       0                Average Delay (sec/veh):       13.3
Optimal Cycle: OPTIMIZED                Level Of Service:                 B
********************************************************************************
Street Name:                Wharf Rd                  Cliff Dr / Stockton Ave
Approach:      North Bound      South Bound      East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:       Split Phase      Split Phase       Permitted        Permitted
Rights:           Include          Include          Include          Ignore
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        0  0  1! 0  0   0  0  1! 0  0   0  1  0  0  0   0  1  0  0  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:       3    5     9  464   15    12   18  546     0   10  378   303
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:    3    5     9  464   15    12   18  546     0   10  378   303
Added Vol:      0    0     0    0    0     0    0    0     0    0    0     0
PasserByVol:    0    0     0    0    0     0    0    0     0    0    0     0
Initial Fut:    3    5     9  464   15    12   18  546     0   10  378   303
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
PHF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
PHF Volume:     3    5     9  464   15    12   18  546     0   10  378     0
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:    3    5     9  464   15    12   18  546     0   10  378     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00
FinalVolume:    3    5     9  464   15    12   18  546     0   10  378     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  0.92 0.92  0.92 0.95 0.95  0.95 0.99 0.99  1.00 0.99 0.99  1.00
Lanes:       0.18 0.29  0.53 0.95 0.03  0.02 0.03 0.97  0.00 0.03 0.97  1.00
Final Sat.:   309  514   926 1710   55    44   60 1815     0   48 1827  1900
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.01 0.01  0.01 0.27 0.27  0.27 0.30 0.30  0.00 0.21 0.21  0.00
Crit Moves:  ****                       ****      ****
Green/Cycle: 0.02 0.02  0.02 0.47 0.47  0.47 0.52 0.52  0.00 0.52 0.52  0.00
Volume/Cap:  0.58 0.58  0.58 0.58 0.58  0.58 0.58 0.58  0.00 0.40 0.40  0.00
Uniform Del: 34.2 34.2  34.2 13.7 13.7  13.7 11.7 11.7   0.0 10.3 10.3   0.0
IncremntDel: 26.4 26.4  26.4  1.0  1.0   1.0  0.9  0.9   0.0  0.3  0.3   0.0
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  0.00 1.00 1.00  0.00
Delay/Veh:   60.6 60.6  60.6 14.7 14.7  14.7 12.6 12.6   0.0 10.6 10.6   0.0
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:  60.6 60.6  60.6 14.7 14.7  14.7 12.6 12.6   0.0 10.6 10.6   0.0
LOS by Move:    E    E     E    B    B     B    B    B     A    B    B     A
HCM2kAvgQ:      1    1     1    8    8     8    9    9     0    5    5     0
```

LANE SUMMARY

Site: 10. Wharf Road / Stockton Ave: 2035 AM

10. Wharf Rd / Cliff Dr / Stockton Ave
2035 with Proposed Plan Conditions
AM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows L	Demand Flows T	Demand Flows R	Total	HV	Cap.	Deg. Satn	Lane Util.	Average Delay	Level of Service	95% Back of Queue Vehicles	95% Back of Queue Distance	Lane Length	SL Type	Cap. Adj.	Prob. Block.
	veh/h	veh/h	veh/h	veh/h	%	veh/h	v/c	%	sec		veh	ft	ft		%	%
East: Stockton Ave																
Lane 1	11	509	0	519	2.0	1068	0.486	100	8.9	LOS A	3.0	75.3	1600	–	0.0	0.0
Lane 2	0	0	497	497	2.0	834[1]	0.596	100	13.4	LOS B	2.7	69.1	100	Turn Bay	0.0	0.0
Approach	11	509	497	1016	2.0		0.596		11.1	LOS B	3.0	75.3				
North: Wharf Rd																
Lane 1	234	5	19	259	2.0	648	0.399	100	11.2	LOS B	1.8	44.5	1600	–	0.0	0.0
Approach	234	5	19	259	2.0		0.399		11.2	LOS B	1.8	44.5				
West: Cliff Dr																
Lane 1	21	351	1	373	2.0	858	0.435	100	9.6	LOS A	2.1	53.6	1600	–	0.0	0.0
Approach	21	351	1	373	2.0		0.435		9.6	LOS A	2.1	53.6				
South West: Wharf Rd																
Lane 1	5	9	9	23	3.0	591	0.039	100	6.5	LOS A	0.1	3.1	1600	–	0.0	0.0
Approach	5	9	9	23	3.0		0.039		6.5	LOS A	0.1	3.1				
Intersection				1671	2.0		0.596		10.7	LOS B	3.0	75.3				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Model used. Geometric Delay not included.

1 Reduced capacity due to a short lane effect

Processed: Tuesday, October 22, 2013 10:11:03 AM
SIDRA INTERSECTION 5.1.13.2093
Project: H:\Pdata\70100329\Traffic\TRAFFIX\Miti\RAB Analysis.sip
8000182, RBF CONSULTING, FLOATING

SIDRA INTERSECTION

LANE SUMMARY

Site: 10. Wharf Road / Stockton Ave: 2035 PM

10. Wharf Rd / Cliff Dr / Stockton Ave
2035 with Proposed Plan Conditions
PM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows L veh/h	Demand Flows T veh/h	Demand Flows R veh/h	Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Lane Length ft	SL Type	Cap. Adj. %	Prob. Block. %
East: Stockton Ave																
Lane 1	11	402	0	413	2.0	1076	0.384	100	7.3	LOS A	2.0	50.7	1600	–	0.0	0.0
Lane 2	0	0	322	322	2.0	835[1]	0.386	100	8.9	LOS A	1.4	35.0	100	Turn Bay	0.0	0.0
Approach	11	402	322	735	2.0		0.386		8.0	LOS A	2.0	50.7				
North: Wharf Rd																
Lane 1	494	16	13	523	2.0	724	0.722	100	20.4	LOS C	5.9	150.1	1600	–	0.0	0.0
Approach	494	16	13	523	2.0		0.722		20.4	LOS C	5.9	150.1				
West: Cliff Dr																
Lane 1	19	581	1	601	2.0	651	0.923	100	43.8	LOS E	12.9	328.8	1600	–	0.0	0.0
Approach	19	581	1	601	2.0		0.923		43.8	LOS E	12.9	328.8				
South West: Wharf Rd																
Lane 1	3	5	10	18	3.0	361	0.051	100	10.8	LOS B	0.2	3.9	1600	–	0.0	0.0
Approach	3	5	10	18	3.0		0.051		10.8	LOS B	0.2	3.9				
Intersection				1878	2.0		0.923		22.9	LOS C	12.9	328.8				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Model used. Geometric Delay not included.

1 Reduced capacity due to a short lane effect

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--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #11 Porter St / SR-1 NB Ramps
********************************************************************************
Cycle (sec):          80                Critical Vol./Cap.(X):         0.959
Loss Time (sec):       9                Average Delay (sec/veh):        34.5
Optimal Cycle: OPTIMIZED                Level Of Service:                  C
********************************************************************************
Street Name:            Porter St                      SR-1 NB Ramps
Approach:      North Bound      South Bound       East Bound        West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Protected        Protected         Permitted         Permitted
Rights:           Include           Ovl             Include           Include
Min. Green:     0    0    0    0    0    0    0    0    0    0    0    0
Y+R:          4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0  4.0
Lanes:        1  0  2  0  0   0  0  1  1  0   0  0  0  0  0   1  0  0  1  1
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     389  662    0    0  486  744    0    0    0  203   27  429
Growth Adj:  1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:  389  662    0    0  486  744    0    0    0  203   27  429
Added Vol:      0    0    0    0    0    0    0    0    0    0    0    0
PasserByVol:    0    0    0    0    0    0    0    0    0    0    0    0
Initial Fut:  389  662    0    0  486  744    0    0    0  203   27  429
User Adj:    1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:     0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95 0.95
PHF Volume:   409  697    0    0  512  783    0    0    0  214   28  452
Reduct Vol:     0    0    0    0    0    0    0    0    0    0    0    0
Reduced Vol:  409  697    0    0  512  783    0    0    0  214   28  452
PCE Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:     1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
FinalVolume:  409  697    0    0  512  783    0    0    0  214   28  452
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900 1900
Adjustment:  0.95 0.95 1.00 1.00 0.86 0.86 1.00 1.00 1.00 0.85 0.86 0.86
Lanes:       1.00 2.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 0.12 1.88
Final Sat.:  1805 3610    0    0 1641 1641    0    0    0 1615  193 3071
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.23 0.19 0.00 0.00 0.31 0.48 0.00 0.00 0.00 0.13 0.15 0.15
Crit Moves:  ****                     ****                          ****
Green/Cycle: 0.24 0.73 0.00 0.00 0.50 0.50 0.00 0.00 0.00 0.15 0.15 0.15
Volume/Cap:  0.96 0.26 0.00 0.00 0.63 0.96 0.00 0.00 0.00 0.86 0.96 0.96
Uniform Del: 30.2  3.5  0.0  0.0 14.7 19.3  0.0  0.0  0.0 33.0 33.6 33.6
IncremntDel: 33.1  0.1  0.0  0.0  0.6 15.8  0.0  0.0  0.0 25.3 30.0 30.0
InitQueuDel:  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
Delay Adj:   1.00 1.00 0.00 0.00 1.00 1.00 0.00 0.00 0.00 1.00 1.00 1.00
Delay/Veh:   63.2  3.6  0.0  0.0 15.3 35.1  0.0  0.0  0.0 58.4 63.6 63.6
User DelAdj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:  63.2  3.6  0.0  0.0 15.3 35.1  0.0  0.0  0.0 58.4 63.6 63.6
LOS by Move:    E    A    A    A    B    D    A    A    A    E    E    E
HCM2kAvgQ:     11    3    0    0   10   26    0    0    0    8   10   10
```

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #11 Porter St / SR-1 NB Ramps

Cycle (sec):	80	Critical Vol./Cap.(X):	0.816
Loss Time (sec):	9	Average Delay (sec/veh):	25.5
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Street Name:	Porter St						SR-1 NB Ramps					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Permitted			Permitted		
Rights:	Include			Ovl			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0 2 0 0			0 0 1 1 0			0 0 0 0 0			1 0 0 1 1		
Volume Module:												
Base Vol:	337	505	0	0	851	483	0	0	0	227	13	465
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	337	505	0	0	851	483	0	0	0	227	13	465
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	337	505	0	0	851	483	0	0	0	227	13	465
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	337	505	0	0	851	483	0	0	0	227	13	465
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	337	505	0	0	851	483	0	0	0	227	13	465
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	337	505	0	0	851	483	0	0	0	227	13	465
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.95	0.95	1.00	1.00	0.90	0.90	1.00	1.00	1.00	0.85	0.85	0.85
Lanes:	1.00	2.00	0.00	0.00	1.28	0.72	0.00	0.00	0.00	1.00	0.05	1.95
Final Sat.:	1805	3610	0	0	2179	1236	0	0	0	1615	88	3157
Capacity Analysis Module:												
Vol/Sat:	0.19	0.14	0.00	0.00	0.39	0.39	0.00	0.00	0.00	0.14	0.15	0.15
Crit Moves:	****				****						****	
Green/Cycle:	0.23	0.71	0.00	0.00	0.48	0.48	0.00	0.00	0.00	0.18	0.18	0.18
Volume/Cap:	0.82	0.20	0.00	0.00	0.82	0.82	0.00	0.00	0.00	0.78	0.82	0.82
Uniform Del:	29.3	4.0	0.0	0.0	17.9	17.9	0.0	0.0	0.0	31.3	31.5	31.5
IncremntDel:	12.0	0.0	0.0	0.0	3.3	3.3	0.0	0.0	0.0	12.6	8.7	8.7
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	1.00	1.00
Delay/Veh:	41.2	4.0	0.0	0.0	21.2	21.2	0.0	0.0	0.0	43.9	40.2	40.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	41.2	4.0	0.0	0.0	21.2	21.2	0.0	0.0	0.0	43.9	40.2	40.2
LOS by Move:	D	A	A	A	C	C	A	A	A	D	D	D
HCM2kAvgQ:	7	2	0	0	17	17	0	0	0	7	8	8

LANE SUMMARY

Site: 14. Capitola / Bay: 2035 AM

14. Capitola Ave / Bay Ave
2035 with Proposed Plan Conditions
AM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows L veh/h	Demand Flows T veh/h	Demand Flows R veh/h	Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Lane Length ft	SL Type	Cap. Adj. %	Prob. Block. %
South: Capitola Ave																
Lane 1	132	139	0	271	2.0	782	0.347	100	8.8	LOS A	1.4	35.8	1600	–	0.0	0.0
Lane 2	0	0	6	6	2.0	830	0.008	100	4.4	LOS A	0.0	0.6	150	Turn Bay	0.0	0.0
Approach	132	139	6	278	2.0		0.347		8.7	LOS A	1.4	35.8				
East: Bay Ave																
Lane 1	45	217	36	298	2.0	790	0.377	100	9.2	LOS A	1.7	41.9	1600	–	0.0	0.0
Approach	45	217	36	298	2.0		0.377		9.2	LOS A	1.7	41.9				
North: Capitola Ave																
Lane 1	37	98	32	167	2.0	742	0.225	100	7.4	LOS A	0.8	21.5	1600	–	0.0	0.0
Approach	37	98	32	167	2.0		0.225		7.4	LOS A	0.8	21.5				
West: Bay Ave																
Lane 1	61	200	168	429	2.0	922	0.465	100	9.6	LOS A	2.4	62.1	1600	–	0.0	0.0
Approach	61	200	168	429	2.0		0.465		9.6	LOS A	2.4	62.1				
Intersection				1171	2.0		0.465		8.9	LOS A	2.4	62.1				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Model used. Geometric Delay not included.

Processed: Tuesday, October 22, 2013 10:22:45 AM
SIDRA INTERSECTION 5.1.13.2093
Project: H:\Pdata\70100329\Traffic\TRAFFIX\Miti\RAB Analysis.sip
8000182, RBF CONSULTING, FLOATING

14. Capitola Ave / Bay Ave
2035 with Proposed Plan Conditions
PM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows L veh/h	Demand Flows T veh/h	Demand Flows R veh/h	Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Lane Length ft	SL Type	Cap. Adj. %	Prob. Block. %
South: Capitola Ave																
Lane 1	182	146	0	328	2.0	672	0.488	100	12.8	LOS B	2.4	60.7	1600	–	0.0	0.0
Lane 2	0	0	10	10	2.0	723	0.013	100	5.1	LOS A	0.0	1.0	150	Turn Bay	0.0	0.0
Approach	182	146	10	337	2.0		0.488		12.6	LOS B	2.4	60.7				
East: Bay Ave																
Lane 1	56	273	48	378	2.0	734	0.515	100	12.6	LOS B	2.8	71.8	1600	–	0.0	0.0
Approach	56	273	48	378	2.0		0.515		12.6	LOS B	2.8	71.8				
North: Capitola Ave																
Lane 1	55	117	45	217	2.0	657	0.330	100	9.8	LOS A	1.3	33.1	1600	–	0.0	0.0
Approach	55	117	45	217	2.0		0.330		9.8	LOS A	1.3	33.1				
West: Bay Ave																
Lane 1	77	324	202	603	2.0	877	0.688	100	16.1	LOS C	5.9	148.8	1600	–	0.0	0.0
Approach	77	324	202	603	2.0		0.688		16.1	LOS C	5.9	148.8				
Intersection				1535	2.0		0.688		13.5	LOS B	5.9	148.8				

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Model used. Geometric Delay not included.

SIDRA INTERSECTION

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Monterey Ave / Park Ave

Cycle (sec):	60	Critical Vol./Cap.(X):	0.737
Loss Time (sec):	6	Average Delay (sec/veh):	20.3
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Street Name:	Monterey Ave						Park Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	1 0	0	1 0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	12	140	266	143	162	8	12	6	30	449	6	55
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	12	140	266	143	162	8	12	6	30	449	6	55
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	12	140	266	143	162	8	12	6	30	449	6	55
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	13	147	280	151	171	8	13	6	32	473	6	58
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	13	147	280	151	171	8	13	6	32	473	6	58
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	13	147	280	151	171	8	13	6	32	473	6	58
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.98	0.98	0.85	0.95	0.99	0.99	0.83	0.83	0.83	0.69	0.69	0.69
Lanes:	0.08	0.92	1.00	1.00	0.95	0.05	0.25	0.12	0.63	0.88	0.01	0.11
Final Sat.:	146	1706	1615	1805	1798	89	393	196	982	1162	16	142
Capacity Analysis Module:												
Vol/Sat:	0.09	0.09	0.17	0.08	0.09	0.09	0.03	0.03	0.03	0.41	0.41	0.41
Crit Moves:			****	****							****	
Green/Cycle:	0.24	0.24	0.24	0.11	0.35	0.35	0.55	0.55	0.55	0.55	0.55	0.55
Volume/Cap:	0.37	0.37	0.74	0.74	0.27	0.27	0.06	0.06	0.06	0.74	0.74	0.74
Uniform Del:	19.2	19.2	21.2	25.7	14.1	14.1	6.2	6.2	6.2	10.2	10.2	10.2
IncremntDel:	0.5	0.5	7.4	13.2	0.2	0.2	0.0	0.0	0.0	4.0	4.0	4.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	19.7	19.7	28.7	38.9	14.3	14.3	6.3	6.3	6.3	14.1	14.1	14.1
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.7	19.7	28.7	38.9	14.3	14.3	6.3	6.3	6.3	14.1	14.1	14.1
LOS by Move:	B	B	C	D	B	B	A	A	A	B	B	B
HCM2kAvgQ:	3	3	7	5	3	3	0	0	0	9	9	9

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #16 Monterey Ave / Park Ave

Cycle (sec):	60	Critical Vol./Cap.(X):	0.916
Loss Time (sec):	6	Average Delay (sec/veh):	32.1
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Street Name:	Monterey Ave						Park Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Protected			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0 0	1	1 0	0 1	0	0 0	1!	0 0	0 0	1!	0 0
Volume Module:												
Base Vol:	2	202	679	153	122	3	15	12	15	308	10	61
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	202	679	153	122	3	15	12	15	308	10	61
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	2	202	679	153	122	3	15	12	15	308	10	61
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	2	213	715	161	128	3	16	13	16	324	11	64
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	2	213	715	161	128	3	16	13	16	324	11	64
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	2	213	715	161	128	3	16	13	16	324	11	64
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.95	1.00	1.00	0.85	0.85	0.85	0.72	0.72	0.72
Lanes:	0.01	0.99	1.00	1.00	0.98	0.02	0.36	0.28	0.36	0.81	0.03	0.16
Final Sat.:	19	1881	1615	1805	1847	45	577	462	577	1108	36	220
Capacity Analysis Module:												
Vol/Sat:	0.11	0.11	0.44	0.09	0.07	0.07	0.03	0.03	0.03	0.29	0.29	0.29
Crit Moves:			****	****							****	
Green/Cycle:	0.48	0.48	0.48	0.10	0.58	0.58	0.32	0.32	0.32	0.32	0.32	0.32
Volume/Cap:	0.23	0.23	0.91	0.92	0.12	0.12	0.09	0.09	0.09	0.92	0.92	0.92
Uniform Del:	9.0	9.0	14.3	26.8	5.7	5.7	14.3	14.3	14.3	19.7	19.7	19.7
IncremntDel:	0.1	0.1	15.3	44.2	0.0	0.0	0.1	0.1	0.1	24.2	24.2	24.2
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	9.1	9.1	29.6	71.0	5.7	5.7	14.4	14.4	14.4	43.9	43.9	43.9
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.1	9.1	29.6	71.0	5.7	5.7	14.4	14.4	14.4	43.9	43.9	43.9
LOS by Move:	A	A	C	E	A	A	B	B	B	D	D	D
HCM2kAvgQ:	2	2	17	6	1	0	1	1	1	12	12	12

16. Monterey Ave / Park Ave
2035 with Proposed Plan Conditions
AM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows L veh/h	Demand Flows T veh/h	Demand Flows R veh/h	Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Lane Length ft	SL Type	Cap. Adj. %	Prob. Block. %
South: NB																
Lane 1	2	138	0	140	2.0	885	P	100	5.6	LOS A	0.6	14.3	1600	–	0.0	0.0
Lane 2	0	0	283	283	2.0	884	P	100	7.6	LOS A	1.3	33.7	1600	–	0.0	0.0
Approach	2	138	283	423	2.0		0.320		6.9	LOS A	1.3	33.7				
East: WB																
Lane 1	478	3	45	526	2.0	948	P	100	11.2	LOS B	3.4	86.1	1600	–	0.0	0.0
Approach	478	3	45	526	2.0		0.555		11.2	LOS B	3.4	86.1				
North: SB																
Lane 1	152	172	9	333	2.0	677	P	100	12.8	LOS B	2.5	64.2	1600	–	0.0	0.0
Approach	152	172	9	333	2.0		0.492		12.8	LOS B	2.5	64.2				
West: EB																
Lane 1	13	6	32	51	2.0	489	P	100	8.7	LOS A	0.3	8.5	1600	–	0.0	0.0
Approach	13	6	32	51	2.0		0.104		8.7	LOS A	0.3	8.5				
Intersection				1333	2.0		0.555		10.2	LOS B	3.4	86.1				

P: You need to Process this Site (F9) for this variable to be computed.

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Model used. Geometric Delay not included.

LANE SUMMARY

16. Monterey Ave / Park Ave
2035 with Proposed Plan Conditions
PM Peak Hour
Roundabout

Lane Use and Performance

	Demand Flows L veh/h	Demand Flows T veh/h	Demand Flows R veh/h	Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	95% Back of Queue Distance ft	Lane Length ft	SL Type	Cap. Adj. %	Prob. Block. %
South: NB																
Lane 1	2	215	0	217	2.0	875	P	100	6.7	LOS A	1.0	24.2	1600	–	0.0	0.0
Lane 2	0	0	722	722	2.0	875	P	100	24.4	LOS C	9.9	251.1	1600	–	0.0	0.0
Approach	2	215	722	939	2.0		0.825		20.3	LOS C	9.9	251.1				
East: WB																
Lane 1	328	11	65	403	2.0	882	P	100	9.8	LOS A	2.3	58.7	1600	–	0.0	0.0
Approach	328	11	65	403	2.0		0.457		9.8	LOS A	2.3	58.7				
North: SB																
Lane 1	163	130	3	296	2.0	783	P	100	9.2	LOS A	1.6	41.9	1600	–	0.0	0.0
Approach	163	130	3	296	2.0		0.378		9.2	LOS A	1.6	41.9				
West: EB																
Lane 1	6	13	16	35	2.0	588	P	100	6.8	LOS A	0.2	4.9	1600	–	0.0	0.0
Approach	6	13	16	35	2.0		0.060		6.8	LOS A	0.2	4.9				
Intersection				1673	2.0		0.825		15.5	LOS C	9.9	251.1				

P: You need to Process this Site (F9) for this variable to be computed.

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
Roundabout LOS Method: Same as Sign Control.
Lane LOS values are based on average delay and v/c ratio (degree of saturation) per lane.
LOS F will result if v/c > irrespective of lane delay value (does not apply for approaches and intersection).
Intersection and Approach LOS values are based on average delay for all lanes (v/c not used as specified in HCM 2010).
Roundabout Capacity Model: US HCM 2010.
HCM Delay Model used. Geometric Delay not included.

```
--------------------------------------------------------------------------------
--------------------------------------------------------------------------------
                      Level Of Service Computation Report
            2000 HCM Operations Method (Future Volume Alternative)
********************************************************************************
Intersection #17 Capitola Ave / Stockton Ave
********************************************************************************
Cycle (sec):          70                Critical Vol./Cap.(X):        0.841
Loss Time (sec):      12                Average Delay (sec/veh):       23.3
Optimal Cycle: OPTIMIZED                Level Of Service:                 C
********************************************************************************
Street Name:           Capitola Ave                       Stockton Ave
Approach:      North Bound      South Bound       East Bound       West Bound
Movement:     L  -  T  -  R   L  -  T  -  R   L  -  T  -  R   L  -  T  -  R
------------|---------------||---------------||---------------||---------------|
Control:        Permitted        Permitted         Permitted        Permitted
Rights:          Include          Include           Include          Include
Min. Green:     0    0     0    0    0     0    0    0     0    0    0     0
Y+R:          4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0  4.0  4.0   4.0
Lanes:        1  0  0  0  1   0  0  1! 0  0   0  0  0  1  0   0  1  0  0  0
------------|---------------||---------------||---------------||---------------|
Volume Module:
Base Vol:     203    0   373   15   39    20    0   29   320  406   65     0
Growth Adj:  1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
Initial Bse:  203    0   373   15   39    20    0   29   320  406   65     0
Added Vol:      0    0     0    0    0     0    0    0     0    0    0     0
PasserByVol:    0    0     0    0    0     0    0    0     0    0    0     0
Initial Fut:  203    0   373   15   39    20    0   29   320  406   65     0
User Adj:    1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
PHF Adj:     0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95 0.95 0.95  0.95
PHF Volume:   214    0   393   16   41    21    0   31   337  427   68     0
Reduct Vol:     0    0     0    0    0     0    0    0     0    0    0     0
Reduced Vol:  214    0   393   16   41    21    0   31   337  427   68     0
PCE Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
MLF Adj:     1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
FinalVolume:  214    0   393   16   41    21    0   31   337  427   68     0
------------|---------------||---------------||---------------||---------------|
Saturation Flow Module:
Sat/Lane:    1900 1900  1900 1900 1900  1900 1900 1900  1900 1900 1900  1900
Adjustment:  0.71 1.00  0.85 0.92 0.92  0.92 1.00 0.88  0.88 0.57 0.57  1.00
Lanes:       1.00 0.00  1.00 0.20 0.53  0.27 0.00 0.08  0.92 0.86 0.14  0.00
Final Sat.:  1341    0  1615  356  925   474    0  138  1526  942  151     0
------------|---------------||---------------||---------------||---------------|
Capacity Analysis Module:
Vol/Sat:     0.16 0.00  0.24 0.04 0.04  0.04 0.00 0.22  0.22 0.45 0.45  0.00
Crit Moves:             ****                                        ****
Green/Cycle: 0.29 0.00  0.29 0.29 0.29  0.29 0.00 0.54  0.54 0.54 0.54  0.00
Volume/Cap:  0.55 0.00  0.84 0.15 0.15  0.15 0.00 0.41  0.41 0.84 0.84  0.00
Uniform Del: 21.0  0.0  23.4 18.5 18.5  18.5  0.0  9.5   9.5 13.6 13.6   0.0
IncremntDel:  1.7  0.0  12.9  0.1  0.1   0.1  0.0  0.3   0.3 10.5 10.5   0.0
InitQueuDel:  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0  0.0  0.0   0.0
Delay Adj:   1.00 0.00  1.00 1.00 1.00  1.00 0.00 1.00  1.00 1.00 1.00  0.00
Delay/Veh:   22.7  0.0  36.3 18.7 18.7  18.7  0.0  9.8   9.8 24.1 24.1   0.0
User DelAdj: 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00 1.00 1.00  1.00
AdjDel/Veh:  22.7  0.0  36.3 18.7 18.7  18.7  0.0  9.8   9.8 24.1 24.1   0.0
LOS by Move:    C    A     D    B    B     B    A    A     A    C    C     A
HCM2kAvgQ:      4    0     9    1    1     1    0    5     5   12   12     0
```

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #17 Capitola Ave / Stockton Ave

Cycle (sec):	70	Critical Vol./Cap.(X):	0.889
Loss Time (sec):	12	Average Delay (sec/veh):	27.1
Optimal Cycle:	OPTIMIZED	Level Of Service:	C

Street Name:	Capitola Ave						Stockton Ave					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Permitted			Permitted			Permitted			Permitted		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	1 0 0 0 1			0 0 1! 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	272	0	501	6	38	17	0	25	308	374	86	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	272	0	501	6	38	17	0	25	308	374	86	0
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	272	0	501	6	38	17	0	25	308	374	86	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	286	0	527	6	40	18	0	26	324	394	91	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	286	0	527	6	40	18	0	26	324	394	91	0
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	286	0	527	6	40	18	0	26	324	394	91	0
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	0.72	1.00	0.85	0.95	0.95	0.95	1.00	0.88	0.88	0.62	0.62	1.00
Lanes:	1.00	0.00	1.00	0.10	0.62	0.28	0.00	0.08	0.92	0.81	0.19	0.00
Final Sat.:	1360	0	1615	177	1122	502	0	125	1538	961	221	0
Capacity Analysis Module:												
Vol/Sat:	0.21	0.00	0.33	0.04	0.04	0.04	0.00	0.21	0.21	0.41	0.41	0.00
Crit Moves:			****								****	
Green/Cycle:	0.37	0.00	0.37	0.37	0.37	0.37	0.00	0.46	0.46	0.46	0.46	0.00
Volume/Cap:	0.57	0.00	0.89	0.10	0.10	0.10	0.00	0.46	0.46	0.89	0.89	0.00
Uniform Del:	17.7	0.0	20.8	14.5	14.5	14.5	0.0	12.9	12.9	17.2	17.2	0.0
IncremntDel:	1.6	0.0	15.2	0.1	0.1	0.1	0.0	0.4	0.4	16.3	16.3	0.0
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	0.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	0.00
Delay/Veh:	19.3	0.0	36.0	14.6	14.6	14.6	0.0	13.3	13.3	33.6	33.6	0.0
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	19.3	0.0	36.0	14.6	14.6	14.6	0.0	13.3	13.3	33.6	33.6	0.0
LOS by Move:	B	A	D	B	B	B	A	B	B	C	C	A
HCM2kAvgQ:	5	0	12	1	1	1	0	5	5	13	13	0

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 Park Ave / Kennedy Dr

Cycle (sec):	65	Critical Vol./Cap.(X):	0.906
Loss Time (sec):	9	Average Delay (sec/veh):	34.5
Optimal Cycle:	85	Level Of Service:	C

Street Name:	Park Ave						Kennedy Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	1 0	0	1 0	0 0	1!	0 0	0 1	0	0 1
Volume Module:												
Base Vol:	10	246	71	292	157	298	252	30	4	208	175	352
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	246	71	292	157	298	252	30	4	208	175	352
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	10	246	71	292	157	298	252	30	4	208	175	352
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
PHF Volume:	10	251	72	298	160	304	257	31	4	212	179	359
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	10	251	72	298	160	304	257	31	4	212	179	359
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	10	251	72	298	160	304	257	31	4	212	179	359
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.95	0.90	0.90	0.96	0.96	0.96	0.97	0.97	0.85
Lanes:	0.04	0.96	1.00	1.00	0.35	0.65	0.89	0.10	0.01	0.54	0.46	1.00
Final Sat.:	74	1822	1615	1805	591	1122	1601	191	25	1005	846	1615
Capacity Analysis Module:												
Vol/Sat:	0.14	0.14	0.04	0.17	0.27	0.27	0.16	0.16	0.16	0.21	0.21	0.22
Crit Moves:	****				****				****		****	
Green/Cycle:	0.15	0.21	0.44	0.25	0.30	0.30	0.18	0.18	0.18	0.23	0.23	0.48
Volume/Cap:	0.91	0.67	0.10	0.67	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.46
Uniform Del:	27.1	23.8	10.7	22.1	21.9	21.9	26.2	26.2	26.2	24.2	24.2	11.3
IncremntDel:	29.9	4.5	0.1	4.0	19.6	19.6	27.7	27.7	27.7	22.3	22.3	0.4
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	57.0	28.3	10.8	26.1	41.5	41.5	53.9	53.9	53.9	46.6	46.6	11.8
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	57.0	28.3	10.8	26.1	41.5	41.5	53.9	53.9	53.9	46.6	46.6	11.8
LOS by Move:	E	C	B	C	D	D	D	D	D	D	D	B
HCM2kAvgQ:	9	6	1	5	10	10	10	10	10	12	12	5

Level Of Service Computation Report
2000 HCM Operations Method (Future Volume Alternative)

Intersection #21 Park Ave / Kennedy Dr

Cycle (sec):	65	Critical Vol./Cap.(X):	0.829
Loss Time (sec):	9	Average Delay (sec/veh):	29.9
Optimal Cycle:	65	Level Of Service:	C

Street Name:	Park Ave						Kennedy Dr					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Protected			Protected			Split Phase			Split Phase		
Rights:	Ovl			Include			Include			Ovl		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Y+R:	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lanes:	0 1	0	0 1	1 0	0	1 0	0 0	1!	0 0	0 1	0	0 1
Volume Module:												
Base Vol:	8	397	294	310	165	185	201	137	6	85	60	314
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	8	397	294	310	165	185	201	137	6	85	60	314
Added Vol:	0	0	0	0	0	0	0	0	0	0	0	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	8	397	294	310	165	185	201	137	6	85	60	314
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
PHF Volume:	8	418	309	326	174	195	212	144	6	89	63	331
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	8	418	309	326	174	195	212	144	6	89	63	331
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	8	418	309	326	174	195	212	144	6	89	63	331
Saturation Flow Module:												
Sat/Lane:	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Adjustment:	1.00	1.00	0.85	0.95	0.92	0.92	0.97	0.97	0.97	0.97	0.97	0.85
Lanes:	0.02	0.98	1.00	1.00	0.47	0.53	0.58	0.40	0.02	0.59	0.41	1.00
Final Sat.:	37	1861	1615	1805	825	925	1077	734	32	1083	764	1615
Capacity Analysis Module:												
Vol/Sat:	0.22	0.22	0.19	0.18	0.21	0.21	0.20	0.20	0.20	0.08	0.08	0.20
Crit Moves:	****				****			****			****	
Green/Cycle:	0.27	0.29	0.39	0.23	0.25	0.25	0.24	0.24	0.24	0.10	0.10	0.33
Volume/Cap:	0.83	0.77	0.49	0.77	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.61
Uniform Del:	22.3	21.1	14.9	23.3	22.9	22.9	23.5	23.5	23.5	28.7	28.7	18.1
IncremntDel:	10.8	6.7	0.6	8.6	12.3	12.3	12.5	12.5	12.5	25.8	25.8	2.1
InitQueuDel:	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Delay/Veh:	33.1	27.7	15.5	31.8	35.2	35.2	36.0	36.0	36.0	54.5	54.5	20.2
User DelAdj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	33.1	27.7	15.5	31.8	35.2	35.2	36.0	36.0	36.0	54.5	54.5	20.2
LOS by Move:	C	C	B	C	D	D	D	D	D	D	D	C
HCM2kAvgQ:	11	10	5	7	8	8	10	10	10	6	6	6

APPENDIX E

GREENHOUSE GAS EMISSIONS

City of Capitola

2010 Baseline Community-wide Greenhouse Gas Emissions Inventory

Prepared by: The Association of Monterey Bay Area Governments | Energy Watch

With Assistance from ICLEI - Local Governments for Sustainability USA and Pacific Gas and Electric Company

Prepared for: The City of Capitola

CITY OF CAPITOLA
FOUNDED 1875
INCORPORATED 1949

Acknowledgements

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This report was prepared by Chris Sentieri, Special Projects Associate at the Association of Monterey Bay Area Governments. The Association of Monterey Bay Area Governments Energy Watch team would like to thank the City of Capitola staff for providing much of the insight and local information necessary for the completion of this report.

October 2013

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Executive Summary

The City of Capitola recognizes that greenhouse gas (GHG) emissions from human activity are catalyzing profound climate change, the consequences of which pose substantial risks to the future health, wellbeing, and prosperity of our community. Furthermore, Capitola has multiple opportunities to benefit by acting quickly to reduce community GHG emissions. These opportunities include: reducing energy and transportation costs for residents and businesses, creating green jobs, improving health of residents, making your community a more resilient and attractive place to live and locate a business.

Capitola has begun the climate action planning process, starting with inventorying emissions. This report provides estimates of greenhouse gas emissions resulting from activities in Capitola as a whole in 2010.

Table ES 1: 2010 Capitola Community-wide Baseline GHG Emissions Inventory Summary

Source/Activity	2010 Community-wide Baseline GHG Inventory
Electricity Consumption	**12,776**
Stationary Fuel Combustion	**16,049**
Transportation and Mobile Sources	**57,123**
Solid Waste Generation	**1,476**
Water Treatment and Distribution	**667**
TOTAL	**88,091**

There are a variety of emissions sources and activities included in the community-wide inventory. A subset of these, identified as local government significantly influenced emissions, are most policy relevant. Figure ES 1 shows significantly influenced emissions from in-boundary Sources, while Figure ES 2 shows the significantly influenced emissions Activities. As you can see, the largest contributor in this set is Transportation and Mobile Sources with 57,123 Metric Tons of Carbon Dioxide Equivalent (MTCO2e) of emissions. The next largest contributors are Stationary Fuel Combustion (i.e. – Residential and Commercial/Industrial Natural Gas Consumption) with 16,049 MTCO2e and Electricity Consumption with 12,776 MTCO2e. Actions to reduce emissions in each of these sectors will be a key part of a climate action plan. Solid Waste Generation and Water Treatment and Distribution were responsible for the remainder of significantly influenced sources of emissions.

Figure ES 1: Community Emissions Sources Subject to Local Government Significant Influence

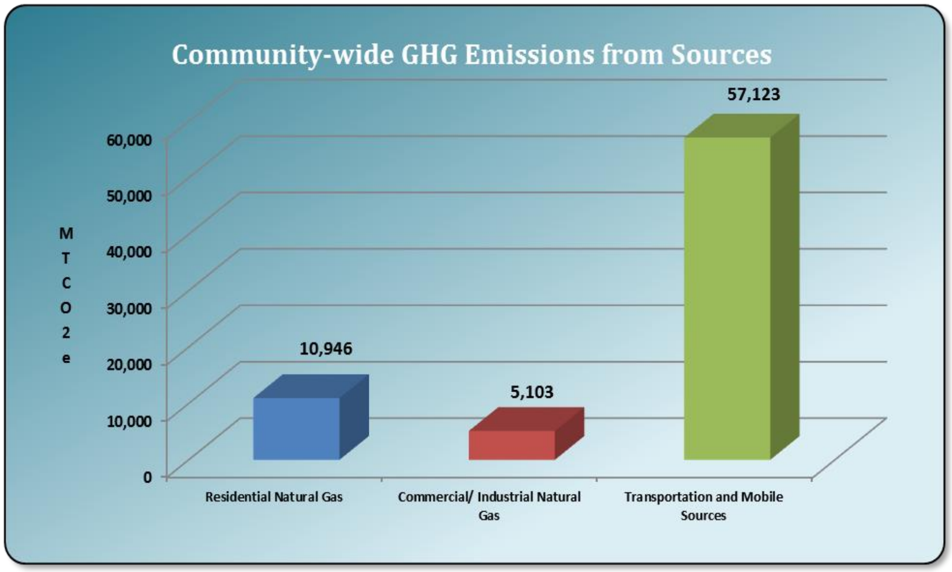
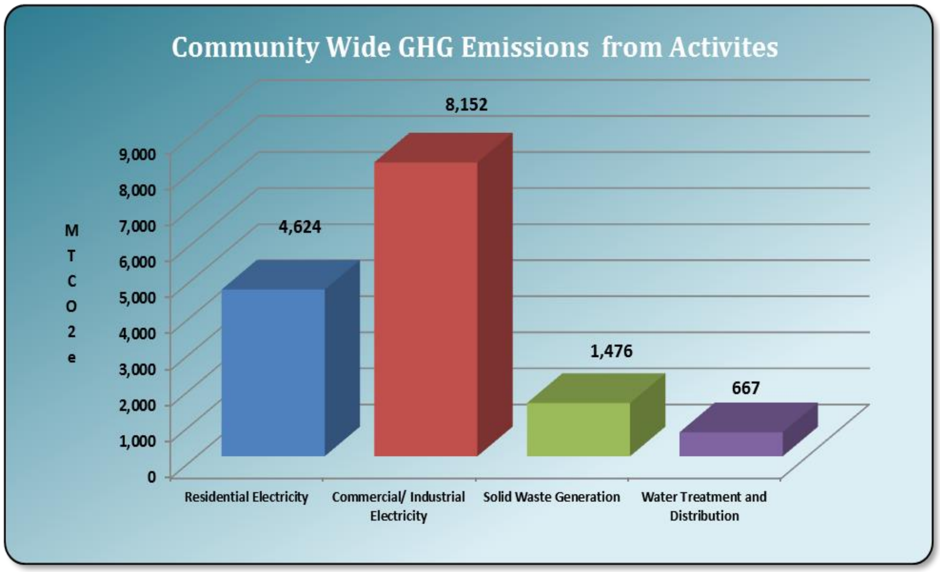


Figure ES 2: Community Emissions Activities Subject to Local Government Significant Influence



Climate Change Background

Naturally occurring gases dispersed in the atmosphere determine the Earth's climate by trapping solar radiation. This phenomenon is known as the greenhouse effect. Overwhelming evidence shows that human activities are increasing the concentration of greenhouse gases and changing the global climate. The most significant contributor is the burning of fossil fuels for transportation, home heating, electricity generation and other purposes, which introduces large amounts of carbon dioxide and other greenhouse gases into the atmosphere. Collectively, these gases intensify the natural greenhouse effect, causing global average surface and lower atmospheric temperatures to rise.

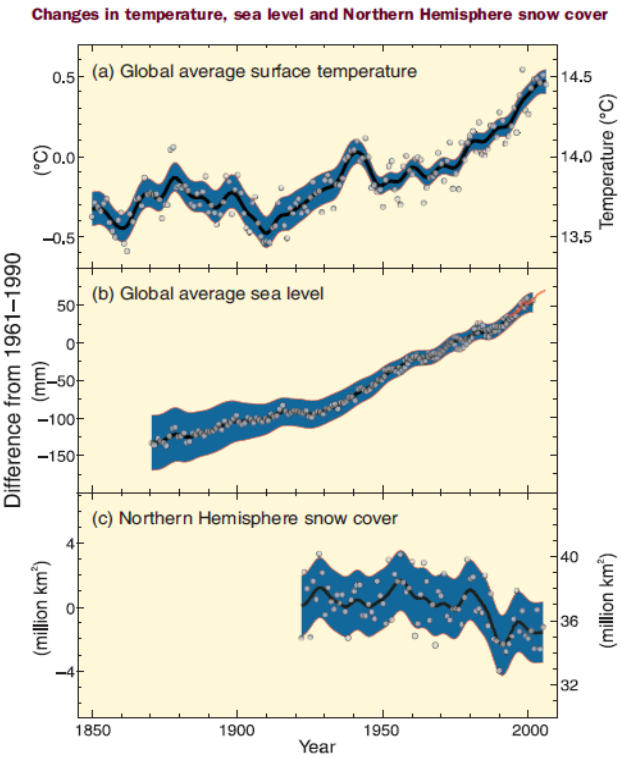


Figure 1: Observed changes in global temperature, sea level and snow cover

Capitola could be impacted by the effects of sea-level rise, changes in precipitation patterns, extreme weather events, increased wildfires, and other inclement effects of climate change. Current and expected impacts to Capitola related to climate change are explained below. Other expected impacts in California include frequent and damaging storms accompanied by flooding and landslides, summer water shortages as a result of reduced snow pack, and the disruption of ecosystems, habitats, and agricultural activities.

Many communities in the United States have taken responsibility for addressing climate change at the local level. Reducing fossil fuel use in the community can have many benefits in addition to reducing greenhouse gas emissions. More efficient use of energy decreases utility and transportation costs for residents and businesses. Retrofitting homes and businesses to be more efficient creates local jobs. In addition, money not spent on energy is more likely to be spent a local businesses and add to the local economy. Reducing fossil fuel use improves air quality, and increasing opportunities for walking and bicycling improves residents' health.

Evidence of Human-Caused Climate Change

There is overwhelming scientific consensus that the global climate is changing, and that human actions, primarily the burning of fossil fuels, are the main cause of those changes. The Intergovernmental Panel on Climate Change (IPCC) is the scientific body charged with bringing together the work of thousands of climate scientists. The IPCC's Fourth Assessment Report states that "warming of the climate system is unequivocal."[1] Furthermore, the report finds that "most of the observed increase in global average temperatures since the mid-20th century is *very likely* due to the observed increase in anthropogenic GHG concentrations."

2012 was the hottest year on record for the continental United States, with two dozen cities breaking or tying their all-time high temperature records.[2] Globally, the 12 years from 2001-2012 are among the 14 hottest on record, and 1998 was the only year in the 20th century hotter than 2012.[3] 1976 was the last year with a below average global temperature. The steady uptick in average temperatures is significant and expected to continue if action is not taken to greatly reduce greenhouse gas emissions.

California Policy

California has a number of state level policies that serve as regulatory drivers for climate action planning at the local government level, which are described below.

Global Warming Solutions Act (AB32)

California passed the Global Warming Solutions Act (AB 32) in 2006, which charged the California Air Resources Board (CARB) with implementing a comprehensive statewide program to reduce greenhouse gas emissions. AB 32 established the following greenhouse gas emissions reduction targets for the state of California:

- 2000 levels by 2010
- 1990 levels by 2020

SB 375

SB 375 enhances California's ability to reach its AB 32 goals by promoting good planning with the goal of more sustainable communities. SB 375 requires CARB to develop regional greenhouse gas emission reduction targets for passenger vehicles. CARB is to establish targets for 2020 and 2035 for each region covered by one of the State's 18 metropolitan planning organizations (MPOs).

[1] IPCC, 2007: Climate Change 2007: Synthesis Report. Contribution of Working Groups I, II and III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change [Core Writing Team, Pachauri, R.K and Reisinger, A. (eds.)]. IPCC, Geneva, Switzerland, 104 pp.

[2] Burt, Christopher C. "2012 a Record Warm Year for Continental U.S"., January 2, 2013. http://www.wunderground.com/blog/weatherhistorian/comment.html?entrynum=112

[3] NOAA: State of the Climate 2012 Summary. http://www.ncdc.noaa.gov/sotc/

Executive Order S-3-05

Executive Order S-3-05, issued by Governor Schwarzenegger, reinforces these goals and also sets a schedule for the reporting of both the measured impacts of climate change upon California's natural environment and the emissions reduction efforts undertaken by a myriad of state, regional, and local groups. Executive Order S-3-05 establishes an additional target of 80% below 1990 levels by 2050. Capitola's GHG emissions inventory is intended to enable the City to develop effective GHG reduction policies and programs to meet these targets and track emissions reduction progress.

Figure 2: ICLEI Climate Mitigation Milestones

California Environmental Quality Act (CEQA)

CEQA requires public agencies to evaluate the environmental impacts of discretionary development plans and projects in their jurisdictions. CEQA guidelines were updated in March 2010 to require analysis of climate change in CEQA documents. Many jurisdictions are finding that climate change impacts from local government activities are "significant" under CEQA, and are identifying emissions reductions targets and Climate Action Plans as mitigation measures to reduce climate change impacts to less-than-significant levels.

ICLEI Climate Mitigation Program

In response to the problem of climate change, many communities in the United States are taking responsibility for addressing emissions at the local level. Since many of the major sources of greenhouse gas emissions are directly or indirectly controlled through local policies, local governments have a strong role to play in reducing greenhouse gas emissions within their boundaries. Through proactive measures around land use patterns, transportation demand management, energy efficiency, green building, waste diversion, and more, local governments can dramatically reduce emissions in their communities. In addition, local governments are primarily responsible for the provision of emergency services and the mitigation of natural disaster impacts.

ICLEI provides a framework and methodology for local governments to identify and reduce greenhouse gas emissions, organized along Five Milestones, also shown in Figure 2:

1. Conduct an inventory and forecast of local greenhouse gas emissions;

2. Establish a greenhouse gas emissions reduction target;
3. Develop a climate action plan for achieving the emissions reduction target;
4. Implement the climate action plan; and,
5. Monitor and report on progress.

This report represents the completion of ICLEI's Climate Mitigation Milestone One for the community as a whole, and provides a foundation for future work to reduce greenhouse gas emissions in Capitola.

Sustainability & Climate Change Mitigation Activities in Capitola

Capitola has already implemented and/or participated in programs that have or will lead to ancillary benefits in the form of energy conservation and greenhouse gas mitigation. The following are some examples:

- Lead-by-example actions to reduce government operations emissions
  - Active and Ongoing Participation in the AMBAG Energy Watch energy efficiency and conservation programs
  - Formation of the Commission on the Environment, which informs City staff and elected on issues related to environmental protection and stewardship
- Business engagement and recognition programs
  - Monterey Bay Green Business Certification Program
- Recycling and waste reduction programs

Inventory Methodology

Understanding a Greenhouse Gas Emissions Inventory

The first step toward achieving tangible greenhouse gas emission reductions requires identifying baseline emissions levels and sources and activities generating emissions in the community. This report presents emissions from the Capitola community as a whole. Emissions from government operations is a subset of the community inventory included as part of the Non-residential sector, as shown in Figure 3. For example, data on commercial energy use by the community includes energy consumed by municipal buildings, and community vehicle-miles-traveled estimates include miles driven by municipal fleet vehicles.

As local governments have continued to join the climate protection movement, the need for a standardized approach to quantify GHG emissions has proven essential. This inventory uses the approach and methods provided by the Community Greenhouse Gas Emissions Protocol (Community Protocol)[4].

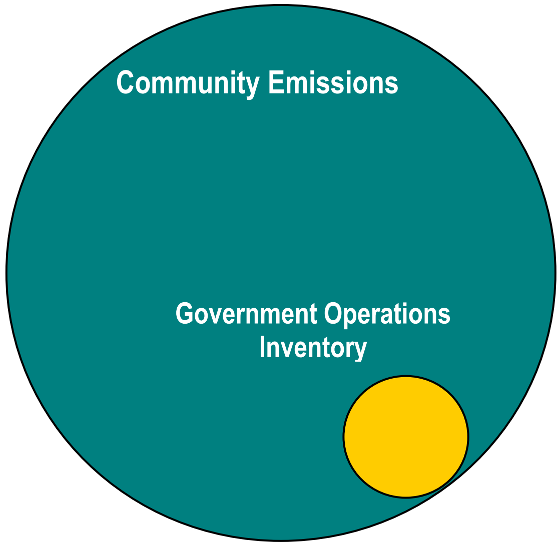


Figure 3: Relationship of Community and Government Operations Inventories

Community Emissions Protocol

The Community Protocol was released by ICLEI in October 2012, and represents a new national standard in guidance to help U.S. local governments develop effective community GHG emissions inventories. It establishes reporting requirements for all community GHG emissions inventories, provides detailed accounting guidance for quantifying GHG emissions associated with a range of emission sources and community activities, and provides a number of optional reporting frameworks to help local governments customize their community GHG emissions inventory reports based on their local goals and capacities. The State of California Governor's Office of Planning and Research recommends that California local governments follow the Community Protocol when undertaking their greenhouse gas emissions inventories.

[4] http://www.icleiusa.org/tools/ghg-protocol/community-protocol

Quantifying Greenhouse Gas Emissions

Sources and Activities

Communities contribute to greenhouse gas emissions in many ways. Two central categorizations of emissions are used in the community inventory: 1) GHG emissions that are produced by "sources" located within the community boundary, and 2) GHG emissions produced as a consequence of community "activities".

Source	Activity
Any physical process inside the jurisdictional boundary that releases GHG emissions into the atmosphere	**The use of energy, materials, and/or services by members of the community that result in the creation of GHG emissions.**

By reporting on both GHG emissions sources and activities, local governments can develop and promote a deeper understanding of GHG emissions associated with their communities. A purely source-based emissions inventory could be summed to estimate total emissions released within the community's jurisdictional boundary. In contrast, a purely activity-based emissions inventory could provide perspective on the efficiency of the community, even when the associated emissions occur outside the jurisdictional boundary. The division of emissions into sources and activities replaces the scopes framework that is used in government operations inventories, but that does not have a clear definition for application to community inventories.

Base Year

The inventory process requires the selection of a base year with which to compare current emissions. Capitola's community greenhouse gas emissions inventory utilizes 2010 as its base year.

Quantification Methods

Greenhouse gas emissions can be quantified in two ways:

- Measurement-based methodologies refer to the direct measurement of greenhouse gas emissions (from a monitoring system) emitted from a flue of a power plant, wastewater treatment plant, landfill, or industrial facility.[5]
- Calculation-based methodologies calculate emissions using activity data and emission factors. To calculate emissions accordingly, the basic equation below is used: *Activity Data x Emission Factor = Emissions*

All emissions sources in this inventory are quantified using calculation based methodologies. Activity data refer to the relevant measurement of energy use or other greenhouse gas-generating processes such as fuel consumption by fuel type, metered annual electricity consumption, and annual vehicle miles traveled. Please see appendices for a detailed listing of the activity data used in composing this inventory.

Known emission factors are used to convert energy usage or other activity data into associated quantities of emissions. Emissions factors are usually expressed in terms of emissions per unit of activity data (e.g. lbs CO_2/kWh of electricity).

For this inventory, calculations were made using the data and emissions factors provided by ICLEI, Pacific Gas and Electric Company (PG&E), CalRecycle, CalTrans, and the Monterey Bay Unified Air Pollution Control District.

[5] Capitola's community inventory includes emissions data provided by the [INSERT ENTITY] that was gathered through [INSERT MEHTOD, E.G: DIRECT MEASUREMENT].

Community-wide Emissions Inventory Results

Following the Community Protocol, this inventory report organizes emissions in several frames. Each frame includes a particular set of emissions sources and activities, and each helps to tell a different story about community emissions. This report looks at Capitola's community emissions through the following frames:

- Local Government Significant Influence
- Household Consumption

Community Profile

To put emissions inventory data in context, it is helpful to have some basic information about community such as population and number of households. This information is provided in Table 1.

Table 1: Capitola Community Indicators

Estimated 2010 Population	9,918
Estimated 2010 Households	5,534
Estimated 2010 Jobs	6,170

Significantly Influenced Emissions Frame

Capitola has chosen first to focus on emissions over which the City government has significant influence. This frame emphasizes policy relevance, highlighting a set of emission sources and activities that Capitola has the greatest opportunity to address. This frame includes all of the five Basic Emissions Generating Activities required by the community protocol. Table 2 and Figure 6 summarize significantly influenced emissions by source and activity.

Table 2: Significantly Influenced GHG Emissions by Activity and Source

Sector	Sources	Activities	TOTALS
Residential	10,946	4,624	15,570
Commercial / Industrial	5,103	8,152	13,255
Transportation and Mobile Sources	57,123	n/a	57,123
Solid Waste	n/a	1,476	1,476
Water Treatment and Distribution	n/a	667	667
TOTALS	73,172	14,920	88,091
Percentage of Total CO2e	83%	17%	100.0%

Capitola will focus on these emissions sources and activities in developing a climate action plan. The total significantly influenced emissions of 88,091 tons CO2e will be the baseline for setting an emissions reduction target and measuring future emissions reductions against. Figure 4 shows significant influence activity emissions by sector, while Figure 5 shows significant influence source emissions by sector. These figures only show emissions that are included in the significant influence frame, and are not intended to be comprehensive of all in-boundary sources or community activities.

Figure 4: Significantly Influenced Emissions by Sector (MTCO2e)

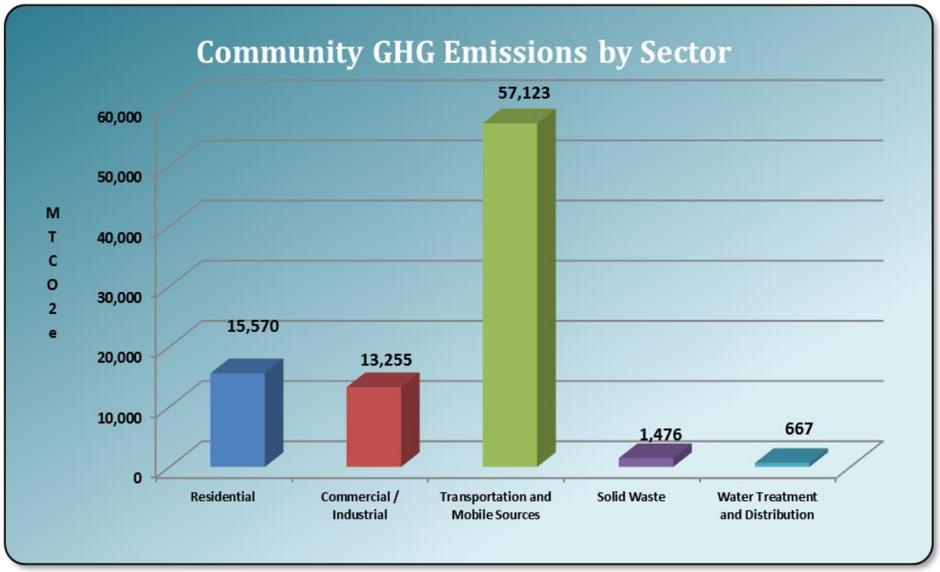


Figure 5: Significant Influence Emissions by Sector (Percentage of Total Emissions)

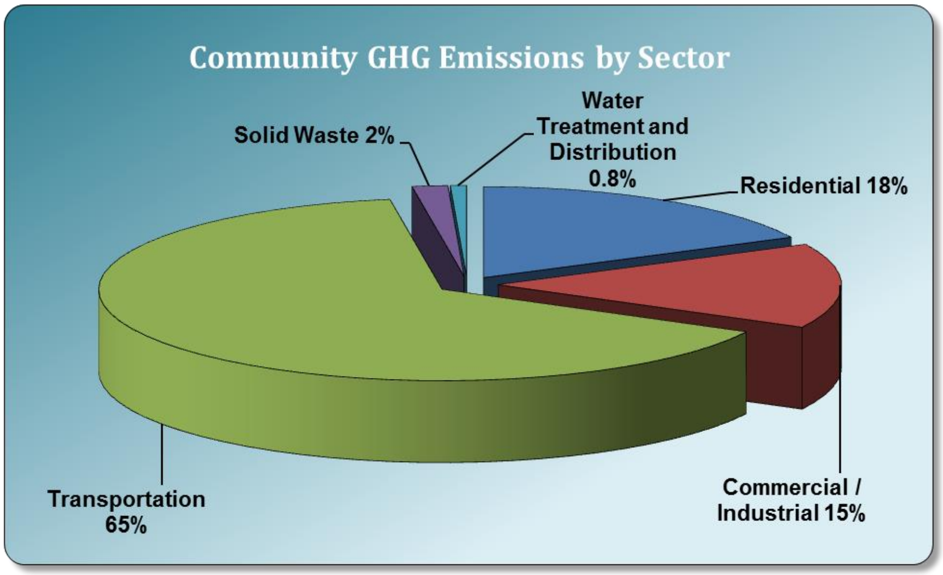


Figure 6 shows a more detailed breakdown of significantly influenced activity emissions, and Figure 7 shows a more detailed breakdown of significantly influenced source emissions.

Figure 6: Significantly Influenced Source Emissions (MTCO2e)

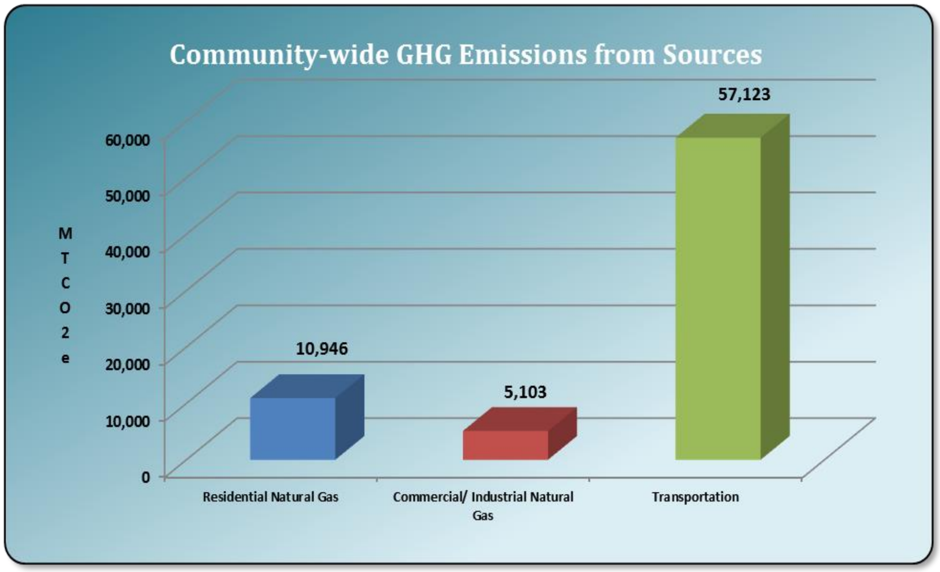
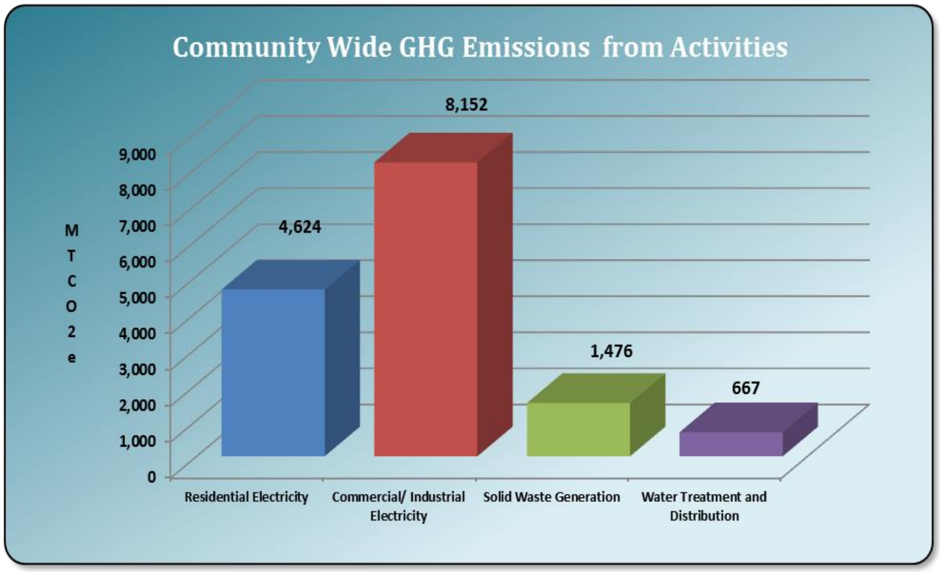


Figure 7: Significantly Influenced Activity Emissions (MTCO2e)



The Transportation sector is the largest contributor to emissions over which Capitola has significant influence, representing approximately 65% of the City's total emissions. This will be an important activity to focus efforts on in developing a climate action plan. The Residential and Commercial/Industrial sectors also account for a large part of significantly influence emissions, and will also be important to address.

Table 3: Community-Wide GHG Emissions by Category

Source or Activity	Activity Data Quantity and Unit	Emissions (MTCO2e)
Residential Use of Electricity	22,835,419 kWh	**4,624**
Commercial/Industrial Use of Electricity	36,291,610 kWh	**8,152**
Residential Stationary Combustion	2,071,672 therms	**10,946**
Commercial Stationary Combustion	966,194 therms	**5,103**
On-road Vehicle Travel	302,528 vehicle miles traveled daily	**54,744**
Off-road Vehicle Emissions	*n/a**	**2,379**
Potable Water Treatment and Distribution	1,120 acre feet per year	**260**
Wastewater Treatment	1.08 million gallons per day	**407**
Generation of Solid Waste	8,803 tons	**1,476**
	Total Community-Wide Emissions	**88,091**

*Note- Source for Off-road Vehicle Travel emissions estimate: Santa Cruz County Regional Transportation Commission Study- *2004 Inventory of Greenhouse Gas Emissions.*

Household Consumption Frame

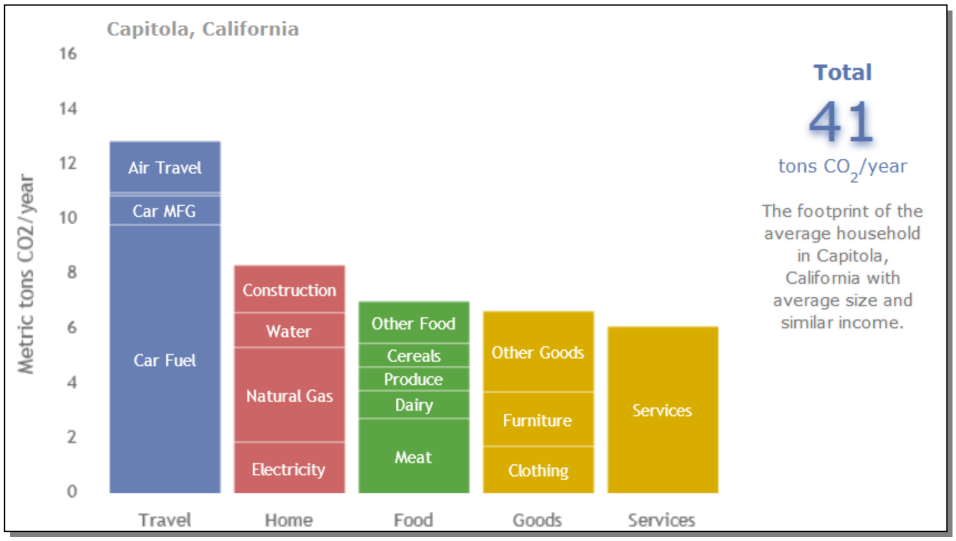
The second frame through which Capitola has chosen to look at emissions is that of household consumption. The household consumption frame helps to illustrate the full, life cycle impacts of residents' activities. Household consumption includes lifecycle emissions associated with household electricity use, household natural gas use, household personal vehicle transportation, household use of public transportation, household use of water and wastewater services, household production of garbage, and household use of materials and services. Many of these emissions overlap with those looked at through the local government influence and communitywide activities frames. But the household consumption frame also includes emissions that are not included in the other frames, in particular emissions from goods and services that are produced outside the community.

Consumption-based emissions for communities in the U.S. are often – but not always – higher than in-boundary emissions. Consumption based emissions are also larger than geographic emissions for the nation as a whole, although communities with small residential populations, limited government presence, and large industrial or tourism activities (businesses serving non-resident customers) would find their consumption-based emissions to be relatively small. But regardless of whether consumption based emissions are larger or smaller, some of the emissions are *different*, and they represent additional ways in which the community contributes to climate change and by extension, additional opportunities for the community to reduce its contribution to climate change. Table 4 shows total household consumption emissions for Capitola, while Figure 8 shows household consumption emissions for an average household in Capitola.

Table 4: Total Household Consumption Emissions for Capitola (Source: Cool Climate Calculator)

Average Household Emissions (MTCO2e/Year)	Number of Households	Total Household Consumption Emissions (MTCO2e/Year)
41	5,534	226,894

Figure 8: Household Consumption Emissions for an Average Household in Capitola



Looking at the household emissions frame shows that Food and Purchased Goods are large contributors to emissions, comparable in size to Household Energy Use. A range of actions can help to reduce these emissions, including materials management, reduction of wasted food, and sustainable purchasing practices by governments, businesses, and households. Capitola may want to look at educational efforts in some of these areas as part of its climate action plan.

Consumption emissions for an average household were obtained from the calculator at http://coolclimate.berkeley.edu. Residents who want to learn more about consumption-based emissions from their own household can use the calculator to obtain emissions based on their personal energy use, transportation and purchasing.

Community Emissions Forecast

In order to plan for GHG emission reductions strategies jurisdictions must estimate (or "forecast") future emissions under a Business As Usual (BAU) scenario, which assumes no policies or actions are implemented to curb GHG emissions. GHG Forecasting takes into account historical emission levels established in the Baseline year (2010), as well as expected growth or changes in conditions within the jurisdiction (i.e. -changes in population, expected new development in the Residential and/or Commercial/Industrial sectors, etc.).

The City of Capitola municipal staff and their contracted consultants have developed growth assumptions for the community's recent General Plan Update, which estimate the growth in populations, housing units, and employment in future years. Those growth assumptions provide the basis for the Compound Annual Growth Rates (CAGR) that have been applied to the appropriate sectors of the 2010 Baseline GHG Inventory to create the 2035 and 2050 BAU GHG Forecasts for the City of Capitola.

Table 5 shows expected changes in key indicators used in generating the forecast.

Table 5: Indicators Used in Emissions Forecast (Source: DC&E The Planning Center)

Indicator	2010 Value	2035 Value	Annual Growth Rate	Percent Change from 2010 to 2035
Population	**9,918**	**10,198**	**0.11%**	**2.75%**
Households	**5,534**	**5,613**	**0.06%**	**1.41%**
Employment	**6,170**	**7,368**	**0.71%**	**16.26%**

Under a business-as-usual scenario, the City of Capitola's significantly influenced emissions will grow by approximately 7 percent by the year 2050—from 88,091 MTCO2e to 94,430 MTCO2e—under a business as usual scenario.

Table 6 below shows the results of the 2035 and 2050 BAU GHG Forecast.

Table 6: 2035 and 2050 Business As Usual GHG Emissions Forecast

Source/Activity	2010 Community-wide GHG Inventory Update	2035 BAU GHG Forecast	2050 BAU GHG Forecast	Percent Change from 2010 to 2050
Electricity Consumption	12,776	14,082	14,928	17%
Stationary Fuel Combustion	16,049	17,689	18,753	17%
Transportation and Mobile Sources	57,123	57,986	58,510	2%
Solid Waste	1,476	1,517	1,542	4%
Water Treatment and Distribution	667	686	697	4%
TOTAL	**88,091**	**91,960**	**94,430**	**7%**

Conclusion

This inventory marks completion of Milestone One of the Five Milestones for Climate Mitigation. The next steps are to set an emissions reduction target, and to develop a climate action plan that identifies specific quantified strategies that can cumulatively meet that target. In addition, Capitola should continue to track key energy use and emissions indicators on an on-going basis. ICLEI recommends completing a re-inventory at least every five years to measure emissions reduction progress.

Emissions reduction strategies to consider for the climate action plan include energy efficiency, renewable energy, vehicle fuel efficiency, alternative transportation, vehicle trip reduction, land use and transit planning, waste reduction, and community education and engagement among others. This inventory shows that emissions from the transportation sector and energy consumption in the built environment (Electricity consumption and Stationary Fuel Combustion) will be particularly important to focus on. Through these efforts and others the City of Capitola can achieve additional benefits beyond reducing emissions, including: increase energy security and independency, saving businesses and residents money, creating jobs and improving Capitola's economic vitality and its quality of life.

Appendix A: Community Inventory Details

Table A-1 provides a summary of the emissions sources and activities that are included in the community inventory, as well as those potential sources that are excluded.

Table A-1: Summary of Included and Excluded Community Emissions

Emissions Type		Source or Activity?	Required Activities	Included under reporting frameworks:			Excluded (IE, NA, NO, or NE)	Explanatory Notes	Emissions ($MTCO_2e$)
				SI	CA	HC			
Built Environment									
Use of fuel in residential and commercial stationary combustion equipment		Source AND Activity	x	x					
Industrial stationary combustion sources		Source	x	x					
Electricity	Power generation in the community	Source					NO		
Electricity	Use of electricity by the community	Activity	x	x					
District Heating/ Cooling	District heating/cooling facilities in the community	Source					NO		
District Heating/ Cooling	Use of district heating/cooling by the community	Activity					NO		
Industrial process emissions in the community		Source					NE		
Refrigerant leakage in the community		Source					NE		
Transportation and Other Mobile Sources									
On-road Passenger Vehicles	On-road passenger vehicles operating within the community boundary	Source	x	x					
On-road Passenger Vehicles	On-road passenger vehicle travel associated with community land uses	Activity					NE		
On-road Freight Vehicles	On-road freight and service vehicles operating within the community boundary	Source					NE		
On-road Freight Vehicles	On-road freight and service vehicle travel associated with community land uses	Activity					NE		
On-road transit vehicles operating within the community boundary		Source	x	x					
Transit Rail	Transit rail vehicles operating within the community boundary	Source					NO		
Transit Rail	Use of transit rail travel by the community	Activity					NE		
Inter-city passenger rail vehicles operating within the community boundary		Source					NO		
Freight rail vehicles operating within the community boundary		Source					NE		

	Emissions Type	Source or Activity?	Required Activities	Included under reporting frameworks: SI	CA	HC	Excluded	Notes	Emissions (MTCO2e)
Marine	Marine vessels operating within the community boundary	Source					NE		
Marine	Use of ferries by the community	Activity					NO		
Off-road surface vehicles and other mobile equipment operating within the community boundary		Source	x	x					
Use of air travel by the community		Activity	x			x			
Solid Waste									
Solid Waste	Operation of solid waste disposal facilities in the community	Source					NO		
Solid Waste	Generation and disposal of solid waste by the community	Activity	x	x					
Water and Wastewater									
Potable Water - Energy Use	Operation of water delivery facilities in the community	Source					NO		
Potable Water - Energy Use	Use of energy associated with use of potable water by the community	Activity	x	x					
Use of energy associated with generation of wastewater by the community		Activity	x	x					
Centralized Wastewater Systems - Process Emissions	Process emissions from operation of wastewater treatment facilities located in the community	Source					NO		
Centralized Wastewater Systems - Process Emissions	Process emissions associated with generation of wastewater by the community	Activity	x	x					
Use of septic systems in the community		Source AND activity					NE		
Agriculture									
Domesticated animal production		Source					NO		
Manure decomposition and treatment		Source					NO		
Upstream Impacts of Community-Wide Activities									
Upstream impacts of fuels used in stationary applications by the community		Activity					NE		
Upstream and transmission and distribution (T&D) impacts of purchased electricity used by the community		Activity					NE		
Upstream impacts of fuels used for transportation in trips associated with the community		Activity					NE		
Upstream impacts of fuels used by water and wastewater facilities for water used and wastewater generated within the community boundary		Activity					NE		
Upstream impacts of select materials (concrete, food, paper, carpets, etc.) used by the whole community		Activity					NE		

Emissions Type	Source or Activity?		Included under reporting frameworks:			Excluded	Notes	Emissions (MTCO2e)
			SI	CA	HC			
Independent Consumption-Based Accounting								
Household Consumption (e.g., gas & electricity, transportation, and the purchase of all other food, goods and services by all households in the community)	Activity	x			x			
Government Consumption (e.g., gas & electricity, transportation, and the purchase of all other food, goods and services by all governments in the community)	Activity					NE		
Life cycle emissions of community businesses (e.g., gas & electricity, transportation, and the purchase of all other food, goods and services by all businesses in the community)	Activity					NE		

Table A-2 provides details on calculation methods and data sources for each included activity and source.

Table A-2: Community Inventory Calculation Method and Data Source Details

Residential use of electricity	Activity data		Emissions factor			Method
	Value	Unit	Value	Unit	Source	
	22,835,419	kWh	0.000203674	MTCO2e/kWh	PG&E	BE.2.1
Method and data source notes:						

Commercial use of electricity	Activity data		Emissions factor			Method
	Value	Unit	Value	Unit	Source	
	36,291,610	kWh	0.000203674	MTCO2e/kWh	PG&E	BE.2.1
Method and data source notes:						

Residential use of stationary combustion equipment	Activity data		Emissions factor			Method
	Value	Unit	Value	Unit	Source	
	2,071,672	therm	0.00532	MTCO2e/therm	PG&E	BE.1.1
Method and data source notes:						

Commercial use of stationary combustion equipment	Activity data		Emissions factor			Method
	Value	Unit	Value	Unit	Source	
	966,194	therm	0.00532	MTCO2e/therm	PG&E	BE.1.1

Method and data source notes:

On-road passenger vehicle travel associated with community land uses	Activity data		Emissions factor			Method
	Value	Unit	Value	Unit	Source	
	302,528	Daily Vehicle Miles Traveled	Variable (See below)	See below	DC&E The Planning Center (VMT), AMBAG (EMFAC/TDM Outputs)	TR.1.A

Method and data source notes:
EMFAC. Bhupendra Patel, Senior Transportation Modeler- AMBAG: bpatel@ambag.org

On-road freight and service vehicle travel associated with community land uses	Activity data		Emissions factor			Method
	Value	Unit	Value	Unit	Source	
	n/a					n/a

Method and data source notes:

Generation of solid waste by the community	Activity data		Emissions factor			Method
	Value	Unit	Value	Unit	Source	
	8,083	tons	0.1826	MTCO2e/ton	ICLEI/CACP	SW.4.1

Method and data source notes:
http://www.ciwmb.ca.gov/Publications/default.asp?pubid=1097

Use of energy associated with use of potable water	Activity data		Emissions factor			Method
	Value	Unit	Value	Unit	Source	
	1,277,338	kWh	0.000203674	MTCO2e/kWh	PG&E	Other

Method and data source notes:
Capitola Potable Water Consumption data provided by DC&E The Planning Center (Source: Soquel Creek Water District, 2010 Urban Water Management Plan) = 1,120 Acre Feet per Year Consumed = 364,953,600 Gallons Consumed * 0.0035 kWh/Gallon (Supply, Conveyance, Distribution and Treatment. Source: Table 2-E from CAPCOA. Quantifying Greenhouse Gas Mitigation Methods. August, 2010. http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf)

Use of energy associated with generation of wastewater	Activity data		Emissions factor			Method
	Value	Unit	Value	Unit	Source	
	1.08	Million Gallons Per Day (MGD)	See below	See below	DC&E The Planning Center	Other

Method and data source notes:
Capitola Wastewater is treated by the City of Santa Cruz Wastewater Treatment Facility. On October 2, 2013 Dan Seidel (SCWWTF Superintendent) provided the Total Average Daily Flow to the WWTF (10.6 MGD). That data, in conjunction with the Estimated Capitola MGD (1.08) provided by DC&E The Planning Center and the MBUAPCD provided data for total 2010 SCWWTF GHG Emissions (3,998 MTCO2e), was used to calculate the Estimated Emissions from Capitola's 2010 Wastewater. This includes the estimated emissions from the SCWWTF's energy consumption, process, and effluent.

[Additional activity/source]	Activity data		Emissions factor			Method
	Value	Unit	Value	Unit	Source	
	n/a					n/a

Method and data source notes: